CHAPTER - IX

SUMMARY AND CONCLUSION

The present work, as dealt with in the previous chapters, is concerned with the geographical analysis of the demographic and socio-economic characteristics of Sikkim. The study area is a tiny land-locked mountainous State inhabited by different ethnic groups exhibiting a distinct physical and socio-economic characteristics of its own. The demographic profile of the State has undergone a sea-change after its merger with the Indian Union in 1975. A detailed examination of the demographic, social and economic characteristics of the State is but a prerequisite for micro level planning for the socio-economic upliftment of its populace. The present work is primarily aimed at examining the spatio-temporal pattern of the various attributes to obtain an indepth knowledge on the causes and consequences of such pattern in the State. The variables taken for study are: population distribution, density, growth, migration, age-sex composition and some socio-economic variables like working force, literacy and educational level, religion, language and dialect. Towards the end certain measures for socio-economic development of the region are suggested on the basis of the findings of the study.

Chapter I include the research problem, significance of the study, its objectives and the methodology applied in the study. In Chapter II, a review of the relevant literature in this line is done in order to obtain guidelines and basis for the present study. It may be pertinent to mention here that an indepth analysis of the problems at times has not reached the expected level due to unavailability of the required data.

For a comprehensive understanding of the geographic personality of the State, the historical background, geo-physical setting, economical setting and the peopling of the area are highlighted in chapter III.
The history of Sikkim, in true sense, commenced with the consecration of Phuntshog Namgyal as the Chogyal (king) of Sikkim by the Bhutias. With the migration of a large number of Bhutias from Tibet and increase of their influence in the local affairs, necessity of a ruler seemed to have arisen inorder to establish their domain in Sikkim. The Namgyal dynasty ruled over the Himalayan kingdom for long 332 years. During the early eighteenth century, Sikkim faced several invasions by the Gorkhas of Nepal from the west and the south and by the Bhutanese from the east. These invasions paved way for the settlement of some of the intruders in Sikkim. The arrival of British and their gradual intervention in the affairs of the kingdom finally opened doors for the mass migration from the neighbouring countries, particularly from Nepal to it as cultivators, labourers as well as miners, etc. After the independence of India from the British rule, Sikkim continued to remain as a protectorate of India. During this period, in-migration of people from other parts of the country was not much, but the main migration took place from around the mid-seventies to early eighties when Sikkim became the 22nd State of Indian union. The State has undergone tremendous demographic and socio-economic changes during the last one hundred years. At present, the population of the State comprises three major ethnic groups, viz., the Lepchas, considered to be the autochthons of Sikkim, the Bhutias and the Nepalese (Gorkhalis, Kiratis, and Newars). Besides, a good number of Tibetan refugees, Bhutanese and people from different parts of the country as well as from the neighbouring countries reside in the State. With regard to socio-economic development, the pace was very slow during the pre-merger period, but after 1975, i.e., during the post-merger period, remarkable changes in this respect have been noticed. Politically too, Sikkim has passed over to democratic system of Government from autocracy.

Chapter III deals with the historical, physical and economic setting, peopling of the area and their influences on the demographic and socio-economic characteristics of its people. The State lies in the inner mountain ranges of Eastern Himalayas. The topography of Sikkim is almost same as any other young mountain terrain featured with high mountain peaks, gorges, sharp crests, ridges, narrow valleys, passes, lakes, etc. The region has no open valleys or plains. The
altitude of the region increases abruptly from the North Bengal Plains up to 5,000 metres within a short distance. Numerous seasonal and perennial rivers and their tributaries dissect the region. The river Tista divides the region into two unequal parts. The central basin is the catchment area of the river Tista and its affluents. The settlement of people is found to be mostly concentrated within the river valleys. Despite its small size, the State has extremely varied types of climate ranging from sub-tropical to Alpine type. The vegetation cover also varies from tropical forests to Alpine meadows that support different species of plants and animals. Different varieties of orchids and medicinal plants grow abundantly in these forests. The region has, similarly, varied types of soils, mostly derived from sedimentary and metamorphic rocks, which are loose in structure, thin and light in texture and mostly mixed with gravels.

Economically Sikkim is a very backward state and like any other North-Eastern hilly states it has also been sustaining an economic environment which is yet to be free from the primitive elements. The physical resource base on which the development of the region depends is rather limited. The economy of the State is agrarian, and rugged topography and poor soil conditions sets limitations in the agricultural development. It is found that only 9.46 per cent (1990-91) of the total area is under cultivation on which more than 66 per cent of the work force of the State are directly engaged. The average size of the landholdings is 2.11 hectares. Like other North-Eastern states, low per capita land and low productivity are characteristic features of the agricultural economy of the State. The land tenure system of the past as well as that of present has an important bearing on the agricultural practice and productivity of land. In general, people follow individual landholding system, but in selective pockets like Lachen and Lachung revenue blocks where agricultural land is scarce, communitarian ownership of land is found to be firmly established. It is observed that the crops and the methods of cultivating them have undergone changes in the last 100 years. The agricultural experts are of the opinion that Sikkim has immense potential for the development of horticulture. It is found that animal husbandry has played a crucial role on the rural economy of the State since past. It is an integral part of the farming economy. The cattle population of the State is estimated to be 3.5 lakhs, which includes
cows, goats, sheep and yaks. The cattle provide major share of income to the people of the northern high lands in the Chungthang block.

Although Sikkim possesses a fairly wide variety of mineral resources, they are not found to be economically viable for exploitation. Needless to say, the State is one of the most backward industrially. Although a good number of industrial units are found to have been registered under the medium and small sectors, a very few of them are found in operation. It is observed that the State has tremendous potential for waterpower generation. It provides all the suitable conditions for hydel power development. It is, however, found that till 1996-97 the State has been able to produce a meagre 33.10 MW of electricity which is far short of its present need.

Chapter IV deals with the demographic aspects, such as distribution, density, growth and migration of population of the State at sub-division level. From the analysis it is found that the population of Sikkim is sparsely populated and unevenly distributed. The present distribution pattern is the result of a combined effect of physical, socio-cultural and political factors. The altitudewise distribution of population reveals that mid-altitudinal zone, i.e., between 600 to 1,800 metres, with 31.30 per cent of the total area, has the highest concentration of population (74.40 per cent) in the State. More than 70 per cent of the villages, majority of the towns and market centres are located in this belt. This indicates that the distribution of population here is influenced by conducive physical conditions chiefly, the favourable climatic conditions and availability of cultivable land. The lower altitudinal zone (below 600 metre) with 8.85 per cent of the total area supports 20.55 per cent of the total population. Despite having unsuitable climate for habitation and occurrence of diseases like Malaria, Influenza, etc., a few commercial towns have grown on the bank of the rivers Tista and Rangit. The high latitudinal zone (above 1,800 metre) covers 59.85 per cent of the total area and shares only 5.05 per cent of the total population. Here, habitation is concentrated within 2,100 metres. Above this height settlement is semi-permanent to temporary. This is because of physiographic conditions and other factors like clan territorial occupancy and imposition of restriction on the free movement of people because
of the presence of international borders. Religion is also one of the determinants of population concentration. The ethnic groupwise distribution of population is related with the socio-economic pattern of each group. Besides, historical and political factors are seen to have played a crucial role. It is observed that Nepali farmers are concentrated in the gentle slope of the southern districts (East, South and West districts). On the other hand, the animal rearers, like Bhutias of Lachen and Lachung revenue blocks, the Sherpas, the Gurungs, etc., occupy the highland areas and the Lepcha farmers and food gatherers reside within the middle slopes of the river valleys of Dzongu area of Mangan Sub-division. It is found that while tribal people are concentrated in the remote areas of the high altitudinal zone, the non-tribals are found near the urban areas, mines, in the industrial belts and areas where agricultural land is available. The Mangan and Chungthang sub-divisions of North district (55 per cent), Gangtok (East district), Ravong (South district) and Gyalshing (West district) sub-divisions (22 per cent to 29 per cent) have large number of tribal people.

When the population distribution in the rural and urban areas is considered, it is found that the Gangtok town has the largest proportion of urban people (67.62 per cent) in the State. Among the sub-divisions, Gangtok with three urban centres has the highest percentage of urban population (86.13 per cent). Majority of the urban areas are located in the southern slope of the State. Out of the total population of the State, 90.9 per cent are rural. Out of this the largest proportion (62 per cent) lives in the medium size villages (500 to 1,999 persons). There are very few large size villages with the population above 2,000 persons (7.16 per cent). They are mostly concentrated in Gangtok sub-division. It is found that 70 per cent of the total population of South and West districts lives in the medium size villages and 96.62 per cent population of the North district lives in small size villages (less than 200 persons). However, in the East district more than 45 per cent people live in big size villages. The inter-village distances vary from 2 km. to 27 km. (Table 4.9). Here, inter-village distances are closely related to the physical conditions of the area. From the analysis it is obtained that sub-divisions located in the southern slopes of the State have less inter-village distances; hence, they are
in a more advantageous position in respect of socio-economic development than the sub-divisions of the northern highlands.

The population density of the State is 57 persons per km². The sub-divisions located in the northern and western highlands of the State have very low density of population (2 - 58 persons per km²). The sub-divisions located near the southern boundary like Namchi, Soreng and Pakyong have medium population density (115 - 200 persons per km²). Gangtok sub-division is found to have the highest density with 229 persons per km². Those revenue blocks, which were a part of Gangtok urban area until 1981, have exceptionally high density of population. They are Arithang (13,413), Upper Tadong (7,748), Upper Tathangchen (5,177), Upper Burtuk (3,413), Upper Sichey Gaon (2,940) and Chandmari (1,229). When the actual man-land ratio in terms of physiological and agricultural density of population is considered, it is found that Sikkim ranks third lowest after Mizoram and Nagaland. The Gangtok sub-division (647) has the maximum pressure of population on the available agricultural land and Chungthang sub-division (137) has the lowest. Among the North-Eastern states Sikkim ranks third in respect of agricultural density (91). The type of occupation practised by the people determines this density. Agricultural density is the lowest in the Chungthang sub-division where people practise multifarious economy, a combination of animal rearing, farming, trading, weaving, etc. On the other hand, it is high in the southern slope where agriculture is the mainstay of the people. The high physiological and agricultural density in the State is indicative of high pressure of population on the available agricultural land, with highly inevitable consequences like soil erosion and associated natural calamities. On the whole, this creates serious environmental problems jeopardising the natural habitat of the State.

From the trend of population growth it is revealed that in the first half of this century the growth pattern (Table 4.16) was very sluggish. In the second half the population growth had an increasing trend. In a period of 90 years (1901-1991) of the population history of Sikkim, maximum growth of population is noticed during 1981 (50.77 per cent), which was double the growth rate of the country (25 per
cent) as a whole. This clearly indicates that the maximum in-migration of the people from outside took place after Sikkim became the 22nd State of the Indian Union in 1975. On the whole, the State witnessed a very high growth rate registering a growth index of 234.47 per cent, which was higher than the country’s growth index (165.58 per cent). This clearly reflects that immigration and in-migration from the different parts of the country and to a large extent from across the borders have been a common feature in Sikkim. This has been, therefore, the most important factor responsible for the change in the demographic scenario of the State after 1975. Natural increase of population is a continuous process; its impact on the population growth of the State is perceptible mainly after the immigration of the Nepalese who are considered to be the most fertile among all the groups. Since 1981 to 1989 natural growth rate of population of the State was almost constant (20 to 23 per cent), after which a declining trend was noticed. This clearly tells that people are becoming more conscious about their living standards, which gets reflected in people’s tendency to shift their occupation from primary to secondary sectors. Development of the transport and communication, exposures to new ideas, increasing educational facilities, etc. are responsible for it. During the last decade (1981-91) growth rate of population among the non-tribals (30 per cent) is found to be higher than the tribals (23.47 per cent). It is observed that Sikkim has the lowest growth of tribal population among the North-Eastern states. The West district has the maximum growth of tribal population (28 per cent) in the State. There are some exceptions where maximum growth of tribal population is noticed in some of the revenue blocks. They are predominantly inhabited by the Bhutias and located near the urban centres or monasteries. Lowest growth rate of tribal population is noticed in the revenue blocks of the North district with the exception of Chunthang block. In 1971-81, growth of urban population was the highest (159 per cent) which could be attributed to mainly in-migration of population to the urban centres of the State. But the negative growth rate (-27 per cent) during the last decade (1981-91) is mainly due to the reduction of the boundaries of Gangtok, Singtam, Namchi, Jorethang and Gyalshing towns. A study of the rural population growth reveals that the East district has the highest growth (53 per cent) and the North district the lowest (18 per cent) in 1981-91. It is found that the growth of rural population in all the sub-divisions of the southern
slope (East, South and West districts), except Gangtok are uniform (28 to 29 per cent) because they have some common characteristics. In the North district, Chungthang Sub-division has a high growth of rural population (47.75 per cent) due to in-migration of population to the newly created sub-divisional headquarters at Chungthang. Lowest growth of rural population in Mangan sub-division is mainly related to out-migration of agricultural labourers. Among the ethnic groups the Nepalese have the highest growth of population (30 per cent), next to it comes the Lepchas (28 per cent) and the Bhutias (20 per cent) during 1981-91. On the whole in-migration, besides natural growth, is solely responsible for the present demographic scenario of the State.

From the available records, it is found that in-migration of population to this region dates back to early 15th century. The intensity of migration increased after the arrival of the British in the State. Mass in-migration took place mainly after the merger of the State (1971-81), that is to the extent of about 15.56 per cent of the then total population of the State. But in 1991 a decline in the trend of in-migration (8.96 per cent) to the region is noticed, which is indicative of slow economic development of the State. It is found that the State receives maximum in-migrants from the neighbouring state of West Bengal (51.08 per cent) followed by Bihar (20.60 per cent) and Uttar Pradesh (7.34 per cent). Among the in-migrants, the majority are Nepalese from West Bengal. As regard immigrants, maximum of them come to the State from the neighbouring Nepal (85.69 per cent). The Majority of these migrants are concentrated in the East district and the Mangan sub-division of North district. The in-migration affects the demographic pattern of the State in two ways. Firstly, it affects the population growth of the region, and secondly, male selective in-migration substantially reduces the overall sex ratio thereby increasing the sex disparity in literacy and work participation. It also leads to increase in the number of people in the working age group. Among the four districts, the East district receives the highest proportion of in-migrants (56.30 per cent) and the West districts the lowest (11.20 per cent). Within the State also the East district receives the highest number of in-migrants (39.10 per cent) from the different parts of the State. Seasonal migration is a regular phenomenon among the Bhutias of Chungthang sub-division of North districts. This system of migration
acts as a hurdle in the overall socio-economic development of the people of the place. The inter district and seasonal migration, however, do not seem to be having impact on the growth of population of the State as a whole.

Chapter V is devoted to analyse the attributes of population composition, such as age, sex and marital status of the people at different temporal and spatial levels. The sex ratio is found to be strikingly low in the State (878) in comparison to the North-Eastern states and the country as a whole (927). The tribal sex ratio is found to be higher (914) than that of the non-tribals (868). The indigenous tribes like the Lepchas and the Bhutias have 944 and 918 females per 1000 males respectively. The sex ratio in different age groups reveals that the sex ratio in the lower age groups, i.e., 0 to 4 years (964) and 5 to 9 years (1,000), are more than the working age group, i.e., 15 to 59 years (610). This shows that the male selective in-migration of working population from outside the State is high. An increase of sex ratio in the high age group (60+ years) shows the nature of out-migration of males after the retirement from services. For the above reason, i.e., the male-selective in-migration, the urban sex ratio is relatively lower (750) than its rural counterpart (892). Among the towns, Naya Bazar in West district has the highest sex ratio (866) and Mangan in the North district has the lowest (581) (Table 5.4). Rural sex ratio is found to be the highest in the West district and the lowest in the North district. Among the sub-divisions Soreng has the highest (928) and Chungthang the lowest (782). High sex ratio is indicative of the presence of non-tribal agrarian population and low sex ratio due to in-migration of skilled and educated people. Gangtok sub-division is an exception where low rural sex ratio is related to conversion of some parts of the peripheral areas of the three urban centres into the rural areas (1991). Since 1901 Sikkim has a deficiency of females, which seems to have gone down further after 1971 (Table 5.7).

The age structure of the State indicates that like all the underdeveloped areas, Sikkim also has a relatively high fertility rate and consequently a rapid growth of population. The broad base of the age-sex pyramid with tapering top indicates high percentage of children (12.65 per cent) below the age of 5 years. Old people (60+ years) constitute only 4.61 per cent of the population. The
juvenile population (0 to 14 years) forms 39.71 per cent of the total population. These two groups are considered as dependent population, hence, forming a dependency burden of 80 per cent in 1991. Dependency ratio is higher in the rural area (82) than in the urban areas (56). West district has the highest dependency ratio (86) and East district has the lowest (74).

From the analysis of the marital composition it is revealed that the proportion of married females (40.38 per cent) is more than the males (36.69 per cent). Here, early marriage (below 15 years) is not uncommon, and also the practice of child marriage has not yet completely died down. Large numbers of married males and females are indicative of prevalence of remarriage and polygamy. Presence of large number of widows (53 per cent) than widowers is related to age difference between husbands and wives at the time of marriage. Divorce is permissible with social approval but it is not frequent.

Chapter VI deals with the economic and social characteristics of the study area. In the beginning of the chapter the pattern of work participation and occupational structure among the people of the State are presented. It is found that 41.51 per cent of the total population of the region are workers. The work participation rate among the scheduled tribes is 40.45 per cent and that of scheduled caste is 39 per cent. Although 40 to 45 per cent of the total work force is main workers but that neither indicates availability of large opportunities for job nor an excessive pressure on manpower in the State. High participation rate is mainly due to physical as well as socio-economic factors. Engagement of school going children (below 15 years) and old people above 60 years in different sectors is another cause of high participation rate. At sub-division level Soreng (West district) has the highest percentage of workers (47) and Gangtok (East district) has the lowest (37.26). The work participation of females in the State is higher (30.4 per cent) than certain states of North-Eastern India like Assam (21.29 per cent) and Tripura (14.31 per cent). The female participation rate is higher among the scheduled tribes (31.56 per cent) than the scheduled castes (26.80 per cent). Economic status of the women in the State is better than many states of the
country. At sub-division level, Soreng has the largest proportion of female workers (41 per cent) and Gangtok has the lowest.

In regard to occupational categories the State has a good number of workers in the primary sector (68.40 per cent). This is more so in Soreng sub-division of West district, where size of land holdings is small, female work participation rate is high and economic condition of the people is poor. Chungthang and Gangtok have very low proportion of workers in this sector. It is mainly due to the practice of mixed economy in case of former and urbanisation in case of latter. Among the primary workers, a good number are cultivators and only a small proportion is agricultural labourers. It is found that proportion of cultivators is high in those sub-divisions where Rais and Limboos of Nepali sub-groups are the predominant population. High concentration of agricultural labourer is noticed in Mangan sub-division where people mostly depend on Nepalese labourers for cultivation of crops. North district has the largest number of workers engaged in the livestock rearing, plantation, orchards, etc.

In contrast to the above, proportions of workers in the secondary and tertiary sectors are remarkably low. Areas with a good number of small and medium scale industries, engagement of workers in household industries and different type of construction works have relatively large number of workers in secondary sector. Gangtok and Chungthang sub-divisions are the best examples. Gangtok sub-division with three urban centres and the capital at Gangtok has a good number of workers in the tertiary sector.

As is generally the case, the proportion of tribal workers is more in the primary sector and on the contrary, non-tribals are found to be more in the secondary and tertiary sectors. It is observed that participation of females in the primary sector is exceptionally higher than in the secondary and tertiary sectors. Participation of large proportion of females is noticed in those areas where agriculture is the mainstay of the people. Apart from that poverty, low female literacy, etc., are also some of the important causes. Economic status of women is found to be fairly good in areas where mixed economy is practised. In such areas,
enrolment of female students is higher and a good number of them are engaged in tertiary sector, thereby, displaying overall better economic condition of the people. Chungthang and Gangtok sub-divisions are good examples in that regard.

With a literacy rate of 56.94 per cent Sikkim ranks 19th among the states and the Union territories of the country. It is observed that those areas with a good number of urban populations having different cultural background, better accessibility and socio-economic facilities have a relatively higher literacy rate. Again, areas with farm based economy, large number of agrarian population, and physiological constraints like rugged terrain have low literacy rate. Low literacy rate is also noticed in the high altitudinal zones inhabited by tribal people, mostly the Bhutias. The scheduled tribe people of the State are found to be more literates (59 per cent) than the scheduled caste (51.03 per cent). Sub-divisions located around Gangtok town are found to have medium literacy.

The temporal pattern of literacy of the State reveals that the growth of literacy was very slow in the pre-merger period (before 1975) than the post-merger period. Poverty and socio-economic backwardness of the people, inadequate educational facilities for the common people, priority to monastic education by the feudal rulers were some of the important causes of low literacy. On the contrary, rapid growth of literacy in the post merger period is mainly due to expansion of primary schools, free education policy of the Government, mid-day meal to the primary students, encouragement to female education, establishment of private schools, development of transport and communication facilities, etc.

From the age break up of literacy rate it is obtained that literacy rate is high in the lower age group (7 to 9 years) and highest (80 per cent) between 10 to 14 years. It is also high in the age group of 15 to 19 years and 20 to 24 years, showing growing interest of the people towards education. An analysis of the educational level reveals that although the proportion of literates is high in the primary level, but at higher level there is a deficiency. This clearly indicates that the State still faces shortage of educated and skilled people. Among the three ethnic groups, the Nepalese are educationally more advanced than the Bhutias
and the Lepchas. Despite the progress in literacy, there exists sex disparity in literacy. A study at sub-division level reveals that in the North district the Bhutias have higher sex disparity than the Lepchas. Another distinctive feature is that areas with high sex ratio have low disparity in literacy. The sub-divisions predominantly inhabited by the Nepalese have relatively low sex disparity in literacy.

When religious composition is considered, it is found that two third of the population of the State profess Hinduism (68.3 per cent) which includes mostly the Nepalese and the non-tribal in-migrants. Next comes Buddhism, mainly followed by the Bhutias, Lepchas, Sherpas and some Nepali sub groups, viz., Tamangs, Gurungs, etc. Christianity is the third important religion mostly followed by the Lepchas, Rais and people from different communities. The followers of Sikhism and Jainism and Islam religions are very small. It is observed that the northern half of the State has mostly Buddhist population and the southern slope, the Hindus. Highest concentration of Christians is noticed in Namchi and Gangtok sub-divisions. It is interesting to note that highest growth of population is noticed among the Christians (+91 per cent) during 1981-91.

The three major languages spoken by the people of Sikkim are Lepcha, Bhutia, both being Tibeto-Burman language, and Nepali, an Indo-Aryan language. The majority of the people speak Nepali (63 per cent). Hence, in course of time, it has become a sort of lingua franca in the State. Speakers of Bhutia language constitute 8.02 per cent and Lepcha, 7.34 per cent. The Nepali speaking people are found to be mostly concentrated in the southern slopes, while Bhutias and Lepcha speaking are concentrated in the northern highlands as well as the highlands of East, South and West districts. As expected, speakers of Limboo language are largely confined within West district (72 per cent). Although, Bhutia, Lepcha and Nepali languages are recognised as official languages, English is traditionally used as official language. The plainsmen as well as most of the people of the State including the tribal Lepchas and Bhutias speak Hindi.
In Chapter VII an empirical study of the population pattern at micro level, i.e., revenue block level has been done to obtain a further insight into the demographic and socio-economic condition of the people. From the study, it is revealed that the influence of physical environment is reflected in the distribution pattern of different groups, their house types and use of building materials, agricultural practices, availability of social facilities, degree of development of transport and communication facilities and pace of socio-economic transformation. In respect of certain demographic attributes, the surveyed blocks exhibit similar characteristics. For instance, predominance of large proportions of young population, almost same percentage of literates in the primary level, engagement of large number of workers in the primary sector, etc. are common to all the revenue blocks. However, they also have difference in many respects. Villages predominantly inhabited by the Bhutias are located at a relatively higher altitude than those by the Lepchas and the Nepalese. The structure, design and the building materials used by the people for the construction of houses in the four villages are undergoing transformation, but in Lachen and Gnon-Samdong blocks majority of the houses are still of traditional type. While the Bhutias use wood and tree barks, the Lepchas and the Nepalese use bamboo, wood and thatch for the construction of houses. This clearly reflects varying relationship between ecological environment and habitat in different parts of the region depending upon the availability of building materials from immediate surroundings. Significant difference is also noticed in regards to agricultural practice. The people of Nazitam and Lower Fumbong practise subsistence economy. The Lepchas of Gnon-Samdong block, during the last few decades have changed their occupation from hunting, food gathering, shifting cultivation to sedentary cultivation. At present, people of these three villages grow crops like paddy, pulses, wheat, millet, etc. Besides, they grow commercial crops like ginger, orange and cardamom. In Gnon-Samdong, large areas are found to be under cardamom cultivation. In all these villages, keeping livestock is a part and parcel of their farming economy. It is interesting to note that the people of Lachen practise a mixed type of economy, which is a combination of pastoralism, farming supplemented by trading, weaving, etc. Practice of multifarious economy by these people is noticed mainly after the closure of the northeastern border in 1962. Thus the type of occupation followed
by these people is not only controlled by the physical environment in which they
inhabit, but also by the political situation, exposure to better agricultural
techniques, etc.

In respect of tribal population, it is found that more than 82 per cent of the
total population of Lachen is tribal, next to it comes Gnon-Samdong with 70 per
cent. Nazitam is predominantly inhabitat by the non-tribal Nepalese (72 per cent).
The most striking point is that Lower Fumbong does not have any tribal
population. It is predominated by the Limboos (Nepalese), who have but mostly
tribal characteristics.

As regards the growth of population, Nazitam has the highest growth rate,
which is mainly due to easy excess to medical facility, in-migration of people
caused by marriage, relatively better standard of living of the people, etc. On the
other hand, lowest growth rate in the Lachen block is accountable to low in-
migration to the village, presence of polyandrous system of marriage, limited
excess to better medical facility due to remote location, etc. The most
distinguishing feature is that Gnon-Samdong has negative growth rate (-16 per
cent). Despite a high annual natural growth rate negative growth rate is caused by
out-migration of agricultural labourers (Nepalese) from the village. All the surveyed
villages have a deficiency of females over males. However, Nazitam and Gnon-
Samnog have more number of females than the other two. Presence of large
proportion of children in Gnon-Samdong village leads to high dependency burden
(90); on the contrary, low proportion of children in Lachen block resulted to low
dependency burden (66).

Among the surveyed villages, exceptionally lowest proportion of workers is
found in Gnon-Samdong village. It is mainly due to engagement of large number of
seasonal labourers for the cultivation of crops and secondly, enrolment of large
number of children in schools. In Lower Fumbong village female labourers
outnumber their male counterparts. When occupational categories are considered,
it is found that 73 per cent to 90 per cent of the total population of each village is
engaged in primary sector. A good number of workers of Lachen are engaged in
secondary sector, on the other hand, more than 26 per cent of workers of Gnon-Samdong are engaged in tertiary sector. It is observed that in the primary sector female workers outnumber the male.

The proportion of literates is found to be the highest in Gnon-Samdong village (68 per cent). Here, high literacy rate is related to the low work participation rate of the people. The percentage of literacy is the lowest (46.15) in Lachen. It is mainly due to practice of multifarious economy, practice of seasonal migration, remote location, low access to better social facilities, etc. Female literacy is found to be the lowest in Lachen block, which is creating a wide disparity in male and female literacy. The social facilities like schools, health centres, drinking water, electricity, transport and communication, post office, etc. are found to be present in all the villages or close to the villages, but easy access to better social facilities are seen only in case of Nazitam block with a better communication link to nearby Gangtok town.

The different ethnic groups of Sikkim, viz., the Lepchas, the Bhutias and the Nepalese are found to be concentrated in different altitudinal zones according to the suitability to their mode of living. Three ethnic zones are identified taking the habitable revenue blocks into consideration. The Upper Himalayan Bhutia zone covers the cool and dry highland areas with an altitude varying from 1,500 to 3,800 metres. The majority of the population (90 per cent) of the northern part of this zone are the Bhutias and the Lepchas. The most distinguishing feature of this zone is that in the far north two groups of Bhutias, viz., the Lachenpas and the Lachungpas live independently in Lachen and Lachung revenue blocks in Chungthang sub-division. They follow clan territorial occupancy system, as stated earlier. In the southern part, the Bhutias live together with the Nepalese and the Lepchas. The exclusive majority of Bhutias in the northern part of the zone is primarily due to the preferred physical conditions suitable to their mode of living as well as the Government policy imposing restrictions on outsiders to settle in this zone. The Bhutias of this zone speak the language of Sino-Tibetan origin. They also speak Nepali and Hindi. With 19.29 per cent of total area, this zone shares
11.93 per cent population of the State. The tribal population constitutes about 39.37 per cent of the total population of this zone.

The central Himalayan Lepcha zone mostly covers the valley slopes of the left bank of the river Tista. More than half of this zone is covered by Dzongu, the Lepcha reserve area. Because of the remote location, the area lacks proper infrastructural facilities like transport and communication. The average height of this zone is 1,500 metres. This zone is characterised by steep slopes with scattered settlements in small to medium sized villages around the agricultural lands. The people of this zone speak Lepcha, but Nepali and Hindi languages are also used to communicate with the outsiders. The total area of this zone is 193 km² (11.36 per cent) and the total population is 15,041 persons (4.02 per cent). The tribals constitute about 50 per cent of the total population of this zone. The Lepchas are the predominant population and the rest are floating population, who are either Government service holders or agricultural labourers.

Southern Himalayan Nepali zone covers the southern slope of the State. This zone is the largest one covering an area of 1,147 km², which is 9.35 per cent of the total area. It has also the highest number of population of 3,10,537 persons (84 per cent of the total). The most distinctive feature of this zone is the low proportion of tribal population accounting to 18.28 per cent of the total population. This zone is dissected by the river Tista and its tributaries. The valleys are comparatively broad and flat with moderate slopes. The settlements are mostly concentrated in the areas within 300 to 2,000 metres. The size of the villages is mostly medium. This zone is predominantly inhabited by the Nepalese with concentration of Limboos in the western part, Rais in the central part and Brahmins, Chettris and Pradhans (Newars) in the eastern part. Other sub-groups of the Nepalese are found scattered throughout the zone. In respect of social traits, it is observed that the Bhutias are the followers of Lamaist Buddhism. Some of them also adhere to their indigenous religious practices. The role of the monastery and the Lama is of utmost importance in the socio-religious lives of the Bhutias. Their religion also allows the females to become nuns. The important festivals of the Bhutias are Losoong, Sagadawa, Pang-Lhabsol, Lhabab-Deuchen,
etc. They cremate their dead bodies and have a somewhat strange practice of keeping the dead bodies from 2 to 49 days depending on the status of the family of the deceased. In the Bhutia society three forms of marriages are prevalent, viz., monogamy, polygamy and polyandry. The Bhutias at present mostly follow monogamy, which is due to the modern influences and cultural contacts with other groups. The Bhutias generally marry at late age. The groom's party has to offer bride price at the time of negotiation of the marriage. Divorce is permissible with the approval of the society and re-marriage is not uncommon. The traditional food and the type of dresses of the Bhutias are of Tibetan origin. Their occupation varies from farming in the southern part to multifarious type of economy, as stated earlier.

The Lepchas follow Buddhism in combination with shamanism. As in the case of the Bhutias, the monastery and the Lamas play equally important role in the Lepcha society. Their most important festival is Namsoong (Bhutias Losoong), Tedong-Hlo-Rum-Fat, etc. They also observe other Sikkimese Bhutia festivals with equal reverence and jest. Their socio-cultural lives are deeply influenced by the Bhutia culture since the latter have been converted into Buddhism by the Bhutias from Tibet. The method of disposal of dead bodies of the Lepchas is same as that of the Bhutias. Traditionally, the Lepchas used to throw the dead bodies in the river, bury or cremate them as per the nature of death and advice rendered by their priests, Bongthing. As regards the Lepcha marriage, traditionally they practise community endogamy and clan exogamy, but the popularly accepted form at present is monogamy. Like the Bhutias, the Lepchas also offer bride price. Customary laws regulate the divorce. Re-marriage is permissible among the Lepchas. As the Lepchas were originally hunter-food gatherers, their food consists of varieties of wild vegetables and fruits. Their staple food is rice; however, they also take barley, wheat, etc. Like the Bhutias the Lepchas are also mostly non-vegetarian and they prefer pork and beef. They have their own traditional dresses for both men and women.

The population in the Nepalese zone are by and large farmers. The majority of the Nepalese are Hindus, while the rest are either Buddhists or Christians. The
important festivals of the Hindus are the Dasain (Dusshera), Tihar (Dewali) and Maghe (Magh) Sankranti. One interesting feature about the religious festivals is that except for orthodox rituals, all the sub-groups including the Buddhist Nepalese celebrate them. The Hindus normally cremate their dead bodies but some of the sub-groups like Rais, etc. also follow the burial method. They mostly follow exogamy at the clan level and endogamy at community level in marriage. The age at marriage of the Nepalese is relatively lower than other groups. Monogamy is the most common form of marriage practised by them, although a few stray incidents of polygamy are also noticed. The practice of dowry is not common among the Nepalese. Divorce is not common and except among orthodox Brahmins; remarriage is permissible. The staple diet of the Nepalese consists of rice, pulses and vegetables. Like the Lepchas the Nepalese also eat fermented and preserved vegetables like kinema (fermented Soya bean), gundruk (dried mustard leaves), sinki (dried radish), etc. The Nepalese have their own traditional dresses but they mostly wear modern Indian dresses like pants, shirts, saris and salwar kameez.

Although the three ethnic groups are concentrated in separate zones with the rapid political and socio-economic changes, particularly after the merger of the State in India, the ethnic concentration is being somewhat loose. The customs and traditions of different groups are being influenced by each other and in that respect the influence of Bhutia culture on the Lepchas is found to be quite significant. This is mainly because of the religious affinity of these two groups. The influence of the people from the plains on the three ethnic groups cannot also be undermined. In some areas like Dzongu, a Lepcha zone, and in the Lachen and Lachung blocks the external influences have been less because of their remote location and adherence by their people to traditional life style.

A synthesis of the demographic and socio-economic characteristics is done in Chapter VIII to divide the State into separate population zones. On the basis of the variables like density, literacy rate, tribal composition of population and occupational categories, the sub-divisions are grouped into four population zones. The Gangtok zone has the highest concentration of population in the State. It is predominantly inhabited by the Nepalese group. Tribal population constitutes 22
per cent of the total population of the zone. Besides high arithmetic density (229), it has a relatively high physiographic density (647) indicating high pressure of population on its available agricultural land. Population growth and sex ratio are related more to in-migration than natural growth. Among all the zones, it has the highest proportion of urban population (23.25 per cent). This zone has the lowest proportion of workers (37.26 per cent) out of which 42 per cent are engaged in the primary sector. Among the four zones it has the highest percentage of workers engaged in both secondary (21) and tertiary (37) sectors. Gangtok zone also has relatively large proportion of literates (68) in the State. In respect of availability of social facilities too this zone enjoys a better position.

The Namchi-Pakyong zone with 14.12 per cent of the total area has 26 per cent of the total population of the State. It has the distinction of having very low proportion of tribal population (6.23 per cent). The overall density is 154 persons per km². Physiological (289 persons per km²) and agricultural (90 persons per km²) densities are also high. The pressure of population on the available agricultural land here is not as high as in the first zone. Both natural increase and in-migration affect growth of population. The zone is predominantly inhabited by the Nepalese. The western part of the zone is inhabited by the Rai sub-group and the eastern part by the Brahmins and Pradhans. Urbanisation is found to be slow here with urban population constituting only 2.45 per cent of the total population. Working population constitutes 42.49 per cent of the total population. 75 per cent of the total workers are engaged in the primary sector, out of which 65 per cent are cultivators. Due to very slow industrialisation, proportion of workers in secondary sector is comparatively low. With the social transformation, the workers in the tertiary sector are gradually increasing. This zone has a literacy rate of 56.9 per cent which is at par with the State's average of 57 per cent. In terms of social facilities, this zone shows a better position than those in zone III and zone IV.

The third zone, i.e., Chungthang-Mangan zone has a different demographic pattern. With 60 per cent of the total area, it shares only 8 per cent of the total population of the State. The tribal population constitutes 55 per cent, which is the highest amongst the four zones. The northern half of the zone is inhabited by the
Bhutias and the southern half by the Lepchas. Here the population growth is found to be the lowest (18 per cent). Here the growth rate is more affected by the migration of population rather than by the natural increase. The sex ratio is affected by male selective in-migration. The density of population in this zone is very low (7 person per km$^2$). The pressure of population on the available land is not high as physiological density is 150 and agricultural density is only 42. Urbanisation process is very slow here because of its remote location, closeness to international borders, hostile terrain and consequently slow development of transport and communication, and also for restriction on the movement of people from outside. The work participation rate is 44 per cent. Out of the total population, 63 per cent are engaged in the primary sector. The proportion of cultivators is only 23 per cent, which indicates that farming is not the main occupation of the people of this zone. The proportion of workers in the secondary (14.28 per cent) and tertiary (26 per cent) sectors are quite high. This is mainly due to engagement of a good number of workers in various activities like household· industries, construction work, business, etc. The literacy rate (54 per cent) is indicative of the social awareness of the people towards education. However, for the people of this zone access to better social facilities is difficult because of its remote location and poor transport and communication facility.

The zone IV has an area of 22.45 per cent with 33 per cent of the total population of the State. Out of the total population of the zone, 21.20 per cent are tribals. A large proportion of the population is concentrated in the northern highlands of this zone. It has a remarkably high growth of population (31 per cent) because of both natural increase and in-migration. Among the four zones, this has the highest agricultural density (300). Here, the pressure of population on the available agricultural land is very high, which is mainly because of scarcity of agricultural land, small size of landholdings, etc. Because of slow urbanisation, the urban population constitutes only 1.3 per cent of the population of this zone. The literacy rate in this zone is low (46 per cent), which is indicative of social and economic backwardness of the people of this zone. Proportion of workers is expectedly high (43.48 per cent). More than 85 per cent of the workers are engaged in primary occupations, out of which 76.36 per cent are cultivators. Low
percentage of workers in the secondary and tertiary sectors speak of the socio-economic backwardness of the people of this zone. As regards to availability of social facilities, a good number of villages in this zone still lack basic amenity because of remote location, inaccessibility, etc.

The major conclusions drawn out of the work are put as follows: -

1. No simple relationship between the population concentration and the relief is found to exist in Sikkim. Here, distribution of population has been the result of cause and effect relationship between permissive and restrictive factors of physical environment on the one hand, and social and political factors on the other. Unsuitable climate for habitation, occurrence of diseases like Malaria, Influenza, etc., in the lower altitudinal zone and inaccessibility, prevalence of inner line policy restriction in free movement, especially in the north and the eastern border in the higher altitudinal zone are some of the prevailing conditions, which explain the above phenomena;

2. The distribution of ethnic groups in different specified areas is found to have associated with apart from socio-economic conditions, historical and political factors. It is evident in the concentration of Lepchas in the central parts, which were once wide spread throughout the State but driven out by the Bhutia immigrants from the north and the Nepalese from the south. The restriction of Nepali settlement in the North made by the Bhutia rulers, and the extension of the then kingdom’s boundary towards west lead to the concentration of Nepalese in the southern parts and the dominance of the Lepchas and the Bhutias in the northern highlands;

3. A north-south divide is distinct in the State with the northern part characterised by rugged hilly terrain and high inaccessibility, the southern part by relatively less rugged areas, higher accessibility, more habitable and agricultural land, and presence of a number of urban centres. This divide broadly conforms to the tribal and non-tribal occupation of the areas, i.e., the north belonging to the tribes and the south mostly to the non-tribals;
4. The low density of population of the State (57 persons/km²) is somewhat a misnomer when the actual picture of man-land ratio in terms of physiological (332 persons/km²) and agricultural density (91 persons/km²) is taken into account. As a matter of fact, the pressure of population on the limited arable land is quite high. To exemplify, Gangtok sub-division has the highest physiological density (647 persons/km²), and the districts located in the southern slope, where agriculture is the mainstay of the people, have significantly high agricultural density (102 persons/km²);

5. The population growth in the State has been quite rapid during the last few decades, particularly after the merger of the State with India. Apart from high natural increase, a large proportion of migration from the neighbouring states of the country is found to have contributed to the high growth. If the present trend of population growth continues, the State with its limited physical resources including agricultural land will certainly face serious socio-economic consequences in the near future;

6. Age-sex selective in-migration of people from outside is seen to have cast a great impact on the State's demographic pattern, particularly in the lowering of sex ratio and the remarkable increase in the working age group population. Seasonal migration based on pastoralism is also affecting the socio-economic development of the people, especially in areas like, Lachen and Lachung revenue blocks of Chungthang sub-division because of the unsettled nature of the habitation of the people in such areas;

7. The age structure of the population of the State forms a typical pyramid, similar to that of most areas of the developing countries. Here, a large proportion of children below 14 years (39.7 per cent) and a good number of old people above 60 years (4.61 per cent) are creating a high dependency burden (80 per cent) on the working age group of population;

8. Work participation rate in the State is found to be higher (41.51 per cent) than the country's average of 37.68 per cent. It's high work participation rate in the State, however, does not indicate a high level of economic
development of it or better economic condition of its people, as a large proportion of them is engaged in the primary sector (68.40 per cent). Slow economic development combined with limited employment opportunity and infrastructural facilities are found to be principal factors behind small number of workers in the secondary and the tertiary sectors. Occasional shifting of workers from primary to secondary and tertiary sectors is also found to be taking place at a snail's pace;

9. The heavy dependence on subsistence agriculture is found to be the primary cause of low level of economic development of the State, with a large proportion of people living even below poverty line. The situation is more conspicuous in the southern districts, where agriculture is the main source of livelihood of the people and the number of females exceeds even over the males in the agricultural works. However, the practice of diverse economy based on pastoralism, farming, trading, weaving, etc., and with the cultivation of cardamom in the northern part of the State, i.e., Chungthang sub-division, and farming and cultivation of commercial crops like cardamom in Mangan sub-division are bringing positive changes in the economic condition of the people in these areas;

10. The level of literacy in the State is yet low (57 per cent) ranking 19th among the states and the Union territories of the country. The progress of literacy during the post-merger period has however, been quite significant with an increase of 57 per cent in 1991 from 18 per cent in 1971. Disparity in literacy between male sand females is quite high and it is more so in the areas like Chungthang, Gyalshing and Mangan sub-divisions occupied mostly by the sub-groups of Bhutias, Lepchas and Limboos. The disparity in educational level between males and females is also quite marked in the State;

11. In terms of religious groups the northern part of the State is predominated by the Buddhists and the southern part by the Hindus. People belonging to other religions like Sikhism, Jainism and Islam are mainly concentrated in
the urban areas, market centres, etc., though their number is small. The most striking point noticeable among the different religious groups is the very high growth rate of population among the Christians during the recent period (91 per cent during 1981-91);

12. The Nepalese constitute the largest linguistic group in the State (63 per cent) and Nepali language has emerged as the lingua-franca in it. The exclusive domains of Bhutias, Lepchas, Limboos, however, continue to exist in their respective territorial units;

13. Distinct ethnic zones are found to exist in the State with Bhutias occupying the northern part and other highland areas, Lepchas the central part and the Nepalese the southern part of the State. However, ethnic concentration is gradually breaking down with the change in the political and economic scenario in the State. Cultural influence of one group over the other is also being quite marked, with however, Lepchas having been more influenced by the Bhutia culture than the Nepalese;

14. Population zone in terms of socio-economic development level is traceable in the State. Gangtok sub-division (Gangtok zone) with the capital of the State, besides two urban centres; location of more commercial and industrial establishments, and infrastructural facilities is relatively advanced compared to the other zones. The areas comprising south and southeastern, i.e., Namchi-Pakyong zone stand next to the above in terms of development level. The northern areas under Chungthang and Mangan sub-divisions (Chungthang-Mangan zone) predominantly inhabited by the Bhutias and the Lepchas are marked by inaccessible terrain, although people are somewhat economically better off due to their practice of diverse economic activities including the cultivation of commercial crop cardamom. The Limboo and the Rai dominated areas under Gyalshing, Soreng and Ravong sub-divisions (Gyalshing-Soreng-Ravong zone) are the socio-economically most backward ones among the four zones. These population
zones, although arbitrary in nature, are likely to bear significance for development planning.

It may, however, be mentioned here that, in view of inaccessibility of most of the areas of the State and non-availability of relevant data at the desired level leaves further scope for improvement of the present work in a number of directions. Intensive works on various social groups and also at micro-spatial unit levels will certainly provide further insight into the problem. In any case, the present work as an exploratory one from geographic perspective is expected to have significant academic value and practical significance.

In the light of the observations made in the foregoing, certain suggestions which may have bearing towards the improvement of socio-economic conditions of the people of Sikkim are put below:

1. In view of increasing pressure of population in the middle altitudinal zone, i.e., a large part of the southern districts, generation of economic opportunities in the higher and lower altitudinal zones is urgently necessary. There is ample scope for the development of agro-based and forest-base industries, milk processing and manufacturing of milk based product industry, other industries like, weaving of woollen products, etc., in the high altitudinal zones. Similarly, in the lower altitudinal zone, agriculture and forest based industries like fruit preservation, distilleries, drug industry, saw mill, plywood industry, paper making industry, etc., will flourish. Certain industries in this line have already been started in this zone. In all the zones there is abundant water power resources for the development of hydel electric power projects. Simultaneously, steps should also be taken to motivate a rural people of a middle altitudinal zone so that they come to focus to cultivate horticulture crops in a large scale, increase plantation of commercial crops like cardamom, tea, different spices, etc., and rearing of livestock, such as beef cattle, milch cattle, goat, pig and poultry to supplement their income and reduce the pressure on the limited cultivable land. Besides, infrastructural facilities should be made available to the
people of this zone for starting small scale cottage industries, like handmade paper making, artisan, wood curving, metal work, bamboo work, carpentry, etc.,

2. High concentration of population in Gangtok, the State's capital and the only big urban centre, is leading to overcrowding in its limited available land which gentle slopes suitable for human settlement and also high pressure of population on its available social facilities. To reduce further concentration of population, immediate steps should be taken to develop the other small urban centres and potential market centres of the State with provision of all necessary urban facilities.

3. The proportion of educated, trained and skilled persons is yet very low in the State. Expansion of educational facilities including provision for vocational training and technical institutes is highly necessary to mitigate the shortage of such personnel. Therefore, urgent steps should be taken to redress the problem of shortage of educated and skilled personnel in the State. It is necessary not only for improvement of State's human resources but also to prevent migration of persons from other parts of the country.

4. Transport and communication deserves top priority while making development plant, because it is the greatest constraints in the socio-economic development of an underdeveloped and strategically sensitive State like Sikkim.

5. Females are the main workforce of the society in the State. Hence, special attention should be given for their upgradation by providing free education, special incentives for higher education and better health care facilities. For that, proper care should be taken to improve the existing facilities and introduce the new ones. Besides, encouragement of family planning and abolition of polyandry and polygamy system of marriage in certain parts of the State is very necessary.
6. Existence of innerline policies in North district especially in Dzongu (Lepcha reserve), Lachen and Lachung revenue blocks (Bhutia) may preserve the distinctive identity of the people but, on the other hand, it is becoming a hurdle in the socio-economic development of the people of this district. Certain modification in the existing policy in accordance with the present situation is expected to bring some positive change in the social and economic condition of the people of this area.

7. The geographical setting and socio-economic condition of different tribal and non-tribal groups and sub-groups differ considerably from one area to another. Hence, same type of development schemes for all parts will not be effective towards achieving a balanced socio-economic development in the State as a whole. Therefore, any kind of development planning needs to be oriented from socio-economic as well as spatial perspective of different zones. In other words, development of areas occupied by different ethnic zones should be geared in such a way so that all the groups may reap the benefit of development equally. Only a balanced development of all the groups will reduce the feeling of inequality as discrimination promote social harmony and unity among all section of the people of the State.

The above are only a few suggestions, and in fact, development measures in all socio-economic fronts in general and region specific measures in particular have to be stepped up to remove the existing level of backwardness in the State.