

The Semsá

—A Bio-Demographic Study

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Harrison and Boyce (1972) have defined demographic structure as "Patterns of fertility and mortality, emigration and immigration and the effects of these on age and sex composition". In the present chapter we shall discuss about the demographic structure of the Semsá of Semkhor village in the North Cachar Hills District of Assam, India.

The Semsá is a small isolated population, whose members are restricted only in one village, known as Semkhor. Danda and Ghatak (1985) have suggested that though the Semsá are an offshoot of the Dimasá, they have been maintaining their cultural isolation for more than two hundred years. Regarding the origin of the Semkhor village, there are two different versions : (1) Some of the Dimasá people from the nearby villages came to Semkhor and by accident of their luck they came across five saline pits in the village and finally settled there. (2) A section of the Dimasá people took shelter in this village during the Kachari king's encounter with the Ahom king, and they finally settled in this village. However, the Semkhor village, situated in the hills of Barail range and covering an area of 406 hectares between 93.15'E and 93.22'6"E latitude and 25.20'N and 25.15'27"N longitude, is bounded by hills and rivers from all sides. The main river is Langting, which has many tributaries such as Seling, Phara, Wami, etc. (District Handbook of United Mikir and North Cachar Hills, 1972).

In Semkhor there were five saline pits (*Semdikhor*), but at present there are only three in usable condition. The name of this village has been derived from these natural saline pits. This village is considered to be one of the oldest villages in the district (Danda and Ghatak, 1985).

The marriage rule among the Semsas is strictly guided by the principle of double descent system and village endogamy (Danda and Ghatak, 1985). Among them they had initially seven patrilineal clans, but now they are having only five patrilineal clans, along with sixteen matrilineal clans. The Semsas do not have any marital relation with the Dimasas or with any other neighbouring populations like the Zemi Naga, Kuki, Hmar, etc., though they have still been maintaining some of the traditional cultural traits of the Dimasas, including the language, which belongs to the Tibeto-Burman linguistic family (Danda, 1978). In spite of the fact that the present day Semsas are still nurturing the Dimasa culture to a great extent, they have got completely separated from the Dimasas and have been maintaining their separate ethnic identity. Ghosh and Dasgupta (1991) have suggested that the Semsas broke up all their relations with their parental group Dimasas with a view to protecting their ecological interest. Perhaps they never wanted to share those saline pits with any member, not even with the Dimasas, and that eventually led to complete isolation.

The Semsas are mostly engaged in shifting and settled cultivation, though some of them also earn their livelihood through various types of activities like weaving, basket making, etc. However, they are largely dependant on forest for their survival. Among them both sexes take equal responsibility in productive system, and there is no differential treatment in terms of payment between sexes. The other point to be noted here is that the entire community forest is divided among the different patrilineal clans, and each of them is aware of the fact that which part of the village belongs to which clan.

The literacy level among the Semsas is very low. It is true that the village has a primary school, but rarely any student attends that school. So it seems that to the Semsas formal education appears meaningless. In Semkhor there is no medical facility, and consequently, the Semsas people have

to go for medical treatment to the Maibang hospital, which is about 30 km. away from the village.

Material and Methods

The present study was carried out in three different phases between July, 1991 and February, 1995. Demographic data, which were collected in the first and second phases of the field work between July, 1991 and September, 1992, were not only rechecked but also made up-to-date in the third phase of field work between December, 1994 and February, 1995.

For collection of demographic data a complete enumeration of the village Semkhor was done, after establishing a close rapport with the people of the village, through indepth interview with each of the married women and each head of the household, using structured schedules. An attempt was made as far as possible to collect those demographic data recommended by the World Health Organisation (1964, 1968). Special attention was made to get accurate information on mating patterns, pregnancy records of each married woman, consanguineous relationship between couples before their marriage, if any. In order to check all demographic information, including consanguineous marriages, several genealogies were drawn for the entire community. However, certain difficulties were experienced in the collection of data on the age of persons, particularly those elderly ones, as they were not aware of their real age. Under such circumstances, we had no alternative but to estimate the age of many persons with reference to some important local events. Consequently, some amount of error might have occurred in the age estimation.

Results

The Sema form one isolated, endogamous unit, and all marriages are restricted among themselves. Table 10.1 shows the entire population according to age, sex and marital status.

The total population in this village is 838 of which 418 (49.88%) are males and 420 (50.12%) females. The overall sex ratio is 1 : 1.005, which is very near to the ideal sex ratio of 1 : 1. Of all males, it is found that about 55.98 per cent, 38.28 per cent and 5.74 per cent are unmarried, married and widowed/divorced respectively. In case of females these are 52.86 per cent 38.10 per cent and 9.05 per cent respectively.

Taking both sexes together, it is found that 54.42 per cent of all individuals are unmarried, whereas 38.19 per cent and 7.40 per cent are married and widowed/divorced respectively. It is found that no individual after the age of 24 years remains unmarried, excepting one male and four females. Of these five individuals one male and one female are mentally retarded and the other three females are physically handicapped. It is further apparent from Table 10.1 that most of the marriages in this population have taken place between 15 and 24 years of age. It holds good for both sexes. The mean age at marriage for females is found to be 18.42 ± 0.17 years and that for males 22.11 ± 0.18 years. In this population 20.14 per cent of males and 19.33 per cent of females belong to the pre-reproductive age group (0 - 14 years), whereas 20.70 per cent of males and 26.13 per cent of females are in the reproductive age group (15 - 49 years) and 4.77 per cent of males and 4.65 per cent of females are in the post-reproductive age group (50 + years). According to Sundbarg's classification of population, based on age groups (Datta, 1972), the Semsapopulation seem to be of progressive type.

As mentioned earlier, the overall sex ratio in this population is 1 : 1.005. But the sex ratio in the pre-reproductive period is 1 : 0.95, which indicates that number of males is slightly more than that of females. The sex-ratio in the reproductive age group is found to be 1 : 1.06, indicating that male mortality is slightly higher than female mortality in earlier age group. But in the post-reproductive period the sex ratio is slightly tilted in favour of males (1 : 0.98). It indicates that average longevity is slightly higher in males than in females.

A diagrammatic distribution of the population by age group (Fig. 10.1) indicates that the population base in recent time is quite shrunken, and it has perhaps happened due to high infant and child mortality.

It is found that the mean age at first child birth in case of females is 20.58 ± 0.24 years and that in case of males is 24.59 ± 0.29 years. It may be noted that it is always very difficult to classify any human population into generations, since generations are overlapping. In the present analysis to classify the population into various generations we have

followed the method, suggested by Glass (1956). The mean age at first child-birth, taking both sexes together, becomes 22.59 years, and consequently the length of a generation has been taken as 23 years.

Table 10.1
Population by Age, Sex and Marital Status

Age Group (Years)	Unmarried		Married		Divorced/Widowed		Total	
	M	F	M	F	M	F	M	F
<1	10 (1.19)	17 (2.03)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	10 (1.19)	17 (2.03)
1-4	41 (4.89)	42 (5.01)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	41 (4.89)	42 (5.01)
5-9	75 (8.95)	58 (6.92)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	75 (8.95)	58 (6.92)
10-14	45 (5.37)	45 (5.37)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	45 (5.37)	45 (5.37)
0-14	171 (20.41)	162 (19.33)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	171 (20.41)	162 (19.33)
	S.R=1 : 0.95							
15-19	40 (4.77)	42 (5.01)	3 (0.36)	14 (1.67)	0 (0.00)	0 (0.00)	43 (5.13)	56 (6.68)
20-24	22 (2.63)	14 (1.67)	19 (2.27)	24 (2.86)	1 (0.12)	1 (0.12)	42 (5.01)	39 (4.65)
25-29	0 (0.00)	3 (0.36)	21 (2.51)	24 (2.86)	0 (0.00)	4 (0.48)	21 (2.51)	31 (3.70)
30-34	1 (0.12)	0 (0.00)	20 (2.39)	23 (2.74)	2 (0.24)	1 (0.12)	23 (2.74)	24 (2.86)
35-39	0 (0.00)	1 (0.12)	24 (2.86)	24 (2.86)	2 (0.24)	3 (0.36)	26 (3.10)	28 (3.34)
40-44	0 (0.00)	0 (0.00)	25 (2.98)	21 (2.51)	3 (0.36)	2 (0.24)	28 (3.34)	23 (2.74)
45-49	0 (0.00)	0 (0.00)	18 (2.15)	11 (1.31)	6 (0.72)	7 (0.84)	24 (2.86)	18 (2.15)
15-49	63 (7.52)	60 (7.16)	130 (15.51)	141 (16.83)	14 (1.67)	18 (2.15)	207 (24.70)	219 (26.13)
	S.R. = 1 ; 1.06							
50-54	0 (0.00)	0 (0.00)	10 (1.19)	5 (0.60)	2 (0.24)	5 (0.60)	12 (1.43)	10 (1.19)
55-59	0 (0.00)	0 (0.00)	10 (1.19)	8 (0.95)	0 (0.00)	4 (0.48)	10 (1.19)	12 (1.43)
60-64	0 (0.00)	0 (0.00)	6 (0.72)	5 (0.60)	4 (0.48)	2 (0.24)	10 (1.19)	7 (0.84)
65-69	0 (0.00)	0 (0.00)	3 (0.36)	0 (0.00)	3 (0.36)	4 (0.48)	6 (0.72)	4 (0.48)

(contd...)

Age Group (Years)	Unmarried		Married		Divorced/Widowed		Total	
	M	F	M	F	M	F	M	F
70+	0 (0.00)	0 (0.00)	1 (0.12)	1 (0.12)	1 (0.12)	5 (0.60)	2 (0.24)	6 (0.72)
50+	0 (0.00)	0 (0.00)	30 (3.58)	19 (2.27)	10 (1.19)	20 (2.39)	40 (4.77)	39 (4.65)
S.R. = 1 : 0.98								
Total	234 (55.98)	222 (52.86)	160 (38.28)	160 (38.10)	24 (5.74)	38 (9.05)	418	420
Grand Total	456 (54.42)		320 (38.19)		62 (7.40)		838 (100)	
S.R. = 1 : 1.005								

Figures in parantheses indicates percentage.

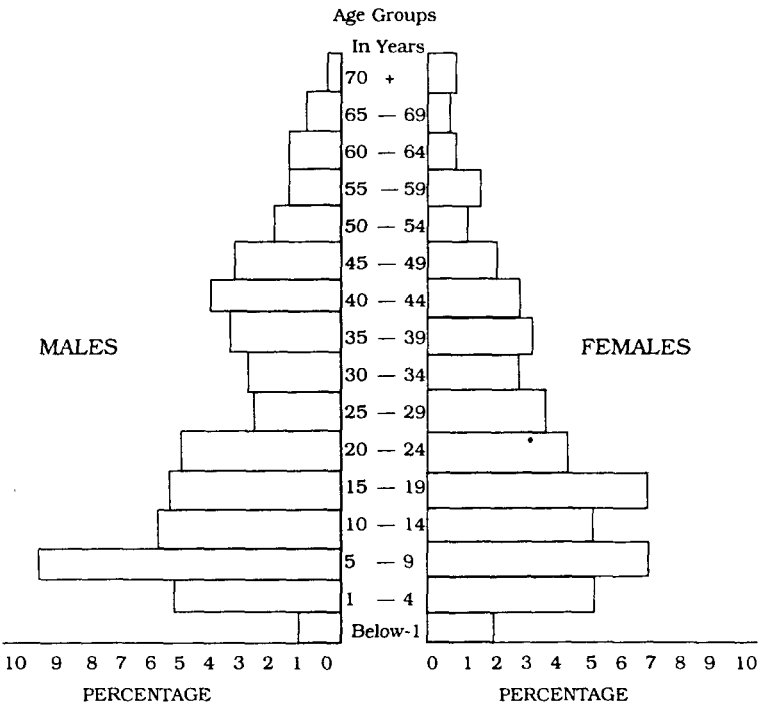


FIG. 10.1 : POPULATION PYRAMID

Table 10.2

Multiple Marriages by Age of Spouses								
Individual Married	23 years		24-46 years		47+ years		Total	
	M	F	M	F	M	F	M	F
Once	17 (94.44)	33 (97.06)	100 (87.72)	104 (91.23)	42 (80.97)	40 (80.00)	159 (86.41)	177 (89.39)
2 times	1 (5.56)	1 (2.94)	12 (10.53)	10 (8.77)	10 (19.23)	10 (20.00)	23 (12.50)	21 (10.61)
3 times	-	-	1 (0.88)	-	-	-	1 (0.54)	-
More than 3 times	-	-	1 (0.88)	-	-	-	1 (0.54)	-
Total Multiple Marriages	1 (5.56)	1 (2.94)	14 (12.28)	10 (8.77)	10 (19.23)	10 (20.00)	25 (13.59)	21 (10.61)

Figures within parantheses indicates percentages.

Table 10.2 shows the frequency of multiple marriages by age of spouses. In the third generation (0 - 23 years) it is found that 5.56 per cent and 2.94 per cent of males and females respectively have married more than once. In the second generation (24 - 46 years) 10.53 per cent and 8.77 per cent of males and females respectively have married two times. In the same generation one man (0.88%) has married three times and another male individual (0.88%) has married more than three times. But no woman in this generation has been found to have married more than two times. In the first generation (47+years) 19.23 per cent and 20.00 per cent of males and females, respectively have married two times, but no individual has been found to have married more than two times. The table further reveals that about 12.04 per cent of the total married individuals have changed their mates. It is seen that the males have changed their mates more often than the females (male = 13.59% and female = 10.61%), though by using the binomial test of proportion no significant difference between males and females is noticed in respect of the frequency of changing mates ($T_1 = 0.0298$ and $T_2 = 0.0333$). The point to note here is that the frequency of "more than once married" individuals increases from lower to higher age groups (5.56%, 12.28% and 19.23% in males and 2.94%, 8.77% and 20.00% in females for age-groups 0 -

23, 24 - 46 and 47 + years respectively). So, it is apparent that as age advances, both males and females incline to change their mates.

Table 10.3
Fertility by Times of Marriage

No. of times married	No. of married women	Total pregnancies*			Total live-births**		
		No	Mean± S.E.	S.E.	No.	Mean± S.E.	S.E.
Once	177	794	4.49 ± 0.21	0.21	751	4.24 ± 0.21	0.21
More than once	21	104	4.95 ± 0.57	0.57	97	4.62 ± 0.54	0.54

*t = 0.77, p.>0.05 **t = 0.67, p.>0.05

Fertility performances of the women by times of marriage (Table 10.3) reveals that there are 177 women, who have married once, and 21 women, who have married more than once. In case of 'once married' women the mean number of pregnancy is found to be 4.49 ± 0.21 and that for the 'more than once married' women is 4.95 ± 0.57 . However, in respect of total number of pregnancy no significant difference is noticed between these two groups of women ($t = 0.77, p.>.05$). The mean number of live-births for the 'once married' and 'more than once married' women are 4.24 ± 0.21 and 4.62 ± 0.54 respectively. Between these two groups of women no significant difference is found in respect of total number of live births ($t = 0.67, p.>0.05$).

Table 10.4 shows completed family size among the Semsas. Only those women, who are aged 45 years and above and have lived continuously in wedlock till the attainment of 45 years, have been taken into consideration. There are 29 such mothers, who have had 218 live-births. The average number of live births per mother is found to be 7.52. It shows that completed family size is quite high among the Semsas. The average number of surviving offspring per such mother is 4.76.

The child-woman ratio i.e., the number of children under 5 years of age per 100 women aged 15 - 49 years, irrespective of marital status, has been found to be 50-23, which seems to be moderate.

Table 10.4

Completed Family Size

No. of mothers aged 45+ years	Total pregnancy	Live births			Average No. of live births per mother	Average No. of surviving offspring per mother
		Living	Dead	Total		
29	223	138	80	218*	7.52	4.56

* one twin birth

Table 10.5 shows that out of 198 married women, 16 (8.08%) have never experienced any pregnancy. It is seen that as age advances, the percentage of 'ever pregnant' women increases, and all of the 'never pregnant' women are still in the middle of their reproductive life.

Table 10.5

Ever-pregnant and Never-pregnant Married Women by Age

Age groups (years)	Ever-pregnant	Never-pregnant	Never-pregnant % of all
≤ - 23	25 (12.63)	9 (4.55)	26.47
24 - 33	47 (23.74)	6 (3.03)	11.32
34 - 43	50 (25.25)	1 (0.51)	1.96
44 +	60 (30.30)	-	-
Total	182	16	8.08

Figures in parentheses indicate percentage based on total number of married women.

Table 10.6 shows the frequencies of live births, surviving children and mortality by age of mothers. It is seen that there are 198 mothers, who had altogether 935 pregnancies, out of which 37 pregnancies have not yet been matured. It is also found that there are 3 mothers (one each belong to the age groups 24 - 33, 34 - 43 and 44 + years), who have delivered twins. Each of these twin births has been taken as one pregnancy.

It is seen that the average number of pregnancy per mother is 4.72. The average number of pregnancy per mother varies from 1.44 in the age-group ≥ 23 years to 6.33 in the age-group 44+ years. It indicates that the average number of pregnancy per mother increases as age of the mothers advances. Out of 848 livebirths (which include 3 twins and

for each twin two livebirths have been counted), 545 (64.27%) are still surviving, whereas 303 (35.73%) have already died. The overall average number of livebirths and surviving children per mother are found to be 4.21 and 2.75 respectively. The mortality rate, irrespective of age at the time of death, varies from 29.58 per cent in case of the mothers, aged 24 - 33 years to 40.69 per cent for the mothers, aged 44+ years.

Table 10.6

Livebirths, Surviving Children and Mortality by Age of Mothers.

Age Group (in years)	No.	Total No. of preg- nancy	Average No. of Pregnancy per mother	Live births####			% Survi- ving ####	Average live births	Mortality (Based on all live births)
				Living	Dead	Total			
-23 %	34	49*	1.44	23 (4.22)	13 (4.29)	36	63.89	1.06	36.11
24-33 %	53	180**	3.40	100 (18.35)	42 (13.86)	142	70.42	2.68	29.58
34-43 %	51	290***	5.69	183 (33.58)	84 (27.72)	267	68.54	5.24	31.46
44+ %	60	416****	6.93	239 (43.85)	164 (54.13)	403	59.31	6.72	40.69
Total %	198	935	4.72	545 (64.27)	303 (35.73)	848	64.27	4.28	35.73

* There are 7 women who are still pregnant.

** This age group includes 17 women who are still pregnant ; and also includes one twin pregnancy.

*** There are 13 women who are still pregnant and includes one twin pregnancy.

**** Includes one twin pregnancy.

***** Since the above pregnancies have not yet terminated, they have not been included in further analysis.

It is further observed that out of 898 pregnancies (excluding 37, which are yet to mature), 3.34 per cent have terminated into abortions and 2.56 per cent into still-births. Combining both, the frequency of reproductive wastages is 5.90 per cent of all pregnancies.

The frequency of child mortality is shown in Table 10.7. The frequency of mortality is highest (13.09%) in the age-group 1 - 4 years, which is followed by 5 - 9 years (8.96%), below 1 year (7.55%) and lowest in 10 - 14 years (2.00%). It is seen that the frequency of child mortality is highest (36.11%) in case of the mother aged below 24 years. However, the overall frequency of child mortality in the Semsra is found

to be 31.60 per cent of all live births. Combining both child mortality and reproductive wastage together, the total loss of potential offspring in the Sema amounts to 37.75 per cent, which is a very high figure for such a small population.

Table 10.7

Age of mothers (in years)	No. of mothers	Live births	Child mortality				Total Child mortality
			Below 1 year	1 - 4 yrs.	5 - 9 yrs.	10 - 14 yrs.	
-23	34	36 (4.25)	8 (12.50)	5 (4.50)	-	-	13 (36.11)
24 - 46	114	476 (56.13)	44 (68.75)	67 (60.36)	35 (46.05)	4 (23.53)	150 (31.51)
47+	50	336 (39.62)	12 (18.75)	39 (35.14)	41 (53.95)	13 (76.47)	105 (31.25)
Total	198	848	64 (7.55)	111 (13.09)	76 (8.96)	17 (2.00)	268 (31.60)

Figures within parantheses indicates percentages.

It is seen that in the Sema the age-specific fertility rate increases from the mothers, aged 15 - 19 years to the mothers, aged 30 - 34 years (Table 10.8). In this period it increases from 0.3939 to 1.3206 and thereafter it steeply decreases from 1.0374 in the age-group 35 - 39 years to 0.1228 in the age-group 45+ years. The total fertility rate (TFR) is found to be 6.0293, which seems to be fairly high.

Among the Sema it is seen that the frequency of consanguineous mating is 3.52 per cent. The average coefficient of inbreeding is found to be 0.0296166.

Table 10.8

Age Specific Fertility Rate			
Age groups (in years)	No. of married women	No. of live births	Age specific fertility
15 - 19	198	78	0.3939
20 - 24	184	219	1.1902
25 - 29	159	207	1.3019
30 - 34	131	173	1.3206
35 - 39	107	111	1.0374
40 - 44	80	53	0.6625
45+	57	7	0.1228
Total Fertility Rate			6.0293

The breeding size, effective population size, coefficient of breeding isolation and variance due to drift in the Semsas are shown in Table 10.9. It is seen that out of 838 individuals, only 316 or 37.71 per cent actually constitute the breeding size in this population. The effective population size is 205, which covers 24.46 per cent of the total population size or 64.87 per cent of the breeding size. Wright (1938, 1940) has shown that the differentiation due to drift depends upon the product of effective population size and migration rate ($N_e m$, where N_e = effective population size and m = migration). Among the Semsas there is not a single case of admixture since they strictly follow village endogamy. Consequently, the coefficient of breeding isolation ($N_e m$) in the Semsas becomes zero, which indicates that change due to genetic drift is very great.

Table 10.9

Breeding Size, Effective Population Size, Coefficient of Breeding Isolation and Variance Due to Drift

Population	Breeding size (N)	Effective population size (N_e)	Coefficient of breeding isolation	Variance due to drift ($\sigma^2 d_q$ where $q = 0.5$)
Semsa	316 (37.71%)	205 (24.46%)	0	0.0006098

Wright (1940) has suggested the following formula to calculate the variance due to random drift.

$$\sigma^2_{d_q} = \frac{q(1-q)}{2N_e}$$

where $\sigma^2_{d_q}$ = variance due to drift, q stands for the gene frequency

(here taken as 0.5) and N_e = effective population size. In the Semsas it is found that the variance due to genetic drift per generation is 0.0006098.

One of the most powerful evolutionary forces to bring about changes in the genetic make-up of a population is natural selection. In order to estimate the total selection intensity in the Semsas both the methods - one by Crow (1958) and the other modified one by Johnston and Kensinger (1971) have been used for the present purpose. The index of opportunity for natural selection and the demographic parameters used for its calculations are set out in Table 10.10. It is found

that the index of total selection intensity (I) according to Crow's formula is 0.6165 with its mortality (I_m) and fertility (I_f) components being 0.4717 and 0.0984 respectively. According to the modified method given by Johnston and Kensinger, the index of total selection intensity (I) is 0.6779 with its fertility (I_f), embryonic mortality (I_{me}) and child mortality (I_{mc}) components being 0.0984, 0.0380, and 0.4717 respectively. However, by using both the methods it is found that selection is acting on this population moderately and is operating more due to differential mortality than due to differential fertility.

Table 10.10
Index of Total Selection Intensity

1. Number of mothers aged 40 years and above	= 80
2. Total number of livebirths to women aged 40 years and above	= 521
3. Average number of livebirths per woman aged 40 years and above, \bar{X}	= 6.5125
4. Variance in the number of livebirths due to fertility, V_f	= 4.1748
5. Total number of prenatal deaths	= 17
6. Proportion of premature deaths, P_d	= 0.3205
7. Proportion of survivors, P_s	= 0.6795
8. Proportion of embryonic deaths (i.e., prenatal deaths), P_{de}	= 0.0366
9. Proportion of survivors to birth, P_b	= 0.9634
10. Index of selection due to infant mortality, I_m	= 0.4717
11. Index of selection due to embryonic (prenatal) mortality, I_{me}	= 0.0380
12. Index of selection due to fertility, I_f	= 0.0984
13. Crow's index of total selection intensity, I	= 0.6165
14. Johnston and Kensinger's index of total selection intensity, I	= 0.6779

Discussion

On the basis of demographic structure with patterns of subsistence, ecological adoption and social organisation, Salzano (1972) and Perez Dier and Salzano (1978), in order

to classify the American Indian tribes, have suggested that there are three stages of evolution: "Stage A would be represented by hunters and gatherers with incipient agriculture; Stage B by more advanced agriculturists and fishers; and Stage C by pastoralists and populations living in densely inhabited areas as well as industrialised centres". Taking this classification into consideration it seems that the Semsas as a community belong to the Stage B since they are mainly agriculturists and relatively isolated. Such relative isolation of the group must have encouraged local endogamy to the fullest extent. Whatever may be the reasons (s) for the Semsas to get themselves completely separated from their parental group Dimasas, it is true that at present they have emerged as an isolated group — both culturally and biologically.

The data presented here show that the Semsas appear to be of progressive type. The overall sex ratio is found to be very near to the ideal sex ratio of 1 : 1, though it is slightly tilted in favour of females. It is also observed that male mortality is higher than female mortality, though the average longevity is slightly more in case of males than in case of females.

In the Semsas it is seen that marriage is by and large stable since the frequency of 'more than once married' individuals is only 12.04 per cent. But in the Kota of Nilgiri Hills (Ghosh, 1976) this frequency is as high as 29.00 per cent and in the North Pahira, South Pahira - I, and South Pahira - II (Basu, 1969) this is 19.61 per cent, 23.01 per cent and 23.88 per cent respectively. In this connection it may be recalled what Danda and Ghatak (1985) have said, "possibility of remarriage of widow and widower is not much. Normally a widower marries a widow But it mostly happens that widows always do not get chance of remarriage because of non-availability of suitable widower who may be compatible to her age....".

Among the Semsas the marriage is strictly guided by the principle of double descent system and village endogamy. In the present study no violation to either the double descent system or village endogamy has been detected. So, it can be said with confidence that to the fullest possible extent the Semsas are an isolated population both culturally and biologically.

Considering both mean number of livebirths and completed family size it seems that the fertility rate in the Semsá is high. Compared to the Kota (Ghosh, 1976) fertility of the Semsá is certainly high. But in comparison with a number of other populations (Roberts, 1956 ; Basu, 1969 ; Khongsdier, 1992, 1993; Deka, 1989; Eaton and Mayer, 1953) fertility of the Semsá is not so high. If the child-woman ratio is taken into consideration, it is found to be lower in the Semsá than in the Pahira (Basu, 1969), Kota (Ghosh, 1976), War Khasi (Khongsdier, 1993), Pnar (Khongsdier, 1992), Dinka (Roberts, 1956) and Hutterites (Eaton and Mayer, 1953). The reason for such low value of child-woman ratio in the Semsá is due to the fact that the infant mortality rate is more than 20.00 per cent in this population.

In the Semsá the overall mortality rate is about 35.73 per cent, but the child mortality rate is about 31.60 per cent. Compared to the Pnar and War Khasi (Khongsdier, 1992, 1993), Mongoloid, Muslim and Hindu populations of Assam (Das and Das, 1982), Hajong (Barua, 1982) and Kota (Ghosh, 1976) the child mortality rate in the Semsá is much higher, but this rate in the Semsá is almost same as that found in the South Pahira - I and II (Basu, 1969).

The frequency of reproductive wastages in the Semsá is found to be lower than that reported for the Kota (Ghosh, 1976) and War Khasi (Khongsdier, 1993), but higher than that reported for various populations of Assam (Das and Das, 1982). However, taking both child mortality and reproductive wastage rates together, the total potential offspring loss in the Semsá is considerably high. This indicates poor health condition of the population and to what extent medical facilities they are lacking.

The Semsá is a small population, restricted only in one village and they strictly follow the double descent system and village endogamy. Consequently, due to demographic compulsion they have been compelled to practise inbreeding, and it may eventually lead to more homozygosity in the population. The other point to note here is that since the admixture rate in the Semsá is zero, the coefficient of breeding isolation has too become zero, which indicates that the change due to random drift in this population is very important.

From an evolutionary point of view selection plays a major role to bring about changes in the genetic make-up of a population. It is seen that in the Semsas selection is operating with moderate intensity and it operates more through differential mortality than through differential fertility.

In short, the Semsas of Semkhor village is not at all genetically a random mating population and due to demographic compulsion consanguineous matings are not very infrequent among themselves. Such non-random mating practices are likely to have tremendous genetic effect on this population.

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