Chapter IX

Conclusion and Suggestions

Human development is a continuous process in every social system to enrich the quality of life and choices of the people. Human development stresses more on the formation of human capabilities which would extend the chance of leading a productive and creative lives in accordance with their needs and interests. Here our main focus was on Sikkim. Being a traditionally subsistence agricultural economy it also tries to develop, all its development indicators. Data deficiency is a major obstacle in such hilly small states. Yet it is a little attempt to evaluate the human development condition and its parameters. Undoubtedly there are some deficiences in the present study. The main purpose of the study was to obtain an integrated picture of the human development condition since merger with India. Although it is generally understood that human well-being is essential. There is no common criterion to evaluate it. Well-being has physical, mental, ethical, socio-economic, political and ecological dimensions. Yet the UNDP formulated evaluation method is applied to find a meaningful and comparabe development position.

Sikkim was a buffer state before merger. Its political location or strategic position has raised, its significance to India. Its border area is extended from non-tropical geographic environment ranging from the low snow-free outer hills to the high peaks with permanent snow, glaciers and pastures. It has experienced great changes in its political structure, social, structure, economic life and cultural values during last hundred years. The process was quickened by four different directions, in a multiform ethnic mix. Its religious cultural and social life has been strongly

influenced by Tibet and as a protectorate of India. it has been politically and economically influenced by India.

Sikkim is a multi-religious, multi-ethnic and multi-linguistic state. The Lepchas are regarded as the original inhabitants of Sikkim. The Tibetization of the Lepchas became during seventeenth century. British contact during 1884-85 faciliated Nepali immigration. The ethnic composition of Sikkim changed radically with the introduction of Nepali population. The population of Sikkim is heterogenously distributed over the hilly land area. This pattern of distribution is influenced by a host of environmental, historical, socio-cultural, economic, demographic and development factors.

Nepali, Bhutia and Lepcha are the three major languages. Nepali is spoken by 90 per cent of the total population. Bhutia by about 28 per cent and Lepcha by about 10 per cent. Lamaism, Hinduism and Animism are followed by different ethnic group. Christianity is also practised, there are twelve major groups in Sikkim. Of them Lepchas, Bhutia, Sherpas and Tamangs are Buddhists, while the rest groups are Hindus and Christian. Aong the Hindu groups, Brahmans and Chhetris are at the top of the social strata.

The major portion of the trans-himalayan trade was in the hands of the Marwaris, aristocracy and some of the Lamas. The agriculture sector is controlled by the Nepalese who are very labourous and practice intensive agriculture. The Lepchas practise subsistence agriculture. Animal rearing and trading are the main profession of the Bhutias.

The elite owns the estates, commands wealth, status a degree of power. Important cash crops such as cardamum and apple are grown in areas reserved for the Lepchas and Bhutias. The white collor jobs such as teaching, journalism, medicine and engineering are controlled by plainsmen and Nepali community.

The hilly topography of the state restricts the land use pattern. The traditional agriculture is limited up to 3000 meters. From the view point of land utilization, the whole Sikkim can be divided into three major zones - e.g. the crop growing zone, the forest zone and alpine zone. Maize, rice and ginger are cultivated upto

2000 metres. Wheat, barley and potato are grown at higher altitude. Coarse crop like buckwheat and barley are cultivated upto 3000 metres. The productivity of crops decline at the increase of the elevation and decrease in temperature as well as the plots become small.

The economy of Sikkim is agrictlture base. It is composed of cottage and small scale industry. Large scale industry is insignificant. The major export items is cardamum. These are exported in large quantities to Arab and Middle-Eastern countries. A large quantity of ginger is exported to Delhi and other parts of the country. In addition, apples and oranges are also traded to other parts of the country. Sikkim is famous for producing alcoholic beverage. The limited industrial enterprises are copper mines and Rangpo and Dikchu, fruit processing, jewels and distillery.

In Sikkim, the villages are locally called Busti. The villages are apparently seem to be neat and clean. This is because they are sparsely populated and situated at the slope of the hills.

Dirts and debris are washed out by rain water. The domesticated pigs and dogs often act as scavengers eating away the food debris and human excreta. Although the absence of personal cleanliness and proper sanitation, these people are generally healthy, being diarrhoea, dysentery and skin diseases are common. Pure drinking water is scare.

The communication in the Sikkim is not properly developed. Important places and district headquarters are connected through motorable roads. The state lacks railway linking due to harsh terrain land slides and road blocks are very common during rainy season. Buses and jeeps are not sufficient. So people often have to move on foot or ride for the most of the year. Post and telegraph facilities are not available in all the villages. Villages and Bustis are connected by jeepable stonned roads or bridle paths.

The socio-economic and social-cultural conditions of the people in a community have a strong impact of the quality of life. The quality of populations largely depends on health care system but health system does not operate

independently. So they should not be evaluated isolatedly. It is obvious that preventive and curative effects will be more effective, while other social and economic factors are supportive. Literacy, food production, economic opportunities, transport, trade patterns, employment opportunities etc. all such parameters are conducive to improve the quality of population. These factors effect mortality though nutrition, sanitation and pure water. These factors affect the life expectancy of the people.

The socio-economic condition of the people does create differentials in access to their basic items. During the study and the statistical sources provide limited number of information relating to the economic condition, health and human developmet condition of the state Sikkim.

In the course of our study, information was collected from 645 family units of all ethnic groups from all the four districts of Sikkim. The total population was 3528. The average family size is 5.47. This means the population growth rate is very high. In Sikkim the families are nuclear, joint supplemented by relations, non-relatives and seasonal labourer.

The sex-ratio (the number of females per 1000 males) is 875 which is unfavourable and it varies from district to district and from one ethnic group to another. Districtwise survey based sex ratios are 865,905,876 and 817 in East, West, South and North district respectively. It reveals that North is most unfavourabe and West is more than the state average where as the Census report shows the sex-ratio at 878. It is very close to the survey statistics. The sex ratio of Sikkim is less than nearest West Bengal (917), Manipur (958) and Nagaland (955) and far below kerala (1036).

Age-composition reveals that the population under survey is a developing and young. The portion of population below 15 years is 38.26 per cent in Sikkim. The proportion of population below 15 years indicates a young age sturcture, a high growth rate and developing population. It varies from district to district. It is highest in South district (40.40) followed by East (38.57), West (36.95) and North (36.16). This percentage reflects the dependency burden on the society. For Sikkim

(total) it is 38.26 per cent a little less than Bhutan's 39.22 per cent and less than Nepal's 42. It is more than India's 37.7 but less than Arunachal Pradesh's 43.2 per cent. But it is far behind from the state Kerala (30.3) and nearest West Bengal (35.7).

As opposed to the population from the less than 15 years age groups, that in the 65 and above is very low in Sikkim. It is 2.46 per cent of the total population. This reveals high mortality rate and poor medical or social care and low survival to old age. The proportion is higher in Kerala (6.0) i.e. the survival rate is high followed by India (4.8) and West Bengal (4.4). It have a closer similarity with Arunachal Pradesh (2.6) which is demographically most backward.

The mean age of the females of Sikkim is 25.54 as compared to the male age of 28.1. In case of Sikkim total it is 25.6. It is equal to India's 25.4 but less than Kerala's 26.7.

Sikkim has a subsistance agricultural economy. There is no large scale industry and its agriculture is very backward and the buds are hilly terrain. Land reform was not properly implemented and as a result the distributional aspect is heterogenous in Sikkim. Economically, more than half of the families are either poor or very poor in Sikkim. 50.2 per cent under the bracket of less than Rs. 5000. The percentage in the less than Rs. 10,000 and less than 15,000 is 32.9 and 11.2 per cent respectively. Very often households have an income beyond Rs. 15,000 per annum.

The main cereals of Sikkim is maize and rice. The poor people takes millets and buckwheats. Kalo dal and Moong Dal are also important source of protein diets. In Sikkim all expect the Brahmans take meat but Nepali Hindus avoid pork. Pork is regarded as the more favourite dish than beaf or mutton. The habit of pork eating is the main cause for the helimenthic diseases. Milk is taken only with tea.

Alcoholic drink is very popular in Sikkim. A local drink prepared from fermented millet and buckwheat is used an almost universal drink by the people of Sikkim. The aboriginal inhabitants, Lepcha call it Tumba, Chi (stronger that Tumba); the Bhutias call it Chhang and the chhang and the Nepalese call it Rakshi.

Taking of tobacco is followed by alcohol addiction. The consumption of tobacco is very common among both the sexes, even children are indulged in it.

The diet and food requirement are inadequate among a large section of the people. The deficiency of diet are both qualitative and quantitative. The basic caloric requirement are not met. The intake of protiens is very small while vitamins and minerals fall fars short of the desirable amount. Mal nutrition being a reflection of unfulfilled dietary demands, occurs durig the three vital periods of human life; (a) gowing age, (b) pregnancy and (c) the period of lactation.

The per capita consumption of food grains among the people of Sikkim 0.5169 kg. per day as against Indian average of 0.50 kg.

Initiation to breast feeding is universal in Sikkim. Breast milk contributes largely to the infants and pre-school children's diet. The majority of mothers in Sikkim usually select and consume some special food items are locally made. The food provided to them is poor for their nutritional requirements.

The health problems of Sikkim are classified into main five categories :

(i) a high rate of infections and water brone diseases;

(ii) imporper and poor environmental sanitation hygiene and ventilation;

(iii) deficiency of nutritinal set up;

(iv) ignorance and unconsciousness about health and

(v) unsatisfactory and traditional health care system.

In Sikkim, the decennial growth of population is 28.47. The Crude Birth Rate (CBR) for Sikkim 22.7 per 1000.

The health status of the Sikkim state is poor. The critically low economic and social sectors of the people and the related poor level of malnutition, sanitation, housing etc. explain the prevailing pattern of disease and death.

The leading diseases among the children of Sikkim are (i) respiratory tract

infection, (ii) skin infection, (iii) diarrhoea, (iv) bronchitis and pneumonia, (v) measles, (vi) eye infection, (vii) intestianl worms, (viii) ear infection. (ix) tuberculosis. The main causes of death infants and children under five of Sikkim are : tetanus, birth injuries, pneumonia, diarrohoea and others.

The Sikkim state face a great challenge in seeking to improve the health status of the people. The major factors behind the causation of ill-health includes nutrition, fertility, taceal contamination of the environment and ignorance. Pure and clean drinking water alongwith proper sanitation system are the important factor. In Sikkim, absence of clean drinking water supply and unhealthy sanitation are the major causes of these diseases depressing the quality of life. Another major factor is insufficiency of proper ventilation system. Respiratory diseases and eye diseases result from poor ventilation, because in most of the houses the hearth is in the corner of living room. The fire remains buring because of cold water without any out-let for smoke.

Some environmentaliset and observers argued that water and sanitation systems should receive higher priority than other investments because they fundamentally improve the human condition. During the last century in the U.S.A and U.K cholera and diarrhoea rates dropped sharply, mainly because of improvements in sanitary conditions.

Studies in California and Kentucky have shown that compared to disease rates for children with both indoor water and toilets, diarrhoea occurred twice and often in children who had outside toilets and four times and often in children who had neither. In twenty American cities, the average reduction in typhoid fever following installation of water filtration was 65 per cent A.Ehilean study revealed that "the availability of drinking water ... cut the incidence of acute diarrhoea by about 74 per cent. According to the World Bank's privy construction in Costs Rica, helped cut the death rate in half for diarrhoea and related diseases between 1942-54.

In our country high costs and cultural barriers blocked sanitation development. Most of people live in villages. Villagers want pure water, but

convenience is more important than quality. Food, housing and fuel take procedure over water purity, and toilets are seen as a luxury, not as necessity.

In Sikkim the other developmental programmes have taken precedence over water purity and toilets. The most of people are ignorant about the causation and prevention of diseases. People do not relate diseases to water supply and waste disposal. Most of Sikkim's health problems and related to insanitary conditions and lack of education. They are preventable by public health measures. In Sikkim greater importance is given to curative measures instead of preventive ones. In 1980 there were five hospitals and twelve health centres in Sikkim. There was one doctor for every 4800 persons. The ratio is 3359.

Internationally accepted norm for doctor/population ratio is 1:2000 which means that Sikkim would need to have more than as per standard.

The population is scattered over an large area which have not easy transportation. The effectiveness of a dispensary or a hospital in such a conditions is reduced in terms of both area and population covered. If medical facilities are located at fixed places, the doctor or nurse/population ratio would be considerably than the internal standard. The national norm of having a primary Health Centre for a population of 20,000 has been achieved in Sikkim. But the hilly and inaccessible terrain and heterogenious distribution of people at far off places creates difficulties for the sick.

With this ecological factors and human settlement patterns have widened they ways for the outbreak of some diseases. Socio-cultural and economic factors have stimulated their incidence and seasonal factors have increased their incubations and complications. If rain brings in the gastrointestinal disorder,summer brings the cough and the phelgm and the cold winter affects the people with infections of pneumonia, bronchitis and the respiratory diseases.

Besides doctors and nurses, there are medico religious men in Sikkim. These men are called by differnet local names - the Bon-thing, Mun, Pan and Jhankaris. These people have a thorough knowledge of the abundant flora of the state, and since time immemorial, they have known how to use this knowledge for treating

diseases. However, these treatments are usually accompanied by elaborate rituals and ceremonies. The causes of illness can be classified into two groups : (a) diseases caused by supernatural beings - deities, spirits, ghosts, and other non -material entities and (b) diseases caused by magical means ... witchcraft and soreery.

These different diseases are treated differently. Diseases caused by super natural beings are treated with worship and devotion accompanied by animal sacrifice. Diseases caused by magical means are treated by exorcism. These systems involve rituals, the medicineman, the exorcist and the patient. The attempt of health anf hygiene is not of high order in Sikkim. As there are no preventive health care measures than can be taken by the population to avoid illness, the only preventive measures are periodic village and family rituals toward off the evils spirits. The majority of the people have no idea about the causation and preventive of diseases. Adequate modern facilities are not available, people depend on traditional medical care; herbs are used as medicines alongwith long rituals and animal sacrifice to cure different diseases. For combating various diseases, improvement of health system will certainly play a decisive role, but over-all improvement in socio-economic sector will bring about good results. In diseases like diarrhoea and other infections, pure drinking water supply, good sanitation, drainage, personal hygiene education and better nutrition will bring the desired results.

The present health programme is insufficient to meet the requirements of the dispersed populated state like Sikkim. An instensive care is to be taken to tackle the health problem of the state and to raise the quality of life of the people. Another major issue is registration of vital events. Vital statistics are very poor. So emphasis should be given in this direction. The main emphasis in health planning in these areas should be on; (i) expansion of proper health infrastracture through out the state; (ii) arrangement of requisite staff for the health centres;

(iii) prevention and eradication of water brone and communicable diseases;

(iv) providing modern equipments;

(v) enhancing training facilities and the quality of services;

(vi) promoting the indigenous system of medicine ;

(vii) maintaining nutritional standards and providing adequate immunization services;

(viii) water brone diseases are very prominent in the mountains area. So a high priority should be given to provide drinking water free of contamination.

Another vital issue is Education. Education is regard as the prime factor for the developments of the quality of life. It depends on the educational infrastructure and local motivation. Alongwith this a high priority should be given on girls education. As gender bais is very prominent in the state. The main objectives of the education policy should be to;

(i) expand education facilities in inacesssible rural areas ;

(ii) special emphasis to girls education;

(iii) extend the facilities of technical and vocational education;

(iv) improve the facilities for science and higher education;

(v) improve the skill of manpower. The quality of life largely depends on the enhancement of capability of man. So education framework should be designed on the basis of occupational oriention.

(vi) education policy should be matched with local requirements and development programme.

The major objective of the present study is to evaluate the present condition of human developments in Sikkim. In my study, the human development Index of Sikkim is found to be 0.3987 in 1992. And it is less than the national average i.e. 0.4081 in 1992. So it is evident that the human development Index of Sikkim is far behind the national level. Obviously from this we may conclude that the quality of life and development process is slower in the state than national level. Another objective of the study was to assess and evaluate the HDI at the grass root level too and social impact. The combined HDI of Sikkim is recorded as 0.3987. But the male human development Index is 0.4172 in 1992 and the female human

development index is 0.3837. Hence female HDI is lagging behind male HDI. From this we may assess the social impact of HDI at the grassroof level.

In the micro-level literacy rate has improved significantly from 34.05 in 1981 to 56.94 in 1991, although Adult Literacy must have an improvement. In the field of health, infant mortality rate and mortality rate has declined sharply and the life expectancy has increated significantly.

Our last objective was to make a comparative study between state and village level. State level and village level disparity arises due to urban - rural composition of population. But in sikkim, urban population is accounted to 9.10 per cent of the total population. But practically except Gangtok all urban places are of rural nature. As a consequence, the comparison is not so meaningful.

There are three major ethnic groups in Sikkim,e.g. Nepali, Bhutia & Lecpcha. There may be ethnic influence and impact on the human development of the state. There are some ethnic characteristics behind the adoption and development process. Ethnic diversity is clearly observed in my study regarding the consumption pattern. As Sikkim is a traditional society and religious belifs are dominent. So there is a scope to calculate human devolepment Index on the basis of ethnic composition to find out the inherent nature the people towards development.

Political participation and local motivation also plays a crucial role. The up liftment of human quality or human development strcsses on peoplis participatin in the formulation and implementation of programmes. Local bodies, e.g. panchyat, village and block level organisations, local level statutory organisatins should be positively involved in the planning and implementation process. Recently Non-Governmental organisations are also playing significent role in pursuiting various development related problems in the rural and urban areas. For proper implemention and linkeges particularly in eradicating illitarcy, family planning programme drugs de-addiction programme, intensive programme for rural income generation providing modern vocational training organisation and motivation of the local people for specific development should be emphesized. Government level intiative is to be undertaken to promote and increase social demand for literacy mission,

health facilities, income generation protecting environment and Govt. plan should be matched with local requirements and benifits.

Women are playing vital role in the Economy. They are ivolved with so many economic activities beside household works. Women are responsible for agricultural and Livestock activities. The direct involvement and participation of women in the planning, implementation and operation of projects will lead to an effective implementation of human development programmes. It is through their active participation that family welfare and planning programme can progress. Another extensive special programme is to be undertaken to take care of children below the age of five and pregnant and lactating mothers.

The human development Index of Nepal is 0.168 in 1992 and 0.289 in 1994 and Bhutan achieved 0.146 in 1992 and 0.247 in 1994. Sikkim achieved 0.3978 in Human development Index in 1992. During 1992, the HDI of Sikkim is better than Nepal and Bhutan Not only this the HDI of Nepal and Bhutan in 1994 are also less than HDI of Sikkim in 1992. So we can conclude that Human development of Sikkim has enhanced after merger with India. But in Comparison to national level (0.4081), Sikkim is lagging in respect to Human development. Another significent charaeteristics is that gender bais is also very wide in Sikkim. So we need a delicate planning to boost up the grass-root devlopments process to enrich our nation.