3.

Demographic Situation

CHAPTER III

DEMOGRAPHIC SITUATION

A. FERTILITY

According to Standard English Demographic usage, 'Fertility refers to the actual reproductive performance as measured in live birth of a woman, couple of population' (Rose 1982)[1]. Fertility is not individual and inevitable like mortality. It is the most important component of population growth. Fertility can be controlled and influenced by many social, economic, demographic and political factors. Unlike death which may occur at any age, birth is given by women during a short period. It is a short term function (Clarke, 1969)[2]. Fertility is completely different from fecundity which denotes the reproductive capacity of a man or woman or a couple during the reproductive period (15 to 49 years (Trewarthia, 1969)[3]. Generally, fertility in rural areas is comparatively higher than in the urban areas. Higher education, medical and related infrastructural facilities jointly reduce the rate of fertility in urban areas.

Birth rate* is an important index of fertility which varies among the communities. It also varies with age, sex, marital and economic status and also between the rural

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* Birth rate is the ratio of total registered birth to total population. It is measured by this formula: CBR = B/P x K, where B stands for total registered birth, P is the total population, K is constant or 1000.

and the urban areas. In rural India, the birth rate among the non-tribal population was 34.1 and in the urban area it was 20.7 in 1983-85 (Report of Ministry of Welfare, 1986-87)[4]. The average birth rate among the Santals in 1957-66 was 51.2 for the males and 50.3 for the females (Verma, 1977)[5].

Fertility rate among the tribal people in the rural area is lower than among the non-tribal people (Tab.23), but the difference is as small as 0.4. But among the non-tribal

Table - 23

Fertility rate among the tribal and non-tribal people in India (1978).

Caste	Rural	Urban
Non-tribal	4.5	3.1
Tribal	4.1	3.7

Source : Infant and Child Mortality Survey, Office of Registrar General, 1979.

people in the urban areas the fertility rate is lower than among the tribal people. In these areas under study the average fertility rate* among the Santals is 3.4 (based on primary data of 1989-90).

* The Santals are practising abortion which increases their fertility rate as some early studies show. In this study the fertility rate is being calculated by the number of total births because of the non-availability of data on abortion.

The age specific fertility rate is another important index to have a clear idea about the fertility rate obtaining for different age groups. The number of children to ever married woman increases with the increase of age (Table-24) becoming highest in the age group of 45 to 49 years. The present study also shows the same trend (Tab.25) though the number of children becomes higher in higher age group.

Table - 24

Age specific fertility rate among the Santals of Bihar

Age Group in years	Average no. of children born per ever married woman
15 - 19	0.3
20 - 24	1.7
25 - 29	3.7
30 - 34	4.8
35 - 39	5.6
40 - 44	6.7
45 - 49	7.0

Source: Culture, Ecology and Population by K.K.Verma.National Publishing House, New Delhi - 1977.

This difference may be because of abortion which of late, has become a more popular practice than earlier.

In this area the number of children in the age group of 15 to 19 years is only 0.4 and it increases to 5.8 in the age group of 45 to 49 years. After comparing two sets of data (table-24 & 25) it can be said that the rate of abortion which is a common practice according to some secondary information is a quite infrequent feature (Fig.18).

Table - 25

Age specific fertility rate among the Santals of Birbhum district, 1989-90

Age group in years	Average no. of children born per ever married woman
15 - 19	0.4
20 - 24	1.4
25 - 29	2.7
30 - 34	3.6
35 - 39	4.2
40 - 44	5.0
45 - 49	5.8

Source : Field Investigation.

The fertility rate among the Santals in this district varies between 3.0 to 3.8 on an average in different police stations (Table-26). Dubrajpur, and Suri have a fertility rate less than 3.0. Mayureswar records the highest as 3.8, Khoyrasole record 3.7, The remaining police

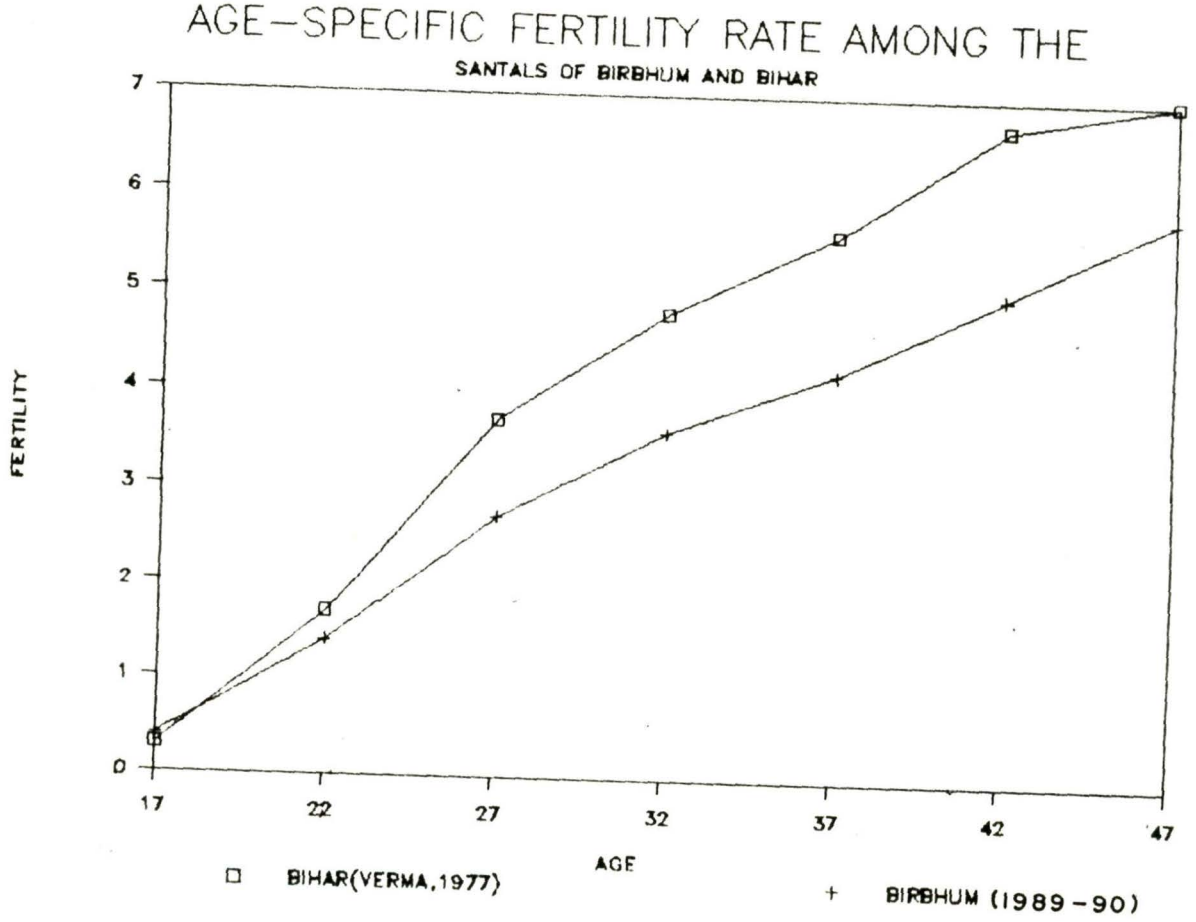

AGE–SPECIFIC FERTILITY RATE AMONG THE
SANTALS OF BIRBHUM AND BIHAR
FERTILITY
0
1
2
3
4
5
6
7
17
22
27
32
37
42
47
AGE
BIHAR(VERMA,1977)
BIRBHUM (1989-90)

FIG – 18

stations have a fertility rate of 3.2 to 3.6 (Fig.19). The fertility rate varies with the influence of socio-economic and cultural factors. For instance the influence of the Hindu caste has a distinct effect on fertility.

Table - 26

Fertility rate among the Santals in different Police Stations of Birbhum district, 1989-90.

Police Stations	Fertility rate
Muraroi	3.2
Nalhati	3.6
Rampurhat	3.2
Mayureswar	3.8
Md.Bazar	3.4
Rajnagar	3.3
Khoyrasole	3.7
Dubrajpur	3.0
Suri	3.0
Illambazar	3.4
Sainthia	3.3
Bolpur	3.2
Labhpur	3.5
Nanur	3.1

Source : Field Investigation

Determining Factors :

The rate of fertility is generally influenced by various physiological, socio-economic and

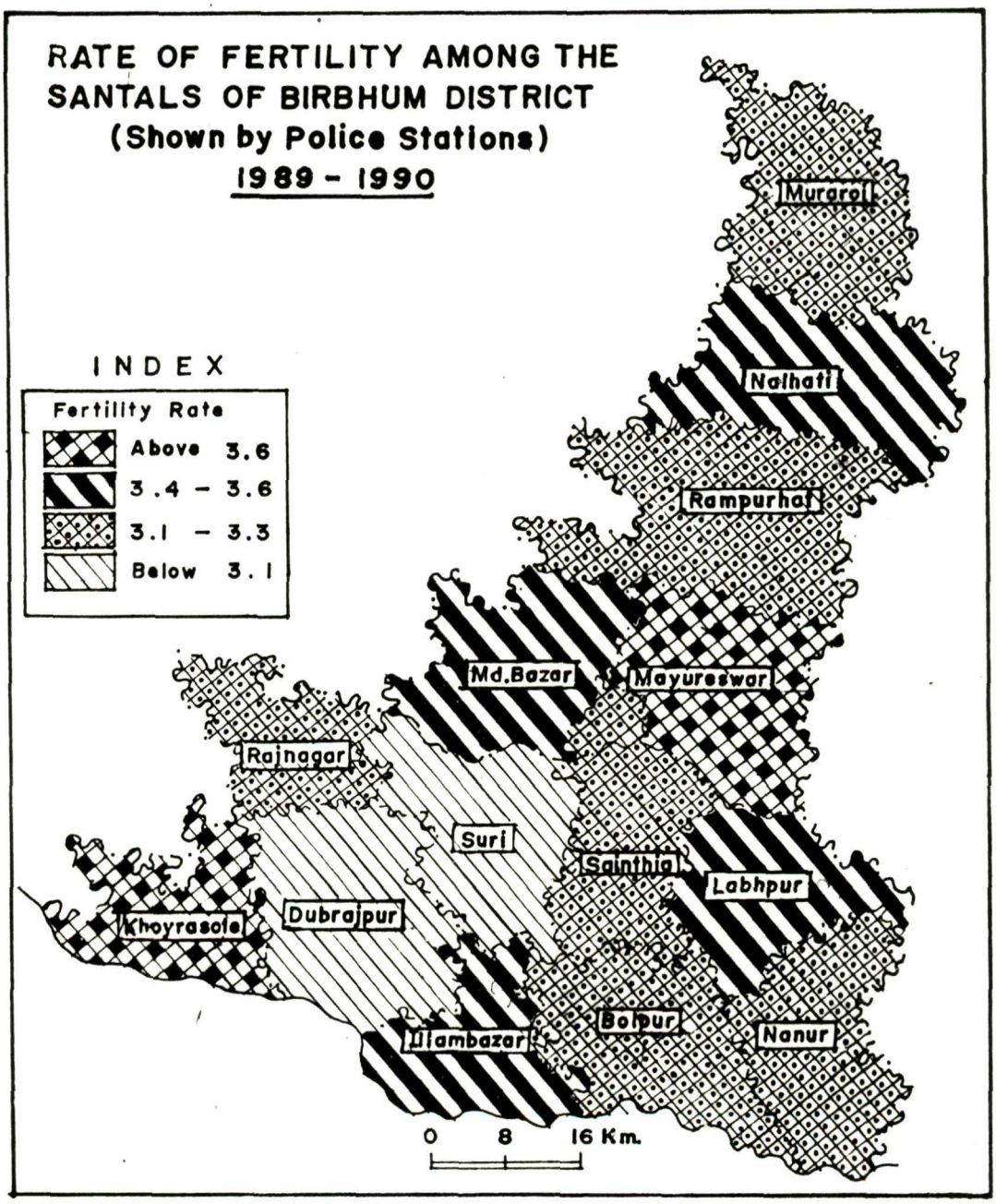

RATE OF FERTILITY AMONG THE
SANTALS OF BIRBHUM DISTRICT
(Shown by Police Stations)
1989 - 1990
INDEX
Fertility Rate
Above 3.6
3.4 - 3.6
3.1 - 3.3
Below 3.1
Murarai
Nalhati
Rampurhat
Md.Bazar
Mayureswar
Rajnagar
Suri
Sainthia
Labhpur
Khoyrasole
Dubrajpur
Bolpur
Nanur
Illambazar
0 8 16 Km.

FIG - 19

demographic factors. They are age at marriage, duration of marriage, infant and child mortality rate, levels of education, occupational status, income level, land holding size, value of children, preference for son and acceptance of family planning programme. But all these factors are not much responsible for determining its character among the Santals as the field investigation shows. The physiological factors are heredity, health, age, the ovulation cycle, lactation and sex drive etc. In this study, the socio-economic and demographic factors have been taken for consideration to understand their role as determining factors for the fertility rate.

(i) Age : Age profile of a community has got a direct bearing on the number of children born. All the men and women can not give birth to children. The reproductive period of a woman starts from about 15 years and continues till about 49 years. Thus, nearly 47 per cent of the Santal females are within the range of the reproductive period.

(ii) Age at Marriage :

Marriage is an universal phenomenon of life. Marital status has an important part to play, since after marriage a male and female enter into the reproductive life. Generally, women who marry at the age of mid-or upper 20s, have fewer children than women of early marriage. The late marriage reduces fertility in two ways : (i) it shortens the period of reproductive life exposed to the possibility

of pregnancy; (ii) it produces a relatively larger interval between generations (Chaudhury, 1990)[6]. Age at marriage is thus negativity or inversely related to fertility level. The factors like education, migratory status and premarital employment influence the marriage. Among the Santal communities of Birbhum, the average age at marriage for females is 14 years and for the males it is 20 years. Most of the females give birth to their first child at 2 to 3 years after marriage. Here, age at marriage of women or men shows a negligible or inverse relationship (r = -0.1086 for women and r = -0.0735 for men). In the case of women, most of the marriage (40.2%) occurs at the age of 12 to 14 years and among the men (58.6%) between 18 to 20 years. Marriage at lower age lengthens the

Table - 27

Age of marriage and fertility level among the Santal males and the females in Birbhum district 1989-90.

Age at marriage (in years)	Fertility level among men	Fertility level among women
Below 12	0.0	5.0
12 - 14	5.0	3.4
15 - 17	5.3	3.8
18 - 20	4.3	2.6
More than 20	3.6	3.0

Source : Field Investigation

span of reproduction period which results in high fertility. The highest fertility rate of 5.3 among the males occurs when the age of marriage is 15 to 17 years and 5.0 among the females when it is below 12 years. The rate decreases to 3.6 among the males getting married at an age of above 20 years and 2.6 among the females at the age of 18 to 20 years (Fig. 20).

(iii) Duration of Marriage :

Duration of marriage is directly related with the fertility level and the family size. Long duration of marriage results in more children giving rise to a large family (Chandna, 1980)[7]. Among the Santal females of Birbhum district, the duration of marriage is positively related with fertility level as the investigation reveals (table-28). The fertility

Table - 28

Duration of marriage and fertility level among the Santals in Birbhum district (1989-90).

Duration of marriage in years	Fertility level
Below 10	1.5
10 - 15	3.1
16 - 20	3.1
21 - 25	4.9
26 - 30	6.2
31 - 35	5.2
above 35	4.9

Source : Field Investigation

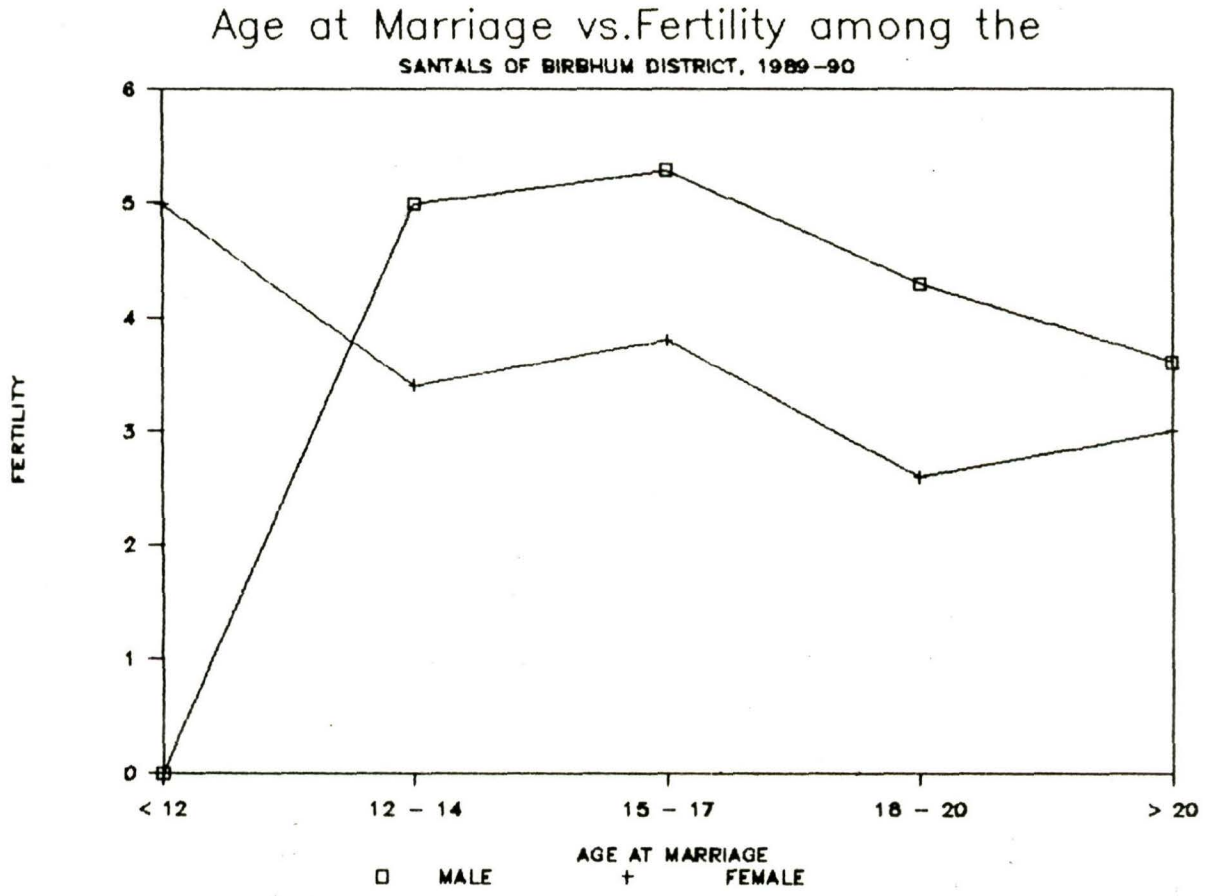

Age at Marriage vs.Fertility among the
SANTALS OF BIRBHUM DISTRICT, 1989-90
FERTILITY
0
1
2
3
4
5
6
< 12
12 - 14
15 - 17
18 - 20
> 20
AGE AT MARRIAGE
MALE
FEMALE

FIG - 20

rate gradually increases with the increase of the duration of marriage. The fertility rate is 1.5 when the duration is less than 10 years and becomes the highest (6.2) when the duration is 26 to 30 years. The fertility level, however, starts to decline because at this age a female is going to complete the reproductive period (15-49 years). The fig.21 shows that the duration of marriage is positively related with the fertility rate. The relationship (r = 0.59704) is significant.

(iv) Remarriage :

Remarriage generally lowers the fertility by decreasing the reproductive span. In the Santal society, both the males and the females can remarry when they become divorced or separated. In early days, when the widow remarriage was also common for the females as well as the males, mutual divorce was a common feature. If there is maladjustment between the wife and the husband among the Santals, divorce takes place. Divorce, in many cases, takes place within a few months to 2 years after marriage. But at present the number of divorce and remarriage has decreased among them. At present (1989-90) the proportional share of single married persons is 95.0 per cent for the females and for the males it is 83 per cent as mentioned in Table-15. A very small percentage of the males remarry for the second or the third or more times.

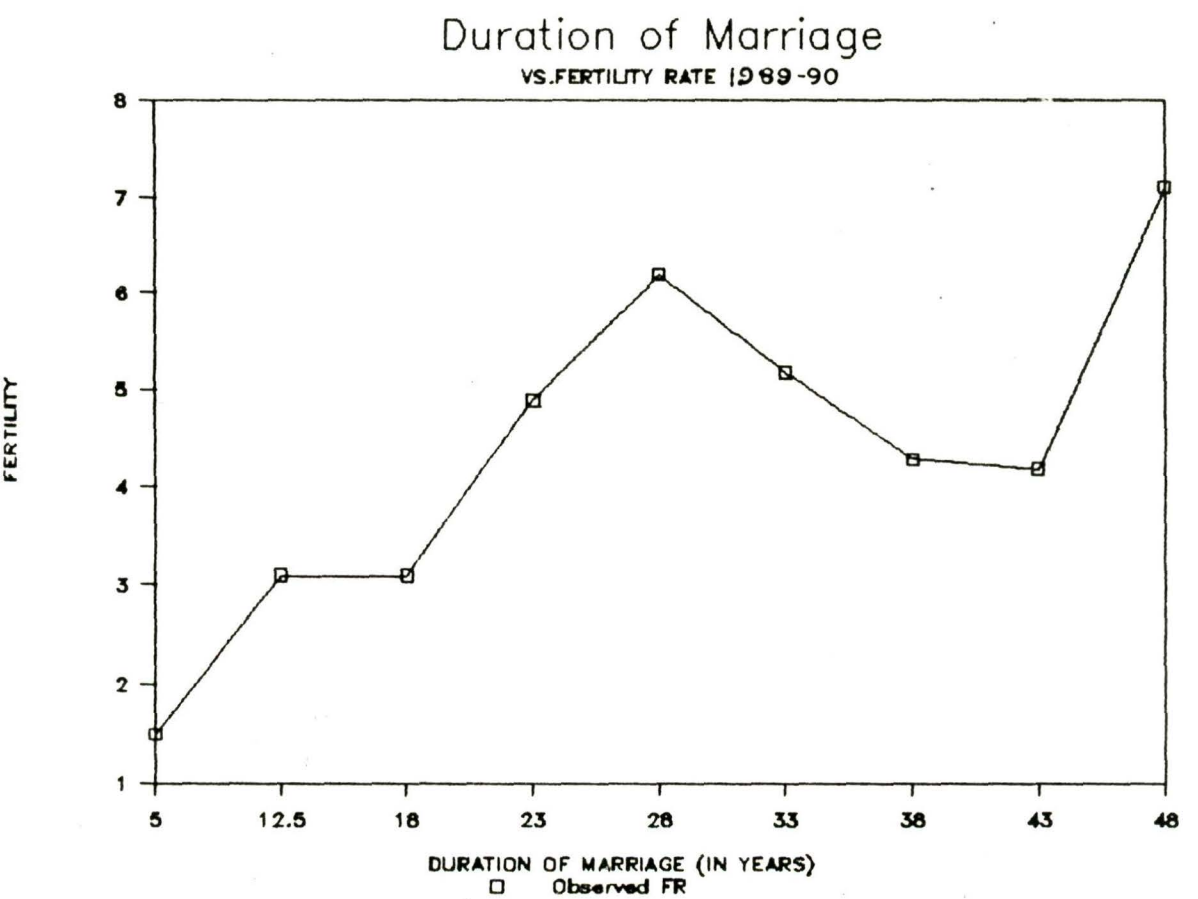

Duration of Marriage
VS.FERTILITY RATE 1989-90
FERTILITY
8
7
6
5
4
3
2
1
5
12.5
18
23
28
33
38
43
48
DURATION OF MARRIAGE (IN YEARS)
Observed FR

FIG - 21

(v) Mortality :

Mortality is another important determining factor having its influence on fertility. Infant (Children below 1 year) and child (Children of 1 to 5 years) mortality is an important determinant of fertility. The infant and child mortality is less among the Santals as compared with non-tribal people which has been discussed later. The rate of infant and child death per couple shows (Table-29) that, infant and child mortality is directly related to fertility (r = 0.1632 in case of infant death and r = 0.517 for child death. Generally, in our country the number of child birth increases with the increase of infant and child mortality. Thus most of the parents want at least 2 to 3 children (Oberai & Singh 1981).[8]

Table - 29

Infant and Child Mortality and fertility among the Santals of Birbhum district (1989-90)

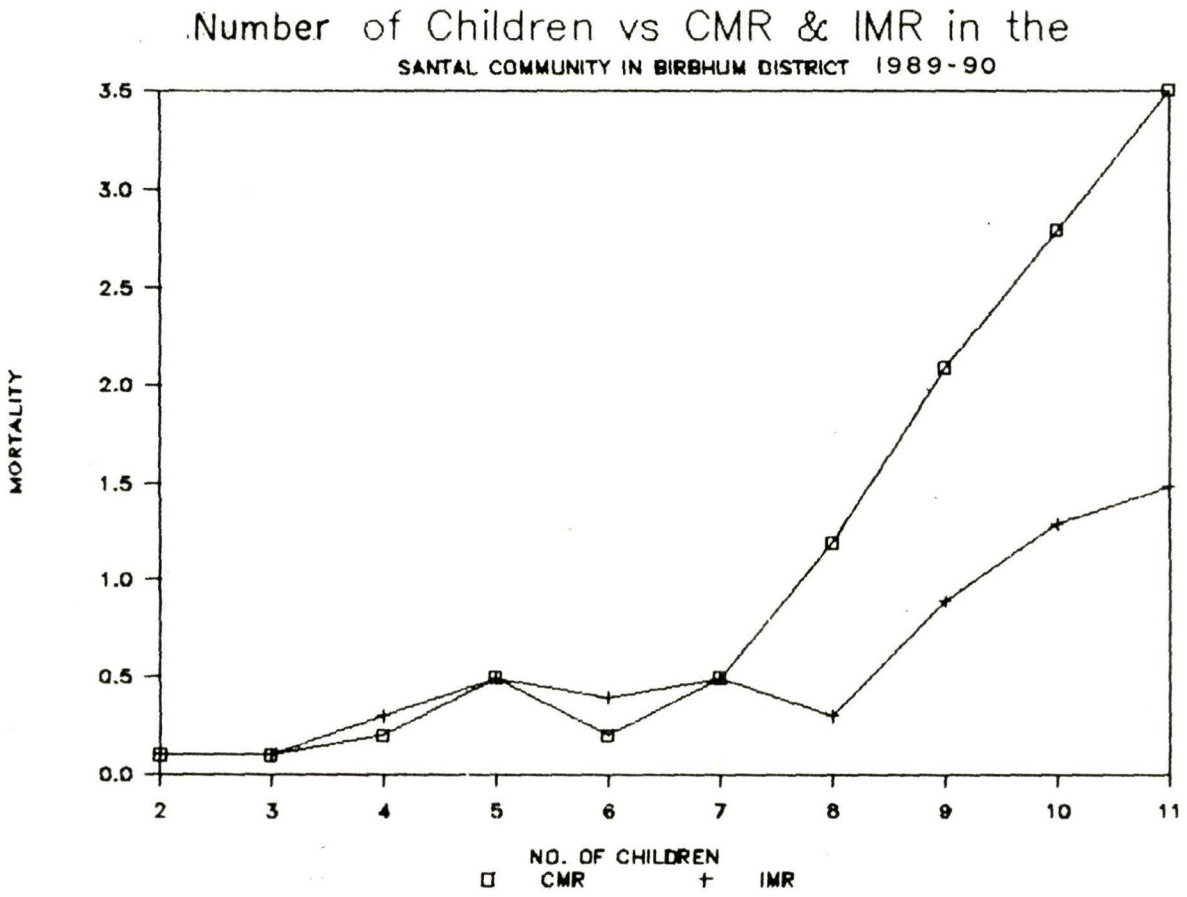
Infant mortality	Child mortality	No. of Children
0.1	0.1	2
0.1	0.1	3
0.3	0.2	4
0.5	0.5	5
0.4	0.2	6
0.3	0.5	7
0.3	1.2	8
0.9	2.1	9
1.3	2.8	10
1.5	3.5	11

Source : Field Investigation

The following reasons are responsible for the high infant and child mortality.(i)In Santal society most of the females remain engaged in hard work even during the period of pregnancy on the one hand and on the other because of poor economic condition they do not get proper nourishment during this period which makes a heavy drain on the pregnant women, resulting in severe malnutrition. These two factors are responsible for the death of children after delivery or after few days of birth since they are often both very weak.(ii)Secondly, the lack of medical facilities causes the death of many children with fever or liver diseases. Generally, they use unani (herbal) medicines. Besides, due to illiteracy, the females are less conscious about the health and hygine of their children. The high rate of infant and child mortality naturally leads to the birth of more children (Fig.22).

(Vi) Occupational structure and fertility

Occupation of the couple incluences the rate of fertility. It is found that those who are engaged in mental work, have less children than those who are engaged in manual work (Hansraj, 1984)[9]. Wife's occupation is more influential in this respect than the husband's. According to Weller (1974), the participation of women in work checks fertility by (i) altering their view on having a smaller number of children; (ii) the work of a woman gives her no opportunity to take care of their children properly; and (iii) work of a woman helps to take decision on reducing family size



CMR – CHILD MORTALITY RATE IMR – INFANT MORTALITY RATE

FIG – 22

(Oberai & Sinha, 1990)[10]. In the Santal society of Birbhum district, the participation of women in work appears to be more influential than that of the males in determining the fertility. This is based on the facts gathered during field investigation (table-30). Most of the female workers are engaged in the primary sector as labour in which they spend

Table - 30

Occupational status and fertility among the Santals of Birbhum district:- 1989 - 90

Type of occupation	Fertility level of husband	Fertility level of wife
Cultivator	3.7	4.0
Cultivator*+ Labour	4.3	3.6
Labour	3.6	3.7
Service	3.8	3.0

* including ag.labour. Source: Field Investigation

8 to 9 hours in work, starting from morning. After coming back from the place of work they get busy in making food for the night and the next morning. Thus, most of the time they remain engaged in household work for which they can not take proper care of their children. On the other hand, in the case of service holders, the attitude to family size is different. Here service holders mean those who are engaged in any type of job permanently, as in mills, factories, offices, banks and schools etc. concentrated mostly in the urban

areas. In the urban area, they come into contact with a different environment which quite often exerts a profound incluence on them in changing their attitude to family size, and the concept of family planning gradually appears in the mind of the rural tribal people.

In contrast, in a farming family, the females are mainly engaged in their own land and household jobs and hence their outlook to life remains unchanged. But in the case of the males, the type of economic activities is not at all related to the rate of fertility. The role of the male in the household chores and child rearing is nil because they do not participate in these activities. On the contrary, the females, engaged in services, have lower fertility (Fig.23).

(vii) Economic Status and Fertility

Generally, economic condition plays an important role in the rate of fertility. By and large, the Santals of Birbhum district are engaged as (i) labour , (ii) cultivator and labour, (iii) cultivator, and (iv)service holder. But it is rather interesting to note that in the Santal community of Birbhum, the economic status does not affect the rate of fertility as it is revealed by the primary data (Table-31). As may be observed, the fertility level is the lowest with 2.8 among those whose annual income is Rs. 12,000 to Rs.14,000 In contrast, among those whose annual income is Rs.2,000 to 4,000, the fertility rate is 4.6. The fertility level is 3.4 among those having a higher literacy level (Secondary level)

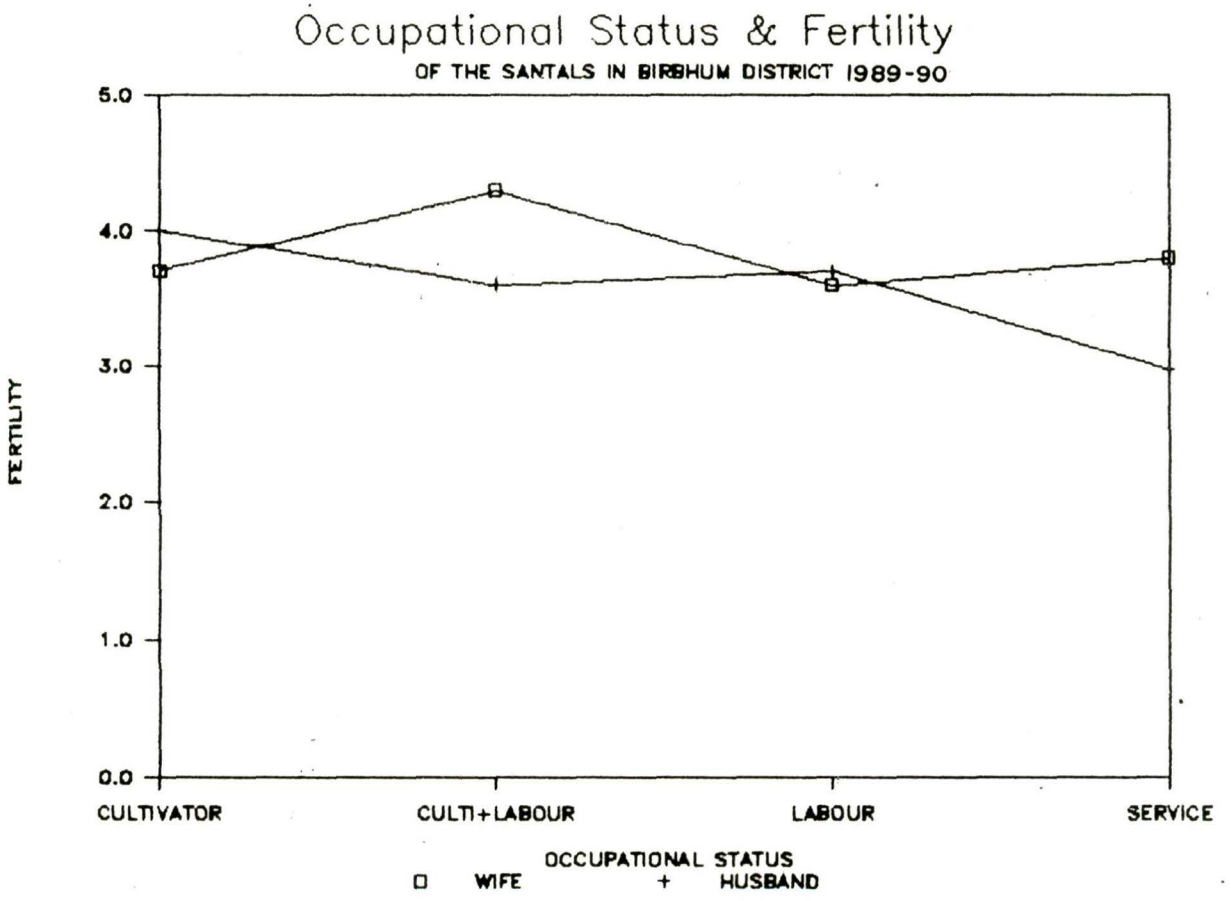

Occupational Status & Fertility
OF THE SANTALS IN BIRBHUM DISTRICT 1989-90
5.0
4.0
3.0
2.0
1.0
0.0
FERTILITY
CULTIVATOR
CULTI+LABOUR
LABOUR
SERVICE
OCCUPATIONAL STATUS
WIFE
HUSBAND

FIG – 23

Table - 31

Economic status and fertility among the Santals of Birbhum district (1989-90)

Annual Income in Rs.	Fertility level
Below 2,000	4.3
2000- 4000	4.6
4001 - 6000	3.6
6001 - 8000	3.6
8001 - 10000	4.4
10,001 - 12,000	4.5
12,001 - 14,000	2.8
14,001 - 16,000	3.7
16,001 - 18000.	3.5
Above 18,000	3.4

Source : Field Investigation

who are engaged in banks, offices and the railways as officer, peon and guard with an income of above Rs. 18,000. Besides, people belong to this group also sometimes take part in cultivation and fishing which supplement their income though such cases are negligible. On the whole, the majority of the Santals, including both the males and females are engaged as daily labour in the agricultural and non-agricultural sectors. Most of them are illiterate. They do not think about the cost of bringing up and rearing of children and are not particular about reducing the number of them or the family size. But in the case of service holders, the fixed pay, education and the influence of non-tribal culture have combined effect on reducing fertility. Accordingly, the diagram shows

that the income level has negligible negative relationship ($r = -0.0381$) with fertility level (Fig.24).

(viii) Education Level and Fertility

The level of education directly affects the rate of fertility. Education affects fertility in three ways : (i) it influences directly through the academic environment imparting new ideas ; (ii) it makes people conscious about the effect of family size, and (iii) its indirect influence is felt in the change in the age of marriage, facilitating communication between husband and wife besides having influence on other factors like income, social status etc. (Oberai & Singh, 1983)[11]. Education of a mother acts as a tool in breaking some traditional norms and help in independent thinking. But the literacy level among the Santals of Birbhum district is very low as mentioned earlier. The females at the child-bearing stage are found mostly illiterate. A small percentage of the females have taken education upto some level but on the whole the literacy level among them is very low. In reproductive stage a negligible percentage of the females is recorded in class VI to VIII and class IX to XII stage. At other educational levels there are no females.

Among the illiterate males and the females the fertility rate is about 4.0 and the rate decreases with the increase of literacy level. Among the males, the highest

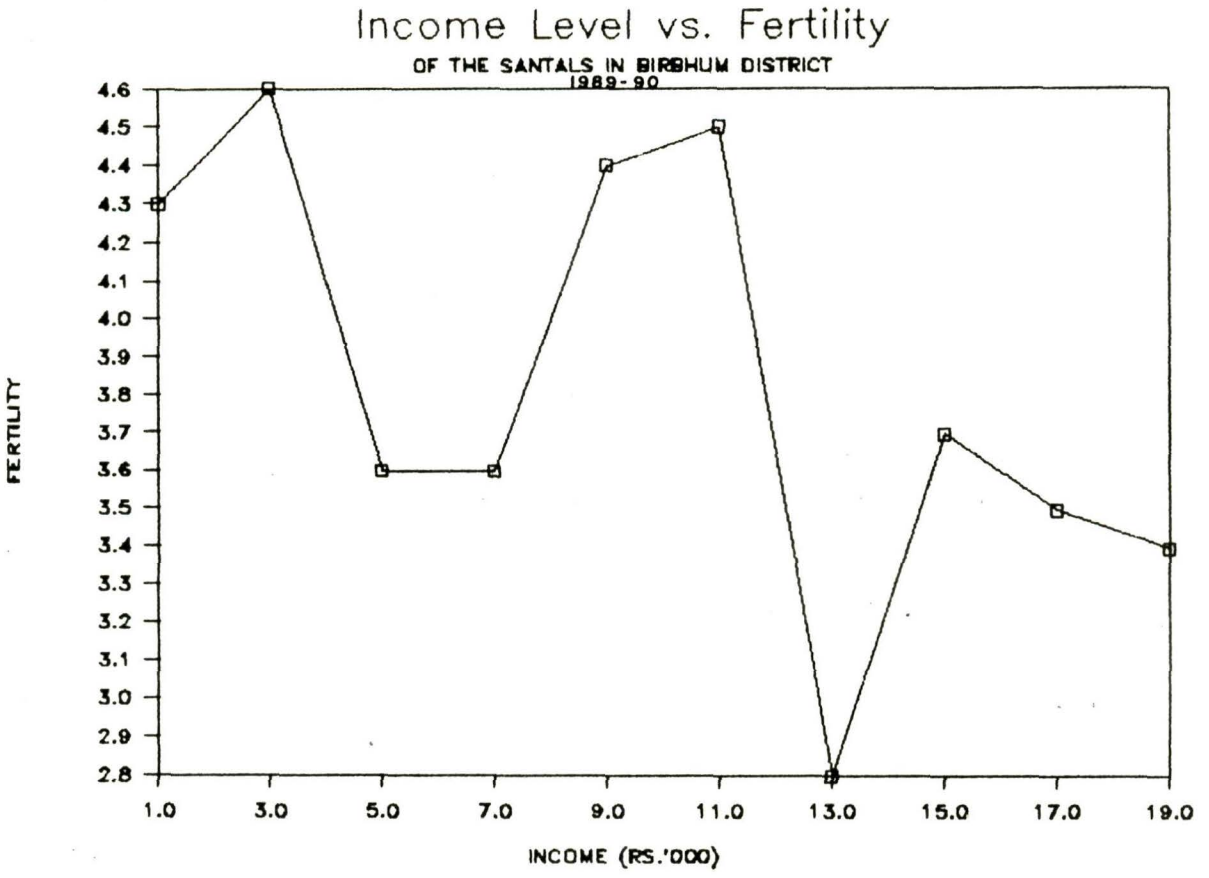

Income Level vs. Fertility
OF THE SANTALS IN BIRBHUM DISTRICT
1988-90
FERTILITY
4.6
4.5
4.4
4.3
4.2
4.1
4.0
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3.0
2.9
2.8
1.0
3.0
5.0
7.0
9.0
11.0
13.0
15.0
17.0
19.0
INCOME (RS.'000)

FIG - 24

level fertility is found with those taking education upto a level of class V, and it decreases to 3.0 with a rise in the level of education.

(ix) Land Holding and Fertility

Among the Santals , the land holding pattern has some relationship with fertility behaviour. Fertility level is found to be higher among the small farmers because they are economically not rich for which hiring of labour becomes impossible for them. All the children above 11-12 years contribute their labour to the land owned by the family which minimise the production cost. This is the principal factor leading to a larger number of births in this class. On the other hand, the cost of rearing and bringing up of children is very insignificant which encourages them to have more children. The primary date (Table-32) collected through personal interviews show that the lowest fertility is recorded with the marginal farmers (holding upto 2.5 acres of land). Among the big farmers, having 5.1 acres to 7.5 acres

Table - 32

Land holding patterns and fertility among the Santals of Birbhum district (1989-90)

Land holding(in acres)	Fertility rate
Upto 2.5	4.3
2.6 to 5.0	4.7
5.1 to 7.5	4.5

Source : Field Investigation

of land, the fertility level is low because they are able to bear the high cost of production without depending on their own children for providing labour (Fig.25).

(x) Value of Children :

The value of children also influences fertility. In some family, the children are more valuable if they provide some social, economic and psychological satisfaction (Choudhury, 1982)[12]. Generally, the number of children of any couple depends upon their utilities and the cost of rearing. The utilities are of three types : (i) the consumption utility, (ii) work or income utility, and (iii) security utility (Leibslein, 1974)[13]. The value of children among the Santals of Birbhum district is noticeable. They are considered economically valuable in general since in the Santal family all the members are economically active including children above 11 years or 12 years of age. The male children participate in agricultural activities in their own land and in the case of the landless family, the children are engaged as cow boys by the landlord.

(xi) Preference for Son:

Son is generally preferred among the Santals of Birbhum district but the preference is not as strong as to increase the rate of fertility. They prefer son for old age security and also for the support of the family

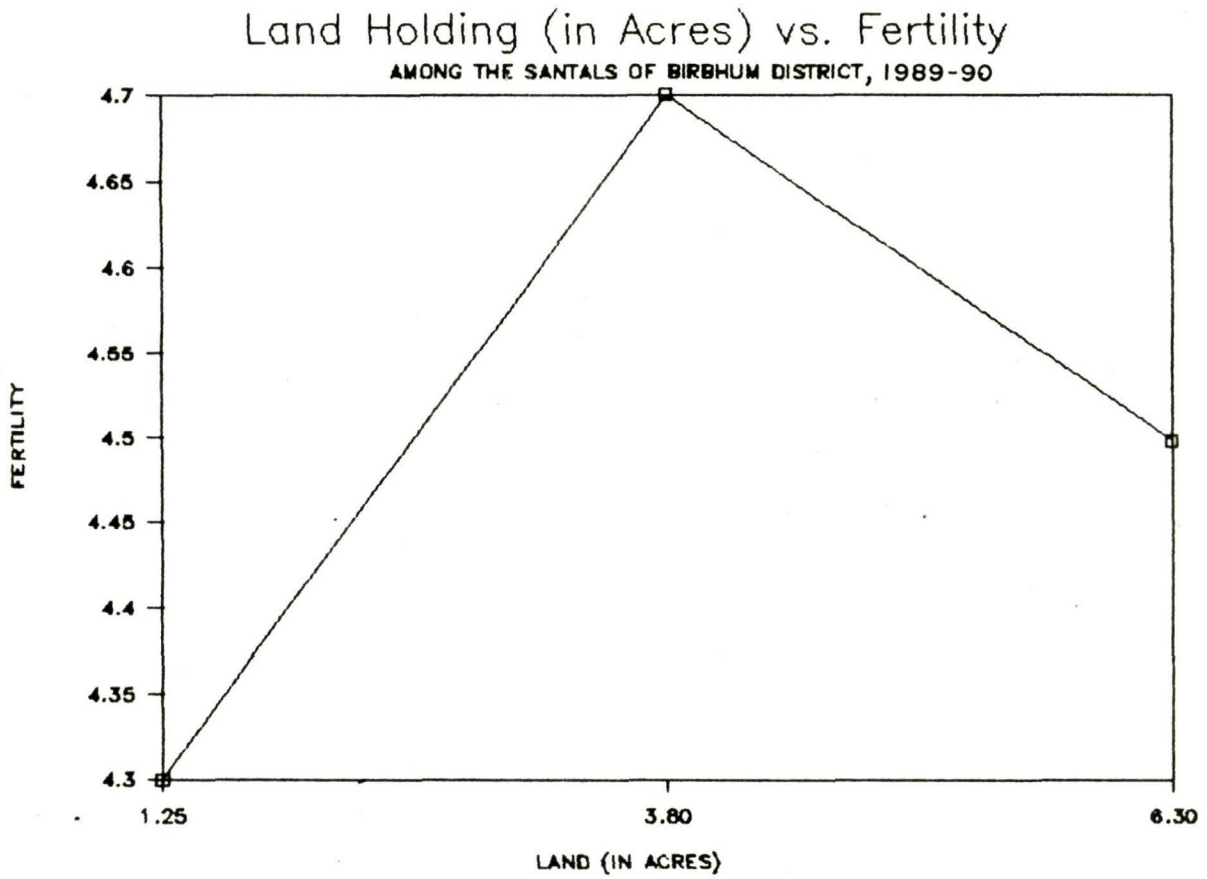

Land Holding (in Acres) vs. Fertility
AMONG THE SANTALS OF BIRBHUM DISTRICT, 1989-90
FERTILITY
4.7
4.65
4.6
4.55
4.5
4.45
4.4
4.35
4.3
1.25
3.80
6.30
LAND (IN ACRES)

FIG-25

from their earning beginning in early childhood. Of course, after marriage the son gets separated from the family and establishes a nuclear family of his own, but he goes on supporting his parents till he gets married. Besides, girls get dowry at marriage among the Santals which further reduces the preference for son. A Santal mother of 3 sons says, 'if I have a daughter I can earn money and animals.'

(xii) Family Type and Fertility:

In Santal society, the type of family is less effective in fertility behaviour. Several studies show that in joint family or extended family, the fertility rate is higher than that of a nuclear family because of some factors as the elder persons look after the children and the family burden of newly married couple is less. Among the Santals, however, the fertility is not effected by the type of family as the primary data (Table-33) shows. The joint family has the lowest fertility level of 2.0 where as the nuclear family has 4.0 (Fig.26). This is largely because

Table - 33

Family type and fertility among the Santals of Birbhum district, 1989-90

Type of family	Fertility level
Nuclear	4.0
Extended	5.0
Joint	2.0

Source : Field Investigation

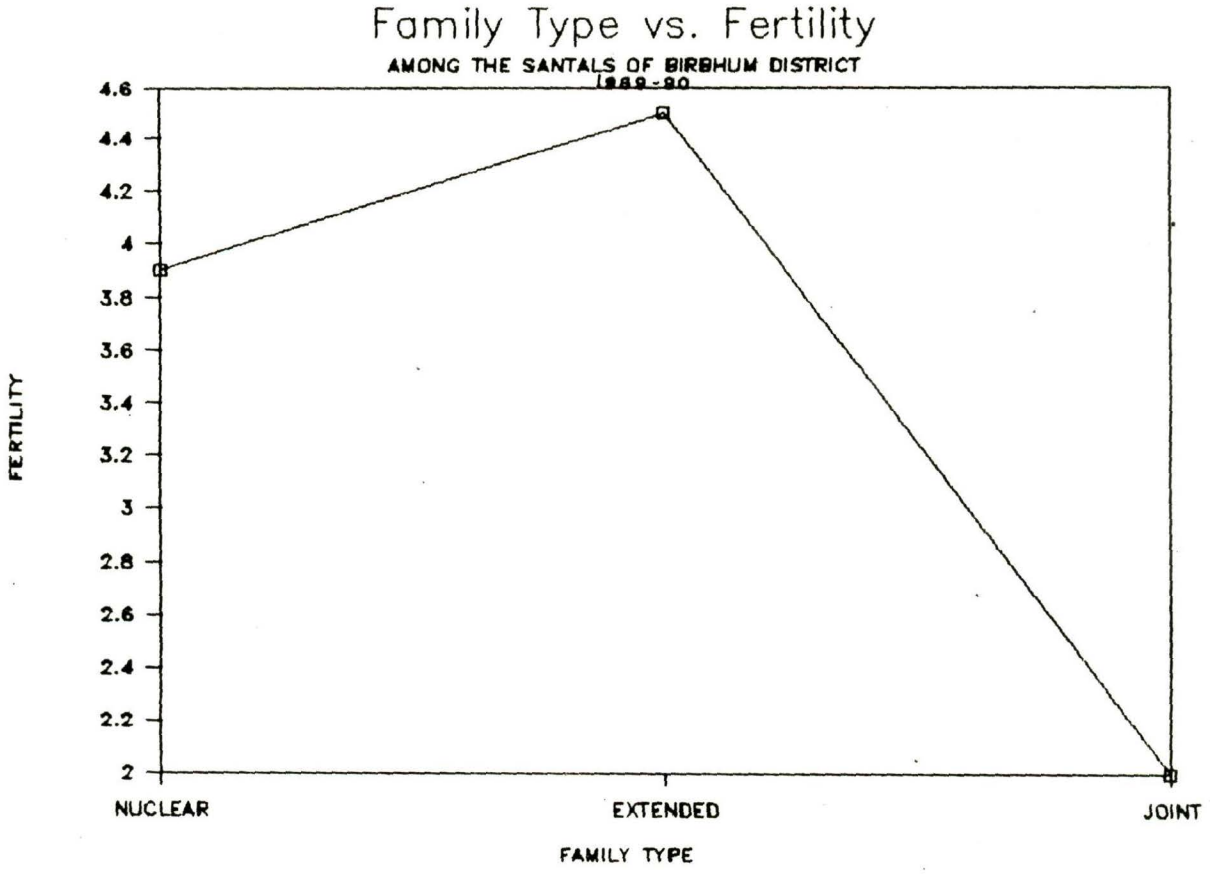

Family Type vs. Fertility
AMONG THE SANTALS OF BIRBHUM DISTRICT
1989-90
FERTILITY
4.6
4.4
4.2
4
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
2
NUCLEAR
EXTENDED
JOINT
FAMILY TYPE

FIG- 26

of the fact that all the members of the Santal family being engaged in outside work, can not take the responsibility of more children.

(xiii) Migration and Fertility:

Migration of the Santals have no effect on fertility because (i) migration among them occurs in a very small scale of which migration by marriage holds the major share ; (ii) besides migration on marriage, all the family members migrate with headman in most cases, and (iii) in most cases migration occurs between the : rural areas which can not change their way of thinking and does not improve their economy to have an effect on fertility. Most of them commute which has no effect on fertility.

(xiv) Family Planning and Fertility

The Santals in this area are illiterate and economically poor. Except a small percentage, most of the people do not believe in planning. The poor economic condition further prevents them from buying contraceptives. It is, however, interesting to note that a few years ago birth control was unheard of among the Santals. It is only in recent years that idea penetrated due to constant contact with the outside world and effects made by the Department of Health and Family Welfare in popularising the issue. For instance, there are 420 subsentres in this district set up in the rural

areas to encourage the practice of family planning. Each centre has one investigator who encourages and provides the people with such facilities in the surrounding villages of the centre where most of the people want 3 to 4 children. The data in table-34 show the rate of acceptance of family planning measures by the tribal community during the period 1989 to 90 and 1990 to 1991. It may be noted that except in vasectomy, the percentage of acceptance seems to have increased but the rate is very low. As has been observed

Table - 34

Percentage of Tribal People accepting family Planning Programme in Birbhum district, 1989-90 to 1990-91.

Year	Vasectomy	Tubectomy	Total	IUCD
1989 - 90	3.3	5.5	5.5	8.3
1990 - 91	1.4	6.3	6.3	9.9

Source : Deptt. of Health & Family Welfare, Siuri.

through field investigation, only 0.4 per cent of the males and 14.2 per cent of the females adopted family planning measures. Among those who adopted measures, 57.1 per cent were males and 25 per cent were females using herbal medicines while 61.7 per cent females and 42.9 per cent males underwant operations and only 2.5 per cent females used contraceptives and 10.8 per cent females using contraceptive lastly underwant operation.

B. MORTALITY

'Mortality, the occurrence of death, generally exceeds migration but is exceeded by fertility' (Clarke, 1969)[14]. It is a very important component in population study because it affects population composition, specially the age composition (Clarke, 1969)[15]. It is a highly variable phenomena in terms of causes and age. Geographers are most interested in studying mortality because the growth of population is influenced by mortality (Chandna & Sidhu, 1980)[16]. 'The study of mortality is useful for analysing the current demographic conditions as well as for determining the prospects of potential changes in mortality conditions of the future' (Kanitkar & Bhande, 1978)[17]. Mortality generally becomes higher at infant stage (Children below one year) and it gradually declines with increase of age. Lower mortality among the young may cause rejuvination of a population unless it is balanced out by a decline in mortality (Siddique, 1978)[18]. In our country death rate is gradually declining, from 42.6(1901-10) to 14.8(1971-80) In West Bengal, the death rate is 9.3 (1989) in the rural area. Among the Santals, the mortality rate is comparatively higher than among the non-tribal population. The death rate of the Santals in India was 17.8 for the males and 21.7 for the females per thousand according to 1961 Census (Sarkar, 1976)[19].

The non-availability of any data relating to the death rates of the Santals in the district of Birbhum

makes it a difficult study. The present analysis based on the number of deaths occurring in the family for which data were collected. This study (Table-35) shows that the number of female death is more than that of the male in many cases but in some cases female mortality is less than that of the male mortality. Death in lower age is higher than in upper ages with a few exceptions in certain police stations.

Crude death rate* is the most simple index of mortality expressed in numbers of death per thousand populations and the late foetal deaths. It records the average death for a particular period. The death rate of the Santals in this area is not taken into consideration as the data on death is not available. According to previous studies, crude death rate among the Santal females is lower than among the males. The average death rate of the Santals is 23.9 for the males and 23.1 for the females (Verma, 1977)[20]. In this study data on death for the whole district was not available for any year for which reason crude death rate could not be calculated. Crude death rate among the Santal females is lower than among the males. The percentage of death among different age groups (Table-35) shows that the rate among the males

---

* Crude Death Rate is measured by the formula D/P x K, where D is the total number of deaths registered during a calendar year, P stands for total population at middle of a year, K is constant as 1000'.

Table - 35

Age and sex-wise distribution of deaths among the Santals of Birbhum district.
(Family-wise in percentage), 1989-90

Police Stations	Total population (surveyed)		Total deaths		Below 1 yr.		1 - 5 yrs.		6 - 10 yrs		11 - 15yrs		above 15 yrs.	
	Males	Females	Males	Females	Males	Females	Males	Female	Males	Females	Male	Fem.	Male	Fem
Muraroi	18	19	4	6	-	16.7	100.0	33.3	9	50.0				
Nalhati	71	66	10	9	70.0	55.6	30.0	44.4						
Rampurhat	200	198	24	22	54.2	68.2	45.8	18.2		13.6				
Mayureswar	245	232	34	34	50.0	41.2	47.1	47.1		8.8	2.9			2.9
Md.Bazar	164	138	16	17	43.7	23.6	50.0	58.7		11.8	6.3			5.9
Rajnagar	51	57	14	13	57.1	69.2	35.7	30.8	7.2					
Khoyrasole	13	18	5	3	40.0	33.3	60.0	66.7						
Dubrajpur	65	72	7	3	85.7	66.7	14.3	33.3						
Suri	234	230	26	24	30.7	29.1	57.7	50.0	7.7	12.5		4.2	3.9	4.2
Illambazar	109	81	15	16	26.7	43.7	20.0	37.5	40.0	18.8			13.3	
Sainthia	214	197	18	18	38.9	83.2	61.1	5.6		5.6				5.6
Bolpur	295	255	28	29	46.4	48.3	42.9	34.5	7.1	3.4		6.9	3.6	6.9
Labhpur	48	47	9	13	33.3	23.1	66.7	69.2		7.7				
Nanur	35	24	9	7	44.5		33.3	42.8	11.1	28.6	11.1			28.6

Source : Field Investigation.

and the females is more or less the same. In some police stations, however, the death among the females is comparatively lower than among the males. Among all the age groups, death is higher for the infants and the children (Child upto 5 yrs.) and it decreases with increasing age. Again, the incident of death of the male infant has been found to be higher in 8 police stations, namely, Nalhati, Rampurhat, Mayureswar, Md. Bazar, Rajnagar, Dubrajpur, Bolpur and Nanur which varies from 43.8 per cent to 85.7 per cent of the total deaths. Except in Muraroi, in the remaining police stations the percentage of deaths for the male infants is lower than this. In the case of female infants, it varies from 43.8 per cent to 83.3 per cent in Nalhati, Rampurhat, Rajnagar, Dubrajpur, Illambazar, Sainthia and Bolpur police stations, showing a higher range than that for the male infants.

In comparison, the percentage of child death is lower than that of the infants. For instance, in Md.Bazar, Khoyrasole, Suri, Sainthia and Labhpur child death ranges between 50 per cent and 66.7 per cent. Muraroi records 100.0 per cent which means that all the deaths occur at child-stage. In the case of children as well there is a difference in the percentage of death between the male and female children. In six police stations the percentage of death among the female children is higher. On the whole, the death rate among children is higher than that for other age groups. The

highest percentage of total death (66.7%) occur among the children in Khoyrasole police station.

Death rate in higher age groups is more among the females than the males. Nearly in all the police stations the female death rate seems to be higher than that of the males for the next two age groups. Thus, for the 6 to 10 years age group, death among the females occurs at the rate of 3.4 per cent to 50 per cent in 8 police stations. For the females of above 15 years the rate of death varies from 2.9 per cent to 28.6 per cent. But death rate of the males for the corresponding age group recorded in few police stations appears to be much lower, ranging between 7.1 per cent to 11 per cent (Fig.27). An almost similar picture is obtained for the age groups as well showing a higher death rate for the females with minor exceptions. The major reasons for the higher death rate for the Santal females, nearly for all age groups are disease, inadequate neo-natal and post-natal care and above all, the abject poverty.

Causes of Death :

A close scrutiny of the reasons for early or late death may be of great importance. As is apparent, death among the Santals of this area according to primary information results from three causes, such as ; (i) disease, ii) malnutrition , and (iii) accident or suicide. Among these

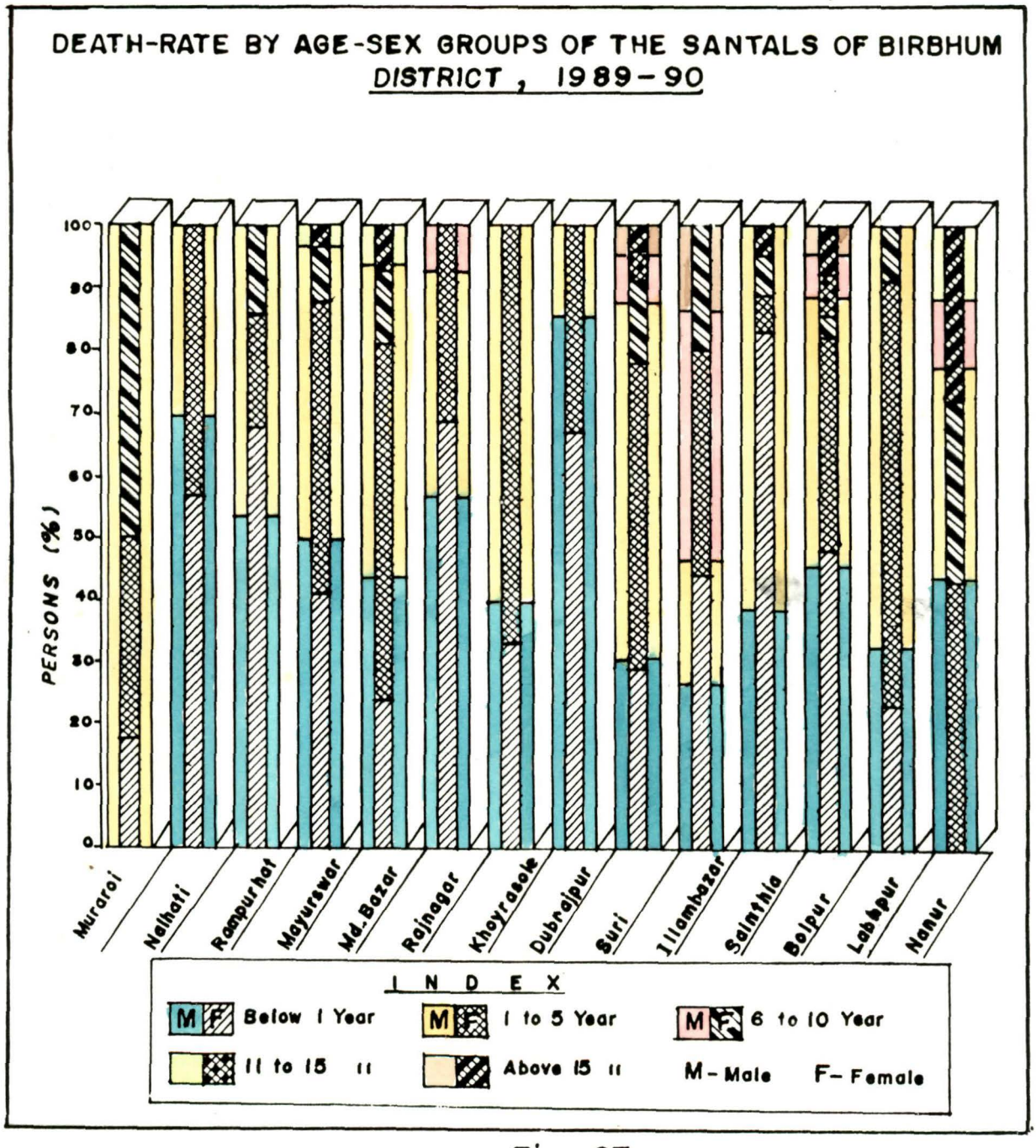

DEATH-RATE BY AGE-SEX GROUPS OF THE SANTALS OF BIRBHUM DISTRICT, 1989-90
PERSONS (%)
100
90
80
70
60
50
40
30
20
10
0
Muraroi
Nalhati
Rampurhat
Mayureswar
Md. Bazar
Rajnagar
Khoyrasole
Dubrajpur
Suri
Illambazar
Sainthia
Bolpur
Labhpur
Nanur
INDEX
M F Below 1 Year
M F 1 to 5 Year
M F 6 to 10 Year
11 to 15 "
Above 15 "
M - Male
F - Female

Fig – 27

disease seems to be the main cause. The most common disease among the Santals in this area are amoebic dysentry, anaemia, diarrhoea, influenzd and tuberculosis. Of which influenza, tuberculosis and diarrhoes are more prevalent than others. Infant death is of two types : (i) exogenous when death is caused by infection, parasitic diseases, accidents and other environmental and external causes, and (ii) endogenous, when death is the result of congenital malformations, the circumstances of parental life and the birth process. The death taking place after one month is mainly due to exogenous causes (Ross, 1982)[21]. Among the Santals, infant and child death occurs mainly due to exogenous causes which are diseases, malnutrition, infections etc. Nearly 100 per cent of the delivery cases among the Santals are done by a 'dai' or a untrained mid-wife at home which is unhygenic in most cases. Secondly, the gap between the children born in most cases is 1.5 yrs. to 2 years which causes a high degree of malnourishment and weakness of a mother making it virtually impossible for the latter to provide sufficient amount of food to the new born. Thirdly, a pregnant mother has to work hard for living. Excessive labour claimed by domestic and work for living leave little respite for the mother to take proper care of her child, which leads often to early death of the children. Death by accident or suicide is negligible among the Santals in this area. It is a rare case with them. According to primary information (Table-36) collected through personal interviews,

most of the deaths occur due to disease and malnutrition. In Muraroi, all the deaths (100%) among the males and the females

Table-36

Causes of deaths among the Santals of Birbhum district (in percentage), 1989-90

Police Stations	Disease		Malnutrition		Accident & disease	
	Male	Female	Male	Female	Male	Female
Muraroi	100.0	100.0	-	-	-	-
Nalhati	50.0	55.6	50.0	44.4	-	-
Rampurhat	75.0	72.7	25.0	27.3	-	-
Mayureswar	55.9	61.8	38.2	35.3	5.9	2.9
Md.Bazar	56.3	76.5	43.5	23.5		
Rajnagar	57.1	46.2	42.9	53.8		
Khoyrasole	60.0	66.7	40.0	33.3		
Dubrajpur	71.5	66.7	38.5	33.3		
Suri	61.5	62.5	38.5	37.5		
Illambazar	66.7	50.0	33.3	37.5		12.5
Sainthia	66.7	55.6	33.3	44.4		
Bolpur	60.7	62.1	35.7	31.0	3.6	6.9
Labhpur	66.7	76.9	33.3	23.1	-	-
Nanur	66.7	14.3	33.3	85.7	-	-

Source : Field Investigation

were caused by disease. Among the males in all the police stations the percentage of death by disease varies from

50 per cent to 75 per cent. But in some cases death caused by disease is lower in number than death due to malnutrition. In case of the females, Nanur records the lowest, with 14.3 per cent and Md.Bazar the highest with 76.5 per cent. In the remaining police stations, the percentage of female deaths due to disease varies from 46.2 per cent to 72.7 per cent.

The percentage of death for malnutrition among the males is more than that among the females excent in a few cases. The highest percentage of that among the males (50%) is found in Nalhati and for the females (85.7%) in Nanur. Death for malnutrition varies from 25 per cent to 43.5 per cent for the males and 23.1 per cent to 53 per cent for the females among the Santals of this district.

On the other hand, only in three police stations death takes place due to accident and suicide. The rate varies 3.6 per cent to 5.9 per cent for the males and 2.9 per cent to 12.5 per cent for the females (Fig.28).

Determinants of Mortality :

The determinant of mortality in less developed countries are not easy to find. Improvement in health technology and its availability are evidently relevant. Education also plays an important role in determining the rate of mortality. Sanitation, clean water supply specially for drinking and domestic purpose and other host environmental factors also affect mortality (Rodgers, 1979)[22].

(i) Economy and Mortality :

Mortality is a function of income per head, depending either on national income or on levels of developments (Loschky, 1976)[23]. As a general rule, mortality declines among the high income group because of the profusion of proper care, food and medicine. Income level among the Santal varies with age and the number of members of the family because all the members of the family are engaged in some sort of work. Most of them are engaged in low wage jobs as daily labour which results in low income. As such occupation becomes an important determinant of mortality having its effects in two ways. For instance the type of work and its nature may be one of the reasons for short or long life. The job may or may not be detrimental to health. Besides occupation largely determines the family income and the physical surroundings of the worker and of his family at home (Thompson & Lewis, 1953)[24]. The work status of the mother can be an important determinant of infant and child mortality. The need of work, specially outside the home, may affect the survival chances of the children directly, simply by preventing the mothers from caring for infants. Further, it has a substantial effect through the lack of feeding (mainly breast feeding) opportunities (Hobcraff, Mc Donald & Putstein, 1984)[25]. The occupational status of the Santals is very poor for both the males and the female. Because of less employment opportunities in the secondary and tertiary sectors, through which they can improve their economic standard, and

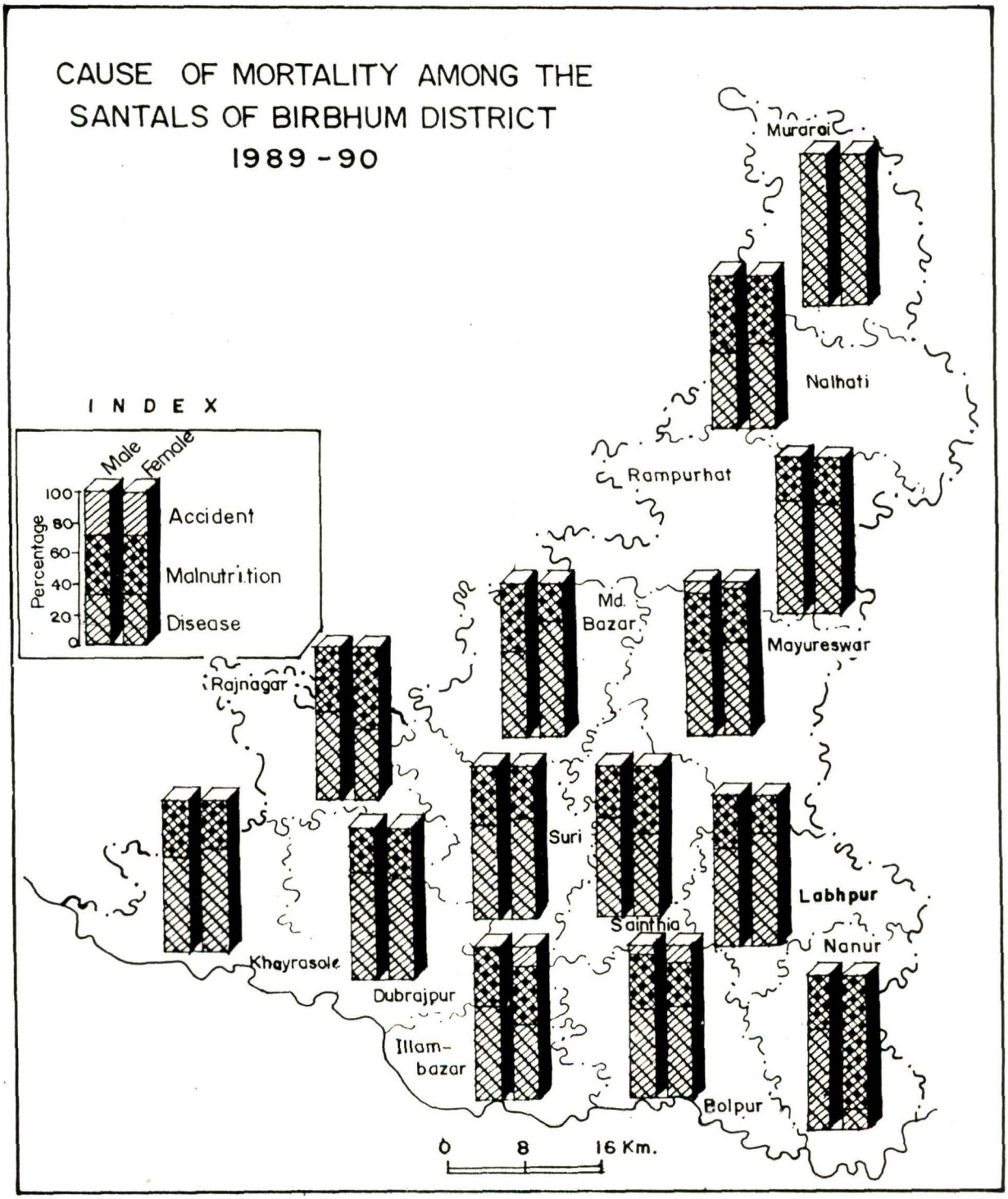

CAUSE OF MORTALITY AMONG THE
SANTALS OF BIRBHUM DISTRICT
1989 - 90
INDEX
Male
Female
Percentage
100
80
60
40
20
0
Accident
Malnutrition
Disease
Murarai
Nalhati
Rampurhat
Md. Bazar
Mayureswar
Rajnagar
Suri
Sainthia
Labhpur
Nanur
Khayrasole
Dubrajpur
Illam-bazar
Bolpur
0
8
16 Km.

FIG – 28

(i) Economy and Mortality :

Mortality is a function of income per head, depending either on national income or on levels of developments (Loschky, 1976)[23]. As a general rule, mortality declines among the high income group because of the profusion of proper care, food and medicine. Income level among the Santal varies with age and the number of members of the family because all the members of the family are engaged in some sort of work. Most of them are engaged in low wage jobs as daily labour which results in low income. As such occupation becomes an important determinant of mortality having its effects in two ways. For instance the type of work and its nature may be one of the reasons for short or long life. The job may or may not be detrimental to health. Besides occupation largely determines the family income and the physical surroundings of the worker and of his family at home (Thompson & Lewis, 1953)[24]. The work status of the mother can be an important determinant of infant and child mortality. The need of work, specially outside the home, may affect the survival chances of the children directly, simply by preventing the mothers from caring for infants. Further, it has a substantial effect through the lack of feeding (mainly breast feeding) opportunities (Hobcraff, Mc Donald & Putstein, 1984)[25]. The occupational status of the Santals is very poor for both the males and the female. Because of less employment opportunities in the secondary and tertiary sectors, through which they can improve their economic standard, and

widespread illiteracy, they are forced to be engaged in the primary sector to work mostly as labour. This occupation does not provide engagement for the whole year which keeps them highly improverished. Table-37 shows that income has almost a direct relationship with the death of children. It shows that over 70 per cent of the families surveyed, had no death of the children and the percentage of such deaths is the highest (50%) with the low income group. Further, it appears that

Table-37

Death of Children per Couple in different income groups (in %), 1989-90

Annual income group (in Rs.)	No. of couple	No. of Children died per couple							
		Nil	1	2	3	4	5	6	6
< 3000	10	50.0	20.0	30.0	-	-	-	-	-
3000 - 6000	116	62.1	19.9	9.5	4.3	2.6	0.9	-	0.9
6001 - 9000	129	61.2	20.9	10.1	3.1	0.8	-	1.6	2.3
9001 - 12000	63	54.0	28.7	9.5	3.2	3.2	1.6	-	-
12001 - 15000	45	51.1	35.6	6.7	2.2	2.2	-	2.2	-
> 15000	37	70.3	21.6	-	8.1	-	-	-	- -

Source : Field Investigation

the majority of the couples record the death of two children. The number of couples is more in medium (Rs. 6001 to Rs.9000) income groups and it is difficult to make any comparative study

about the relationship existing between income and child death but nevertheless an inverse trend between the two can not be ignored (Fig.29)

Similarly, occupation status seems to act as a determinant of mortality. As is shown by table-38, the percentage of couples having no deaths of their children increases from 58.2 per cent among the cultivators, to 66.7 per

Table - 38

Death of children per couple in different occupational groups (in %), 1989-90.

Occupational Group (in Rs)	No. of couples	Number of Children died per couple							
		Nil	1	2	3	4	5	6	7 6
Cultivator	189	58.2	24.3	9.5	2.6	2.2	0.5	1.1	1.6
Agl. & Daily Labour	179	60.3	22.9	9.5	4.5	1.7	-	0.5	0.6
Permanent Labour	14	64.3	28.6	-	7.1	-	-	-	-
Service holder	18	66.7	16.7	5.6	5.6	-	5.6	-	-

Source : Field Investigation

cent with the service holders. Further, the percentage of couples with no death of children, is more than 6 which is more (1.6%) among the cultivators than that of any other occupation group. The ununiformity in the actual number of families surveyed from different occupational groups makes comparison

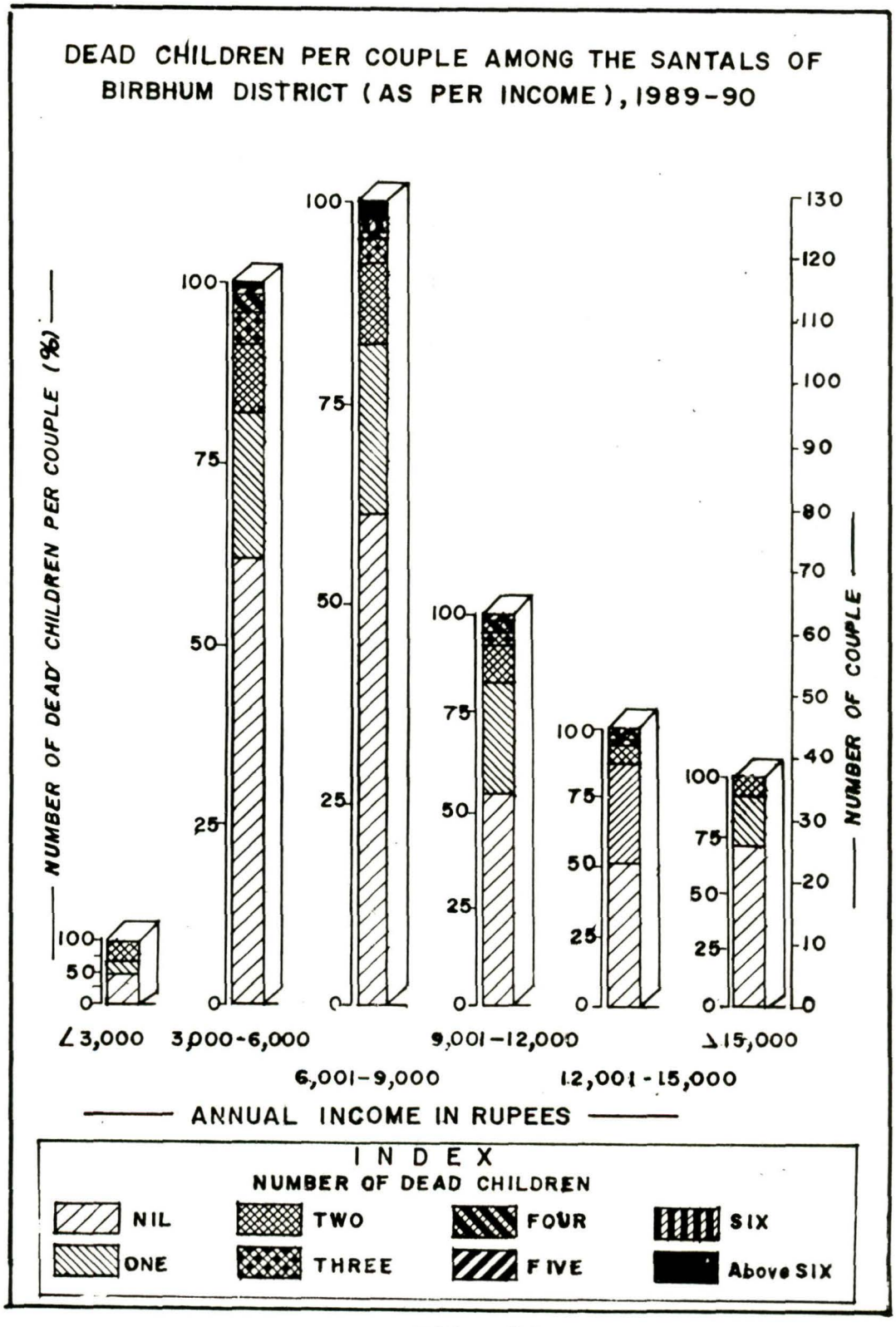

DEAD CHILDREN PER COUPLE AMONG THE SANTALS OF BIRBHUM DISTRICT (AS PER INCOME), 1989-90
NUMBER OF DEAD CHILDREN PER COUPLE (%)
NUMBER OF COUPLE
100
75
50
25
0
130
120
110
100
90
80
70
60
50
40
30
20
10
0
∠3,000
3,000-6,000
6,001-9,000
9,001-12,000
12,001-15,000
∆15,000
ANNUAL INCOME IN RUPEES
INDEX
NUMBER OF DEAD CHILDREN
NIL
ONE
TWO
THREE
FOUR
FIVE
SIX
Above SIX

FIG – 29

between them difficult though here also the picture is more or less clear about the fact that permanent occupation makes situation much better for keeping more children alive which is true about people engaged in the service sector or those working as permanent labour (Fig.30).

(ii) Medical Facilities :

Medical facilities available in the area under study are very poor. Health centres operate in some selected villages. There are 420 sub-health centres operating in the district but these sub-centres do not function properly in most of the cases. On the other hand, the Santals are more superstitious, being generally reluctant to use modern medicines. Most of them use herbal medicines and only those who are literate and influenced by non-tribal people take modern medicines. Except these those who get medicines free of cost use them. As has already been observed, nearly 100 per cent of the delivery cases are handled at home which may cause infectious diseases for using the unsterilised knife to cut the ambilical cord. The location of the health centres being far away from home in general, also acts as a discouraging factor.

(iii) Environmental Condition:

The environmental condition includes housing condition, drainage system and the supply of clean water. The infant mortality depends largely on environmental

DEAD CHILDREN PER COUPLE AMONG THE SANTALS OF BIRBHUM DISTRICT (AS PER OCCUPATION), 1989-90.

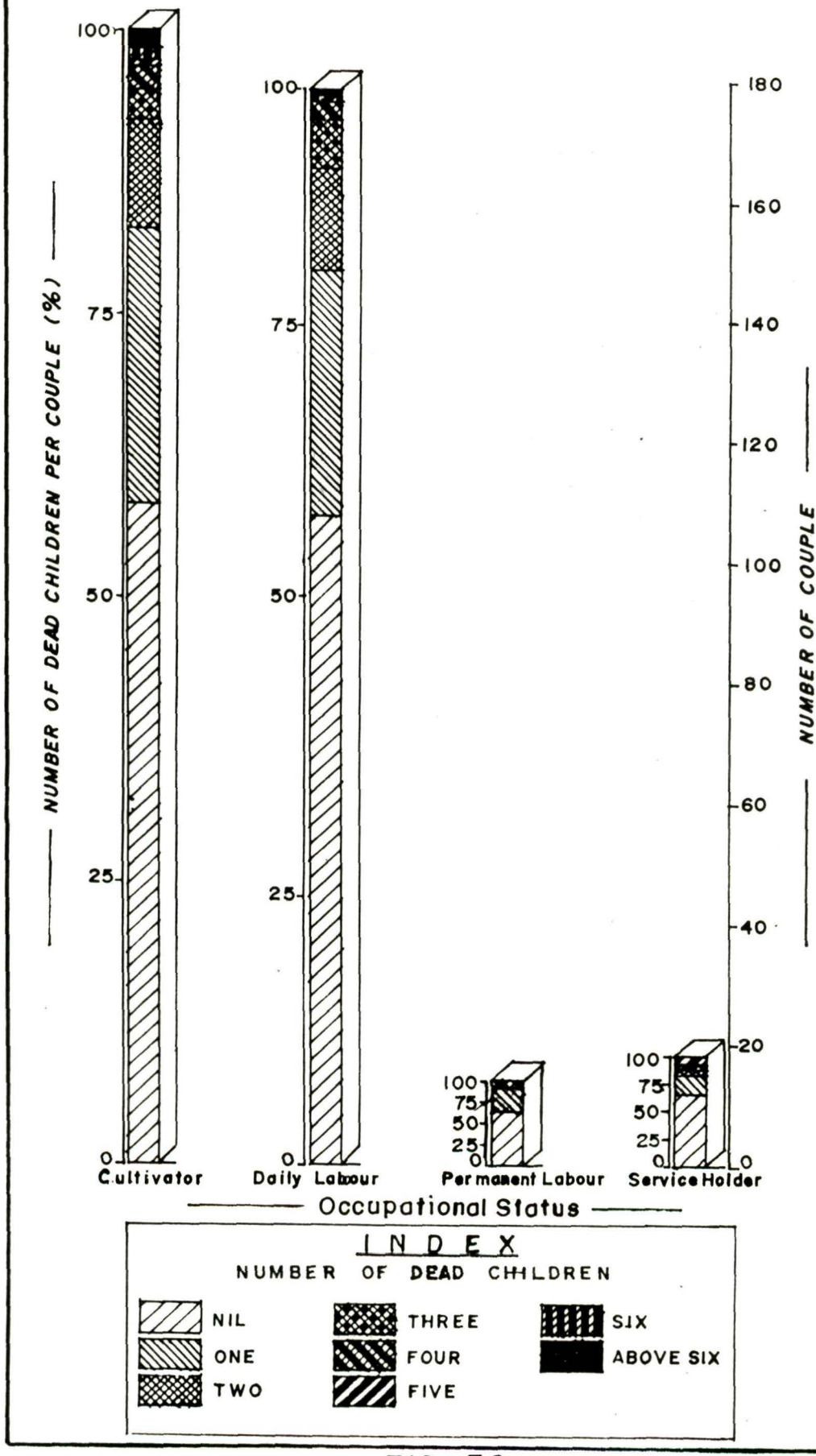


FIG-30

condition which may be changed by the society. Infant mortality is being regarded as a measuring scale of health of a community (Verma, 1977)[26]. The housing condition is most unhygienic. They live in huts, made of mudwall which keeps the room cold. The absence of window makes ventilation extremely poor. The domestic animals kept adjacent to the living room, makes it dirty and unhygienic. In most of the cases the house consists of one living room and used by all the members of the family make it highly congested and unhealthy, especially when any member falls ill. Besides, most of the houses have no proper drainage facilities. However, villages located along the road or in close proximity of the urban centres have better drainage conditions with cemented drains passing through the settlement. Further, in most houses there is no arrangement for the supply of domestic water. The people use river, pond or tank water for all purposes which are open to nature and as such suffer from a high degree of pollution. For drinking water, however, ring-wells or tube-wells are used.

Lastly, it can be said that mortality rate among the Santals is high in comparison to non-tribal people due to an unstable economy with a poor job situation combined with widespread illiteracy, irregular and insufficient food, unhygienic environmental conditions and lack of medical facilities.

C. MIGRATION AND COMMUTATION

I. MIGRATION

Migration is a spatial process, associated with the redistribution of population. It increases with the technical and economic progress. 'Movement of individual or groups which involves a permanent or semi-permanent change of usual residence is migration ' (Wilson, 1985).[27] Commutation is the daily movement between the place of origin and the place of work without leaving the residence.

Social scientists, planners etc. have made many studies on migration. Ravenstein (1880) was the pioneer in the formulation of laws in this regard and according to him, migration occurs from (i) low opportunity area to high opportunity area; (ii) within a short distance; and (iii) each rural to urban migration creates a counter stream from urban to rural area. He hypothesised that people of urban area are less migratory because of improved transport and communication system and development of new industries and trade. Based on this, Lee (1966) developed a model based on 'push' and 'pull' factors at the place of origin and the place of destination (Billsborrow, Oberai and Standing, 1984)[28].

Migration is one of the most important characteristics of population dynamics. It is a common characteristic phenomena in all the societies occurring since early times. Migration is common among the professional classes .

Unemployed persons are more migratory than the employed (Clarke, 1969)[29].

Migration among the Santals :

The rural Santal communities of Birbhum district have witnessed both in-migration and out-migration. But the size of in-migration is very small. Although a good number of these Santals have migrated from the neighbouring state of Bihar (Santal Parganas) since the end of eighteenth century (1770) and it continues till now in comparatively small volume, the present study is based on field survey made in 1989-90*. It can be observed that only 5.8 per cent of the males and 39.5 per cent of the females of the surveyed Santal population are involved in in-migration into the rural areas of Birbhum district.

The data (table-39) collected through field investigation during 1989-90 show that in Muraroi, Nalhati and Labhpur, there is no male immigrants among the population surveyed. The highest percentage (13.7%) of male immigrants was recorded in Rajnagar and the lowest in Sainthia with 2.3 per cent. In Mayureswar and Illambazar, the percentage of male in-migrants is below 5.0 per cent and in the

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* In this area there is no secondary data on migration of the Santal population for which the primary data have been used to study the present situation.

remaining police stations, except Muraroi, Nalhati and Labhpur the percentage of male in-migrant varies from 5 per cent to 11 per cent.

Table - 39

Male and female in-migrants in Birbhum district (in %), 1989-90

Police Stations	Percentage of in-migrants to total Population (Surveyed)	
	Male	Female
Muraroi	0	36.8
Nalhati	0	42.4
Rampurhat	5.0	45.5
Mayureswar	4.1	47.4
Md.Bazar	5.5	43.5
Rajnagar	13.7	14.0
Khayrasole	7.7	33.3
Dubrajpur	10.8	40.3
Suri	5.1	33.9
Illambazar	3.7	43.2
Sainthia	2.3	37.1
Bolpur	9.2	38.0
Labhpur	0	29.8
Nanur	8.6	41.7

Source : Field Investigation

In general, female in-migrants are more than their male counterparts. The highest number of in-migrants

was recorded in Mayureswar, comprising 47.4 per cent and the lowest (14%) occurred in Rajnagar. The percentage of females is 20.0 per cent to 40.0 per cent in Muraroi, Khoyrasole, Suri, Sainthia, Bolpur and Labhpur. The remaining police stations recorded above 40 per cent of female in-migrants among the total female population surveyed.

The proportional share of out-migration is also very small among the Santals in Birbhum district which is again high (26.6%) among the total females (surveyed) of Birbhum district than their male counterparts (8.6%). The primary data (Table-40) collected from villages through personal investigation show the percentage of male and female out-migrants in the police stations of Birbhum district. Muraroi recorded the highest percentage (27.8%) of male out-migrants of total surveyed population whereas Nanur has the lowest record. In Rajnagar there is no male out-migrants. Nalhati, Rampurhat and Illambazar recorded 11 per cent to 18 per cent of male out-migrants to total males population (Surveyed) and it goes down to 2.9 per cent in the remaining police stations.

Female out-migrants are more than the male out-migrants. Muraroi and Nanur have the highest record with 42.0 per cent whereas in Dubrajpur female in-migrants are the lowest, falling to 9.7 per cent. Rampurhat, Illambazar and Sainthia have a record of 30.0 per cent to 40.0 per cent

Table - 40

Male and female out-migrants in Birbhum district, 1989-90.

Police stations	Percentage of out-migrants to total population (surveyed)	
	Male	Female
Muraroi	27.8	42.1
Nalhati	12.7	24.2
Rampurhat	18.0	30.8
Mayureswar	9.0	28.6
Md.Bazar	3.7	29.7
Rajnagar	0	14.0
Khoyrasole	7.7	22.2
Dubrajpur	6.2	9.7
Suri	6.0	15.7
Illambazar	11.0	37.0
Sainthia	7.9	38.1
Bolpur	7.1	25.1
Labhpur	8.3	19.2
Nanur	2.9	41.7

Source: Field Investigation

of the female out-migrants. In the remaining police stations the percentage of female out-migrants is lower than that (Fig.31).

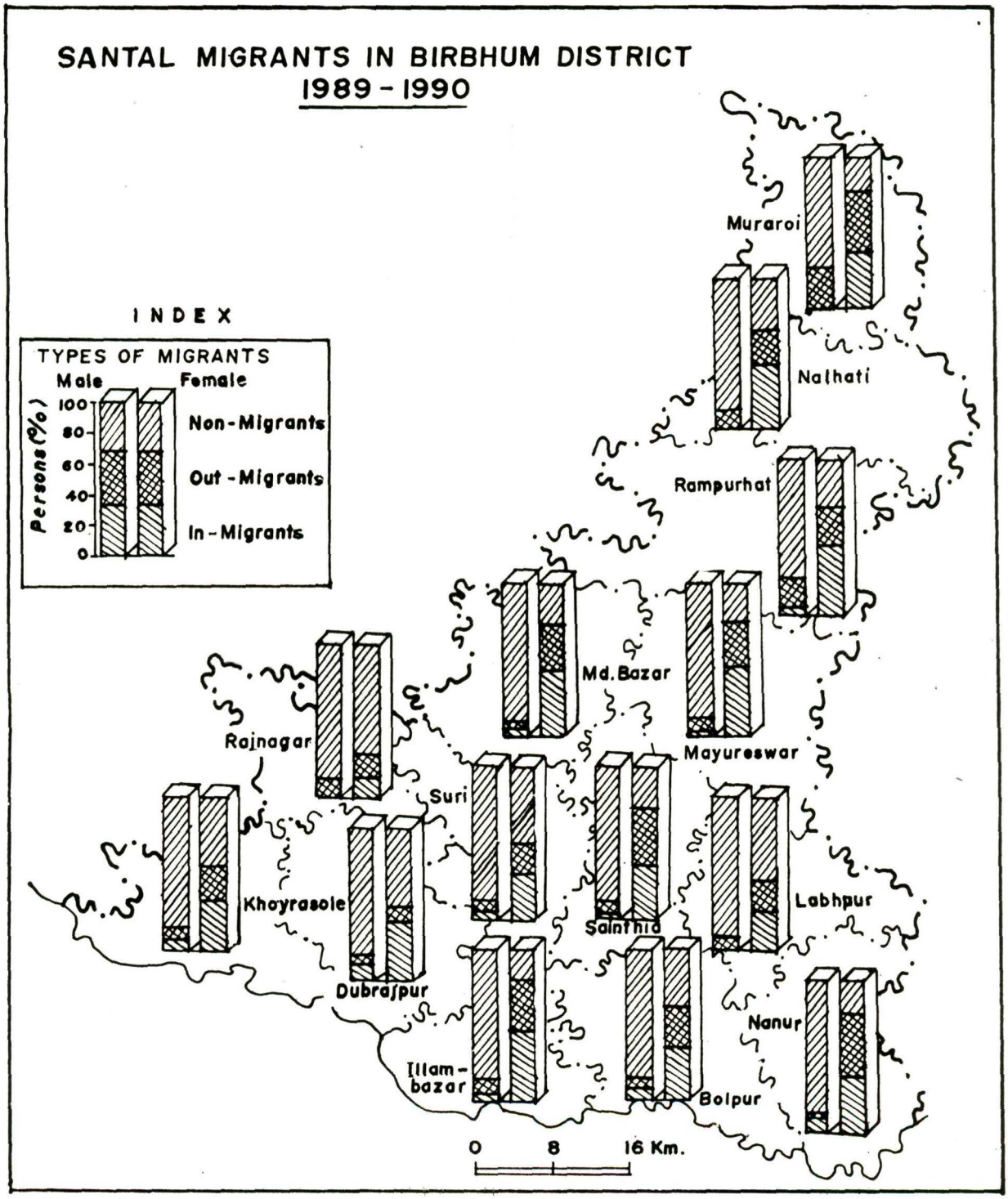
SANTAL MIGRANTS IN BIRBHUM DISTRICT
1989 - 1990
INDEX
TYPES OF MIGRANTS
Male
Female
Persons (%)
100
80
60
40
20
0
Non-Migrants
Out-Migrants
In-Migrants
Muraroi
Nalhati
Rampurhat
Md. Bazar
Mayureswar
Rajnagar
Suri
Khoyrasole
Dubrajpur
Sainthia
Labhpur
Illam-bazar
Bolpur
Nanur
0
8
16 Km.

FIG - 31

Reasons for Migration:

Every movement of population is associated with some definite reasons like economic, social, political and so on. The migration of the Santals of Bihar is due to (i) marriage, (ii) economic reasons, (iii) psychological and religious belief and (iv) other social and personal reasons (Verma, 1977)[30]. In the rural areas of Birbhum district, Santal migration is mainly associated with social reasons where both in and out-migration are predominated by the females and among whom the major percentage move in connection with marriage. Besides marriage, 'push' and 'pull' factors also play an important role in the process of migration. In the case of the rural Santal population, 'push' from the place of origin associated with low wage rate, unemployment and so on is a primary reason. The 'pull' from the place of destination includes employment opportunity, better wage rate together with better living amenities. On the other hand, indebtedness and poverty among the Santal people motivate them to migrate. Movement for education is very limited among the Santals. The movement of the younger age group is mainly associated with education but the majority of the Santal male children participate in the working force at their school-going age. In the case of female children, they are mainly engaged in household activities, the most important among which is as baby-sitters and looking after their younger brothers and sisters from the early school-going age when their parents spend the major part of the day

time at their places of work. Although there are tribal primary schools in their locality providing free education, most of the tribal children can not afford to attend the school in the absence of free time.

Marriage is the single most important reason for both the male and female in-migration among the Santals of Birbhum district (Table-41). In spite of being a patriarchal society, the in-migration of the Santal males occur due to marriage when (i) the bride has no brothers, (ii) the bride's brothers are minors and there is no working male member in the family, and (iii) the bride's father is a big farmer.

Table - 41

In-migration among the Santals in Birbhum district (in percentage), 1989-90.

	Causes of in-migration			
	Employment	Marriage	Education	Family and other social movement.
Males	16.1	71.0	10.3	2.6
Females	0.5	92.0	1.8	5.7

Source: Field Investigation

Besides marriage, employment is another important reason for male in-migration, though the number is very few. The economy of the villages where the Santals are

concentrated, is totally dependent on agriculture. Besides, the local Santals are mainly engaged as agricultural labourers and they move seasonally, temporarily or commute for job. In this situation the scope of employment is very limited in the rural areas. Thus, male in-migration for employment is very limited and it is almost absent in the case of the females. Except for marriage and employment, in-migration of the males takes place due to some social reasons or for movement of the family. Thus, when a person is transferred, his family also moves with him. As for example, in Bolpur police station a person engaged in police department was transferred from Bankura and he moved there with his family and started to live permanently. Another case was found in Md.Bazar where a bank guard came on transfer from Midnapur and settled down with his family. Further, availability of place for constituting residential houses and division of family also give rise to in-migration.

Out-migration is again predominated by the females where marriage is the major reason for movement (Table-42) and employment is the major reason for male out-migration constituting about 71.1 per cent when 9.1 per cent of the females also moved for employment. Agriculture is the main occupation of the rural tribal people but this activity can not provide them with employment throughout the year since being rain-fed, agricultural activities cease altogether

Table - 42

Out-migration among the Santals of Birbhum district, 1989-90 (in percentage)

	Causes of migration			
	Education	Employment	Marriage	Family and other social movement
Males	2.4	71.1	9.2	7.3
Females	0.8	9.1	85.1	5.0

Source : Field Investigation

with the ceasation of monsoon. The resulting high land-man ratio is another cause of out-migration. These two factors force them to move outside the village for earning. Thus, the sowing and harvesting periods find the excess labour from the rural areas moving temporarily or seasonally to their neighbouring areas as agricultural labour. Besides, opportunities available in constructional works also give rise to movement. As for example, the construction of the 'Bakreswar Thermal Power Station' and similar works in Dubrajpur pull many people away from Suri, Rajnagar, and Dubrajpur police stations. In contrast, the male out-migration in connection with services is very few. The availability of services influence the movement giving rise to seasonal and temporary movements.

Permanent migration occurs mainly by marriage in the case of females (85.1%) and also in the case of

males (12.2%). Because of patrilineality, female migration by marriage is more than that of the males. But permanent migration among the males is primarily associated with service and available opportunities in the urban areas. A good number of people migrating to job-locations, however, maintain regular contact with their native villages as they keep their families in them either to avoid the high cost of living in the urban areas or to look after their little land in the native villages.

It has already been mentioned that migration for education is negligible among the Santals of Birbhum district. Only 2.4 per cent males and 0.8 per cent females migrate for higher education since in the tribal areas there is no facility for getting higher education. There are, however, a few junior high schools in tribal villages. Among them some are in Nagari of Suri P.S., Nirbhoypur in Md.Bazar, Madhyamik (Secondary) schools in Rampurhat and some other places where they provide books and other reading materials, food and lodging free of cost. In spite of that a small percentage avail of these facilities because they do not find time to attend the school due to their participation in the working force from their early school-going age (Fig. 32).

Besides the above mentioned reasons for out-migration, there are different family reasons which force them to move from their ancestral residence, like family movement occurring mainly with the landless families who move for jobs. In the case of family getting divided, land needed

IN-MIGRATION AND OUT-MIGRATION FOR THE DIFFERENT CAUSES AMONG THE SANTALS OF BIRBHUM DISTRICT, 1989-90.

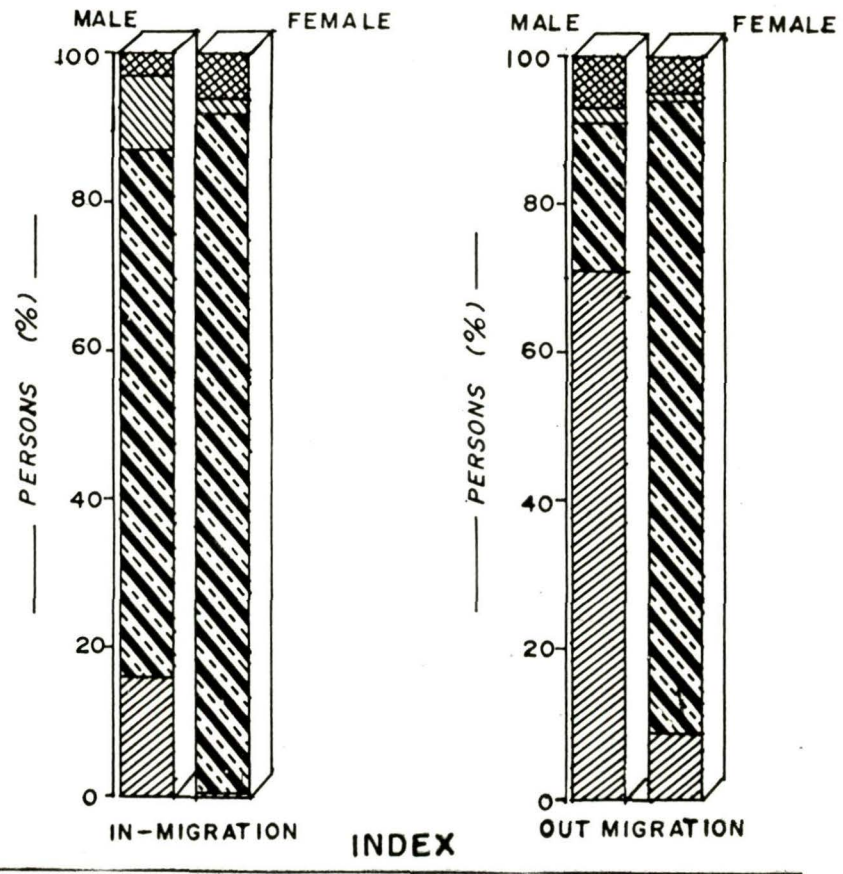

FIG-32

for the construction of residence falls short of the requirement of different members of the family which also forces them to move for a new destination.

Types of Migration:

Generally, three types of migration is common among the Santals of Birbhum district; (i) permanent, (ii) seasonal; and (iii) temporary. The in-migration in most of the cases is a permanent movement from other regions and this is mainly associated with social reasons like marriage and family movement. On the contrary, the other two types of movements (seasonal and temporary) are mainly associated with economic reasons like employment, that make a strong 'pull' factor which is totally absent in these villages. In the case of out-migration, permanent movement is predominant which is followed by temporary and seasonal movements (Tab.43). The data regarding migrations were collected personally through investigation. The temporal nature of the Santal movement in Birbhum district is closely associated with different factors, such as social factors (marriage and family movement) leading to permanent movement and economic factors (employment) giving rise to seasonal and temporary movements.

Male permanent out-migration appears to be the highest in Khoyrasole (100% of the migrants) and lowest in Rampurhat. In Md.Bazar, Dubrajpur and Bolpur, the percentage of male out-migrants varies from 50 per cent to 52 per cent and declines gradually from 25 per cent to 7 per cent

Table - 43

Males and females involved in out-migration in Birbhum district, 1989-90 (in percentage)

Police Stations	Types of Migration					
	Permanent		Temporary		Seasonal	
	Males	Females	Males	Females	Males	Females
Muraroi	-	50.0	-	-	100.0	50.0
Nalhati	-	50.0	-	-	100.0	50.0
Rampurhat	5.6	70.5	27.8	11.5	66.6	18.0
Mayureswar	22.7	85.9	22.7	-	54.6	14.1
Md.Bazar	50.0	95.1	50.0	4.9	-	-
Rajnagar	-	100.0	-	-	-	-
Khoyrasole	100.0	100.0	-	-	-	-
Dubrajpur	50.0	88.4	50.0	11.6	-	-
Suri	22.3	80.1	20.6	5.6	57.1	13.9
Illambazar	16.7	86.7	16.7	-	66.6	13.3
Sainthia	17.7	81.3	11.8	2.7	70.6	16.0
Bodpur	52.3	90.9	4.8	-	42.9	9.1
Labhpur	25.0	100.0	-	-	75.0	-
Nanur	-	100.0	100.0	-	-	-

Source : Field Investigation

in Mayureswar, Suri, Illambazar, Sainthia and Labhpur police stations. The remaining police stations recorded no male out-migration. In comparison, the percentage of female out-migration is more for each police station. In Rajnagar, Khoyrasole,

Labhpur and Nanur the percentage of females involved in permanent migration is 100 per cent of the total migrants. Muraroi and Nalhati have a record of 50 per cent and it varies from 70 per cent to 95 per cent in the remaining police stations.

The picture of seasonal migration as compared with that of permanent migration of the Santals is quite different. As for example, in Mayureswar, Md.Bazar, Rajnagar, Khoyrasole and Nanur seasonal migration is nil. It gradually increases in the police stations of the northern part of the district where 100 per cent of the male and 50 per cent of the female migrants in Muraroi and Nalhati are involved in this process. It varies from 57 per cent for the males and 9 per cent to 18 per cent for the females in the remaining police stations.

The seasonal migration is associated with the agricultural calendar, coinciding mainly with the sowing and harvesting periods. Both the seasonal and the temporary migrations are male dominated. The percentage of males taking part in temporary migration is double of that of the females. In Muraroi, Nalhati, Rajnagar, Khoyrasole, and Labhpur temporary migration is totally absent. In Rampurhat, M.Bazar, Dubrajpur, Suri and Sainthia only 3 per cent to 12 per cent females migrate temporarily. On the other hand, the percentage of male going out temporarily is the highest in Labhpur (100% of the migrant) and the lowest in Bolpur (4.8%). Md.Bazar

records 50 per cent male temporary migrants. In the remaining police stations it varies from 12 per cent to 29 per cent. The scope of temporary movement for the females is very largely associated with education, construction works, and services in the tertiary sector (Fig.33).

Place of Movement (Migration)

As mentioned earlier a good number of the Santals have in-migrated into this district since the early eighteenth century and the entire western part of this district was under the Santal dominated part (Jungle Mahal) of the adjoining Bihar state till early nineteenth century. At present, inter-state migration is confined to Bihar only, from where the proportional share of male-migration is high (Table-44). Employment is the major reason for male in-migration whereas marriage is for the females. The scope of employment, particularly in the agricultural activities influences male in-migration. The Santal in-migration mainly occurs within the district where the movement between the police stations is a common feature for both the males and the females. Marriage, the single major reason for immigration, generally takes place within a short

Table - 44

Place of movement in out-migration and in-migration, 1989-90(in percentage)

	Inter-state		Inter-district		Intra-dist. (Inter-P.S.)	
	Male	Female	Male	Female	Male	Female
In-migration	32.2	8.3	4.6	0.7	63.2	91.0
Out-migration	2.4	0.4	53.7	6.6	43.9	93.0

Source: Field Investigation

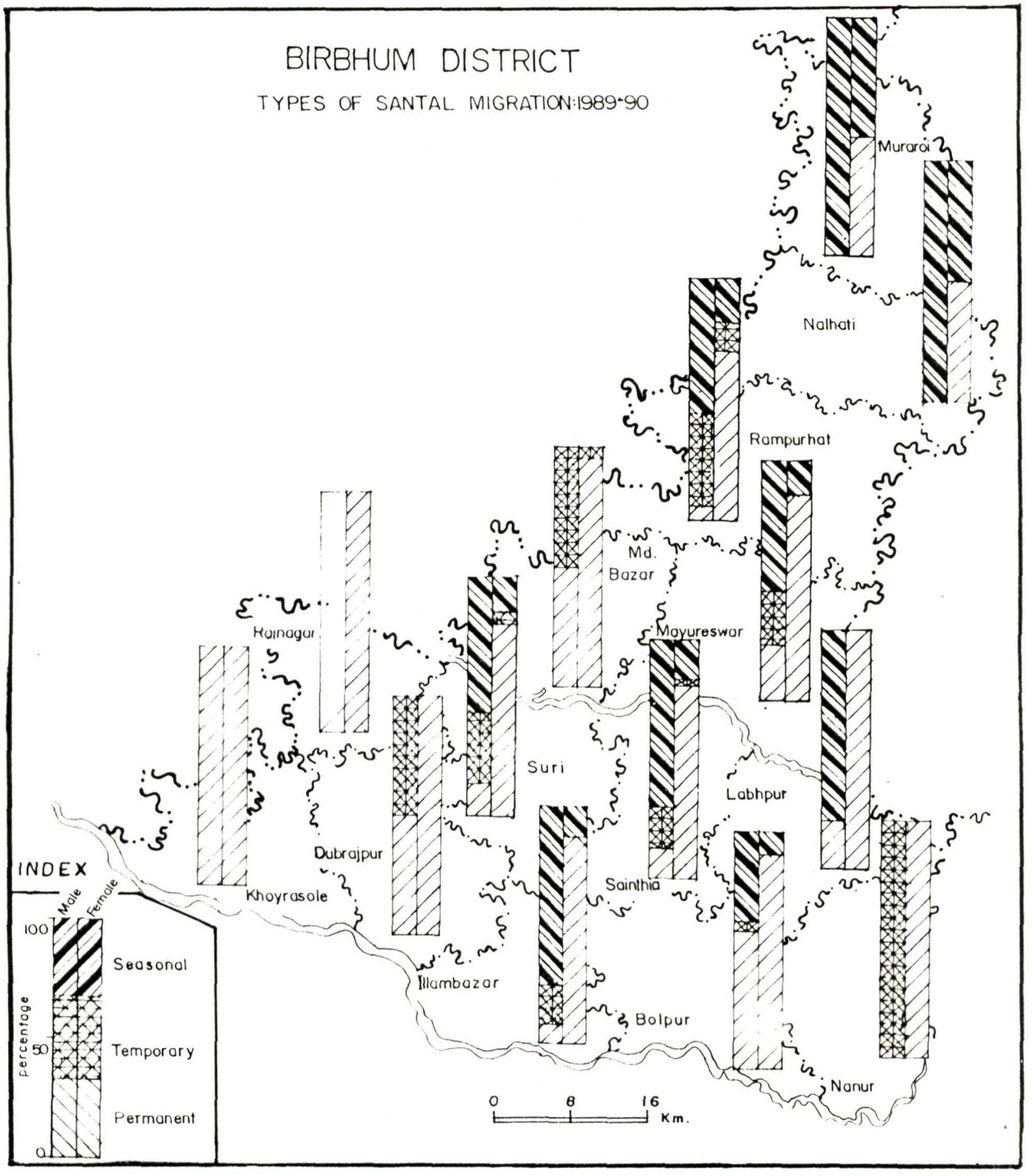
BIRBHUM DISTRICT
TYPES OF SANTAL MIGRATION:1989-90
Murarai
Nalhati
Rampurhat
Md. Bazar
Mayureswar
Rajnagar
Suri
Labhpur
Dubrajpur
Sainthia
Khoyrasole
Illambazar
Bolpur
Nanur
INDEX
Male
Female
100
50
0
percentage
Seasonal
Temporary
Permanent
0
8
16
Km.

FIG - 33

distance either between villages or between police stations. Inter-district movement is very limited and mainly restricted to bordering villages of the neighbouring districts. Most of the Santal in-migration takes place in the rural areas where the lack of economic support, improvement of transport and some of the social factors like breaking up of the families etc., compel them to seek for new homes.

Out-migration is mainly confined within the district and it is very limited across and beyond the state. Majority of the male migrants move towards the neighbouring districts like Bardhaman, Murshidabad etc. Majority of them move seasonally in search of jobs in the agricultural sector. In this connection they move towards the agriculturally advanced areas or where shortage of labour is very acute. Temporary movement for secondary and tertiary activities takes them mainly to the urban areas, such as the towns of the districts of Birbhum, Bardhaman and Bankura and even Calcutta. On the other hand, the females move permanently after the marriage and this is mainly restricted within the district.

Thus, social as well as economic reasons are the primary factors leading to migration of which apart from marriage, in the case of females, economic opportunities in the absence of year-round employment in the rural areas become the most dominant factor for migration.

II. COMMUTATION

Commutation is the daily movement of people from the place of origin to the place of work. Among the Santals

in this district, commutation is more in volume than migration. In the rural areas of Birbhum district, the Santal commutation occurs mainly in the form of inter-village labour movement for agricultural activities. At present rural to urban movement is also common for non-agricultural activities due to the increasing pressure on land, and low wage in rural areas. The question of labour movement occurs when the home village is unable to provide them with jobs throughout the year. A part of the surplus labour force migrates and another major part commutes to their local surroundings (Both rural and urban areas). The volume of such daily movement varies seasonally. A section of the Santal labour force engaged in agricultural activities in their home village and commutes for non-agricultural occupation during the pre-monsoon and post-harvesting period. And the rest of these surplus Santal labour force commutes for getting engagement in sowing and harvesting in the surrounding villages and at the same time they commute in other parts of the year for non-agricultural activities found mainly in local towns or the nearest larger villages. Thus, the volume of commuters increase during the pre- and post-cultivation (mainly paddy) period when the demand for labour (both agricultural and non-agricultural) within the village is very limited. A very small section of the Santal labour force also commutes throughout the year and they are mainly engaged in the service sector. The village did not receive a single commuter from outside as these Santal inhabited villages are always surplus in labour.

The Santal movement in the rural areas of Birbhum districts is predominated by commuters which alone share 44.9 per cent of the total population and the comparative figure is only 17.3 per cent in case of migration. The proportional share of commuters is comparatively low, less than 40 per cent in Muraroi and Nalhati. Sainthia has the highest percentage of male commuters, comprising 63 per cent because of less employment opportunity at the place of origin and good communication system with other districts by bus and rail. Rest of the police stations record 41 to 60 per cent of the male commuters (table-45) . In case of female commuters the highest percentage of females is recorded in Sainthia (49.2%) and the lowest in Bolpur. Except Md.Bazar and Dubrajpur, the remaining police stations recorded 24 per cent to 40 per cent female commuters. Like migration, commutation is also age and sex selective where majority of the males belong to the age group of 16-25 years and females also in the same age group is high in percentage. After 30 years of age , it starts to decline. The commuters are naturally dominated by males (table-46). The lower participation of females in commutation is associated with (i) lack of service opportunity for the females and (ii) engagement in agricultural activities at home is more. The demand for non-agricultural activities is very limited in the rural surroundings and long distance daily movement for a Santal housewife is not always possible. In general, the percentage of commuters decreases

Table - 45

Male and female commuters among the Santals of Birbhum district, 1989-90 (in percentage)

Police Stations	Commuters to total population	
	Males	Females
Muraroi	38.9	31.6
Nalhati	39.4	34.9
Rampurhat	49.0	24.8
Mayureswar	53.1	40.1
Md.Bazar	54.9	47.8
Rajnagar	58.8	36.8
Khoyrasole	53.9	38.9
Dubrajpur	53.9	41.7
Suri	56.0	42.2
Illambazar	52.3	34.6
Sainthia	63.1	49.2
Bolpur	55.9	23.5
Labhpur	41.7	36.2
Nanur	57.1	37.5

Source : Field Investigation

with increasing age (Fig.34).

Causes of Commutation: It has already been mentioned earlier that majority of the Santal commuters are engaged

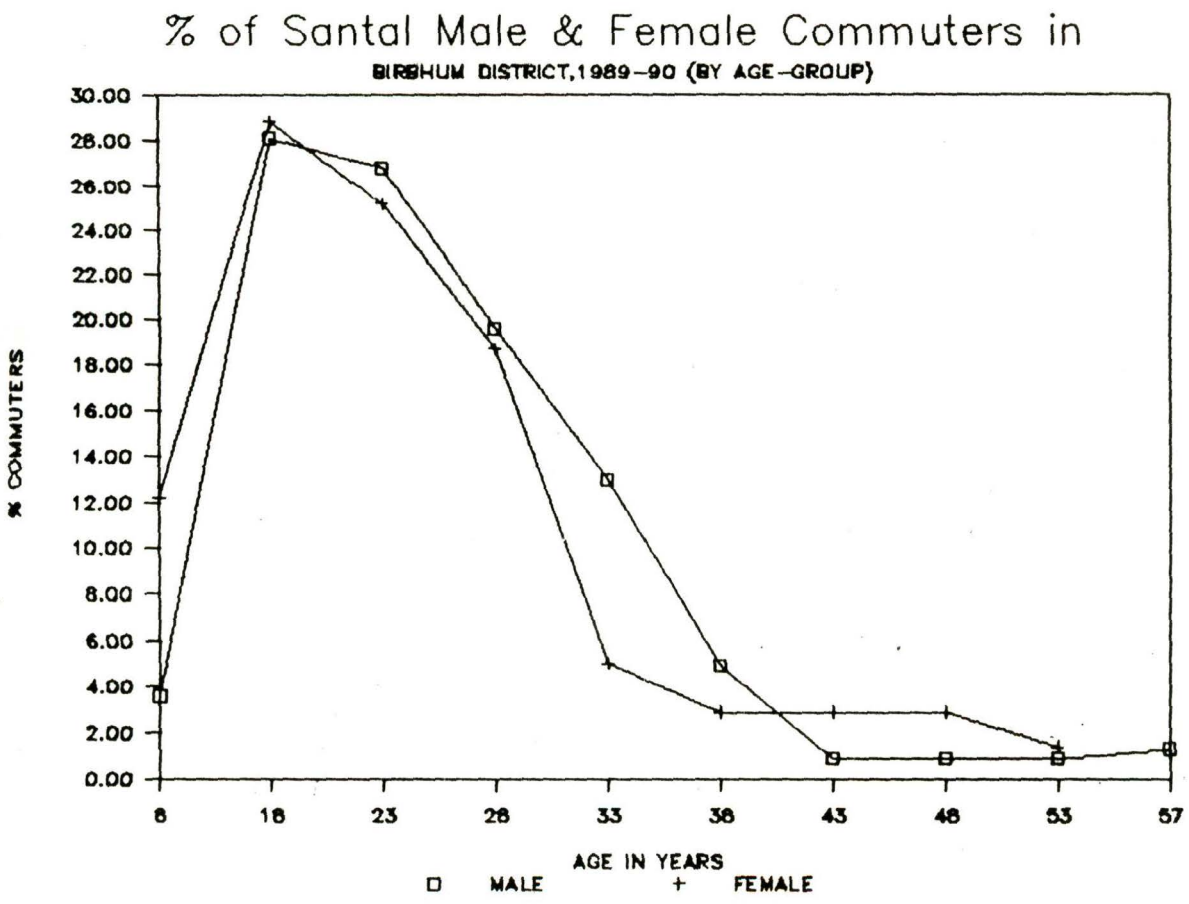
% of Santal Male & Female Commuters in
BIRBHUM DISTRICT, 1989-90 (BY AGE-GROUP)
% COMMUTERS
30.00
28.00
26.00
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
8
18
23
28
33
38
43
48
53
57
AGE IN YEARS
MALE
FEMALE

FIG - 34

Table - 46

Male and female commuters among the Santals in different age groups in Birbhum district (in percentage), 1989-90.

Age Group (in years)	Males	Females
Upto 15	3.6	12.2
16 - 20	28.1	28.8
21 - 25	26.8	25.2
26 - 30	19.6	18.7
31 - 35	13.0	5.0
36 - 40	4.9	2.9
41 - 45	0.9	2.9
46 - 50	0.9	2.9
51 - 55	0.9	1.4
above 55	1.3	-

Source : Field Investigation

as agricultural labourers which is followed by occupations like quarrying, industrial activities (as labour in factory and mill), constructional works and engagement in the service sector (table-47).

About 55 to 80 per cent of male commuters are engaged as agricultural labourers and the corresponding figure varies between 40 to 86 per cent in the case of females.

Table - 47

Male and female commuters in different occupation category in Birbhum district (in %), 1989-90

Police Stations	Agriculture		Quarry		Industry		Construction		Services	
	Males	Fem.	Males	Fem.	Males	Fem.	Males	Fem	Males	Fem
Muraroi	71.4	80.0					28.6	20.0	-	-
Nalhati	61.5	61.9					30.8	28.6	7.7	9.5
Rampurhat	55.6	51.0	13.3	20.4	6.7	4.1	11.1	16.3	13.3	8.2
Mayureswar	81.7	80.6			2.3	3.2	11.5	10.8	4.5	5.4
Md.Bazar	69.8	66.2	11.6	12.9			11.6	16.1	7.0	4.8
Rajnagar	80.0	76.2			10.0	19.0	-	-	10.0	4.8
Khoyrasole	71.4	85.7					28.6	14.3	-	-
Dubrajpur	54.1	66.6			10.8	6.7	21.6	16.7	13.5	10.0
Suri	76.3	74.0					12.2	19.5	11.5	6.5
Illambazar	70.2	53.6					17.5	25.0	12.3	21.4
Saiithia	71.9	73.6			7.4	2.3	14.8	17.2	5.9	6.9
Bolpur	60.6	45.0			3.0	21.4	30.3	20.3	6.1	13.3
Labhpur	70.0	82.4					25.0	17.6	5.0	-
Nanur	90.0	77.8					10.0	22.2	-	-

Source: Field Investigation

Previously the major occupation of the Santal commuters in Birbhum district was mostly restricted to the agricultural activities but during the recent period they have started commuting for a wider variety of activities. Increasing pressure on land

on the one hand and development in the local transportation facilities along with shrinking employment opportunities on the other have jointly contributed to the increase in the number of commuters in the non-agricultural sector opportunities in which are mainly available in and around the local towns or the urban areas. Thus, even at present the majority of the Santal labour force is engaged in agricultural activities and those who commute as agricultural labourer or for engagement in other activities, do it mainly in the non-cultivation period. On the whole, about 10 per cent to 31 per cent of the male commuters move for constructional works and the corresponding figure is high in the case of females in some police stations like Rampurhat, Md.Bazar, Suri, Sainthia and Nanur (Table-47). The demand for Santal labour is mainly found in road and construction work and there is a high demand for both male and female labour in their local surroundings where employment in constructional works is available during the pre-monsoon and post-harvest period when they are totally jobless in their own villages. It may be noted that the percentage of commuters among the females is more than the males in quarries which provide job most of the year. Only two police stations such as Rampurhat (13.3 per cent males and 20.4 per cent females) and Md.Bazar (11.6 per cent males and 12.9 per cent females) provide this occupation. Besides, a number of commuters move throughout the year for service in the organised sector (service sector). They are the most affluent persons in their community

in some places. Apart from their permanent income in service, they also hold cultivable land. Other than the organised service sector, a number of commuters are engaged in mills and factories, the latter including the sugar and oil mills in Sainthia; rice mills and brick factories in Bolpur and Rampurhat, carpentry and brick factory in Mayureswar; cotton mill, bag and bulb making factories and sisal farm in Rajnagar and Dubrajpur police stations (Fig.35).

Destination:

The spatial extent of commutation is influenced by the high land-man ratio, the nature of jobs, the transport facilities and the cost of movement. It has been mentioned earlier that the Santals are mainly concentrated in the western part of the district. They are segregated in certain localities as the dominant caste based, Hindu communities keep them isolated within the village. Each cluster serves as a major source of labour force. The daily movement for agricultural activities generally does not exceed 4 km to 6 km though in some cases it may be more than that from the place of residence. In the case of non-agricultural activities they move farther away from their residence as most of these occupations are available at distant places, mostly in the urban areas. The surface transportation facilities increase the distance of such movement and at the same time they can afford transport cost with better wages which they earn in such occupations.

The distance of daily movement reaches a maximum of 8 km going sometimes far beyond the district boundary

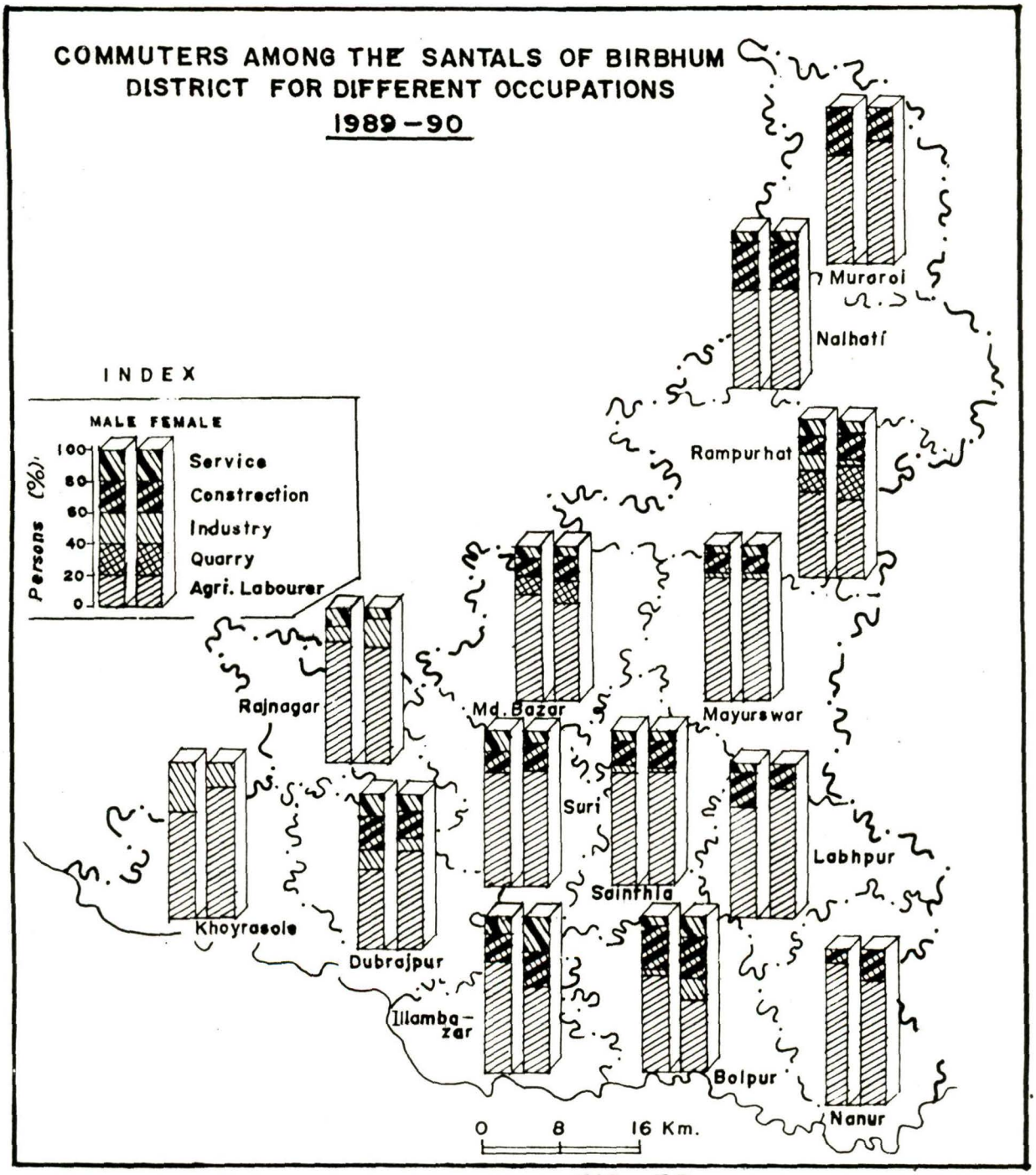
COMMUTERS AMONG THE SANTALS OF BIRBHUM DISTRICT FOR DIFFERENT OCCUPATIONS
1989 – 90
INDEX
MALE FEMALE
Persons (%)
100
80
60
40
20
0
Service
Construction
Industry
Quarry
Agri. Labourer
Murarai
Nalhati
Rampurhat
Rajnagar
Md. Bazar
Mayurswar
Suri
Labhpur
Sainthia
Khoyrasole
Dubrajpur
Illamba-zar
Bolpur
Nanur
0
8
16 Km.

FIG - 35

in the case of service sector as they can afford time and cost of movement by virtue of the nature of employment. As for example, in Bolpur police station a person who is engaged in a Bank as a Deputy Manager, commutes daily to Durgapur in Bardhaman district which takes more time and a high transportation cost. The figure shows that the Santals hired in the border villages of this district, commute to the nearest district of Bardhaman and Murshidabad and the adjacent state of Bihar (Fig.36).

Commutation among the Santal population in this district mainly occurs for employment. In this case they commute to the surrounding villages, neighbouring districts and beyond the state. Because of the increase of population, all of them can not be absorbed at the place of their origin, which results in commutation.