CHAPTER - 5
SUMMARY AND CONCLUSIONS

Demography is the study concerned with the size, structure and composition of population with certain determinants of population change. It helps in the understanding of human evolution and variation through important factors of demography, i.e. fertility and mortality. Demography is the empirical, statistical and mathematical study of human populations involves primarily the measurement of the size, growth and diminution of the numbers of the people.

The most important part of population study is the structure of people. Sometimes it is also set to be composition of the population. Normally, population structure includes the demographic parameters namely variations of birth, deaths, mating size, breeding structure of the population and other similar factors. Such characters throw much light on genetic processes in the population.

Keeping above mentioned things in the mind the present study was conducted among Siddi population of Uttara Kannada district Karnataka state with following aims and objectives.

1) To study the origin distribution and socio cultural profile of Siddi population.

2) To study the population composition which includes age, sex distribution, sex ratio, marital status, marital distance, etc.

3) To study the measures of fertility and mortality.
4) To study the biological determinants i.e. menarche, marriage and menopause.

5) To estimate the index of opportunity of selection by using Crow’s (1958) and Johnstan and Kensinger’s (1961) formulae in order to assess the effects of natural selection.

6) To study the nature and frequency of consanguineous and non-consanguineous matings.

7) To estimate the co-efficient of inbreeding among Siddi.

The People

Siddi a Negro population was brought to Uttara Kannada district of Karnataka few centuries ago. There are different versions as to how Siddis were brought to India. It appears around 16th century A.D. Siddis entered India as slaves. According to one version Siddis of Uttara Kannada district were brought by Portuguese to Goa and later they escaped from the persecution of Portuguese and entered Karnataka. Siddis are also found in Gujarat, Maharashtra and West Bengal states. In Karnataka Siddis are found in Haliyal, Yallapur, Joida, Ankola and Mundagod taluks of Uttara Kannada district.

Siddis are distributed in three religious groups namely Hindu, Muslim and Christian. They speak Kannada, Urdu and Konkani languages. Though Siddis are basically Negroids, they show certain local characteristics also. Now-a-days several cases of admixture have been observed between Siddis and local populations.
Thus, infiltration of characters is common in few groups. However, one can easily identify them as Negroids due to some typical characteristic features of Negroid race.

At present among Siddi, nuclear family structure is a common. Nevertheless in few settlements, joint families are also sighted. Siddi live in small hamlets. Family structure includes husband, wife and unmarried children. Elderly male is a leader of the household. Siddi are unaware of their origin, religion and language, because Portuguese rulers kept them isolated and never allowed them to mix with other groups. When Siddi moved to different places there they embraced Hinduism, Islam and Christianity and adopted the respective local languages. Siddi's dress pattern is typical of local village style. They are both vegetarians and non-vegetarians. Siddi celebrate all festivals according to their religion. Since Siddi are very poor, it is difficult for them to acquire higher education. Majority of the Siddi are school dropouts.

As regards the marriage Hindu and Christian Siddi groups practice monogamy but Muslim Siddi practice polygamy. Now-a-days in some places, it has been found that Siddi are marrying with non-Siddis.

Majority of the Siddi are living in the forest area and practice agriculture in encroached forest land. Few are working as labourers in coconut and arecanut gardens of Havig Brahmins.

Political organization among Siddi is very primitive. Caste council system is prevailing. Head man of the community acts as
judge and his judgement is final. Recently some awakening is found in this backward group. After a long struggle Siddi have been recognized as scheduled tribe. Only after that their social cultural and economic conditions have been improved. Now, Siddis are gradually entering into the political field. Now we find fifteen elected members of Siddi community in Gram Panchayat and one in Taluka Panchayat. With the help of Christian missionary support few Christian Siddi children are studying in city schools and acquiring higher education.

**Age and Sex Composition**

The age and sex composition among Hindu, Muslim and Christian Siddi populations show that in all the three groups females out number males. Among Hindu Siddi out of 1438 individuals 650 are males and 780 are females. Among Muslim Siddi 878 males and 921 females are found. Among Christian Siddi also we find the similar picture of 742 males and 890 females. In all the three groups, lower age groups exhibit maximum number of individuals and there is decrease of population in the higher age groups.

As regards the marital composition among Hindus, there are only four unmarried males and one female above 29 years. There are 39 widowed/divorced noticed in the pooled Siddi groups. The overall male/female ratio among unmarried/married/widowed/divorced and separated individuals are 344 : 272, 308 : 469, 03 : 36 and 3 : 3 respectively. Among Muslim Siddi groups overall male female ratio among unmarried, married, widowed, divorced and separated individuals are 491 : 369, 378 : 505, 3 : 46 and 6 : 1 respectively.
Similar ratios among the Christian Siddi are 397 : 397, 342 : 443, 03 : 49 and 0 : 1 respectively.

**Sex Ratio and Masculinity Proportion**

Sex ratio observed among Hindu, Muslim and Christian Siddi favour the males expressing the difference mainly in the lower ages. It favours the males distinctively in lower age groups i.e. 0-4, 5-9 and 15-19 years. Among the Muslim Siddi males, the expression of the age difference from 0-4, 5-9 and 10-14 years respectively. In case of Christian Siddi males expressing high age groups from 15-19 years and 35-39 years. Christian Siddi have found to be 945.61, 939.32 and 1070.62 respectively. In all the three groups number of females are more than males. Since the sex ratio is high among the Hindu and Muslim Siddi the masculinity proportion is 50. Whereas, among the Christian Siddi masculinity proportion is measured as 48.29.

Young age dependency ratio among Muslim Siddi males (68.97%) and females (49.83%) is more than Hindu males (49.08%) and females (37.29%) and Christian Siddi males (46.61%) and females (45.19%) respectively. But old age dependency ratio is found to be maximum among Christian Siddi males (5.75%) and females (4.89%) than in other two Siddi categories. Total dependency ratio is found to be maximum among Muslim Siddi males (73.5%) and females (54.52%) than in other two Siddi categories. The child women ratio in the present study is lower in the Hindu group (0.42) than in other two groups i.e. Muslim (0.63) and Christian is (0.63). But for pooled groups, it is (0.56).
The crude birth rate among Hindu Siddi group is 18.08 whereas, among Muslim Siddi and Christian Siddi groups it is 21.15 and 20.85 respectively. Due to some limitations crude birth rate can not give us a dependable comparative estimate to compare between communities or region to another.

General fertility rate for Hindu, Muslim and Christian Siddi groups have been shown as 90.90, 125.41 and 125.00 respectively. Thus, general fertility rate for Muslim Siddi is higher than that of other two Siddi groups.

The age specific fertility rates throw light on fertility pattern and family planning achievements. In the present study Muslim Siddi group exhibits highest age specific fertility rate (555.55) than in Hindu (333.33) and Christian (400.00) Siddi groups.

The total fertility rate represents the average number of children a women produces during her reproductive age. In the present study the total fertility rate is found to be 4097.7, 5473.3 and 5473.9 for Hindu, Muslim and Christian Siddi groups respectively. As regards the crude death rate, Muslim Siddi shows slightly higher value (2.78) than that of Hindu (1.39) and Christian (1.84) Siddi groups.

In all the three Siddi groups nuclear family types are common. The number of joint families are very rare among Hindu, Muslim and Christian groups (12.95%, 12.72% and 13.98%). The migration for the employment is the major cause for the presence of maximum nuclear families.
The menarcheal age among the Siddi ranges from 11 to 16 years. The mean menarcheal age of among Hindu Siddi girls is $12.99 \pm 0.0535$ years. Among Muslims, it is $12.42 \pm 0.0507$ years, but Christian Siddi group shows the mean menarcheal age of $13.07 \pm 0.0558$ years. ‘t’ values indicate the significant and insignificant differences among these three groups.

Age at marriage among the Hindu Siddi males for consanguineous groups is 40% at 20-21 years age groups, but for non-consanguineous matings, it was observed at 20-23 years (30.22%). But among the Muslim Siddi groups 20-21 years shows the highest percentage of consanguineous matings (21.62%). Among Christian Siddi group the highest percentage of consanguineous matings (33.33%) is found at the age groups of 16-17, 24-25 and 26-27 years and the percentage of non-consanguineous matings is 35.89% at the age group of 22-23 years. The majority of Hindu and Christian Siddi males marry at the age group of 20-21 years.

Among Hindu Siddi females highest percentage of consanguineous (40%) and non-consanguineous (37.92%) matings are found at 16-17 years age groups. Among Muslim Siddi females the higher percentage of consanguineous (25.88%) and non-consanguineous (37.97%) matings are found at 14-15 years age groups, but among Christian Siddi females the highest percentage of consanguineous matings (33.33%) has been observed at the age groups of 14-15, 16-17 and 20-21 years.
Among Hindu Siddis the highest frequency (40%) of matings in consanguineous and non-consanguineous categories have been observed with the marital distance ranging from 15-29 kms and 55-59 kms. Among Muslims the marital distance in consanguineous and non-consanguineous groups range from 0-4 kms to 72-79 kms and from 0-4 kms to 95-99 kms. Among Christian Siddi the mean marital distances of consanguineous and non-consanguineous groups are 43.66 ± 16.91 and 28.91 ± 1.49 kms respectively.

The mean values of age difference among Hindu Siddi in consanguineous and non-consanguineous categories are 3.10 ± 0.40 and 4.53 ± 0.1369 years respectively. Muslim Siddi group exhibits the higher mean value of parity among both consanguineous 7.35 ± 0.36 years and non-consanguineous 7.10 ± 0.22 years types. The mean values of these parameters among Christian Siddi groups are 4.83 ± 2.040 years in consanguineous and 5.18 ± 0.15 years in non-consanguineous categories.

Among Hindu Siddi group the highest percentage (40%) of first conception has been observed in consanguineous matings at the age groups of 17-18 years and 19-20 years and among non-consanguineous matings it is found at 19-20 years age group (39.48%). In case of Muslim Siddi the highest percentage has been observed in the age groups of 17-18 years and 15-16 years in both consanguineous (30.38%) and non-consanguineous matings (32.53%) respectively. Among Christian Siddi highest percentage (33.33%) has
been observed in the age groups of 15-16 years, 17-18 years and 27-28 years for consanguineous matings and 44.73% for non-consanguineous matings at 19-20 years of age group.

Among pooled Siddi, highest frequencies of conceptions found in consanguineous and non consanguineous categories are 31.03% and 35.50% respectively in age groups of 17-18 years and 19-20 years. The mean age of first conception for consanguineous and non-consanguineous categories are 17.91 ± 0.3447 and 19.76 ± 0.1037 respectively.

The mean menopausal age is found to be 45.32 ± 0.3819 years, 46.36 ± 0.4715 years and 47.50 ± 0.8371 years among Hindu, Muslim and Christian groups respectively. In a pooled results the mean menopausal age is calculated as 46.43 ± 0.7066 years. The significant difference in this parameter is observed between Hindu and Christian Siddi groups. Mainly economic condition, malnutrition and other environmental factors are mainly responsible for early menopause among Siddis.

As regards the fertility and mortality data the pregnancy wastage is slightly higher in Muslim group (4.13%) than in other two groups. Similarly child mortality rate is high (15.20%) among Muslims. Whereas, the proportion of living children in Hindu group is higher (87.95%) than in other two groups.

Pooled Siddi groups show 97.47% of conception as live births. The rest (2.52%) are pre-natal deaths. The proportion of live births among Hindu Siddis (5.03%) is slightly higher, when compared to
Muslim (5.00%) and Christian (4.72%) Siddi groups. In pooled data the proportion of live births is recorded as 4.91%. Variance and index of variability of fertility is also found to be higher among Hindu Siddi (1.64) than in other two groups. The same index is found to be 1.34 in pooled Siddi categories.

Even the rate of surviving offspring per mother among Hindu Siddi shows the higher value (4.46) than in other two Siddi groups. The same value recorded for pooled Siddi is 4.18. The proportion of surviving offspring in pooled Siddi group is 0.85.

The mean number of abortion and still births among Muslim Siddis is higher (0.1622 ± 0.0510 and 0.1081 ± 0.0411) than in other two Siddi groups. The Christian Siddi group records the highest mean value of neo-natal death (0.5217 ± 0.0982) than in other two Siddi groups. The rate of child mortality is found to be higher in Christian group (0.1739 ± 0.0545) than in Hindu (0.0484 ± 0.0275) and Muslim (0.1351 ± 0.0444) Siddi groups.

As regards the marriage types of inbreeding 1½ and beyond marriage types are found in the Siddi populations. The first cousin marriage and 1½ cousin and beyond marriages are slightly preferred. Uncle-niece and first cousin marriages are not preferred among the Hindu and Christian Siddis. The Christian Siddi group shows the higher inbreeding co-efficient values (7.000142) over Hindu (0.001177) and Muslim (0.007535) groups.

The Christian Siddi group records more number of pregnancies than in other two groups. In these groups higher rate of pregnancy is
due to illiteracy, poor socio-economic conditions and improper awareness regarding family planning methods. Among pooled Siddi groups higher values of live births are observed in consanguineous matings than in non-consanguineous matings. The number of surviving offspring among these Siddi groups is higher in consanguineous matings than in non-consanguineous matings.

The value of total intensity index is slightly higher among Christian group (0.6012) than in Hindu (0.4941) and Muslim Siddi (0.4205) groups. Pooled Siddi results show the selection intensity index as 0.0976 compared to results obtained by the original method of Crow (1958) is slightly higher. The index of selection due to fertility ($I_t = 0.2732$) component is slightly higher than the mortality component ($I_{mc} = 0.1762$) among pooled Siddi. It indicates that fertility component is more than the mortality component. The total selection intensity is comparatively higher in consanguineous matings than in non consanguineous matings.

The three Siddi groups studied live in the same environment but to varied socio-economic conditions and other related factors show relatively different demographic profiles.