ISSN 2250-3153

The overview of Horticultural growth the role of horticulture in Tamenglong District: a survey account of ten villages in the Tamenglong District, Manipur State

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I. Overview of Horticulture

This paper is devoted to an overview of literatures so far review related to role of horticulture in relation to historical background, international, national, regional and state issues with special reference to Tamenglong district. Distinguished scholars, thinkers, horticultural scientists, government and non-governmental organization have mentioned on the importance of horticulture and its allied activities. Intensive and comprehensive overviewed is done concerning to hilly and mountainous regions along with rural development issues. This chapter tries to see the gap in the literature and also throw some light on the already existed literature on the topic of my research areas and an attempt is made to assess what is left undone, so that new things and current research issues can be connected with the present times. It also includes the survey account of ten villages in Tamenglong District, Manipur.

II. Historical Background of Horticulture

Sargent [1973] highlighted that in primitive stages of agricultural development, agriculture remained the main occupation of the people. In the transitional stage of economic development, agriculture carried immense burden in the drive for economic growth. However, during maturing phase the main emphasis still remains on the maintenance of balance role for agriculture, but horticulture becomes more important. This is due to commercialization of crops around the world. Fruits and vegetables have becomes greater importance in the past few year in the process of agricultural development. This is so because of the high increases in income derived by the cultivation of fruits and vegetables crop as compared to annual cereal crops. In addition; fruits and vegetables crop are being the sources of protective foods, brought awareness to the masses.[1] In this context, Chaturvedi [2008] an enthusiastic thinker Swami Vivekanandji reported that man is born to conquer nature. This does not mean that man is in conflict with the nature. It simply meant that man is expected to make use of blessing of nature and for that he makes use of his faculties to draw from nature whatever advantages he can. He further said that the secret of nature is 'proceeding piteously' remember every plant takes its own time to bear fruits while the gardener must water it patiently for days and months. Mahatma Gautama Buddha very aptly said, "Speech and action go ill together, Nature is continuously in action, yet is mute".[2] One factor behind the colonization of many regions by European countries was the desired to establish access to horticultural products like beverage crops (tea, coffee, cocoa), herbs and spices. G.P. Mishra [1982] in his book states that in the wake of technological transforming in the rural areas, the greater intensity of input packages demands higher investment. The increasing demand for credit from all sources become encouraging in views of the impetus given to the process of transformation from primitive agriculture to commercial agriculture. Lewis H. Nancy [1997] also put forward the views of Aristotle, ".....The mean of life must be provided beforehand by nature; for the business of nature is to furnish food to that which is born, and the food of the offspring always remains over in the parents. Wherefore, the art of making money out of fruits, vegetables, and animals is always numerals. In the light of his thought, the art of gardening and growing of more vegetables and fruits crops (horticultural crops) which can bring about development of the rural as well as urban to stand on its own productivity, producing marketed surplus for the market is needed in this demand driven world.[3] Another French economist namely Sismondi also stated man as "Acquiring dominion over nature". He believes that wealth consists in such dominion and that it increases huge resources which are yet to be exploited fully. In the state of Manipur hills too, there are large areas that can be brought under exploitation for cultivation of garden and horticultural crops. Thereby, resources can be optimally used to expand employment opportunity, ensuring better income and better nutritional level in the state. The Physiocrats believes in the rule of nature. It is a system of thought based upon a believed in the existence of natural's law which must be followed, if men are to obtain their highest well being. This system was also rightly called as agricultural system and its allied activities called by Adam Smith. Vauban view labor, that in agriculture and subsidiary occupation especially horticulturists seem most important.[4]

[1] Prof. R.P. Chaturvedi (2008) 'How to add new Dimensions to your personality', Upkar Prakarsan publications, Agra-2, 2008

[2] Lewis H. Hancy, 'History of Economic thought' First Edition 1979, Surjeet publications, New Delhi.

[3] Ibid p.6

[4] P.S. Birthal, A.K. Jha, P.K. Joshi and D.K. Singh (2006) 'Agriculture Diversification in North Eastern Region of India: Implication for growth and Equity'. Indian Journal of Agricultural Economics, vol. 6, July to September 2006.

III. INTERNATIONAL ASPECTS OF HORTICULTURE

Horticultural activities also been widely prevailing all over the world, The Horticultural Development Company is a levy funded body which serves the commercial horticultural Industry in England, Scotland and Wales. This company used to fund high quality, essential applied research, development and technology transfer. All projects are approved by expert panels that represent each sector of the industries, encompassing over 300 different crops. [http://www.hd.UK, Dated 40/08/2010]. P.S. Birthal, A.K. Jha, P.K.Joshi and D.K. Singh [2006], hold the opinion that agricultural diversification as pathways for agricultural development. They maintained that demand for high value products such as fruits, vegetables, etc. has been increasing rapidly in the domestic as well as in the global markets. They closely examine the on-going process of market liberation and globalization in the domestic as well as in the global markets which are moving towards integration. Diversification led to growth and generates enormous income and employment opportunities for the farmers, small holders and rural laborers. Moreover, vegetables and fruits crops production are labor intensive, have low gestation period and generate quick and higher rate of yield per unit of land and labor[i]. The republic of Congo also recognized the role of urban and peri-urban horticulture in ensuring food and nutritional securities and alleviating urban poverty.[ii]

IV. EXAMINING HORTICULTURE IN INDIAN CONTEXT

Horticulture research and development was at a very low ebb till the third five year plan and received meager attention even thereafter, however, the plan investment in horticulture research and development increases significantly since the seventh five-year plan which resulted in considerable strengthening of R & D infrastructure.[iii]

Dr. Gautam Kalloo [2006] rightly pointed out that the horticulture sector has emerged as a potential player in the Indian economy, contributing 30% to GDP in agriculture from mere 8.5% area under horticulture crops as well as means of diversification in overall development of agriculture. Today, we are heralding towards Golden Revolution, as we have achieve tremendous increase in horticultural production as well as export potential, with increased returns to farmers and nutritional security to the masses.[iv] On this regards, Dr. T.V. Ramana [2008] also says that India is the largest producer of fruits and vegetables. Vegetables are essential components of food. As per the socio-economic norms of the Indian society, a tray of meal contains the dishes made up of fresh, cooked or preserved vegetables. The role of vegetables is popular diet, especially where rice or roti and curry or chilly dishes predominates. Vegetable crops provide a better opportunity to farmers for diversification of their farming scenario and as part of agriculture, helps in improving productivity of land and generating employment. It also improves the socio-economic status to the farmers and provides nutritional security to the family members and other people as well. Being highly remunerative and labor intensive production of vegetable is better suited to small farms, especially where irrigation water is available. It may control the daunting challenges of food, nutritional, and socio-economic security of the households through adopting consumer related commercial crops. Horticulture, especially fruits and vegetables offer good opportunity for income of the vegetable growers.[v] In areas with lesser rainfall S.C. Tewari [1987] suggested that horticulture crops would play a major role in times to come. He cites several examples which are: cultivation of pomegranate near Poona, citrus and mango cultivation in Punjab and production of acid fruits in Rajasthan and Haryana-were cited in the discussion. The participants from Punjab also emphasized that labor being scare in that area and horticultural crops being highly payoff crops in those areas where jhum cultivation is in vogue could prove immensely helpful in ameliorating not only the socio-economic status of the people but also the ecosystem. On this regards, The National Horticulture Mission (NHM) with effect from 2005-2006 stress on the holistic growth of Horticulture by adopting an area based regionally differentiated cluster approach. The main objectives of the mission are to enhanced production and productivity of horticultural crops, to reduce post-harvest losses, to improve nutritional security, increase farmer income and generate employment opportunities for the unemployed youth.[vi] India with its wide variability of climate and soil is highly favorable for a large number of horticultural crops. It is the fastest growing sectors within agriculture. It contributes in removal of poverty; help nutrition security and has ample scope for farmers to increase their income and ensured nutritional securities and also help in sustaining large number of agro-based industries which generates huge employment. Our country has emerged as the world largest producers and exporter of tea, coffee, cash and spices, only 2 per cent of horticulture produce is proceed, 0.4 per cent is exported, and 22 per cent is lost or get wasted in market chain. Exports of fresh and proceed fruits, vegetables, cut flowers, dried flowers have also been picking up. India plans to increase the production to 300 million tons by 2012.[vii] R. Swarup, B.K. Sekha and G.S. Vaidhya (1987) maintained that the uniqueness role of fruits played in developing countries like India; both in economics as well as social sphere for improving income and nutritional status particularly of rural masses along with small and marginal farmer are seen. The maintaining of orchards helps in maintaining ecological balances too. Further, horticulture is as such labor intensive crop therefore; production of these commodities ought to be encouraged in a labor abundant and capital scare country like ours.[viii] ICAR [2005] considered vegetables as potential crops for improving nutrition, food security and also to generate employment in the country. Vegetables, being rich source of nutrients can play significant role for improving the nutritional intake especially of pre-dominantly vegetarian population. Thus, the vegetable production has increase from 75 million tons in 1996-97 to 94 million tons in 2002, which account for about 14.4 percent of world production.[ix] N. Rai, D.S. Yadaav (2005) also said that vegetables are sold at higher rate than cereals and grains. If they are sold at a cheaper rate in the peak production season, then it is due to their high yield; they have high monetary value. During rainy season, some vegetables give very good income in comparing to grain and fodder crops. Market gardeners create substantial income from intensive cultivation of limited lands. Thus, vegetables are importance source of farm income but for this, they must be sown early in the season. So

that they are available quiet early in the market [x] H.P. Singh [2008] discuss the issues on investment in horticulture in ninth plan (IX) and tenth plan(X), horticulture has played an immense role as highly productive in transforming an agrarian economy in many states, further stated an insight for reversing the trend of ever declining farmer's income and above all addressing the nutritional security and environmental concerns. The significant change in the last two decades have been that horticulture has moved from rural confine to commercial production leading to use of technologies management.[xi] But to carry out this art of cultivation money plays an important role in it. Prof. U.K.R.V. Rao [1982] says 'credit is the life bloods of any program me. Therefore, credit is a matter of concern for every developmental work.

Vauban viewed labor in agriculture and subsidiary occupation like horticulture as horticulturalists seems most important. It was in 1954, that some concrete steps were taken up to strengthen horticultural research by setting few regional centre initiating co-ordinate schemes such as citrus die back, the use of growth regulator etc. A landmark was the organization of a small division made a significant impact by vegetable improvement projects and several improved varieties were released. Another development which leads to laying sound institutional basis for agricultural and horticultural research was the re-organization of a small division of horticulture in the Indian Agriculture Research Instituted during the second five years plan. The division made a significant impact by vegetable improvement projects and several improved varieties were released. Another significant development which leads to laying sound institutional basis for agriculture and horticultural research was the re-organization of the Indian Council of Agriculture Research in 1965.This resulted in the abolition of different commodity like coconut, areca nut, cashew nut and spices taking over entire research work directly under the council. In 1968, Indian Institute of horticultural research was set up; this institution serves as a focal centre of research on all horticultural crops and also co-ordinate the work on many important fruits. P.N. Mathur [1987] discuss the use of technology in the 'Operational Research Project' mostly confine to analysis of constraints in the transfer of technology, namely socio-economic, technological, cultural, institutional legislative etc., the special ORPs for the development of tribal farmers belonging to backward communities which form the core of the farming system. These projects are the vegetable and fruit production technologies. Similarly, the Lab to Land programs, which enables scientists to work with small marginal farmers including vegetable and cultivation as one of the important technological input.

The table 2.1 and 2.2 depicts the projected demand and area under horticultural crops in India. Its show that more demand is needed for more production by 2020 we would have to produce lots say fruits and vegetables to be 98.00MT and 220.00MT respectively and other crops in the same manner. And also the horticultural crops areas are expanding too; yet not as is expected. We need more land and intensive cultivation so as to expand the area under such crops to meet the future demand

Table 1.1 Projected demands of horticulture crops during 2020-21

Commodity	Production(MT)			Growth rate (%)
	1998-99	2011-12	2020-21	
1. Fruits	44.04	81.00	98.00	7.8
2. Vegetables	87.53	185.00	220.00	9.2
3. Spices	2.91	5.50	650.00	8.0
4. Coconut	10.27	20.00	24.00	8.4
5. Cashewnut	0.46	1.70	2.0	25.1
6. Cocao, others	3.00	6.80	9.50	11.1

Source: Indian Horticulture p.1000 (ICAR

Table1.2 Change in area under horticulture groups in India, 1990-2004(in '000ha)

Commodity	1990-95	1995-2000	2000-2004	1990-2004	Change in area
1. Fruits	483	512	1095	2090	28.75
2. Vegetables	258	915	506	1163	16.00
3. Flowers	29	16	18	63	0.87
4. Spices	211	284	2655	3150	43.33
5. Plantation crops	435	129	240	804	11.06
6. Horticulture	900	1856	4514	7270	100.00

Source: Ibid p.1001 (cited in Kumar and Mittal, 2003; Kumar et.al. 2004)

V. EXAMINING IN NORTH EAST INDIA

Dharendra Nath Borthakur (1992) elaborately pointed out and explores the overall potential and growth of Horticulture in North East Region. He maintains that North East region of India offers a favorable set of climatic conditions for cultivation of various types of horticultural crops such as fruits, vegetables, flowers, tuber and rhizomatous and spices etc. In case of fruits, the range varies from highly temperate types like walnut, apple, orange etc. to sub-temperate as well as tropical fruits and despite the scope for cultivation wide range of horticultural crops, the development of horticulture has not picked up as desired because of a number of constraints i.e. lack of proper marketing, problems of transport, processing adequate technology as well as the weak extension support in the field of horticulture.[xii]
Analyses and discussion

Profile of the survey villages in Tamenglong District:

The ten villages that had been survey during September to December 2012 In Tamenglong District in Manipur State Viz. Tajeikaiphun, Puiloun, Longjang, Chiuluon, Farmland, Dailong, Piuleklong, Phallong, Namtiram and Siguilong. The total geographically areas of the survey villages are found to be 1029 sq.km approx. Interview to village chief or secretary were done to collect detailed information of villages and households information were collected through the head of every households. The study reveals that some villages are very old

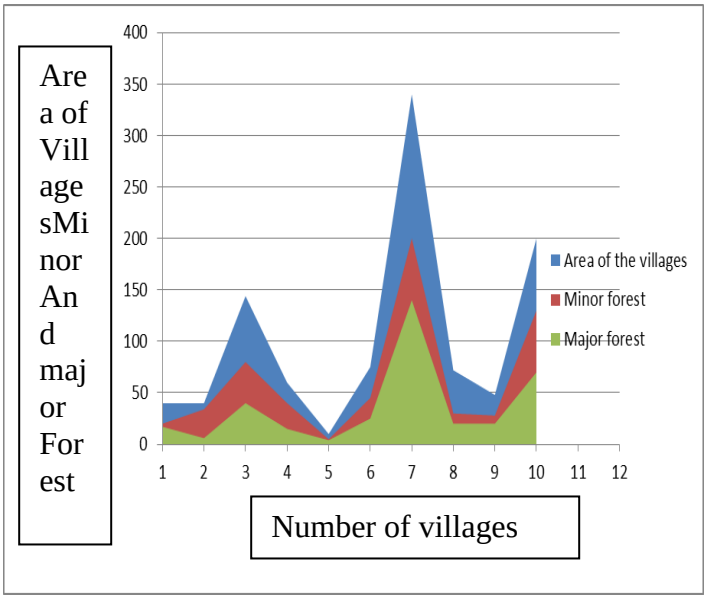
more than 2000 years of its village establishment and horticultural crops are grown at courtyard or backyard normally grown with fruits and vegetables crops since their fore-father days and were carried on till today. Every village has well defined demarcated boundary of its own. Some villages were found to locate at a very remote distance from district headquarter and sub-divisional headquarter. This in fact, has become a major problem in distribution of horticultural products for sale outside. For instance one village is located at 300 km away from subdivision headquarter. In all the villages' unexploited forest are still available. The area of the minor forest and major forest are 612sq.km, and 57sq.km, respectively. Mature forests have been reducing at a faster pace in the present days as compare to the past. So much concerted effort from government and public is the need of the hour. The areas of the villages, areas of the minor and major forests are given in table1.1 and fig. 1.1 below; The survey reveal heavily availability of land for farming as indicated by areas of the villages,

Table: 1.3. Land profile (Village level studies)

Area of the villages	Minor forest	Major forest
40	20	17
40	34	6
144	80	40
60	40	15
10	5	4
75	45	25
340	200	140
72	30	20
48	28	20
200	130	70

Source: Compiled From Survey Data

Fig.3.1. Land profile in area graph



Transportation

These villages have steep and terrain with hilly mountains, having few pocket of valley between hill ranges. Most of the villages have unpaved way. People mostly transported agricultural and agricultural goods by human being on foot. They moved around village in foot only. There were no motor able road and no bus and sumo counter were found. The inter-villages and intra-village roads is at a rudimentary stages. This proves to be major hurdles for marketing of their horticultural produce. Therefore, total failure of road infrastructure all around an all the rural places of the state.

Demography and communication

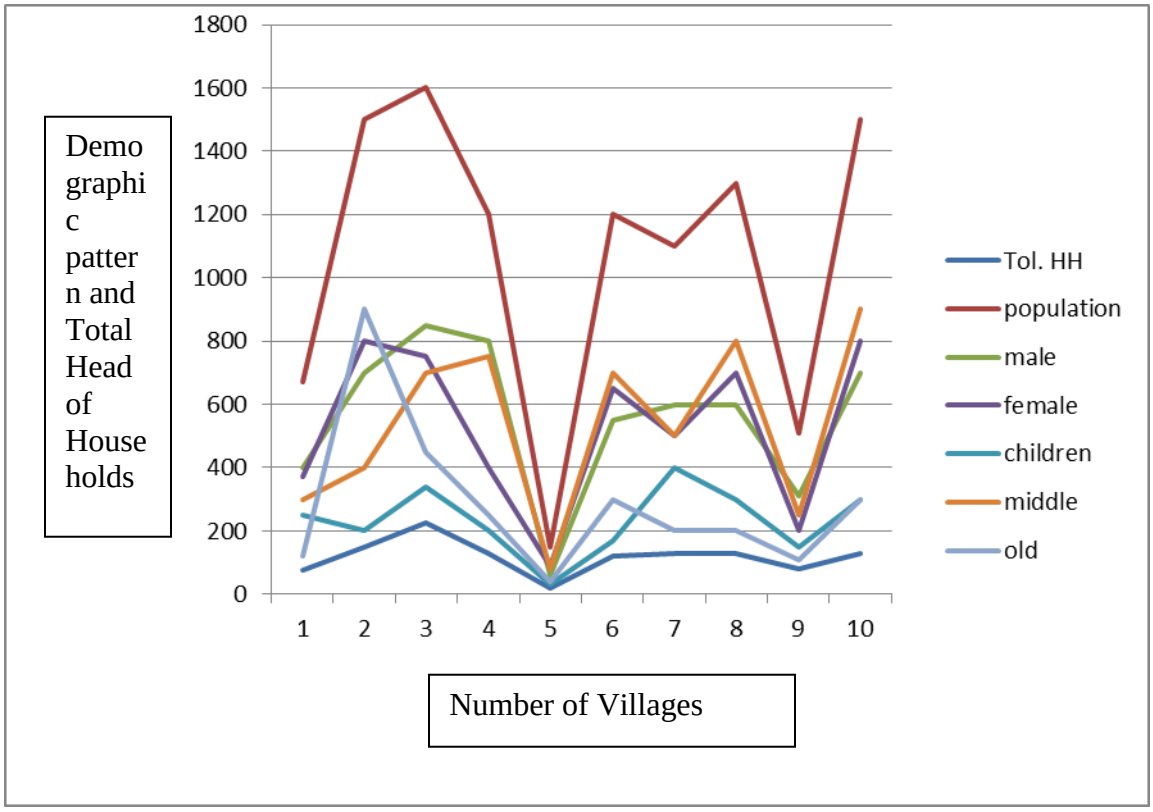
The total numbers of household in all survey villages were found to be 1191. All together the population is 10730, where males are 5570 and females are 5260. The male population is larger than the females' counterpart. These prove to be a boon for agricultural and horticultural activities. Children and Old age people are found to be 5380 and 2870 respectively. In the areas of communication; Communication facilities are a distance dream for many of the populace, few villages have proper Government post office and is the only vital mode of communication available. Out of ten villages, 6 villages were found having telephone landline connection and 4 villages were not. All the villages do not have access to Internet facility. But, cell phones are in used in all villages but network are accessible only at some places. The Demography patterns of all villages are given in table 1.2 and fig. 1.2 below; it's revealed from the data that workable population of the age group 15 to 45 are more in number including female as well as male. And interestingly male are slightly larger than the female. This is a significant factor that can be responsible for future growth of the horticultural sector.

Table: 1.4. Demography pattern

Total number of households	Total Population	Male Population	Female Population	Children Population	Middle age Population	Old age Population
76	670	400	370	250	300	120
150	1500	700	800	200	400	900
226	1600	850	750	340	700	450
130	1200	800	400	200	750	250
19	150	60	90	30	80	40
120	1200	550	650	170	700	300
130	1100	600	500	400	500	200
130	1300	600	700	300	800	200
80	510	310	200	150	250	110

Source: Compiled from Survey Data

Fig. 1.4 Demography pattern of survey villages



Identification of economic infrastructure

There have been no major and minor economic infrastructures in all the survey villages. There were none existence of bank and banking facilities in all villages. Four villages were found having local markets and 6 villages does not have even a market. People main occupations were cultivators and horticulturists. Some other occupation like carpentry, fishing, hunting, trader, retail shops, private school teacher, civil paid labour, soldier, police, shopkeeper, etc were found in a small proportion. Government employee are numbering one to twenty in almost every villages. Some saw mill, rice mill, small cottage and handicraft equipment and industries are found. It is usually own and operated by individual who are having traditional skill and knowledge in that very handicraft.

Land system

Land accessible for farming is available in plenty. The areas of land available are 507sq.km. Parts of land are homestead land and barren land. Land ownership comprises mainly in three forms Individual Ownership, Community Ownership and Clan Ownership. In 9 villages no land alienation problems were found but one village have encountered such problem because of encroachment by other people. Land viable

for horticulture crops is abundantly available. It is found to be 459sq.km, in area that can be used for horticultural crops; villagers were continuing jhum cultivation but were no longer productive They have been doing because of lack of alternative occupation for their livelihood and is no longer a highly rewarding activities anymore. The respondents in all the survey villages said, they can stop jhum as and when alternatives activities like horticultural activities are at their reached. They also want Government and Ngos too; to give them awareness and encourage farming financially, technologically and to build up skills of the farmer in pursuing towards highly rewarding activity like growing commercial and cash crops especially horticultural crops. And some villages were also cultivating wet land but in a small proportion due to unsuitability of the terrain, steep and undulating Mountains. About 64 Sq.km in area are used for wet farming. All kinds of fruits, vegetables, plantation, commercial, flowers, medicinal herbs have tremendously found viable and productive in the region. People are found heavily practicing horticultural activities in a smaller scale with the small saving of their family. Credit facilities and loans are absent completely to grow crops as large entrepreneur.

Irrigation

Six villages were found having no irrigation facility but only four villages have irrigation facilities even these are from natural sources like river, stream and rain etc. The villages used untreated water for drinking as well as for washing and bathing. The water is normally of hard and soft water which is rich in acidity contained as a consequence of which most people had suffered from stomach problem. Water is abundant, being rainiest district with heavy precipitation during rainy season. They would not have water scarcity problem both for field and family; if they conserve rainwater. But such facilities are not available till this survey. Drastic and major attention can be paid towards irrigation, safe drinking water and for field and farm by government and policy maker of the state.

Flora and Fauna

Varieties of wild animal four footed, reptiles, insects, worms, bird are enormously found. Animals like fox, hornbill, tiger etc, are even found in the past decades but now they are on the verse of extinction. So, also migratory birds are seen, during winter season in some villages. Numerous wild orchids and medicinal herbs are used by practitioners who are skill in traditional medicines'. Mushroom of mostly of fungi bacteria are found in every village. Reptiles like python, cobra, others spices are founds and lot of birds like hornbill, kites, eagles, parrot, mynah, cuckoos, etc are also available. Numerous frogs, turtles and water animals and many others animal are still in the forest. These animals are mercilessly killed and hunted for meat, skin, and bone etc.

People, culture, health care and nutrition

The people mostly who inhabited in Tamenglong district are Zeliangrong Nagas, administered by villages republic and normally ruled by elders (Gerontology). They have got various accounts of fork song and folk tales having distinctive and elegant culture with no thief or robbery, people are innocent and hardworking. Beggars are out of sight people lived by a way of egalitarian society with high moral values and crimes are very few. They have rich culture which are seen in traditional dress and ornaments of men, women and old people, usually made and design for various occasions and feasting. Women are highly respected but normally submissive to husband. There were few instances of domestic violent and harassments meted to womenfolk. Hardly, written materials are available because people normally learnt by oral basis. Folk song and folk tales relates to romance, amity, battles, harvest, sowing, farming, patriotic, legend, moral value, etc. These people are normally freedom loving people and normally do not bow down to external rule or encroachment within their village periphery. They are open minded and simple people, rarely no family or household made fencing around the house.

Everyone is allowing visiting and going free, this inter-mixing of all and oneness is common features of their life. These people are deprived of health care facility and their food and dietary habit are very low. No good hospital, no doctor and nurse in most villages. Few villages have avail of such opportunities. Therefore, people died of even minor diseases, pregnant women die off during child birth, normally children are malnourished and their growths are stunted and retarded. People mostly consume home grown fruits and vegetables including roots and fibrous substances and all kind of wild green leafy vegetables. Luckily, they consume lot of green and fresh fruit and vegetables free from chemical Like NPK.

Forest Products Consumption and horticultural crops grown in the villages:

The people depend on forest for survival, dwelling, food ding and for fuel. They depend mainly for timber for house construction, wood for firewood, canes and bamboos for small scale industries and cottage industries products like basket, winnowing fan, and bamboo mat etc. Even for meat they preferred wild meat.

The survey revealed that tremendous scope and potentiality for production of horticulture crops in greater scale.

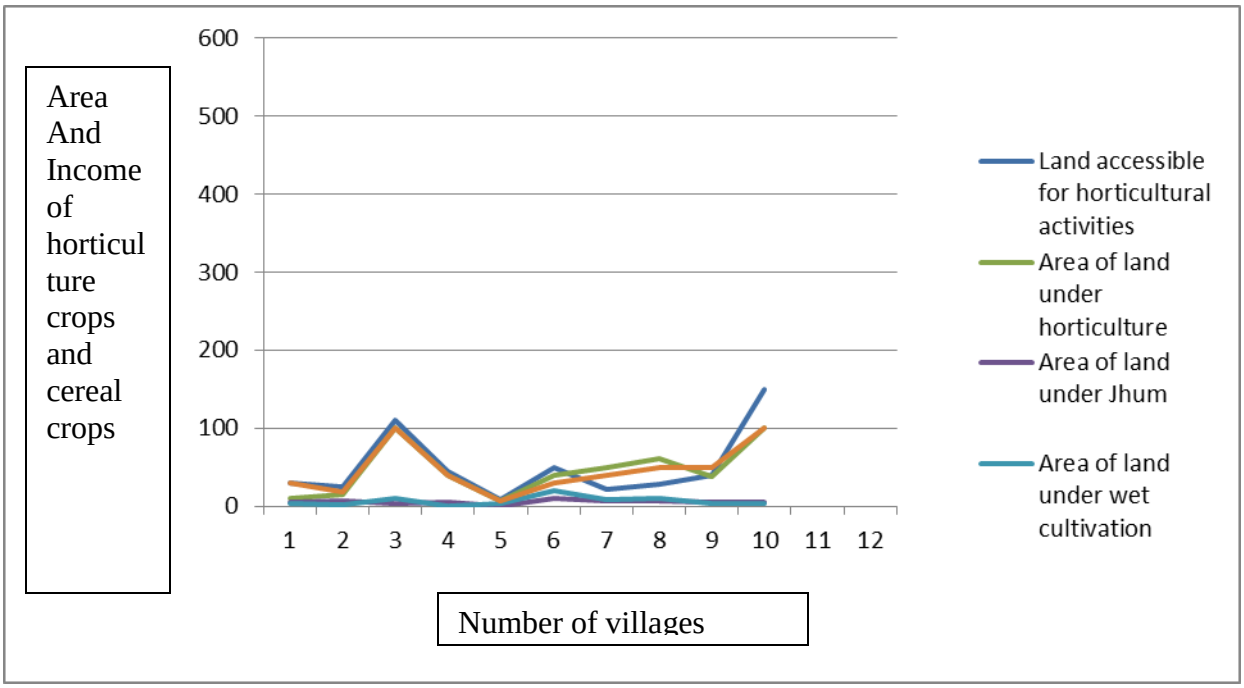
All kinds of horticulture crops are viable and earn an additional income to every household. Yet, majority of the households are not producing for market but only for self consumption and to earn just an extra-income for the family. There are about 464 sq. km of land that can be utilized for the growing. There are lot of central sponsored schemes for rapid expansion of horticulture in the region; but not any schemes reaches them on time and much farmer are without such schemes. It is reported by farmer that fruits, vegetables, woody perennial plants, floriculture, plantation crops, ornamentals, orchids, cash crops, and medicinal herbs are very much favorable to their land and topography of their land, climate, weather and sunshine. So people are eagerly waiting for such project to take up in a larger scale. The land availability figures are also shown in table 1.3 and fig. 1.3 bellows; the data revealed that enough land are available for horticulture expansion than wet and Jhum cultivation. The availability of land in averages were follows; 6.4 sq.km for wet land, 46.4sq.km for horticulture potentiality, 50.7 sq.km area for accessibility of horticulture, 49.9sq.km of land under horticulture crops and 5.2 sq.km of land under Jhum.

Table 1.5 Potentiality of Land for horticulture

Area of land under wet cultivation	Potentiality of land for horticulture	Land accessible for horticultural activities	Area of land under horticulture	Area of land under jhum cultivation
3	30	30	10	5
2	18	24	15	6
10	100	110	100	3
0	40	45	40	5
4	6	8	6	0
20	30	50	40	10
8	40	22	50	6
10	50	28	60	7
4	50	40	38	5
3	100	150	100	5

Source: Survey data (Village Level)

Fig.1.5. Potentiality and availability of land for horticulture shown in line graph



Storage facility

Out of ten survey villages, eight of them have no storage facilities and only two have got it. Mostly, they constructed a separate hut to store the horticultural produce. These products were sometimes spoiled by rodent and rat. But most people usually store beneath bed, on the corner of corridor, in the backyard and in the kitchen roof where fire smokes are reaching. This is one area that should be look into for further development of horticulture in the region.

Educational institution

Only 17 Governments Institution mainly primary and middle school were found in the surveyed villages only one private institution are found. This indicates a deplorable way of educating the rural people. Many people could not get proper education in their formation age so even those who have talent no longer get education and people have no tastes and liking for education. This has been a setback for improving their living standard. Even majority of the farmer don't know the three R's i.e. reading, writing and arithmetic.

Historical account

Every village has some sort of historical account of village's formation, dwelling and historical sites which is important to them. Most common monument founds are caves, megaliths, stone inscription, Village gates, ritual spots etc., and also in olden times some villages have informed about the existence of extra-ordinarily strong men and women of their times.

Employment status and credit availability

In all the villages people are found getting job in the government as well as in private. But the number of employed varies from merely 10 to 20; out of some 90 to 150 households in every villages. Very few people are occupied in A-class jobs and many who are employed are in C-grades and D-grades. The total people employed are 417 persons and 20 are in private jobs as revealed from ten villages. This small proportion of people cannot do much for the progress and development of an area or locality so, it is felt a strong need to give them every person self employed by way of exploiting the resources available within the villages and thereby creating jobs avenue at their own places. Normally, the working hour is 9 to 10 hours as reported. Credit facilities are nil, the only money that is circulated is own saving and day today wage earning of the villagers. Therefore, availability of credit is necessary for them; to take up any venture which needs to be addressed by the government of the land. Assessment of climate change, the climate has slowly and gradually transforming from good to bad. It is revealed that all the villages were found complaining of the hotness of the weather as compare to the past decades. Even weather condition during a day is complicated to decide. However, pollution of land, water and air is not observed; but these need to be scientifically proved by an expert. Productivity and fertility of the crops, land and soil have depleted and eroded. Trees are cut rampantly. Landslides are common in every rainy season. All these factors revealed that there is no seriousness on conserving nature and protecting environment from destruction. Matured forest which is larger than the minor forests in the past have now indicates the opposite. Minor forest is far more than that of mature one, Water, pond , small river and lake, etc., were becoming dry and pond are becoming shallow and fresh water are becoming scarce. Therefore, the survey confirm, environment are very much venerable and remain an issue within building rural ecology cycle. This sustainable environment agenda will be rightly address when more awareness is given to all and sundry to the villagers.

Research Methodology

A Structured Questionnaire were administered in ten Villages of the District, Information were seek from either chairman or secretary of the respective villages. The surveys were done purposively after pilot studies being carried out. 180 households were also interviewed as sample size, 20 households were picked up from the large villages and ten households from smaller villages. Three villages each were taken for survey from two large subdivision and two villages each were chosen from smaller subdivision. The districts have four subdivisions. Therefore, the survey is a complete description with equal representations. Therefore, the finding will reveal the actual status of the horticulture status, scope and potentiality in the district.

VI. Conclusion

The study confirmed that the district Tamenglong which is remotest and backward among 500 backward districts in the country has been surviving primarily on Jhum cultivation as main occupation. This occupation has no more rewarding as usually done in the past decades. So people have been on a look out for more rewarding activities' like horticulture activities in the region. People have been rising horticultural crops with own saving and government did not pay much attention. So necessarily they remain backward. The survey confirmed that the horticulture sector would be the only lifeline for this people. Since, they have tremendous land, potentiality and viability for growing all kinds of horticulture crops. The upcoming Tran-Asian Railway connecting jiribam to tupul via Imphal to Myanmar connecting South East and South West Asian countries is a green signal for future growth. So also the International Highway I & II that would change the market structure of the entire north East and South East Asian countries. Therefore in such scenario, the district has no way to stay backward anymore as it used to be now. This way employment, income and standard of living and will gradually change the economy structure of the district and people will be more prosperous by undertaking this best alternative form of cultivation, in this market integration and globalised world.

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