

Fertility Profile of A Primitive Tribe, Madhya Pradesh

Ranjan Kumar Biswas and A.K. Kapoor

INTRODUCTION

In India, at present 623 tribal groups with their subgroups are inhabiting hilly and plain forest regions (Sachchidananda and Prasad, 1996). Indian tribes constitute 8.08 percent of the total population. Among these tribal groups, 74 tribes have been identified as primitive tribes for their small size of community, pre-agricultural stage of economy, high extent of isolation, low level literacy (in the fifth five years plan), etc. Madhya Pradesh contains the highest tribal population comprising 22.73 percent and Andaman and Nicobar and Lakshadweep contain the lowest tribal population comprising below one percent out of total tribal population of India (Census, 1991).

Beside this, there is no existence of any tribal population in Haryana, Punjab, Chandigarh, Delhi and Pondicherry (Census, 1991). India shows that the percentage of tribal population, out of total population is highest in Mizoram (94.75 percent) and lowest in Andaman and Nicobar (5 percent to 10 percent).

Madhya Pradesh is considered as the tribal heart of India where 22.27 percent tribal people, out of total population are concentrated. Approximately, this is measured as the one-fourth of the total tribal population of this country. Population size of these tribal groups are also varied considerably. It may be mentioned here the typical examples of Gond and Bhil tribes whose populations have been exceeding 35 lakhs and 15 lakhs respectively. The other tribal groups –Andh, Bharia and others who have almost a significant number of population in this state. Beside this, less than one thousand population have also been measured in Birhor and Kolam tribal groups. A total of 46 tribal groups have been identified as Scheduled tribe (according to Schedule Tribe Order) and out of these, 7 tribes have been declared as primitive tribes in Madhya Pradesh. Among these primitive tribal groups, Saharia is an important tribe and its total population is 417171 implying 2.70 percent out of total tribal population (Census, 1991) in this

state. The sporadic concentration of Saharia are not only limited by political boundary in Madhya Pradesh, but also their dispersal are located in Rajasthan, Andhra Pradesh, Orissa, Bihar and very rarely in West Bengal and their total population have been estimated as 7,95,134. In Madhya Pradesh, the Saharia Population are followed in various districts like-Shivpuri, Guna, Morena, Gwalior, Vidisha, Datia and others. The present fieldwork has been conducted in Barai block, Gird subdivision of Gwalior district where almost in close distance, some Saharia villages are settled down.

In every dispersed Saharia village, hamlet or 'Phalaya' is regarded as the first ecological unit. Most of the Saharia inhabit in thatched and wood made rectangular shaped houses which are arranged in rows, facing common side in their hamlet. Well and rarely tube-well are used as their main sources of water. Nuclear families are mostly common among them (91.3 percent). Only a few Saharia families (12.0 percent) have been identified who have very little quantity of land. In the present study, it has been found that a major group of families (69.1 percent) practise daily labour instead of their traditional shifting cultivation, hunting, gathering and pastoral occupations. In the present state, their average yearly family income is varied from Rs.6000/- to 6500/- Bread is considered as their staple food. Both males and females are addicted to drink local wine. Generally old persons are habituated to wear their traditional dress (Languta, Ghagra, etc.) whereas modern dresses are preferred to use by new generation. They have achieved low extent of literacy rate (23.3 percent) whereas female literacy rate is very low (17.7 percent) as compared to male (28.2 percent) (Biswas and Kapoor, 2003). Saharia are strictly clan exogamous and tribal endogamous. Usually, their marriage is practised at very early age (mean age at marriage for female 14.0 years and for male 17.6 years). Due to low socio-economic status and illiteracy, male sex preference is highly prevalent among them. In respecting to their socio-cultural orthodox, a minor group of Saharia

had adopted family planning methods. Paucity of medical facility, poverty, insanitation, etc. may be mentioned as the reasons of their low health status, high still birth rate (26.66), infant mortality rate (123.28) and child mortality rate (62.82).

Fertility

Fertility is considered as the actual reproductive performance of women. But generally, it indicates the number of children which were produced by the women. It has been defined that fertility of women is totally depended on physiological function and socio-cultural practices. Fertility potential form is influenced by physiological factors from biological angles whereas the conditioning social environment is embraced by socio-cultural factors. In simple words, fertility means the actual reproductive performance of women or couples. Some demographers prefer to use the word natality, instead of fertility. Attempts have been made to study the association of culture with fertility behaviour among certain tribes through social and demographic variables. These studies have taken culture as an independent variable determining the fertility behaviour. Because among tribals, every aspect of life from birth to death is being influenced by the prevalence of customs, beliefs and notions which have been practised in their day-to-day life. Though fertility is a biological phenomenon there are a number of other factors influencing the levels and differentials of fertility among tribals. Demographers usually measure the fertility differentials by taking into account women's income, occupation, education, family type, age at menarche, age at marriage, etc. (Dandekar and Dandekar, 1953; Dandekar, 1959; Roy Burman, 1961; Nag, 1962; Das, 1973; Thomson and Lewis, 1965; Vidyarthi and Rai, 1977; Sahu, 1983; Basu and Kshatriya, 1989).

MATERIALS AND METHODS

The present field based research work has been conducted among six Saharia inhabitant villages under Barai block, Gird sub-division in South-West part of Gwalior district in Madhya Pradesh. Keeping in view the concentration of Saharia in various villages, the centrally located Barai block was selected purposively. In the second stage, the random sampling technique was used for selecting the close distance and far distance villages under this block. An imperative,

ideal and suitable research design was prepared prior to the research operation. Through this research design, various research related ideas were gathered in a form for checking up the defects and inadequacies. This research design was aware to decide the advance methods for collecting relevant data and techniques for processing and analyzing those collected data. Taking into consideration, the objective of the research, literature survey, interview, observation, case study and rarely questionnaire methods were decided as objective and logical and even free from personal bias and prejudice. Information pertaining to age at marriage of respondents, sex of the child, age at child birth, age of the child, age at death, etc., all possible both open ended and close ended questions were organized in an interview schedule. Before finalizing the schedule, a pilot study was performed for pre-testing the initially prepared schedule and determining the field situation. The purpose of pre-testing the schedule was to rectify the errors and to incorporate the modification so as to make it more useful one. Even the information to be collected from the villagers, officials, all concerned were informed accordingly. At data collection phase, most of the respondents have been interviewed thoroughly before entering the relevant information into the schedule. Their attitude, manner, cooperativeness, answering performance, acceptability, suitability, social barriers, etc. have been determined by asking various questions. Generally the old persons both married husbands and wives in the family have been considered as the respondents. Following their attitude, the confidential information relating to specially women have been collected from wives corroborating with the presence of their husbands. Duration between menarche and marriage, marriage and pregnancy, marriage and child birth, child birth and child death, etc., have been estimated by cross examining the statements of wife with their own age, present age, age of child, important social events of the year, etc.

RESULTS AND DISCUSSION

Measures of Fertility

Although there is a wide gap between the potential level of fertility (fecundity) and actual performance of the potentiality (fertility), in reality it has to rely upon the latter method for measuring the actual fertility performance. The

measures of fertility ratios and rates help in understanding the relation between the general conditions of the people and level of fertility. Various fertility measures have been calculated for the population under study in order to study the trends in fertility level. An attempt has also been made to study the relationship between fertility and socio-cultural factors particularly occupation, income, education, age at marriage, as they influence differential fertility.

The ability of a population to adapt to its environment depends on its fertility and population growth. Fertility is a biological factor that encompasses a complex time – dependent process covering events ranging from exposure to intercourse and child bearing to the formation and dissolution of unions. It is basically a complex multivariate system representing a set of different reproduction strategies. Though reproduction is a biological phenomenon, levels in fertility can be influenced by socially controlled norms and practices.

Child-Women Ratio (CWR)

The child-women ratio (also called general fertility ratio) is a commonly used measure of fertility calculated from the age-sex distribution. Very simply, it is defined as a ratio between number of children and number of women in reproductive age group. This ratio is used as an indicator of fertility when more detailed measures are unavailable. It can also be treated as the measure of effective fertility, as it does not consider the births of children dying early in life. In other words, it reflects only the number of surviving children of less than 5 years (or 9 years) of age. But this ratio is affected by distribution of women by age in the reproductive period, dramatic changes in mortality (infant and early childhood mortality) and migration, which in turn are influenced by several independent determinants of the population components. In the present study, child-women ratio for C_{0-4}/W_{15-44} , C_{5-9}/W_{20-49} and C_{0-9}/W_{15-49} among Saharia have been found to be 667.78, 570.46 and 1238.25 respectively (Table 1). It has been revealed that child-women ratio among Saharia are high when compared to Kandh (695.00 by Sabat & Dash, 1996), Juhar Bhotia (734.46 by Chachra and Bhasin, 1998), Kamar (1141.31 by Biswas et. al. 2001) and others. Preference of male child and very less percentage of family planning adoption, low socio-cultural status, poverty, illiteracy, lack of awareness, high mortality, etc. are attributed as the reasons of their high child-women ratio.

Crud Birth Rate (CBR)

Crude birth rate plays an important role in fertility rate. It has been defined that crude birth rate is a ratio of total registered live birth to the total population, also in some specific year, also multiplied by 1000. In the present study, crude birth rate among Saharia has been found to be 43.76 (Table 1). Saharia crude birth rate has been noticed comparatively higher than Bhil (43.5 by Chaudhury and Kumar, 1976), Gonds (43.0 by Parsuram and Rajan, 1990), Abujhmaria (39.9 by Pandey and Goel, 1999) and others. Due to the male sex preference, paucity of family planning methods adoption, illiteracy, etc. are the reasons for very high crude birth rate among Saharia. It can be attributed that low socio-economic status, transitional life from food gathering to food producing, high infant and child mortality, early age at marriage, etc. are the reasons for high

Table 1: Measures of fertility among Saharia

S. No.	Fertility Indicator	
1	Child-Women Ratio (CWR) of (0-4) years	667.78
	Child-Women Ratio (CWR) of (5-9) years	570.46
	Child-Women Ratio (CWR) of (0-9) years	1238.25
2	Crude Birth Rate (CBR)	43.76
3	General Fertility Rate (GFR)	244.96
4	Max. Age Specific Fertility Rate (ASFR) of (20-24) years	328.35
	Min. Age Specific Fertility Rate (ASFR) of (40-44) years	125.00
	No. Age Specific Fertility Rate (ASFR) of (45-49) years	0.00
5	Total Fertility Rate (TFR) per Women	6.70
6	Gross Reproduction Rate (GRR) per Women	2.74
7	Mean Age of Child Bearing (MACB)	29.30
8	General Marital Fertility Rate (GMFR)	248.29
9	Max. Age Specific Marital Fertility Rate (ASMFR) of (20-24) years	328.35
	Min. Age Specific Marital Fertility Rate (ASMFR) of (40-44) years	62.50
	No. Age Specific Marital Fertility Rate (ASMFR) of (45-59) years	0.00
10	Total Marital Fertility Rate (TMFR) per women	6.41
11	Gross Reproduction Rate (GRR) per Women in Wed-lock	2.75

crude birth rate (Barua, 1992; Kshatriya et al., 1993; Kapoor, 1996; Yadav et al., 2001). Crude birth rate is influenced by standard of education, medical facility, communication system, environmental condition, financial status, family size, etc. (Davis and Blake, 1956). Crude birth rate is dependent on marriage, conception, induced abortion, postpartum infacundability, etc. Even high fertility is entertained for preferring particular sex in developing countries (Bongaarts and Potter, 1983; Arnold, 1992).

General Fertility Rate (GFR)

The simplest overall age limited measure is the general fertility rate (GFR), defined as the number of births per 1000 women of child bearing age. General fertility rate also does not indicate a definite pattern except that though the crude birth rate is moderate, general fertility rate is high. This indicates that the number of women in 15-49 age group is less compared to the total population is high among them. In the present study, general marital fertility rate among Saharia has been found to be 244.96 (Table 1) which is comparatively higher than Gonds (229.88 by Banerjee and Bhatia, 1988), Kamar (177.02 by Biswas et al., 2001), Lohar Gadiyas (76.17 by Yadav et al., 2001) and others. Early age at marriage, illiteracy, less family planning adoption, socio-cultural disadvantage, etc. are the attributed reasons of high general fertility rate among Saharia.

Age Specific Fertility Rate (ASFR)

Age specific fertility rates (ASFR) reveal the distribution of frequencies of births among women according to age. It is more accurate than the estimates of CBR. This is due to the fact that only the women in child bearing age are considered here and not the whole population, the emphasis being made to a specific period of time in relation to live births and women. In a population, a detailed picture of fertility at a specified time/period can be obtained by examining the schedules of age specific fertility rates, since the age of mother is an important factor affecting the fertility level and the rate of child bearing is not uniform throughout all ages. In fact, fertility is usually heavily concentrated between ages 20 to 29 years. In the present study among Saharia, age specific fertility rate has been found to be highest (328.35) in those women who are in 20-24 years age groups, followed by 269.84

(25-29 years), 264.73 (15-19 years), 222.22 (30-34 years), 130.43 (35-39 years), and 125.00 (40-44 years) whereas the women of 45-49 age groups do not have any age specific fertility rate. The highest age specific fertility rate of India has been reported as 314.5 in those reproductive mothers who are in the age group of 20-24 years. It has also been reported that in population groups, the highest age specific fertility rates vary from 20-29 age groups (SRS, 1993). Since the relatively high fertility reproductive periods have been observed in the age group of 20-29 years and women in those age groups may be encouraged to adopt family planning devices. But due to paucity of family planning adoption, higher fertility in the stated age group has been entertained among Saharia.

Total Fertility Rate (TFR)

The total fertility rate (TFR) presents a single index of total fertility and is the sum of age specific birth rates of women, at each age from 15 to 49 years. The total fertility rate represents the same population of women as a general fertility rate, but takes account of the distribution of the year's births among women of different ages. Hence, it is a far more effective measure of summarizing the frequency of births of a particular year. This method is concerned itself only to women who are in fertile age groups. Among Saharia, total fertility rate and total fertility rate per women have been found to be 6702.70 and 6.70 respectively (Table 1). Further total fertility rate per women among Saharia has been revealed higher when compared to Halba (5.89 by Basu and Kshatriya, 1989), Madia (6.00 by Basu and Kshatriya, 1989), Muria Gond (5.10 by Saha, 1981), Lohar Gadiyas (4.60 by Yadav et al., 2001) and others. Due to low socio-economic status, high extent of illiteracy, male sex preference, high infant and child hood mortality, family planning less adoption, early age at marriage, etc. are the important reasons of their high total fertility rate per women.

Gross Reproduction Rate (GRR)

Gross reproduction rate (GRR) indicates the average number of female children expected to be born per women during her entire reproductive span, if there is no mortality and the fertility schedules represented by the age specific fertility rate continue to remain the same. In other words,

this rate suggests how effectively mothers are replacing themselves with daughters (ignoring mortality), who would bear the next generation. Hence, this is also considered as the replacement index. In the present study, gross reproduction rate and gross reproduction rate per women among Saharia have been observed as 2742.25 and 2.74 respectively (Table 1). Gross reproduction rate per women among Saharia has been found to be comparatively higher than Kandh (1.44 by Sabat and Dash, 1996), Bhotia (1.34 by Chachra and Bhasin, 1998), Thoti (1.84 by Elizabeth, et. al., 2000) and others. Early age at marriage of female, very low spread of literacy, high infant and childhood deaths, low socio-economic status, etc. may be the attributed reasons of their high gross reproduction rate.

Mean Age of Child Bearing (MACB)

The mean age of child bearing indicates the average age of child bearing of women. Differences in the pattern of child bearing can be measured in terms of mean age of child bearing or fertility. It describes the age pattern of fertility of a synthetic cohort of hypothetical group of women, viewed as having in their life times similar fertility experience recorded in the calendar year. In general, it is observed that in population of high fertility is usually high and a substantial fraction of total fertility relates to the latter years of child bearing. On the other hand, in low fertility populations, the mean age is lower and a small fraction of total fertility occurs in latter years of child bearing. In the present study, the mean age of child bearing of women among Saharia has been found to be 29.30 years (Table 1) which is comparatively higher than Limboos (26.37 by Bhasin & Bhasin, 1990), Bhotia (27.93 by Chachra and Bhasin, 1998), Juhar (27.28 by Chachra and Bhasin, 1998) and others. Early age at marriage, low socio-cultural status, high infant and child mortality, etc. may be attributed as the reasons of high mean age of child bearing.

Marital Fertility Rate (MFR)

All the women in the fertile age do not participate in the reproduction, particularly in countries where tradition and customs do not permit unmarried women to become mothers. Hence, the actual population at risk of potential child bearing are currently married women of the fertile age groups. Marital status of women is indicated by

marital fertility rate (MFR). It defines the fertility rate of those married women who are in wed-lock status.

General Marital Fertility Rate (GMFR)

The general marital fertility rate (GMFR) is a more refined measure, which takes into account the number of married women (in wed-lock) in the child bearing age. It is a better fertility measure than general fertility rate (GFR). General marital fertility rate is important in the Indian societies as only marital fertility is socially and legally recognized. General marital fertility rate among Saharia has been found to be 248.29 (Table 1). In comparison to Bhutia (154.93 by Bhasin and Bhasin, 1990), Kandh (213.11 by Sabat and Dash, 1996), Marcha (119.44 by Chachra and Bhasin, 1998) and others. Saharia general marital fertility rate has been noticed high. Paucity of family planning adoption, early age at marriage, illiteracy, etc. may be attributed as the reasons of their high general marital fertility rate.

Age Specific Marital Fertility Rate (ASMFR)

Another measure of fertility computed for ('currently') married women (in wed-lock) for different age groups is the age specific marital fertility rates (ASMFR). The age pattern of marital fertility rate for Saharia has been observed as 264.70, 328.35, 269.84, 222.22, 136.36 and 62.50 in those married women who are in the age groups 15-19 years, 20-24 years, 25-29 years, 30-34 years, 35-39 years and 40-44 years respectively whereas the women of 45-49 years age group do not present any age specific fertility rate. The age pattern of marital fertility rate for India is also nearly similar to the pattern of age specific fertility rate among Saharia. It has also been found that age specific fertility is very high in those women who are in the age group of 15-29 years (SRS, 1993). Early age at marriage, illiteracy, very less use of family planning methods, etc. may be perhaps the reasons of their high age specific marital fertility rate.

Total Marital Fertility Rate (TMFR)

Like total fertility rate, the total marital fertility rate (TMFR) is the cumulative value of age specific marital fertilities at the end of the reproductive period. It indicates the average number of children expected to be born per married women during the entire span of

reproductive period, if the age specific marital fertility rates (on which the rate is based) continue to be the same and there is no mortality. The total marital fertility rate and total marital fertility rate per women among Saharia has been found to be 6419.85 and 6.41 respectively (Table 1). This study also presents that Saharia total marital fertility rate is comparatively higher than Marcha (5.61 by Chachra and Bhasin, 1998), Bhotia (4.29 by Chachra and Bhasin, 1998) and others. Due to high extent of illiteracy, early age at marriage, paucity of family planning adoption, male sex preference, etc. are the attributed reasons of their high total marital fertility rate.

Gross Reproduction Rate (GRR) in Wed-Lock

The gross reproduction rate is the average number of daughter that would be born to a women (in wed-lock) during her life time if she passed through the child bearing ages experiencing the average age specific fertility pattern of a given period (often a year). The gross reproduction rate was widely used in the 1930s and 1940s as an indicator of fertility trends, whereas the total fertility rate is more often quoted in current work (Wilson, 1985). Simply, this rate suggests how effectively mothers are replacing themselves with daughters (ignoring mortality) who would bear the next generation. Hence this is also considered as replacement index. Gross reproduction rate and gross reproduction rate per women among Saharia have been found to be 2752.15 and 2.75 respectively. Due to low level of socio-cultural status, high illiteracy, early age at marriage, high infant and child mortality, etc. are the attributed reasons of their high gross reproduction rate.

SUMMARY AND CONCLUSION

In conclusion, the present study points that Saharia are the members who belong to traditional society. Most of them are illiterates and positioned under socio-economically backward condition. Still now, occupational status of a major group has been found in transitional life from food gathering to food producing stage. They lag behind in the field of education and have achieved very little literacy rate. As per their marital status is concerned, they are to be married at very young age. In respect to the traditional socio-cultural pattern, a large number of Saharia prefer to conduct frequently birth of male child. They are not

aware to sanitation and their living condition is very low. Due to paucity of proper medical facility, their still birth, infant and child mortality rates are noticed as very high. In the context of family planning, modern birth control devices are rarely adopted by them. So, illiteracy, low socio-cultural life, poor economic status indicating transitional life from food gathering to food producing stage, early age at marriage, insanitation, paucity of medical facility, family planning non-adoption, etc. are the attributed reasons of their high child-women ratio, crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, gross reproduction rate, general marital fertility rate, age specific marital fertility rate, total marital fertility rate and gross reproduction rate of women in wed-lock. Under these circumstances, it is highly suggested to implement urgently the long time multi-stages development schemes which will not only enhance their educational as well as socio-economic status but also smoothly motivate them to come on better status of fertility.

KEY WORDS Saharia. Socio-economic Status. Fertility Measures. Improvement

ABSTRACT In this paper, an attempt has been made to present the socio-economic aspects and demographic characteristic indicating specially fertility of Saharia tribe of Madhya Pradesh. Saharia have been scheduled as one of the seven primitive tribes of the state (74 in India). The major findings of the study reveal that they are the members of traditional society and their literacy rate (23.2 percent) as well as socio-economic status is deplorable low. Taking into consideration about their marital status, it has been noticed that most of the women are to be married at very early age (14.0 ± 0.80 years mean age). A large number of women have been categorized under poor health status and proper clinic facility is unavailable throughout the area. Still birth rate, infant mortality rate and child mortality rate are high. Acceptance of family planning methods is almost nil. So, illiteracy, low socio-economic status, early age at marriage, poor health status of women, unavailability of proper health care facility, still birth, infant and child mortality, non-acceptance of family planning devices, etc. are the attributed reasons which influence their high child-women ratio, crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, gross reproduction rate, mean age of child bearing, general marital fertility rate, age specific marital fertility rate, total fertility rate and gross reproduction rate of women in wed-lock. At the end, few suggestions have been made for implementing under long time multi-stages future development policies which will not only improve their entire socio-economic life but also motivate them in a better fertility behaviour.

REFERENCES

Arnold, F.: Sex preference and its demographic and health

- implication. *J. International Family Planning Perspectives*, **18(2)**: 93-101(1992).
- Banerjee, B.G. and Bhatia, K.: *Tribal Demography of Gonds*. Gian Publishing House, Delhi (1988).
- Barua, Indira: The Tai Turungs of Assam: A study of socio-demographic profile. *Man in India*, **72(3)**: 317-329 (1992).
- Basu, S.K. and Kshatriya, G.K.: Fertility and mortality in tribal populations of Bastar District, Madhya Pradesh. *J. Biol. Soc.*, **6**: 110-112 (1989).
- Bhasin, Veena : *Habitat, Habitation and Health in the Himalayas*. Kamla-Raj Enterprises, Delhi (1990).
- Biswas, Ranjan Kumar and Kapoor, A.K.: Ethnographic Study of Saharia – A Primitive Tribe of Madhya Pradesh. In: *Contemporary Studies in Primitive Tribes*. S.K. Chaudhury (Ed.) (In Press) (2003).
- Biswas, Ranjan Kumar, Patra, Prasanna Kumar and Kapoor, A.K.: Demographic profile of Kamar – A primitive tribe of Madhya Pradesh. *Bulletin of the Tribal Research Institute Bhopal*, **XXVIII (1 & 2)**: 67-77 (2001).
- Bongaarts, J. and Potter, P.C. : *Fertility, Biology and Behaviour: An Analysis of the Proximate Determinants*. Academic Press, New York (1983).
- Census of India (1981) : *Series I, India, Paper-2 of 1984, General Population and Scheduled Castes and Scheduled Tribes*. Office of the Registrar General and Census Commissioner, New Delhi.
- Census of India: *Series I, India, Paper-1 of 1993, Union Primary Census Abstract for Scheduled Castes and Scheduled Tribes*. Office of the Registrar General of Census Commissioner, New Delhi (1991).
- Chachra, Sushmita Paul and Bhasin, M.K.: Anthro-demographic study among the caste and tribal groups of Central Himalayas: 6. Fertility, child mortality and family planning. *J. Hum. Ecol.*, **9(5)**: 451-455 (1998).
- Choudhury, N.R. and Kumar, R.: Demographic profile of Bhils. *Eastern Anthropologist*, **29**: 273 (1976).
- Dandekar, K.: *Demographic Survey of Six Rural Communities*. Asia Publishing House, Bombay: 53-84 (1959).
- Dandekar, V.M. and Dandekar, K.: *Survey of Fertility and Mortality in Poona District*. Gokhale Institute of Politics and Economics, Poona. Publication No. 27 (1953).
- Das, T.C.: Social organisation. In: *The Tribal People of India*. Publication Division, Ministry of Information and Broadcasting, Government of India, New Delhi (1973).
- Davis, K. and Blake, J.: Social structure and fertility: An analytical framework. *Eco. Dev. and Cul. Change*, **4** : 211-235 (1956).
- Elizabeth, A.M., Saraswathy, K.N. Sachdeva, M.P. Chaudhary, Rewa and Kalla, A.K.: Demographic profile of Thoti – A primitive tribal population of Andhra Pradesh. *Anthropologist*, **2(2)**: 119-122 (2000).
- Kapoor, A.K.: Ecology, Demographic Profile and Socio-Economic Development of a Tribe of Central Himalaya: 118-138. In: *Tribal Development: Options*. Prasanna K. Samal (Ed.). Gyanodaya Prakashan (1996).
- Kshatriya, Gautam K., Singh, Paramjeet and Basu, Salil K.: Fertility and mortality in Bison Horn Madias of Dantewara Tehsil of Bastar District, Madhya Pradesh. *J. Hum. Ecol.*, **4(2)**: 93-96 (1993).
- Nag, M.: *Factors Affecting Human Fertility in Non-Industrial Societies: A Cross Cultural Study*. Yale Univ. Publications in Anthropology. No. 66, U.S.A. (1962).
- Pandey, G.D. and Goel, A.K.: Some Demographic characteristics of Abujhmaria of Madhya Pradesh. *J. Hum. Ecol.*, **20(2)**: 85-88 (1999).
- Parsuram, S. and Rajan, S.: On the estimation of vital rates among the Scheduled Tribes of Western India: 131-140. In: *Demography of Tribal Development*. A. Bose, V.P. Sinha and R.P. Tyagi (Eds.). B.R. Publication, New Delhi (1990).
- Roy Burman, B. K.: *Ethnographic Study of Soligas*, Census of India, Part V-B, No.6, Monograph Series, Karnataka (1961).
- Sabat, Kalpana Rani and Dash, Nirmal Chandra: Socio-economic and demographic profile of a Kandh Village of Eastern Ghats, Orissa. *Man In India*, **76(2)**: 127-140 (1996).
- Sachchidananda and Prasad, R.R. (Eds.): *Encyclopaedic Profile of Indian Tribes*. Vol.1. Discovery Publishing House, New Delhi (1996).
- Saha, S.S.: Selection intensity: Inter and intra group variation. *J. Indian Anthropol. Soc.*, **16**: 185-187 (1981).
- Sahu, P.N.: Demographic and genetic constitution of a small population (The Malia). *J. Indian Anthropol. Soc.*, **18**: 55-59 (1983).
- Sample Registration System: *Fertility & Mortality Indicators*. Vital Statistic Division, Office of the Registrar General of India. Ministry of Home Affairs, New Delhi (1993).
- Thomson, W.S. and Lewis, D.T.: *Population Problems*. McGraw Hill Book Company, New York (1965).
- Vidyarthi, L.P. and Rai, B.K.: *Tribal Culture of India*. Concept Publishing Company, Delhi (1977).
- Wilson, C.: *Dictionary of Demography*. Basil Blackwell Reference Ltd., London (1985).
- Yadav, Ankur, Sharma, A.N. and Jain, Amita: Socio-demographic characteristics of semi-nomadic Lohar – Gadiyan of Malthon Town of Sagar District, Madhya Pradesh. *Anthropologist*, **3 (2)**: 135-137 (2001).

Authors' Address: Ranjan Kumar Biswas and Dr. A.K. Kapoor, Professor, Department of Anthropology, University of Delhi, Delhi 110 007, India