

## CHAPTER XIV

### CONCLUSION

#### 1. Summary

Sikkim surrounded by Nepal on the west, Bhutan on the east and Tibet and Darjeeling on the north and south respectively and with an area of 7069 sq. km. and a total population of 403,612 is a tiny mountainous state of the Indian Union. Out of its four districts, North District the most prominent district occupies an area of 426 sq. km., about 1/3 of the total geographical area of the state. La-chen and La-chung are the two valleys in North Sikkim situated at an altitude of 8960 ft and 8610 ft respectively. The rural economy of Sikkim based in the past on feudalism was in the hands of Chhogyals of the Namgyal Dynasty and their feudal lords for nearly three hundred and thirty years beginning from 1642 till its merger with the mainland in May 16, 1975. At present the population of Sikkim comprises three main ethnic groups the Nepalese in the majority, Lepchas and Bhuteas followed by the plainsmen. However, these ethnic groups are absent in La-chen and La-chung where the entire population are tribals who claiming their descent from the immigrants of a tract called "Ha" in the north of Bhutan and therefore distinguishing from Sikkimese Bhuteas call themselves La-chenpas and La-chungpas, though they are socially and culturally very akin to the Tibetans.

In Sikkim 83% of the total population excluding plainsmen live in rural areas earning their livelihood mainly from farming. Agriculture in the state is not purely crop farming. Farmers also

keep animals such as cattle, goats, pigs, poultry etc. In La-chen and La-chung not only upland cattle but yaks and sheep are also kept by the tribals. As such agriculture in Sikkim is close to mixed farming. In the two valleys barter trade with Tibet and animal husbandry were the main occupation till the sixties. From 1962 onward a number of cataclysmic changes made the tribals switch to a more settled life of mixed farming which is different from the mixed farming practised in the rest of the state.

Agriculture though occupying a pivotal position in the states economy, no measures were initiated for its development by the rulers of the Namgyal Dynasty till mid fifties, except practising a feudalistic land management and land-revenue system which however differed from that of La-chen and La-chung. The land management and revenue system can be studied in two phases beginning from the reign of Raja Sidkeong Namgyal till 1947 and thereafter in the light of the changing socio-economic and political scenario the new agrarian reforms that have been introduced on the recommendations of the Land Reforms Committee, 1974 for the betterment of the farmers.

Traditionally all land in Sikkim belonged to the Raja who before giving away his land to his subjects for usufructage divided it into several "illakas" or estates. Prior to 1947, the total number of such illakas was 105, out of which 15 formed the Private Estates of the rulers, 5 the Monastery Estates and the

rest was meant for giving away to the public settlement. Such illakas the ruler first gave away on lease to a number of Kazis and Thekadars who were required to pay a fixed amount of money to the ruler. Such Kazis and Thekadars were called lessees who were allowed to settle any number of "vyots" in their illakas by collecting from such settlers any amount of revenue for which they were not accountable to the ruler. In 1900, such leases were issued for a period of 15 years which could be renewed, but could not be transferred. The first such land lease was granted to the Nepalese Thekadars by Raja Sidkeong Namgyal in 1867. The Thekadars are the Nepalese counterparts of the Bhutea Kazis.

Land within the Private Estates held directly under the ruler was settled with the local landlords, whereas the management of Monastery Estates was carried on by an ecclesiastical wing called the "Udor Tsosum". Lands within the Private Estates and the Monastery Estates held by the Raja and monks for their personal cultivation were cultivated by a class of landless tenants called "Chakareys" who for their free labour service thus rendered were granted plots of land to live on and to cultivate for their subsistence.

Another type of tenancy tenurial system that existed in Sikkim and still exists is called the "Pakhuria" system under which the "ryots" or bustiwallas lease their land holdings to other tenants if they cannot cultivate them personally. The tenants cultivating land holdings under this system are called "adhiadars"

if they share half of the main agricultural produce with the bustiwallas and the other class of tenants are called "Kutiadars" who pay land tax to the bustiwallas at a stipulated rate either in cash, or in kind. The status and rights of bustiwallas and other tenants in Sikkim are defined in the first cadastral survey and settlement operation undertaken in 1950 and completed in 1958. Similarly in the second cadastral survey and settlement undertaken in 1975 and completed in 1983, the provisions for maintaining records of rights of bustiwallas and tenants are made by setting up a new Department of Survey and Settlement in 1976 which is now merged with the Land Revenue Department as a cell of Land Records. The land records prepared in Sikkim from 1976 onward are map, khasra, khatian, dhadda, jawabandi and block description. According to the current survey of 1976-83 the number of holdings is 45,480 with 331607 number of plots. The average area per holding is 3.6370 hec. whereas it is 2.5 hec. in other states.

Before the first cadastral survey of 1951, Sikkim had a crude form of land revenue system. From bustiwallas land revenue was collected by Kazis and Thekadars by a number of land revenue assessment methods known as 'Ankha Zancha', "Maha Zancha", "Thutey Zancha", "Bis Pathy" etc. Land revenue in the past was paid in kind. In 1915, C.A. Bell the Superintendent of Sikkim introduced the system of paying land revenue in cash instead of kind. After the cadastral survey of 1951 Maharaja Tashi Namgyal introduced changes in land revenue assessment method by first dividing the

land holdings into paddy land and dry land which again according to their elevations were classified into Class I, Class II and Class III. Under this system the rate of land revenue introduced by Tashi Namgyal was discriminatory. For the same area and type of land Nepalese bustiwallas were required to pay more land revenue than Lepchas and Bhuteas. However later on after political agitations this discriminatory rate of land revenue was abolished by the king in 1956. He then divided all land holdings into 405 revenue blocks. Each revenue block was again divided into three circles, circle A, circle B and circle C according to fertility of soil, location and access to markets. All interior land holdings were grouped together under "special circle C". The rate of land revenue fixed for the last circle was 25% less than that of other circles.

Landlordism when abolished in Sikkim in 1949 Mandal assisted by Karbari used to collect land revenue from bustiwallas are commission basis. Finally in 1987, this system has been replaced by setting up a new Department of Land Revenue. At present collection of land revenue is being done directly through district revenue administration.

The land management and land revenue system in La-chen and La-chung was different in the past and it is still different from the rest of the state. From the records of travellers like Hooker and Campbell, it is known that La-chen and La-chung in the past were "Ranikhawa", i.e. the estate kept for the upkeep of the "Gyalmo" or the Queen of Sikkim. On behalf of the Queen the land

management of the two valleys was entrusted into the hands of different feudal lords for a number of years when finally they were brought under the control of the Chhogyal. From Macaulay's report, the Chhogyal appointed a village chief called Schi-pdon (pronounced Phipun) for La-chen and La-chung. Geographical isolation and inaccessibility of the two valleys in the past helped the inhabitants to develop their own system of village administration. From Macaulay's report what is little known about the land revenue system of La-chen and La-chung is that the Raja used to depute an Officer to La-chen and La-chung every year to collect revenue from the people. Macaulay says "revenue paid to the Raja is a seer of butter for each milch yak and a blanket and a seer of salt for each house. On La-chen side the tribals after every three years used to present to the Mandal of Chungthan a yak as grazing tax. The yak was slaughtered as a sacrifice during religious festival and the yak meat was equally distributed among the people of chungthang.

At present, land revenue in La-chen and La-chung is collected by the Schi-pdon himself at a rate of 25% less than the rate of circle 'A', Circle 'B' and Circle 'C' since La-chen and La-chung revenue blocks being infertile have been grouped together in "Special Circle C". Land management in La-chen and La-chung is based on their own tribal tradition. Forest land and pasture land are commonly owned by the tribals for their common use. Alienation of land within the two valleys to outsiders, by way of sale, or

in any other way is strictly prohibited by the village council "Dzumsha". Their land distribution system known as "Sago" is a communal form of land tenure, but cultivated on individual basis subject to revisionary rights of the community as a whole. A "Dzumsha member" is entitled to 55 x 55 Dhams of land (A Dham is a unit of measure, 4 Dhams = 1 Thakpe). Tenurial Tenancy system of "adhiadar" and "Kutiadar" does not exist in the two valleys.

Agriculture in Sikkim covers only 11.04% or 78321 hec. out of its total geographical area, because forest is the first major land use followed by barren land which occupies 25.40% Sikkim's dense coniferous forests are found in La-chen and La-chung, of North Sikkim. These forests provide raw materials for the paper factory of the state. In the absence of well planned development of the state's natural resources its economic potential had remained unexploited in the past. After its merger with the Indian Union it has been realised that a speedy development of agriculture and exploration and utilisation of forest resources are vital for an overall development of the state's economy. The planned development of agriculture first initiated by the last Chhogyal late Palden Thondup Namgyal in 1954 gained momentum only after 1975, i.e. from the Fifth Five Year Plan onward.

With a view to increasing agricultural production, a wide range of development programmes, such as setting up of demonstration farms, seed certification centres and nurseries, minor irrigation,

fertilisers and agricultural implements, adoption of scientific method of cultivation etc. have been undertaken. The Panchayat has also been involved in the distribution and storage of fertilisers, seeds and insecticides. In Sikkim from the Fifth Five Year Plan onward attempts have been made to tackle the developmental problems in a more scientific way based on the recommendations of a Team of Experts headed by Mr. B. Shivaraman. According to their recommendations the state has now been divided into nine regions with five sub-centres and 105 V.L.W. circles. A Soil Testing Laboratory, ICAR Research Complex and a Spices Board have also been set up in Gangtok. The ICAR Research Complex and Spices Board help the Agriculture Department in solving specific problems associated with crops like large cardamom, ginger, orange, vegetables, potatoes etc. During the Seventh Five Year Plan, a number of new programmes such as agriculture research and education, high yielding varieties programme, development of commercial crops, plant protection, extension and training, agriculture engineering, agriculture economics and statistics, dryland development, horticulture, storage and warehousing, agriculture marketing and quality control and soil and water conservation on agriculture land have been taken with a fair degree of success. New Land use systems such as agro forestry, agro horticulture, silvi pastoral etc. have also been introduced in the state.

Agriculture in Sikkim being close to mixed farming animal husbandry has its significance in the state's economy. Therefore with a view to developing livestock enterprise the government set up a separate Department of Animal Husbandry in 1974 by separating it from the Agriculture Department first set up in 1954. The Animal Husbandry Department first of all conducted livestock census in 1977 followed by another census in 1982. It has also set up a number of veterinary hospitals and dispensaries, polyclinics and stockmen centres to provide veterinary service such as mass vaccination against cattle diseases at 100% subsidised rate within the state. According to livestock census of 1982, the total number of cattle both cross bred and indigenous stands at 172546, buffaloes male and females 4054, yaks males and females 3470 and sheep cross bred and indigenous 10817.

Agricultural produces of Sikkim are classified as cereal crops, pulse crops, tuber and root crops, cash crops, fruit crops and vegetable crops. Among cereal crops the main crop is rice followed by maize, finger millet, barley, buckwheat and recently introduced is wheat. Among cereal crops rice is grown in irrigated terraced banded fields. Cultivation of other cereal crops depends on rainfall. Barley is a hardy crop which can be grown even in condition of frost. Buckwheat is grown in hilly tracts of Sikkim, but recently it is considered as cash crop as it fetches more price than rice and so it is being grown not only on hilly tracts, but also as a chief rotational crop.

\* The pulse crops are soybean, black gram and horse gram. They are grown either as mixed crops on bunds of paddy fields or as rotational crop.

Among tuber and root crops grown in Sikkim, potato is the most important crop. In Sikkim, it is grown mainly for seed purpose and is exported mainly to West Bengal and Bihar. Potato requires a dormancy period of 60 days before it can be used as seed. A great advantage of Sikkim seed potato is that it can be used as seed in the plains in the same year, because the harvesting season of potato in Sikkim is August — September. The dormancy period of 60 days will be over when sowing season for potatoes begins in the plains in the month of November.

Among cash crops large cardamom and ginger are important. They have been in cultivation from time immemorial. Large cardamom is cultivated so much that according to Agriculture Census of 1980-81 about 14,047 hec. of land had been brought under large cardamom cultivation and Sikkim contributes about 70% of large cardamom produced in India. It is a semi irrigated crop.

Fruit crops of Sikkim are apples and oranges which are grown mainly as commercial crops. Apple orchards are found mainly in La-chen and La-chung where European settlers introduced it in 1890. Oranges are cultivated in Sikkim from time immemorial. Apples grown in Sikkim are of inferior quality and so they are marketed within Sikkim only without any grading.

Regarding the gross cropped area of Sikkim cropwise the largest area is covered by maize which is 46.42% followed by cardamom which stands at 23.65% and rice covers only 13.05%. If maximum area covered by major crops district-wise is studied, it is found that rice covers maximum area in East District which is 50.15% of total area under rice in Sikkim, maize in South District which is 35.22%, potato in West District which contributes 50% of total potato production and cardamom in North District which is 31.16%.

The land holdings in Sikkim according to their sizes are classified into marginal holdings with an area of 1.0 hec - less, small holdings 1.0 hec - 2.0 hec, semi-medium 2.0 hec - 4.0 hec., medium holdings 4.0 hec - 10 hec. and large holdings 10.0 hec and above. Among the five classes of land holdings the number of marginal holdings is largest which is 255. Marginal and small holdings are either wholly cultivated by bustiwallas themselves, or wholly leased out by them. An interesting feature of tenancy tenurial system is that larger the size of land holdings the fewer the number of such holdings leased out to tenants. Above 20.0 hec. the land holdings are exclusively owned and operated by bustiwallas themselves. In cultivation agricultural implements applied are simple and traditional. Seeds used are both indigenous and high yielding varieties. As for nutrients, both organic manures and fertilizers are applied. In unirrigated holdings organic manure is applied more than fertilisers.

As pointed out by Land Reforms Committee agriculture in Sikkim had been characterised by insecurity of tenancy tenurial system and concentration of landed property in the hands of a few landed aristocracy. After the state's merger with the Indian Union, the government of Sikkim with a view to bringing about agrarian reforms enacted legislation among which important are the Sikkim Cultivators' Protection Act 1975 and Sikkim Agriculture Land Ceilings Act 1977 for imposing ceilings on agricultural land holdings and vesting such land in excess of the ceiling limit to landless tenants with a view to bringing about an equitable distribution of agricultural land in the State. The Act has fixed the ceiling of  $12\frac{1}{2}$  standard acres for a family with five members and in the case of a family with more than five members  $12\frac{1}{2}$  standard acres added by 2 standard acres for each additional family member. The ceiling shall not exceed  $20\frac{1}{2}$  standard acres and downwards it shall not be less than 5 standard acres. Abolition of land lordism in Sikkim has been effected by Notification No. 2753-252/LR dated 20/8/1949. These agrarian reforms however did not achieve much success. Even today in Sikkim quite a number of persons still own more than 100 acres of land which makes a mockery of agrarian reforms undertaken by the govt.

Mixed farming of La-chen and La-chung is totally different from agricultural practices in the rest of the state. In the two valleys the entire area is covered with steep hills and deep valleys. In fact there is hardly any flat land available. Small

arable plots of land are all scattered in different valleys and at different elevations. On the La-chen side such arable plots of land are situated both to the south of the valley and to the north of the valley upto Thangger. La-chung has a few arable plots of land all situated to its south. The two valleys have dense coniferous forests. On the north further away from the valleys Alpine wilderness of undulating pastures extend towards the Tibetan plateau. The valleys get snowfall from the end of October and it continues till the early part of March.

Under such hostile environment, the people of the two valleys evolved in the past their own system of village administration under their village chief known as Schi-pdon (pronounced Phipun). They also developed a migratory life style i.e. moving from one arable land and pasture to another for cultivating and grazing cattle. Such movement from one place to another with their family members and cattle is known as transhumance. It is seasonal in nature, going up in summer and descending to lower regions with the onset of winter. In La-chen and La-chung the day to day economic activities such as seasonal migrations, sowing and harvesting, culting hay etc. are directed by the Phipun assisted by his subordinates and the "Dzumsha" members. "Dzumsha" is their village council house.

Cultivation in La-chen and La-chung thus starts with their seasonal migrations. From May onward, cultivators leave their village headquarter and move to their arable plots of land with

their family-members and animals. School going children are now a days left behind in hostel provided by the government. In days gone by during transhumance even school used to be shifted to uplands during summer. They have small temporary huts on such arable plots of land where they stay a couple of months and again move to the next plot of land and pasture. The main crops grown in the valley, besides apples are potatoes, some maize and barley. In higher regions due to cold barley does not get ripe. The tribals therefore cut it while still green and get it dried in the sun to be given later on as hay to cattle when it snows heavily. Tilling of land in the two valleys is not done by plough share drawn by bullocks, because the terrain does not permit it. The agricultural implements used in the valleys are mainly meant for scratching the earth's surface for reception of seeds. A wooden hoe sometimes drawn by a yak is used for tilling land. After tilling, harrowing is done with a ladder like frame made of bamboo. In the vicinity of La-chung cultivators use iron-sickle, forks and spade as they are commonly used in other parts of Sikkim. Irrigation in the valleys hardly exists. Mostly cowdung manure has been in use, but some fertilisers and pesticides are now being applied.

Livestock reared and raised in the two valleys are upland cattle, sheep and yaks. Feeding and cattle management in La-chen and La-chung differs from the rest of the state. None of the arrangements like thatched roof shed, or ground floors of houses walled with stones on three sides are constructed in La-chen and

La-chung for keeping cattle. Cattle are let loose and they during the day time freely graze about in the nearly jungle or in the fields. In the evening they come back and remain in the vicinity of houses. Yaks and sheep are raised in uplands to the north and further away from La-chen and La-chung. Only when snow fall starts, the herders come down to lower regions bringing their animals with them. In the mixed farming of La-chen and La-chung yaks occupy a prestigious place the way of bustiwallas possessing paddy fields in other parts of Sikkim enjoy prestige among others who just own dry land. Yak husbandry in North Sikkim is done by the tribals of La-chen and La-chung at altitudes between 8000 ft - 16,000 ft. Yak is a large, long haired mostly black in colour excellent pack and riding animal in high mountainous regions. White yaks are very rare and is more valuable than black yaks. Yaks attain maturity at about 2-3 years of age. The age at first calving varies from 4-4½ years. In Sikkim breeding season of yaks is from July-August. In a herd one bull is kept. The rest is castrated either to be used later on for ploughing, or to be slaughtered for meat, or to be used as pack animals for transportation. Average yak bulls reach a live weight of 650-lbs-720 lbs. An interesting point of yak husbandry is that the cross bred male yak between pure yak bull and local cow is sterile and the female yak yields more milk, is hardier and tolerates heat better than pure yaks. Yaks are entirely grazed and while grazing they are kept alone and go upto a height of 20,000 ft. Migratory nature of yaks does not favour the

construction of permanent sheds for them. Only yak herders stay in tents made out of yak's hair. In the evening, yaks are herded back to the camping site and sometimes they are left in the open pastures for days together. Once or twice in a week herders go to open pastures to feed salt to yaks and also to count them. Lactating yaks and new born calves are kept near the composite for milking purposes. Only in winter and during heavy snowing period concentrated feed like crushed barley, maize flour and salt are given to yaks.

In the economy of La-chen and La-chung yaks and sheep provide a vital link in the food chain of the tribals. Dairy products like milk, butter, butter milk, meat provide them with the much needed protein. By selling yaks tails they can augment their income. Yak's hair, and wool from sheep are used in making tents, blankets and other woollen garments. From yak's hair a number of other items are also made which are used by the herders themselves. Yaks serve as principal means of transportation and as pack animals in uplands of La-chen and La-chung. They are also used in ploughing. Yaks are related with the life, culture and religion of the tribals of North Sikkim as well as Budhists and Hindus of Nepal.

For developing mixed farming in these two valleys the government of Sikkim as in other parts of the state, has set up a Regional centre and an Apple Orchard and Seed Potato Farm at La-chung and a Sub-Regional Centre and in Agricultural Farm cum Nursery at La-chen. Having conducted a number of adaptive trials

of various crops at these Regional Centres, La-chen and La-chung have been found to possess tremendous potentiality for producing off season vegetables. A distinctive feature of mixed farming in La-chen and La-chung is that recently they have started producing off-season vegetables like cabbage, peas and reddish in the months of July and August when in other regions of the state, due to heavy rainfall, vegetables can not be grown.

Agriculture in Sikkim and in La-chen and La-chung of North Sikkim integrated with animal husbandry presents such an economy where these two sectors are interdependent. Generally cattle throughout the state are used in ploughing and threshing and as a source of manure and protein. On the other hand, domestic animals are fed partly on agricultural residues, such as straw and stubble from cereals and other crops.

As a result of planned economic development, agriculture is well established in Sikkim as compared to the North Eastern states of the country. Evidently the practice of mono cropping has been changed to double cropping and triple cropping, relay cropping and multiple cropping irrespective of elevation and agro-climatic conditions. With the introduction of short duration, photo-insensitive and high yielding varieties of paddy, maize, dwarf wheat etc. production has certainly gone up, but unfortunately not to make the hilly state still self-sufficient in food grains.

2. Modernization of agriculture in Sikkim with reference to modernization of mixed farming in La-chen and La-chung valley of North Sikkim :

Modernization invariably associated with the economic development of a country has been defined by different writers in diverse ways. Some define it in terms of changing institutions, while others as changes in individual attitudes. Among writers, Manning Nash and Wilbert Moore consider modernization as a process of becoming, or process of social change that has taken different forms in societies with different institutional background. Economic development, on the other hand, means growth accompanied not only by changes in real output per capita but also by changes in the structure of the economy, in the country's social structure, besides changes in the technological, demographic and administrative framework of the country. An inevitable accompaniment of growth is the shift away from agriculture to non-agricultural sectors, which phenomenon is usually referred to as industrialisation.

Modernization, though invariably associated with economic development, the nature of such relationship has been a source of controversies- some writers view modernization as the cause of economic development, while others argue that modernization is the result of economic development. Among writers, Alex Inkeles and M. Smith David argue that causation runs in both directions, but the relative strength of directional flow has not been made clear by them.

To the extent that economic development is perceived as institutional changes and changes in individual attitudes, modernization of agriculture in Sikkim may be viewed as resulting from various developmental plans and programmes undertaken by the government of Sikkim specially from 1975 onward the year of integration of Sikkim with the Indian Union. Acting within rural economy with its feudal background, the efforts of the state government have been geared toward modernization of agriculture is evident in various agrarian reforms undertaken by the government. Such reforms worth mentioning are the abolition of all intermediaries like feudal landlords, the office of Mondals and Karbaris in 1987 as far as the collection of land revenue is concerned. At present, land revenue collection in Sikkim has been modernised and is done directly through district revenue administration so that "bustiwallas" (primary land-holders) unlike in the past, cannot be exploited. In Sikkim, the abolition of traditional system of providing free labour service by the tenant farmers to royal members, monasteries, feudal lords, Mondal and Karbari etc., locally referred to as "Jharlangee" is yet another step set forward on the road to modernization. The enactment of the Sikkim Cultivators' Protection Act of 1975 and Sikkim Land Ceilings and Reforms Act of 1977 are yet another instance of agriculture being modernized in Sikkim.

From the Fifth Five Year Plan onward, modernization in Sikkim's rural economy has witnessed a significant change in the method of tackling its developmental problems under the direction

of a Team of Experts. The state has now been divided into 9 regions, five sub-centres and 105 V.L.W. centres. Various adaptive trials of seeds and research work are undertaken at such regional centres and sub-centres as well as new techniques of cultivation, showing a new variety of seeds, application of fertilisers, pesticides etc., and new cropping patterns are demonstrated in Government Farms by Experts. The setting up of a Soil Testing Laboratory at Gangtok for the purpose of testing soil and then recommending the type of fertilisers to be applied in various soils has further modernized agriculture in Sikkim. During the Seventh Five Year Plan (1985-90) a number of new developmental programmes such as agriculture research and education, extension and training, agriculture engineering, agriculture statistics and economics dryland development, development of commercial crops, storage and warehousing, agriculture marketing, quality control and soil and water conservation on agricultural land initiated by the government are instances of modernization of agriculture in Sikkim.

Animal Husbandry has also been modernized by separating it from Agriculture Department and giving it a separate identity in 1974. Since then a number of veterinary hospitals, dispensaries, stockman-centres and provision for veterinary services such as mass vaccination against cattle diseases at 100% subsidized rate have been undertaken by the government.

Throwing some light on the mixed farming of La-chen and L-chung valleys of North Sikkim in the context of modernization,

it may be mentioned that modernization in the two valleys is an uneven process. The tribals who before the sixties used to wander in the wilderness of Alpine pastures of North Sikkim either with their flock of sheep and herds of yaks, or with caravans of mules and horses doing barter trade with Tibet, have now switched from pastoral economy and barter trade to more settled cultivation, besides rearing and raising of livestock. With a view to modernizing mixed farming the government has set up a Regional Centre, Apple Orchard Farm and Seed Potato Farm in La-chung and a Sub-Regional Centre and Agriculture cum Nursery in La-chen. The two valleys have been found to possess tremendous potentiality for producing off-season vegetables like cabbage, peas and raddish. In the cultivation of off-season vegetables, La-chen and La-chung have made a significant progress is backed up by the record that during 1984-85 in the months of July-August the valley of La-chung alone produced over 200 tonnes of cabbage which amount was entirely transported to Gangtok and Siliguri in West Bengal for sale.

Referring to the report of the survey of La-chen and La-chung undertaken by us, it may be said that the tribal society is in transition. The tribals are found to be gradually breaking away from their traditional settings, habits and moving into new social organisation. The emergent trend seems to be towards nuclear family. In our survey we have classified 100 families into a smaller group of 2-5 family members and a larger group of 5-10 and above. The number of families belonging to the smaller group, both in

La-chen and La-chung is 60 and 56 which is rather larger than the number of larger family which is 40 and 44 respectively. Accompanying this rise in the number of small size family in La-chen and La-chung is a decline in the age-old traditional practice of polyandry among the tribals. "Relatively open-minded and cognitively flexible" which are the qualities of a modern man as pointed out by Alex Inkeles and M. Smith David in their book, "Being Modern: Individual Change in Six Developing Countries" are now slightly reflected in the tribals of La-chen and La-chung. The educated La-chenpas and La-chungpas at present divorcing themselves from traditional moorings are moving out from their valleys to Gangtok and carving a niche for themselves in fields as diverse as administration, commerce, education and politics. One La-chungpa even has the distinction of having held a ministerial post in Sikkim.

Again there are a few cases of La-chenpas and La-chungpas marrying Nepalese girls, thus adding yet another dimension to the process of modernization.

In the context of modernization, what needs to be mentioned is that despite modernization, their traditional system of village administration by the Phipuns through the "Dzumsha" is so well entrenched in the community that it has opposed introduction of the Panchayat system and yet has not opposed the socio-economic changes that are gradually taking place in the two valleys.

Modernization, however in the field of livestock enterprise specially raising of sheep and yaks in the highlands of La-chen and La-chung is almost non-existent. Yak herders living in tents at altitudes of 14,000 ft. and above have undergone no changes in social life, except changes in their environment brought about by the encampment of Indian army and the roads bulldozed by the army throughout the Alpine pastures. The life of Yak herders is as primitive as it was in the past. Their method of making dairy products like "chhoorpee" (hardened cheese), butter, butter milk, dry yak meat, yak hair ropes, yak hair tents etc., are still old and crude. Management and feeding methods of yaks and yaks breeding in the highlands of La-chen and La-chung have not as yet improved on scientific lines. In fact, every year a number of yaks and sheep die by eating poisonous plants and yet no scientific measures have been devised to tackle this serious problem. The method of sheep breeding and shearing of sheep have not undergone any changes. Shearing machines with clippers driven by electricity are used in developed countries like Australia, but in the highlands of La-chen and La-chung the method of shearing sheep is manual and is done with the help of a knife. In the name of modernization what the Government Animal Husbandry Department is doing for the yak breeders is that it deputes a stockman from time to time for providing veterinary services, such as mass vaccination against cattle disease.

It is said that societies which do not meet the challenge of new events will disappear, or in some cases may fall victim to

starvation or disease. The communities of La-chen and La-chung in spite of cataclysmic changes and uneven process of modernization have survived, because the creative response demanded of them has been forthcoming. If their response is sufficiently creative, economic advancement will occur. And here lies the importance of the role to be played and the policies to be adopted by the government.

### 3. Policy Recommendation

In the agrarian economy of Sikkim for developing agriculture the policies and plans adopted by the Government of Sikkim specially from the Seventh Five Year Plan are commendable. As a result of such developmental plans agriculture in Sikkim in general is established better than the north eastern states of the country.

In isolated and far flung regions, such as La-chen and La-chung and the uplands, however, obstacles to change are not fully overcome yet. Distance from the state capital, Gangtok, makes it more difficult for the government to control the action of powerful traditional elites. Lack of roads limits marketing opportunities and the mobility of government extension workers and stockmen and so the people remain unexposed to new ideas and changes taking place outside their isolated region.

Given these kinds of difficulties, policies and programmes designed to promote social change and economic development in such isolated regions inhabited by traditional tribal societies, must adopt a long-term perspective. In the long-term strategy, the provision of social overhead capital (SOC) is a legitimate role for government in the process of economic growth and development. Social overhead capital, or sometimes called infrastructure, may be defined as capital goods used directly or indirectly in the production of goods and services generally. Examples are roads and highways, rail roads and communications networks, electricity, education and health etc.

Improved transportation and communication networks stimulate economic growth by making product and factor market, function more efficiently. In a planned economy, by providing better and quicker information within the planning hierarchy. Labour and factors of production become more mobile. The rural people spend less time and money in marketing their produces and can also choose from a wider range of buyers and traditional obstacles to economic growth and development will be broken down as individuals and communities become more exposed to different new ideas and institutions and become aware of possibilities for social change.

Public utilities till the other day have drawn scanty attention of government. But as economists increasingly adopt a definition of development which emphasises the provision of social basic human needs, the government is required to pay more attention to these types of SOC projects and then to distribution of their benefits to a greater number of residents of rural as well as urban areas. A man should be taught to fish rather than giving him a fish.

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