

## Chapter II

### Sikkim : A general overview

Sikkim is a tiny state in the eastern Himalayan region surrounded by vast stretches of Tibetan Plateau in the North, the Chumbi Valley of Tibet and Bhutan in the East. Darjeeling district of West Bengal in the South and Nepal in the West. The state is almost rectangular in shape, being 113 kilometers long and 64 kilometers wide. The state has no open valleys and no plains but has varied elevations ranging 300 metre to 5,500 metre above mean sea level, consisting of lower hills, mid hills, higher hills, Alpine zones and snow bound peaks (glaciers). The main highest peak is Kanchenjunga. The Rangeet and Tista rivers form the main channels of drainage North-South.

**Rainfall & climate :** The state is subjected to heavy rainfall. The mean annual rainfall varies from 2000 mm to 5000 mm. Major rainfall is received between may to September and there is a great variation in temperature depending on the altitude of a region. There is high degree of variation in climate and vegetation which ranges from sub-tropical to alpine. The ranges are tropical (below 610 mts), subtropical (610 to 1524 mts), temperate (1524 to 2743 mts), sub-alpine (2743 to 3962 mts) and alpine (3962 to 5182 mts).

The climatic condition of the region or state plays a significant role in determining the consumption factor, housing, sanitation, health condition and environmental degradations etc. Agricultural production and economic activity of a region depends on the geographical factors. That is why we have to make a closer look through these factors.

**Land use :** Land use pattern depends on the topographical features of the state. The whole of Sikkim from the view of land utilization can be divided into

six major zones. However the crop growing zone and the forest zone have an economic importance. Maize, rice and pulses are cultivated up to 2000 mts. At higher elevations wheat, barley and potato are grown & hardy crops like buck wheat and barley, are grown up to 3000 mts. As the altitude increases, the temperature decreases and consequently the cropping pattern changes and the crop yields (productivity) declines and so do cultivated plots. The population density also decreases with increase in altitude and this is due to inaccessibility and natural constraint in food production and supply. The food habit and consumption pattern of people also curves towards the local production. So the land use pattern and soil composition directly affects the health, hygiene and economic status of the people. The total area of Sikkim is 7299 square kilometers of which, total operated area is 15.37%. Forest is 36.15% and 39% of the total geographical area is under snow and alpine pasture.<sup>1</sup>

The state is enriched with luxuriant vegetation of different types. Forest is an important source of state income. It includes not only timber, but also bamboo, fuel wood, fodder, minor forest produce, medicinal plants and wild life.

Composition of population : According to population census 1991, population of Sikkim is 4.05 lakhs indicating a decennial growth of 28.1 per cent which is 4.6 per cent higher than the Indian average and 22.6 per cent lower than the decennial growth rate of sikkim, 1981. Sex Ratio is estimated at 878 which is much lower than the Indian average. 41 per cent of the total population have been participating in gainful economic activities as main workers. Among the total workers 88% are engaged in agricultural occupation which contributes about half of the Net State Domestic Production. Another notable feature of the Sikkim is the rate of female participation in economic activity. It is 53 per cent which is highest among the all state and more than double the All India average. As regards annual growth of population, the birth rates are consistently falling from 32.4 per thousand in 1981-83 to 30.4 in 1988-89 and the death rate has gone down from 9.8 to 8.8 during the same period<sup>2</sup>.

The decennial growth of population since 1901 shows a massive increase,

this happened not only due to the increase in birth rate but also due to the Nepali migration which was initiated by the British and it became a continuous process up to the present day also. Nepali migration also altered the ethnic composition in Sikkim<sup>3a</sup>. The present population of Sikkim is mainly composed of Nepals, Lepchas, Bhutias and the plains men. It is a fact that lepchas are regarded as the original inhabitants of this area.

Buddhism, Hinduism and Animism are dominant religious sects. In Sikkim, it is very difficult to classify them. Most of Nepalese are Hindus but a few like Sherpas are Buddhists. Bhutias are mostly Buddhists. The popular religion both of the Hindus and Buddhists is based on a daemon and in this there is no deep cleavage between the two sects. Nepali groups are always within the general framework of Hindu caste system.

There are fourteen ethnic groups in all over Sikkim. The Lepchas, Bhutias, Serpas and Tamangs are Buddhists while a section of the lepchas are found to be of Christianity conversion and all others are Hindus. The ethno-historical features of the various population groups are presented below.

**Lepchas :** The lepchas are regarded as the original inhabitants of Sikkim. Their original religious belief was animists but now-a-days most of them are converted into Buddhism. Previously their main profession was hunting and shifting cultivation but they are landowners or agricultural labour. They are highly concentrated at Dzongu area of North Sikkim; they are vile and submissive in nature and culturally they are isolated from other groups and their common language lepcha is different from Indo-Tibetan group which originated from Tibeto-chinese language family.

**Bhutias :** The next prominent ethnic group is Khambas, popularly known as Bhutias which is originated from the word 'Bhot' means Tibetan. They profess in Buddhism and very strong, hardy and good tempered. They are mainly engaged in Agriculture and Trade, although some of them are still herdsman and breeders of sheep and yaks, which is their original profession. They are spreaded all over Sikkim but highly concentrated at lachen and Lachung, two river valleys in North

Sikkim. Bhutias had a traditional conviction with Tibet regarding their social, religious and trade route. But the war of 1962 put restrictions on their traditional life and economy. So the political system has changed their traditional economic system.

## Nepali

(i) **Sherpa** : They are mainly found in West Sikkim. There is a striking similarities between Bhutias and Sherpas. Most of them are marginal farmers and agricultural labourer. They are followers of Buddhism and their language belongs to Tibeto-chinese stock.

**Tamangs** : It accounts nearly 5 per cent of the total population. Their main profession is agriculture. They had come from central Tibet are followers of Buddhism and their language is Tibeto-chinese Stock.

**Brahms and Chettris** : This group consists of nearly 20 per cent of the total population. They are spreaded all over Sikkim except North. They are followers of Hinduism and their language Nepali is of Indo-European stock.

**Pradhans (Newars)** : The Newars were the first people of Kathmandu valley, from where they immigrated into sikkim. They are followers of Hindu. Their main occupations are trade and handicrafts.

**Rais** : It is composed of nearly 14 per cent of the Sikkim population. They are concentrated in the western and southern districts. They follow Hinduism and speak in Tibeto-chinese language. Their main profession is agriculture.

**Limbus** : This is another group of Rais, they are known as Subbas which means headman.

**Gurungs** : They are of the ancient Nepalese group but they follow Hinduism. They are known as the old Mongoloid mountains people of Nepal. They immigrated into Sikkim during the last two centuries.

**Mangars** : This group is related to Newars and they are Hindus by religion

and their language belongs to Tibeto-Chinese stock. The mangars are the largest old ethnic group of Nepal, immigrated into Sikkim. They are mostly spread in West and south districts.

**Scheduled Castes** : This group consists of five castes namely damai (Tailors), Kami (Smiths), Lohar (Blacksmiths), Maji (Fisherman) and sarki (Cobbblers). These Sects have immigrated from Nepal and India and they follow the Hindu religion. The agriculture sector is controlled by the nepalese, who are laborious and practice intensive agriculture. Traditionally all land belongs to Kazis and kazis operated through Mandals. The land reform of 1982 was unsatisfactory. The original inhabitant Lepchas practice subsistence agriculture. The Bhutias are practicing pastoral economy on high lands.

Most of the trades in Sikkim are in the hands of marwaris, Biharis and some of them of the Lamas. Indo-Sino war has sealed the fate of Bhutia traders. Most of the commercial and industrial enterprises are controlled by the marwari, Bihari and Madesia traders (outsider) from the Indian plains.

*Table 2 : Distribution of Ethnic Groups by Religion and language in Sikkim<sup>3b</sup>*

<i>Sl. No.</i>	<i>Ethnic Group</i>	<i>Religion</i>	<i>Language</i>	<i>Percent</i>
1.	Lepchas	Buddhism/ Christianity	Lepcha (Tibeto-Burma)	12.8
2.	Bhutias	Buddhism	Bhutia (Tibeto-Burma)	14.1
3.	Sherpas	Buddhism	Sherpa (Tibeto-Burma)	3.7
4.	Tamangs	Buddhism	Tamang (Tibeto-Burma)	5.0
5.	Brahmans	Hinduism	Nepali (Indo-Aryan)	8.4
6.	Chhetris	Hinduism	Nepali (Indo-Aryan)	11.6
7.	Pradhans	Hinduism	Nepali Newari	3.5
8.	Rais	Hinduism	Nepali Rai	14.6
9.	Limboos	Hinduism	Nepali Limboo	9.4
10.	Mangars	Hinduism	Nepali Mangar	2.6
11.	Gurungs	Hinduism	Nepali Gurung	6.1
12.	Scheduled Castes	Hinduism	Nepali	5.9
13.	Trading communities			2.2

Administrative posts are dominated by the Bhutia and Nepali community and there is a infighting among different ethnic groups. Next the white-collor profession is a new phenomenon in subsistence Sikkim economy. The academic ad technical persons are coming mostly from Indian plain but the scenario is going to alter with the moment up of education system, in the state.

### **Population distribution :**

The population of Sikkim is heterogeneously distributed. This settlement is influenced by the environmental factors, historical facts, socio-cultural factors, economic constraints, natural settings, developmental factors and demographic factors. The geographical factors such as terrain, soils, natural resources and accessibility are the major factors affecting the spatial distribution of population. And another economic viability and changing developmental thrust has an impact on the population distribution. It's merger with India and the inflow of central assistance has altered and attracted population from the neighboring countries.

Sikkim is divided into mainly four administrative districts and eight sub-divisional area. The districts are East, West, South and North and each district possesses two sub-division. East district consists of Gangtok and Pakyong sub-division and West is composed of Gyalshing and Soreng, South consists of Namchi and Ravongla and lastly North is sub-divided into Chunghang and Mangan. The rivers Tista and Rangit are the two natural dividing lines.

Now to make a closer look into the population distribution we have to analyse the following table : 3

*District wise Area and population (1991 Census) of Sikkim State <sup>4</sup>*

Dist.	Area (sq. km.)	Popul ation 1991	1971 Den sity	1981 Den sity per sq. km.	1991 Den sity per sq. km.	Forest percent to Total Area
1. East	954	178452	90	145	187	54%
2. West	1166	98161	-	64	84	64%
3. South	750	98604	70	101	131	40%
4. North	4226	31240	-	6	7	Mostly by Forest & glaciers
Sikkim	7096	406457		45	57	

*Source : Census Report Sikkim 1981, 1991*

The forest distribution has an impact on population distribution. This is evident from the above table. The East district has the highest density, being its 54 per cent land area is covered by Forest, of 187, although the increment was 55 during 1971-81 but it has increased by 42 in 1981-91. In West district the density was 64 in 1981 but it rose to 84, occupying the third position and the West district is adding 30 persons in each decade and the North shows a marginal increase of one person.

Migration is a crucial factor, influencing the population distribution of the state. Nepali and plains men immigration is a common feature; Nepalese are coming from Nepal and Bhutias are from Tibet.

### **Agriculture :**

The contribution of agriculture sector to economic development lies in providing increased food supply to the expanding population, helping in the expansion process of small scale and tertiary sectors creating employment opportunities, increasing rural income and improving the welfare of the rural people. In Sikkim food production dominates the agricultural sector. It is a primitive and subsistence economy. The income elasticity of food is very high; it is nearly 0.8 to 0.9 per cent.<sup>5</sup> Moreover, the increase in population is due to rapid decline in mortality rate and slow reduction in fertility is also due to the extended modern health care system.

Rural purchasing power is very low due to the lack of marketable agriculture surplus. So the market for manufactured goods is very small. Increase in rural income as a result of agricultural surplus tends to improve rural welfare. Peasants start consuming more food specially of a higher nutritional value in the form of superior quality cereals, eggs, ghee, milk, fruits, etc. They build better houses fitted with modern amenities like electricity, furniture, radio, fan etc. They also possess bicycles, motor cycles, watches, readymade garments shoes etc. They also receive direct satisfaction from such services as schools, health centres, irrigation, banking, transport and communication facilities. In this context we are making a closer look to the state of agriculture in Sikkim.

Agriculture contributes the lion's share of state income and employment. Rural population mainly depends on the agriculture and the proportion of main workers engaged in agriculture has been marginally reduced from 73.73 per cent in 1981 to 72.12 per cent in 1991. It occupies almost half 49.16 per cent of Net State Domestic Production.<sup>6</sup> As NSDP or per capita income is the reflection of economic condition of the state and economic development as well as Human Development. It is customary to analyse the details of the agriculture condition of the state. In Sikkim, cropping intensity widely varies with the ecological diversity and elevation. Cropping intensity and pattern influence the economic life and food habit of the people of a particular climatic zone. It has an extended impact on

health, housing, sanitation and environment too.

Sikkim has an inherent natural barrier of increasing area under cultivation and so intensive, multiple and diversified cropping practices are being accepted. As the population increases the availability of per capita land declines.

Table 4 : Availability of percapita land per head<sup>7</sup>

Type of land (hectare)	1981	1991
1. Net cultivable land	0.31	0.24
2. Operated area for agriculture use	0.34	0.27
3. Land for non-agriculture use	0.27	0.21
4. Pasture and culturable waste land	0.23	0.18
5. Forest	0.83	0.65

*Source : Sikkim : A statistical profile, B.E.S. Gangtok.*

Percapita cultivable land declines at the rate of 0.07 hectare within a decade whereas the decennial growth rate of population decreases at the rate 22 per cent within the same period though total population increases at a decreasing rate. So the intensive cultivation, and increasing use of plant nutrients both in terms of organic and inorganic fertiliser are the only answers besides high yielding variety seeds. Productivity of agriculture directly varies with irrigation facilities and fertiliser consumption.

Table 5 : Performance of Agriculture: A Comparative profile<sup>8</sup>

<i>Item</i>	<i>Sikkim</i>	<i>National</i>
1. Percentage of gross irrigated area cropped area (1986087)	11.9	31.4
2. Consumption of fertiliser per hectare of cropped area (kg) (1988-89)	13.4	62.2
3. Yield per hectare (kg/hc)		
(i) Total cereals	1355	1574
(ii) Total pulses	933	575
(iii) Total food grains	1217	1369
4. Per capita production of foodgrains	130.3	193.8

*Source : Sikkim : An Economic Survey 1991-92.*

It depicts that irrigated land, fertiliser consumption and per capita production is much below than national average. Interestingly, it may be mentioned that per hectare yield of pulses in Sikkim is much higher than national average.

Table 6 : Districtwise variation of crop production (.000 Tonnes)<sup>9</sup>

	<i>North</i>	<i>East</i>	<i>South</i>	<i>West</i>	<i>State</i>
Maize	4.24	13.83	15.40	20.48	53.95
Rice	1.74	8.86	3.04	7.07	20.71
Wheat	1.74	5.00	3.17	4.19	14.10
Barley	0.13	0.32	1.20	0.53	1.18
Pulses	0.07	1.38	1.79	2.17	5.41
Potato	2.45	8.30	4.15	18.60	33.50
Cardamom	1.205	1.132	0.754	0.709	3.8
Gross Cropped	12526	24484	26147	26043	89200
Area	(14.04)	(27.54)	(29.31)	(29.20)	(100)

*Source : Sikkim - A statistical profile - B.E.S.*

It is evident that North district occupies only 14.04 per cent of the total cropped area. The cultivation pattern is also primitive and mixed farming is observed. It produces maize as the major cereal followed by potato, rice and wheat. The South district has the maximum cropped area, followed by West and East. The production of maize is nearly four times higher than North district followed by potato, rice and wheat. The West district produces highest amount of maize among the four districts i.e., 20.40 (.000 tonnes). The West district also leads in cardamom production whereas the East district produces maximum amount of

rice among the four districts followed by West and South. It also leads in wheat production. Potato and ginger cover maximum area in the West district.

Apart from food grains production, state has increased its oilseeds production specially rape seed, mustard and soyabean in recent years. It is also initiated sun-flowers in selected areas. Potato has played an important role in the development of agriculture in Sikkim. Sikkim potato is famous for seed among the neighbouring states. Sikkim potato are used in the same year as seeds.

Besides production of main agricultural crops, state has taken adequate measures to develop horticulture which has large potential in the state. The horticulture department is also encouraging the farmers in adopting fruit crops, vegetables and other tubers and rhizometric crops which have a large potential in the state.

**Animal Husbandry :** The animal husbandry sector has been providing supplementary income to a large no. of families, specially in rural areas. The overall achievement in milk, egg and wool production during the last three five year plans.

Table - 7<sup>10</sup>

<i>Item</i>	<i>Unit</i>	<i>5th plan</i>	<i>6th plan</i>	<i>7th plan</i>
Milk	000ML	10.95	19.00	27.00
Egg	Million	1.25	3.50	12.00
Wool	000kg	24	24	28

*Source : Sikkim - An Economic Survey - 1991-92, B.E.S.*

It is evident that milk production increased nearly 3 times from 5th to 7th plan and egg production raised to 10 times but the wool production showed no remarkable change. Per capita milk consumption is about 170 milliliter, whereas egg consumption is estimated 30 eggs per person per year. The nutritional status of the people depends on the protein intake is not significant.

There are 9 veterinary hospitals, 25 veterinary dispensaries, 54 stockman centres, 51 veterinary doctor, number of animal treated is 1,61,221 and vaccinated 28,001.<sup>11</sup> Besides this infrastructure the livestock composition is in accordance with 1988 census. There are 1,83,385 cattels, 3,088 buffaloes, 1,09,143 sheep and goat, 5,354 yaks (mostly in north Sikkim), 1368 horses and ponies, (concentrated at North Sikkim), 31,207 pigs, 41 donkey and mules (north mainly and 2,56,840 poultry.<sup>12</sup>

### **Forest :**

Sikkim is a state of flora and fauna. It is endowed with abundant wealth to which thrive some rare and endangered wild life species, the tourism, hydro-electricity and agro-based industries. These assets are gradually degraded and depleted, resulting an alarming situation of environment. The high incidence of soil instability, loss of top soil, degeneration of good agricultural land and shrinking catchment areas of river system have become major concern. It is customary to preserve 60 per cent of the total geographical area under forest cover in hilly regions; sikkim has at present 36.30 per cent of total geographical area under forest of which 40 per cent area is under threats of degradation. Out of total forest areas of 2650 sq.km., under reserved, Khasmal and Goucharan areas are 2261 sq.km., 285 sq.km., and 104sq.km. respectively. Afforestation is the crying need against the continuous degradation of forest. During the last decade from 1979-80 to 1990-91, 19,434 hectares have been covered under the afforestation programme and 777.79 hc. have been brought under quick growing species and fuel wood production and 5385.50 hectares have been covered under social forestry upto 1991-92. <sup>13</sup>

### **Irrigation :**

Irrigation is an essential input bringing improvement in agriculture and the Government created an irrigation cell in power dept. in 1976. Under this scheme,

the minor irrigation plants are feasible depending on the topography and terrain of the state. During 1986, a separate department was created to the rich water resource towards the development of agriculture. The districtwise distribution of the number of channels, length, area covered and the potentials are given.

Table 8 : Channels <sup>14</sup>

<i>District</i>	<i>NO.</i>	<i>Length (km.)</i>	<i>Area covered (Hect.)</i>
North	52	57	1575
East	223	197	7228
South	52	106	33017
West	86	130	3857
Total	413	490	15961

*Source : Irrigation Dept. Govt. of Sikkim*

### **Sericulture :**

There is a high degree of potential for sericulture in Sikkim due to conducive climate. But the growth is not sufficient. The forest department maintains three nurseries namely at Roraghang, Marring and Namthang covering an area of 345 acres. During 1991-92. The three farms produced 13241 kg of cocoons which is 34% lower than the previous year.

**Fisheries :** The feasible area of pond fishery development is estimated around 110 hectares. There are four seed fish farms. During the year 1991-92 2,80,000 fingerlings were distributed which is 12% higher than the previous year. Fish production has gone up to 96 tonnes from 95 tonnes in the previous year.

Table 9 : Fisheries <sup>15</sup>

<i>Particular</i>	<i>Unit</i>	<i>1981-82</i>	<i>1991-92</i>	<i>1992-93</i>
Fish production	Tones	24	95	97
Fish seed production	Million	0.05	1.00	1.00
Fish seed farms	No.	1	5	5
Nursery area	Hect.	0.6	2	2.2

*Source : Sikkim at a glance - 1993.*

### **Industry :**

Since merger with India, four districts of Sikkim are declared as industrially backward and the Directorate of industries was entrusted with the complex task of industrial development. In August 1976, the Industrial Training Institute was set up at Rangpo to supply the trained technicians.

Table 10 : Industries<sup>16</sup>

<i>Particulars</i>	<i>Unit</i>	<i>North</i>	<i>East</i>	<i>South</i>	<i>West</i>	<i>State</i>
Provisional registered small units	No.	274	797	201	131	1403
Permanent registered small scale units	No.	5	179	39	20	243

*Source : Sikkim at a glance - 1993 (as on 3.3.93)*

In economics, an entrepreneur is an economic leader who possesses the ability to recognise new commodities, new techniques, new sources of supply of labour force etc. to enhance the industrial sector. The state has not been able to

establish any regular system of collecting industrial enterprises. Yet the contribution of the industrial sector to state domestic product has been found to be steadily increasing from 1980-81 to 1987-88. As a result of more than 50 entrepreneurship motivation and development programmes conducted where more than 1200 prospective entrepreneurs attended. Although 173 units were registered with the industry department in the 1990. Only 25 units were found to be registered during the year 1991-92 providing an employment to about 316 persons. Only two district industrial centres are there at Jorethang and Gangtok serving to the needs of all four districts and a growth centre is planned at Mazitar at East district.

#### **Power :**

Power is known as the “Wheels of Development” for its key role in economic development. Sikkim possesses a high potential for generation of Hydroelectric power but unfortunately it could tap about 0.3 per cent of its water resources for generation of electricity. Water is regarded as renewable resource. So there is a longer perspective of development of Sikkim in future. Yet cent per cent electrification of villages and towns has been achieved by the end of 1992. In recent years, there is a short fall of 12.4 MW which is expected to reach about 19.3 MW by the end of 8th plan. During 1991-92, 27.0 MKWH energy were purchased from outside the state to meet the domestic demand. In 1991-92, 47 per cent are used in domestic sector; 38 per cent are used in the industrial and commercial sector and rest 15 per cent have been used for public lighting and transmission loss is estimated at 22 per cent.

Present picture of power project :

Table 11 : Generation units in Sikkim as on 31.3.92<sup>17</sup>

<i>Sl. No.</i>	<i>Name of Power Plant</i>	<i>Location</i>	<i>Year of commissioning</i>	<i>Installed capacity (MW)</i>	<i>Generation (MW)</i>
1.	Jali Power House Rongnichu Stage I	Topakhani	1962	2.50	1.50
2.	Rimbi stage I	Rimbi West	1970	0.60	0.04
3.	L.L.H.P.	Ranipool East	1979-80	12.00	6.0
4.	Rongnichu Stage II	Topakhani East	1988-89	2.50	2.0
5.	Rimbi stage II	Rimbi West	1988-99	1.00	0.5
6.	Chaten Micro Power	Lachen North	1988-89	0.10	0.05
7.	Lachung Micro Hydel	Lachung North	Feb.1992	0.20	0.20
8.	DPH. Gangtok	Gangtok East	1958 81-82	1.70	stand by
9.	DPH, Ranipool	Ranipool	1979-80	1.0	

*Source : Power Department, Govt. of Sikkim.*

Table 9 : Installed Capacity & Generation <sup>18</sup>

<i>District</i>	<i>1979-80</i>		<i>1991-92</i>	
	<i>IC(MW)</i>	<i>G(MKWH)</i>	<i>IC(MW)</i>	<i>G(MKWH)</i>
No	-	-	0.1	0.25
East	14.5	22.54	17.0	34.65
South	-	-	-	-
West	0.6	0.57	1.6	4.38
Total	15.1	23.11	18.7	39.28

*Source : Power Department, Government of Sikkim.*

### **Transport and Communication :**

Sikkim entirely depends on road transport system, it is inevitable that roads and bridges is of pre-ponderant importance in the economic development of state. Proper Transport and communication facilities are the essential component of modern development.

It enriches the quality, skill and efficiency of the population. Since Sikkim embarked upon its developmental experience in the year 1954, a significant improvement has been made in terms of quality, standard as well coverage of the net-work in the state. At the beginning of the first plan, there were only 19 km. rough road from Rangpo to Gangtok and a few kms. in and around the capital, by the end of 1992 total road net work has been classified into National high ways, state highways, Major District Roads and other district roads.

**The break up of roads by type :**

Table 12 : Type and Kilometer of Roads<sup>19</sup>

<i>Sl No.</i>	<i>Road type</i>	<i>Year</i>		
		<i>1979-80</i>	<i>1991-92</i>	<i>Change</i>
1.	National highway	40	40	0
2.	State highways			
	(i) Surfaced	584	780	196
	(ii) Unsurfaced	0	157	157
	(iii) Total	584	937	
3.	Major district roads			
	(i) Surfaced	347	266	
	(ii) Unsurfaced	00	180	
	(iii) Total	347	446	
4.	Other Districtt Road			
	(i) Surfaced	321	114	
	(ii) Unsurfaced	00	706	
	(iii)Total	321	820	

*Source : S.P.W.D. State highway includes GREF.*

Above table reveals that National highway remains constant during the period 1979-80 to '91-92 but the state highway both surfaced and unsurfaced have increased remarkably there is a close parity of growth in use major roads and other District Roads.

Besides this there are 1 head post office, 17 sub-post offices, 170 branch post offices, 14 public call office and one combined office and in case of

Telecommunications, the facilities include one telegraph office, 15 telephone exchanges, 30 P.C.O, 7 P.A.B.X.S. There are 2525 telephone users in the state.<sup>20</sup>

**Cooperation** : The cooperative movement in Sikkim launched with the establishment of 35 Multipurpose Co-operative Credit Societies. These were implemented during fifth five year plan for the purpose of providing institutional credit to the agriculture sector. Decentralisation of financial institutions is first and foremost condition of economic development . During the sixth plan period, the co-operative sector was extended to consumers co-operatives and Milk-co-operatives. In the 7th plan, the activities of the cooperative sector was further diversified and consolidated by opening of new societies, increasing memberships, handling and distribution of essential commodities and consumer items, distribution of agricultural inputs, procurement and marketing of farm produce etc. At present there are 252 Co-operative societies in Sikkim under 13 different categories.

Table 13 : Capital Endowment of Co-operative Societies as on 31.3.92 (in lakhs) <sup>21</sup>

<i>Sl. Type No.</i>	<i>Paid up capital</i>	<i>Working capital</i>	<i>Reserve fund</i>
1. MPCs	13.02	161.00	2.00
2. Consumer Cop.	11.22	34.85	15.64
3. Dairy Cop.	3.17	64.00	0.55

*Source : Cooperative Department, Govt. of Sikkim Gangtok.*

For the 8th plan the logistics of cooperative movement, proposes to consolidate its structure, extending its net work towards agro-based industries, village industries and artisans like Blacksmithy, Tailoring, Floriculture, Poultry, Piggery and weavers cooperatives as well as reviving the sick units. An integrated Cooperative Development Project was taken.

### **Banking & Small Savings and Insurance :**

Sikkim has made a significant improvement in banking sector during the last decade. The banking facilities have increased manifold during last 12 years. The scheduled commercial banks has initiated their operations in the state in 1966 and State Bank of Sikkim started functioning in 1968. At the end of 5th plan, there was only one unit in Gangtok but by the end of 1991-92 it has expanded its branch throughout the state covering all districts. There are 54 bank offices all over Sikkim in 1991-92, of them 56 per cent of total branches are located in rural areas which is a significant achievement. There are 10 bank units in Gangtok, including private and public. There is one bank office for every 7709 persons in the state. However, in urban areas, on an average, for every 1676 persons, there is one bank which is very significant.

The comparative study of the per capita deposits as on 1990-91 indicate that Sikkim has a much higher per capita deposits among all the North-Eastern states including all India average whereas per capita credit from Banking sector is found to be much lower in North-Eastern states including Sikkim, compared to all India average. The credit deposit Ratio works out to be 21 per cent for all the public sector banks in Sikkim. The performance of the public sector Banks (except SBS & SBL) during ,91-92 reveals that out of Rs. 20.97 crores advance, only 32.05 has been extended to priority sectors. Direct advance to agriculture was in the order of Rs. 3.50 crores, to small scale industries, craftsman and other qualified entrepreneurs Rs. 3.45 crores and to transport operator Rs. 3.11 crores which constitute 11.31%, 11.14% and 10.04% of the total advance respectively.<sup>22</sup>

Table 14 : Banking Structure<sup>23</sup>

<i>Sl. Name of Bank No.</i>	<i>No. of branches</i>	
	<i>1979-80</i>	<i>1991-92</i>
1. State Bank of Sikkim	9	21
2. State Bank of India	1	18
3. Central Bank of India	0	9
4. United Commercial Bank	0	2
5. National Bank of Agriculture & Rural Development	0	1
6. Sikkim Bank Limited	0	4
Total		55

*Source : Lead Bank, SBI Gangtok.*

**Small Savings :** The small savings is playing a crucial role in Sikkim and recently it has been a useful source of financing the developmental programmes in the state. However, the overall performance during the year 1991-92 has been found to be sluggish compared to 1990-91.

A comparative statement of some of the main items included under small savings are presented here for 1990-91 to 1991-92.

Table 15 : Small Savings : Sikkim (in lakhs)<sup>24</sup>

<i>Sl. Item</i>	<i>Year</i>		<i>% Variation</i>
<i>No.1990-91</i>	<i>1991-92</i>		
1. Savings Bank (Gross)	30.75	32.78	(+) 6.6
2. Savings Certificate	6.22	8.30	(+) 33.44
3. Recurring Deposits	11.31	17.50	(+) 54.73
4. Indira Vikas	58.91	54.42	(-) 7.62
5. Public Provident Fund (Gross)	4.98	2.70	(-) 45.78
6. Monthly Income Share	3.07	2.25	(-) 39.19
7. National Saving Scheme	6.51	3.94	(-) 39.48
8. Kisan Vikas Patra	110.21	76.63	(-) 30.47

*Source : Post and Telegraph Department, Govt. of Sikkim.*

In terms of item, recurring deposit and saving certificate has showed a remarkable improvement during the period, the variation is 54.73% and 33.44% respectively. Except Saving Bank all other item had to face a set back. Out of them public provident fund, monthly income share and National Saving Scheme has declined sharply. These sector should be improved. Beside life Insurance Corporation, General Insurance and National Insurance Companies are starting their business recently.

**Tourism** : Travel from earliest times has held a fascination of mankind. It not only encourages to explore new places and seeks a change of environment and experiences, but also contribute to the economy of the state. Tourism also can make a tremendous contribution to the improvement of social, political and religious understanding and is an important means of promoting cultural exchange and international co-operation. The climate of Sikkim is celebrated and its scenic

beauties are excellent. Sikkim has high potentials for development of Tourism which may contribute substantially in the form of spin-off benefits to overall health of the economy. The tourist traffic to the state has gone up 5 times during the last decade. During the year 1993, 70,365 domestic and 7,360 number of international tourists have visited Sikkim.

Table 16 : Growth of Tourist Traffic <sup>25</sup>

<i>Particulars</i>	<i>Unit</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>
Domestic	No	61,360	68,048	70,365
Foreign	No	6,187	6,904	7,360

*Source : Sikkim at a glance- 1993.*

Hotels, Restaurants and Guest Houses <sup>26</sup>

<i>Particulars</i>	<i>North</i>	<i>East</i>	<i>South</i>	<i>West</i>	<i>State</i>
Hotels	7	88	12	10	117
Restaurants	13	130	19	16	178
guest houses	9	13	7	15	44

*Source : Sikkim at a glance - 1993. B.E.S.*

The infrastructural base in the form of tourist transport and accommodation is to be increased. The numbers of room accommodation has gone up 26 per cent whereas no. of beds has gone up by 22 per cent which is quite significant.

**Role of the state :**

In order to overcome the rigidities inherent in the underdeveloped regions, the state must play a positive role. The problems are so acute that these cannot be left to the free working of the economic forces. In a backward state like Sikkim in the early phases of development, investments will have to be made in those directions which promote interest economics by creating economic and social overheads like power, transport, education, health etc. So it is necessary to control over production, distribution and consumption of commodities. For this purpose the government has to devise physical controls, monetary and fiscal measures. Some problems are discussed below :

**(a) Institutional framework :** The economic development of a region largely depends on the socio-cultural attitudes of the people. Sociocultural factors are very prominent in Sikkim. This society possesses religious and cultural tradition which are not conducive to economic development. The institution framework does not encourage national individualistic behaviour and the spirit of competition and enterprise. Its economic development is to proceed social attitudes, values and institutions entrenched in the joint family, the caste or kinship and in religious beliefs must go change.

**(b) Organisational changes :** The size of market and the organisation of labour market play an important role in economic development. Besides the organisation and development of financial institutions to help the growth of agriculture and industries can be taken by the state.

Labour is mostly immobile in this state. The majority of the people live in rural areas and are engaged in agricultural operations for a limited period. So they are underemployed or disguised unemployed. Information lack aggravates the situation.

**Social and Economic Overheads :**

The need for basic services like transport, communication, gas, electricity, irrigation works is imperative for future development. The government should formulate a plan for the development of the essential services on a priority basis.

**Education :** Economic as well as Human development is not possible without education. An education programme has to be wide and varied. There is the need for primary education so that every child of school going age may receive compulsory education. In order to provide material for universe of basic education and for larger educational facilities, more secondary schools are required to be opened. At the same time, training institutes are needed for imparting instructions to mechanics, electricians, artisans, nurses, teachers, agricultural assistants etc. It is regarded that the state should initiate a long term programme of educational expansion and reform.

**Public Health and Family Planning :** As masses are the ends and means of development so the state should undertake positive measures to improve public health. To increase the efficiency and productivity of labour, the health of people must be progressively improved. Public health measures include the improvement of environment sanitation both in rural and urban areas, removal of stagnant water, better housing, clean water supply, better sewage facilities, control of communicable diseases, provision for maternal and child welfare, health education and family planning etc.

**Agricultural Development :**

Agriculture is the predominant occupation in Sikkim. It contributes more than half the share of the state income. Despite this, agriculture remains in a state of stagnation. In Sikkim, the holdings are uneconomic and fragmented and the land tenure system is defective. The peasants are poor, illiterate and ignorant. They lack organisation; they do not possess sufficient motivation for making improvements in land.

The success of the agricultural development will, however, depend upon land reform measures by the Government. Land reform measures include : (1) abolition of intermediaries; (2) security of tenure of tenants; (3) right to purchase land which tenants cultivate; (4) compensation for permanent improvements made on land by tenants; (5) to limit the rent charged by landowners; (6) fixation of ceilings on agricultural holdings and (7) consolidation of holdings.

The development of the co-operative societies and the functioning of the govt. machinery is necessary to improve the agriculture sector. The Programme aims at raising agricultural productivity through the use of better techniques of cultivation, better seeds, fertilisers and adoption of improved agricultural practices. It stresses on the improvements of irrigation, road communications, health and sanitation services in the rural areas. This programme also concentrates on the development of agro-type village industries, and fish, poultry and dairy products. Overall it aims at to attack the five giants - disease, hunger, ignorance, squalor and unemployment along with mental outlook of the rural people.

**Industrial development** : The Sikkim Govt. is taking keen interest in the development of industry. The private sector is primarily engaged in the manufacture of a small consumer goods for domestic consumption. Sikkim's development is mainly state sponsored because of the absence of local entrepreneurs. The state governed industrialisation programme and some fundamental institutional changes the Govt. has created Sikkim Industrial Development and Investment Corporation to look after and spread up industrial development of the state. The government of India has also recognised the SIDICO.

Besides this, District Industrial centres have been established to provide all the support and services to the enterprises. The Government of India declared all the four district as "No Industry Districts". So Sikkim will be eligible for central investment subsidy and 75 per cent Central transport subsidy for industrial needs.<sup>27</sup>

### References

1. Sikkim : A statistical profile - 1979-80 - 1991-92 Bureau of Economics & statistics Govt. of Sikkim
2. Census report - 1991
3. (a) Nakane Chie : "A study of plural societies in Sikkim" Minzokhgaku Kenkyu in the Japanese Journal of Ethnology XXII 1958
3. (b) Bhasin - Veena : Bhasin, V:-Ecology, Culture and Change : Tribals of Sikkim Himalayas, Inter-India Publications, New Delhi-1989.
4. Census Report. 1991, 1981
5. Sikkim : An Economic survey 1991-92 Burean of Economic & statistics Govt. of Sikkim
6. Ibid
7. Sikkim : A statistical profile 1979-80 - 1991-92 B.E.S. Govt. of Sikkim
8. Ibid
9. Ibid
10. Sikkim : An Economic Survey 1991-92 B.E.S. Gangtok P.11
11. Sikkim at a glance - 1993, B.E.S. Govt. of Sikkim
12. Census Livestock - 1988. B.E.S. Govt. of Sikkim
13. Sikkim : In Economic Survey - P.12
14. Irrigation Department, Govt. of Sikkim
15. Sikkim at a glance - 1993, B.E.S. Govt. of Sikkim
16. Ibid
17. Power department, Govt. of Sikkim
18. Ibid

19. State Public Works Department, Govt. of Sikkim
20. Sikkim at a glance 1993
21. Co-operative Department, Govt. of Sikkim
22. Sikkim : An Economic Survey - 1991-92 - B.E.S. P.22
23. Lead Bank & State Bank of India, Gangtok.
24. Post and Telegraph department, Govt. of Sikkim
25. Sikkim at a glance - 1993 B.E.S.
26. Ibid
27. Dasgupta. M. Sikkim. Problems and Prospects of Development : Indus Publishing Company, New Delhi, 1992.