CHAPTER 7

SUMMARY AND CONCLUSIONS

Agriculture being the back bone of Indian economy has strongly griped the lives and activities of people. It is not only considered as an occupation carried forward by the farmers but is regarded an important aspect to shape the way of life and the pattern of their living. Agriculture was subsistence in nature for majority of the population till industrial revolution. The farmers used to raise most of the crops for their own consumption instead for trade or market. In response to development of world markets, new technologies and need and demand of different crops, a significant shift in agricultural practices has occurred over the past century. The advancements in technology and decline in traditional practices of using animal manure and crop rotation too has affected the farming practices. The yields of various crops has tremendously increased as of the plant engineering, fertilizers and pesticides, modern agronomy and technological improvements but has caused widespread ecological damage at the same time. The increasing trend of the various crops in terms of their production continued till 1980’s, but after words there has been a decline in the production of various crops. In this light many of the cultivators have shifted to crops like sunflower, grapes and other citrus plants but because of the non- availability of appropriate markets shifted back to the traditional crops. This is the particular case of Punjab agriculture. It is therefore important to know has there been any shift in the cultivation of crops in temperate regions of country especially the Kashmir region of Jammu and Kashmir State. No doubt Kashmir has been known for the horticultural plantation but it doesn’t mean that traditional crops like wheat, rice and maize have never been cultivated in this region.

Bilsborrow and Ogendo (1992) finds that the cultivators adjust themselves in new land relations to enhance their standard of life but such adjustment is more determined by the access to land in society to various classes. The re-adjustment may lead to change in mode of production. Marx refers to mode of production as a way, people work with their productive forces, process of utilization of material resources, the division of labour and form of specialization (cf: Cohen, 1978). The mode of production generally determines the income level of the farmers and is closely related to the surplus value (Bhakta, 1989). Marx (1859) also views that rise and fall in mode
of production generally explain the relations of production within a society in order to maximize the rate of growth of productive forces and arise of new relations once existing ones fail to provide optimal development (cf: Elster, 1985). To attain optimal development subsequent changes are brought in land use by the farmers especially once production gets hampered either qualitatively or quantitatively. The land use was initially subsistence based but now it is converted to raise commercial crops of short duration (Hardikar and Tawade, 1990). The various problems which are encountered by farmers may also lead them to shift their land use pattern from agriculture to any other available land use pattern which is evident from the shift towards Horticulture from Agriculture as in case of Kashmir and other states of India such as Himachal Pradesh, Uttarakhand and Arunachal Pradesh.

Since, the Jammu and Kashmir accounts for 60 per cent of total apple production of the country (National Horticultural Board; 2013-14), the present study aims to understand the factors inhibiting and facilitating orchard cultivation in Kashmir (Jammu and Kashmir).

The undertaken study is descriptive in nature and is confined to understand the land use and cropping pattern of different classes and the problems faced by orchard cultivators in the state of Jammu and Kashmir. The thesis also addresses the role of State in facilitating agrarian and allied sector that is horticulture.

**OBJECTIVES OF THE STUDY**

In order to meet the rationale of the study, following objective were designed for the present study:

1) to study the land use pattern of the farmers and its associated changes.
2) to highlight the cropping pattern and crop rotation of the region.
3) to examine the various inhibiting and the facilitating factors in cultivation of horticulture.
4) to analyse the marketing of produce and its associated channels and
5) to evaluate various government schemes launched for the promotion of horticulture.

This study was conducted in district Shopian of Jammu and Kashmir, which is very famous for horticulture. District Shopian is historically very important as
situated on ancient imperial route commonly known as Mughal Road which connected Lahore and Srinagar. Further, Shopian district at present is connected with Poonch, Rajouri and Jammu. It is Situated 2146 mts above the sea level and is 51Kms away from Srinagar. The District being a famous horticultural zone has tremendous scope for fruit industry. The proper execution of this industry may boost the economy of the District in particular and the State in general. The production of the apple is the highest among the horticultural crops of the district. For this reason this district has been entitled as the “Apple Bowl” of the Kashmir. This is also rationale for selection of the Shopian district for the study.

The district has 231 inhabited villages as in all, distributed in 2 Blocks - Shopian and Keller (151 and 80 villages respectively). From 231 inhabited villages, 10 villages have been selected by using the proportionate sampling technique. The requisite block wise number of the villages so generated is 6 and 4 from Shopian and Keller block respectively. In order to give equal opportunity to be selected as sample village, random number table has been used. Further, the number of household in the selected villages varies; it is decided to take a sample of 320 households for the purpose of data collection. For this purpose, the proportionate sampling method has been used to determine the number of respondents to be selected from each village. The random number table was again used to select the requisite number of the respondents from each randomly selected village. The data for the study has been collected through a pre-tested interview schedule. In addition certain government officials too have been interviewed to authenticate the information provided by cultivator respondents besides understanding the bottlenecks in the production process of horticulture crops.

The socio-economic profile of the respondents highlights that majority of the respondents belong to the age group of 25-45, whereas the proportion of the respondents above 45 years and below 25 years is comparatively less. Most of the respondents are male because of highly patriarchal nature of society. The rigid caste system is not prevalent in the area. However, the respondents are divided on the basis of Jati (Sur name). The majority of the respondents belong to Mir and Banday jati. Ganaie and yatoo jati have least representation in the sample. Most of the respondents are illiterate. The educational level of literate is comparatively low.
The study reveals that the primary occupation of all the respondents is horticulture. A few among them are associated with one or other secondary occupations which include services, trading and daily waging. Majority of the respondents who have taken up services and trading as their secondary occupation have educational qualification above primary level.

The majority of the respondents have yearly income above 3 lakhs. Nearly one third of the respondents have income up to 3 lakhs. There is positive relationship between education and income. In other words, lower the education, low is level of income. Further, the source of income and education too seem to be related as those who have educational qualification above higher secondary level are either in service or trading sector. On the other hand, the cultivators having less than higher secondary education have cultivation of horticulture crop as the main source of income. Moreover, the majority of the respondents are members of joint family. The number of nuclear and extended families is quite less as compared to joint families. It means that joint family is still the prevalent form of family among the cultivating class of Kashmir.

The study of land use pattern is very essential to understand the optimum use of land for better productivity. For this understanding; the study highlights the change in land use, cropping pattern and crop rotation. The study embraces all farmer classes -the marginal, small, medium and the large.

The proportion of farmers having operational land holding of small (34.69 per cent), medium (32.81 per cent) or marginal (27.81 per cent) size is higher than that of the large one (4.69 per cent). Moreover, the proportion of small and marginal farmers is quite high (63 per cent) as compared to the other class of cultivators. This view corroborates with the study conducted by Wani, et.al., (2009); who finds that 94 per cent of the farmers in the Jammu and Kashmir State belong to the small and the marginal farmers.

Majority of the farmers (90.94 per cent) use the operational land holding for horticultural cultivation. However, the proportion of the farmers who use operational land holding for mixed cultivation that is agriculture and horticulture is the least (9.06 per cent). The finding of the study is in consonance with the study conducted by Malik (2014). However, it is in contradiction to the findings put forth by Qazi (2005);
who holds that about 80 per cent of the farmers are associated with agriculture in the State.

The class wise analysis regarding the use of operational land holding reveals that majority of the small, medium and marginal farmers use it for the cultivation of horticultural crops. However, majority of the large farmers use it for the cultivation of mixed crops which comprises of both agricultural as well as horticultural crops. Further, the large farmers are keeping more area for the cultivation of vegetables, fodder or rice as compared to small or marginal farmers. Not only this, the large farmers and to some extent medium farmers are growing seasonal vegetables along with the orchards. From this, it may be concluded that land size and type of crops taken by the land owners are inter-related.

The study also highlights that the non-operational land holding is possessed by a few of the farmers. However, among those who possess non-operational land holdings, majority are the large and the medium farmers. Moreover, the large and the medium farmers keep a part of land holdings non-operational which enable them to allow grasses and certain trees to grow. However, the marginal and the small farmers do not afford to keep land holdings as non-operational. It means that the size of land holding is directly related with the size of non-operational landholdings. The higher the size of land holding, the high will be the chances for keeping a part under non-operational use and vice versa. The study further reflects the purposes for which non-operational land holdings is being used to by the farmers. Majority of the farmers use it as pasture land to graze their livestock, whereas the twigs or logs of the trees grown on it are used as fire wood for cooking and heating purposes. Some of the landowners particularly the big ones hold that they have planted trees along the side of transport arteries to protect their orchard plants from pollution caused by vehicular traffic. In fact, the purpose is to safeguard the apple or other fruit trees from the harmful effect of dust and gases which decrease quality of fruits. This can also be termed as social forestry.

Regarding sale/purchases of land a least number of the farmers have entered into sale deals. Majority of the farmers have purchased up to 1 hectare of land (34.62 per cent). Some of the farmers have purchased land above 5 hectares. The land market is not volatile which is evident from the fact that only 16 per cent of the cultivators
have purchased land in the last five years and that too in small size. In other words the income of cultivators / fruit growers is sufficient to meet their needs and does not lead to the emergence of land market. This may be the reason for non-observance of lease market in the district under study.

The study shows that the ancestral land use of majority of the famers was agriculture. Only a few used to have mixed land use pattern (Agriculture and Horticulture). The ancestral land use of the farmers is quite different from that of their operation land use. The ancestral and operational land use varies considerably. The cultivation of agriculture has been taken over by that of horticulture. It reflects that ancestral land use has been changed by the farmers. The finding of the study is similar to the findings of the studies conducted by Shah, et.al., (2013); Malik (2013) and Bhat (2013). The land use has changed from agriculture to horticulture by most of the farmers. Some of the farmers have added horticulture to agriculture and at present have mixed pattern (agriculture and horticulture). The reasons for changing land use is to have more income and profit being fetched by produce. This view is held by most of the marginal, small and medium farmers. They further state that shift to horticulture is due to qualitative decrease in agricultural production. The lack of qualitative agricultural seeds and climatic change are the reason for change in land use as reported by nearly 13 per cent of the respondents. In short, the shift from agriculture to horticulture provides economic security and for this reason, most of the small, marginal and medium farmers have left their ancestral way of taking agricultural crops.

The land use change has affected the income and social status of the respondents to a great extent. Majority of the farmers finds that the change in land use has improved the social and economic status. This finding is corroborated by the study conducted by Malik (2014); who highlights that change in horticulture directly affects economic standards of apple cultivators in the valley. The land use change has increased the production of new crops. With increase in economic position and returns on the farm, the farmers have been able to construct and renovate their houses besides purchasing luxurious items that ultimately improves their standard of life. This change in land use leads to better economic gains and improve the standard of living of most of the farmers who have adopted orchard farming.
The improvement in the economic position of the farmer is also because of the fact that most of the farmers grow vegetable crops like beans, tomato, potato and others during the month of April to September. Such crops are cultivated till apple trees become fruit bearing. The introduction of the vegetables in the cropping pattern is usually due to changing climatic conditions of the region. The change in the climate is observed in terms of rising temperature and limitation of the snow period. This has been reported by a number of the respondents. During the harvest season which starts in the month of August till October, farmers take very few crops, but in November most of the farmers allow common Persalane (a form of fodder) to grow and this continues till the month of May. Many of the horticulturalists find that taking crops in the orchard farms affects the production of the fruits and therefore let the fodder grow in apple orchards.

The study also finds out that the yearly cropping pattern is dynamic in nature as majority of the farmers change their cropping pattern. The respondents highlight that when they realize the increase in demand (in future) of crops like onion, tomato, potato and peas, such crops are added in existing orchard. This not only help them to generate returns from the land but also keep them in touch with the changing market trend. In this light, the cropping pattern is said to be dynamic in nature. Similar observations have been made by Qazi (2005). Moreover, such pattern helps in curtailing pest attack and covers the production loss. Most of the small and medium farmers concur with the above views.

The study further points out that the climate change is related to change in cropping pattern. Sudden climatic changes lead sometimes to prolonged snowfall that results into the failure of existing crops both qualitatively as well as quantitatively. Such changes end up with fluctuations in market value of certain crops and mandates farmers to change the cropping pattern in the coming seasons. Thus cropping pattern is related with climatic changes which eventually affect the market and the different class of horticulturalists. The marginal and small farmers suffers the most due to such fluctuations and they are found to be much concerned and aware of the consequences of change and adoption of new ways of cultivation or sowing of vegetables as per market requirements. Beltagy and Madkour (2012) have found rotation related to the change in climate. The above view is supported by majority of the farmers under study. They further hold that frequent climate change mainly leads to decline in
fertility of soil and the failure of crops besides increase in the chances of insect attack that results in decrease of production of fruits in particular.

The study further highlights a change in cropping pattern of farmers since last 5 years (since 2008). The change is observed largely due to addition of a number of vegetable crops in the orchard till the fruit trees start bearing fruits. No doubt, the cultivation of other crops (except fodder) affects the production negatively but it provides an immediate source of income to its cultivators. Further, the fodder has been taken by most of those farmers who have been practicing horticulture for the last 10 years and have fruit bearing orchards. Some of the farmers have been practicing horticulture since 4 years. The orchards of these farmers are not fruit bearing which enables them to take different crops like maize, legumes, vegetables and fodder etc. This shows the number of crops to be taken in apple orchards is closely associated with the time since which horticulture is being practiced. The higher the time since farmers have been practicing horticulture, the less is the number of crops cultivated by them and vice versa. It means production of apple crop is negatively affected by cultivation of the other crops. However, during the initial years of orchard farming, the rotation of crops seems beneficial to farmers as it enables them to decrease the use of artificial fertilizers and helps to maintain fertility of soil besides it helps apple orchards to bear fruits slight before the normal time. The crop rotation during the initial years of orchard cultivation has been adopted by almost all of the farmers. The crop rotation has improved the social and economic status of most of the farmers to a great extent.

The various inhibitors and the facilitators are playing very crucial role in the cultivation process of horticulture. The study reveals that horticulture is practiced by all classes of the farmers; however, majority among them grow fleshy fruits (apple). The finding of the study is similar to that conducted by Rather, et.al., (2013) who claims apple to be the major produce of the State. The dry fruits are grown by a few of the farmers and their production is decreasing day by day as these farmers too are shift in preference towards apple cultivation. The mixed fruits (dry and fleshy) are grown by about one third of the respondents (36.84 per cent). It is deduced that cultivators are not only shifting from agriculture to horticulture but within horticultural crops there is again a preference towards the cultivation of fleshy fruits especially apple due to which the proportion of dry fruit cultivators is decreasing.
The major problems faced by the farmers during cultivation include infectious diseases like Scab (dull black or grey brown lesions on fruits and tree leaves), Root rot (decaying of roots) and Alternaria (leaf and fruit fall). The intensity of other diseases such as deficiency diseases (squeezing of leaves etc.), Canker (lesions on leaves, stem and fruit) and Necrosis (purple leaf lesions which grow with concentric rings) is slightly less. The finding is similar to the finding put forth by the study conducted by Malik (2013).

The study highlights that the above problems are being faced by the farmers during the cultivation by all classes of the farmers. The problems are frequently faced by almost all the marginal and small farmers. Most of the medium farmers too face the problem of diseases of apple crop. On the other hands, most of the large farmers do not face such problems during its cultivation largely due to their investment in pesticides, insecticides and the like. The marginal and small farmers due to lack of financial viability use comparatively less rather cheap agro-chemicals which are not as effective as supposed to be. This shows class difference in use of agro-chemical and production of fruits. There seems to be a negative relationship between the size of land holdings and the number of problems faced by the horticulturalists. The bigger the size of land holding, the less are the problems and vice versa. It may be because of the high economic expenditure by the large farmers which enables them to purchase appropriate and effective sprays and fertilizers to maintain growth and protect fruits / plants from diseases.

The study points out that most of the farmers are unaware of the reasons but hold that the use of non-scientific methods of cultivation, overwatering of fields and substandard fertilizers and pesticides are the main causes of the spread of disease. The non-seasonal rain and snow fall is also the factors which aggravate the problems and these climatic reasons affect fruit production the most. Due to these problems, the quality and quantity of fruit production decreases. It equally affect the market value of the produce. It means that just like agriculture, horticultural crop is also hampered by various diseases. However, despite the attack of diseases, the yield is sufficient to fetch returns comparatively more than that from the agricultural crops.

To redress the problems of insects and pest attack, the cultivators rely on insecticides and pesticides. The selection of such agrochemicals depends upon the
advice of fellow cultivators and friends. There are few respondents who don’t spray either insecticide of pesticide but majority try one or the other insecticide or pesticide. The study points out that majority of the marginal farmers use their own experience to redress the problems. On the contrary, the small farmers seek suggestion from experienced villagers. All of the large farmers consult horticultural office for redressing such problems and accordingly follow the spray schedule. The analysis of date shows a relationship between class status of the cultivator and the use of agro-chemicals for maintaining productivity of the farm and the control of insect / pest / diseases attack. It may also be concluded that economically well-off cultivators use the advice of horticulturalist experts and try to follow the schedule regarding use of agro-chemicals of all types. Like-wise the type of insecticides / pesticides used in spray varies with the class and economic position of the orchard farmers.

So far as the availability of horticultural officers / experts is concerned, medium and small farmers state these officials are available in the office but guidance is primarily provided to the large and the medium farmers. Marginal and small horticulturalists relate it to the social, economic and political position of the individual in the village. In their opinion, medium and large cultivators have standing in the one or the other above criterion and therefore, the official like to visit their farm rather than that of the poor, marginal and small cultivators. It is interesting to know that except some of the large and medium, most of other category of farmers do not implement their advice thinking it not possible to strictly follow the schedule. Sometime, lack of proper field knowledge on the part of horticultural officials, the farmers seek advice but don’t implement. They then rely on their own knowledge and experience. Of course, many of the horticulturalists hold that the implementation of the suggestions improved the quality and the quantity of the most of the production to a great extent. The increase in the market value of the produce and control of various dreadful diseases is also attributed to the implementation of the suggestions. It means that the concerned officials are knowledgeable and the suggestion is being provided but the implementation part depends upon cultivator’s own experience and knowledge. Certainly, the scientific or practical nature of suggestions if implemented will help in improving the quality and quantity of the produce.

Moreover, the horticultural officials do not visit the orchard fields of the majority of the farmers. Their visit is confined to the orchards of some of the farmers.
The visit is mostly restricted to breakout of any natural calamity and frequent requests by the farmers. Rarely the officials visit as a routine matter. Many of the cultivators have reported lack of dedication on the part of the government officials.

The government horticultural departments provide free of cost pesticides, fertilizers and sprays to certain. These facilities are mostly provided on the basis of size of landholdings. The marginal and small farmers state that many a time other considerations are taken into account for distribution of subsidized agro-chemicals particularly the political influence and inter-personal relationship with the government officials. In certain cases, the subsidy is also being availed of by those farmers who are either aware of the government policies or are the relatives, friends of the concerned officials.

Despite government support in terms of experts and subsidies, the production level of all categories of cultivators has not either decreased or increased qualitatively. Certainly, the sub-standard agro-chemicals has not been able to control diseases and hence, all the cultivators want a curb on the sale of sub-standard agro-chemicals including fertilizers and insecticides/ pesticides. The Study points out that if appropriate quality products to control diseases and insect/ pest attack in addition to adoption of the scientific methods are deployed, the production of apple and other fruits can be improved both qualitatively as well as quantitatively.

Another inhibitor that has its impact on the production process is the marketing of produce. The majority of the farmers sell their produce through money lender cum-commission agents to wholesalers or retailers who finally sell it to consumers, thereby completing the marketing process. Some of the farmers sell their produce directly through agents without the mediation of money lenders. Such marketing channels are also reported by the study conduct by Malik (2013). Majority of the large and the medium farmers sell their produce directly through agents, whereas the majority of the marginal and the small farmers sell it through money lender cum-commission agents. In spite of this, the farmers prefer to sell their produce through agents bypassing money lenders. The main reason for showing preference of sale through agents is to have more profit and avoid paying any commission to money lenders. It further, enables them to withhold produce for some time during low market rates. However, the sale deed are mostly carried out through money lender cum-
commission agents because the later advances money as and when required without going through cumbersome procedure to avail institutional loans. The study concludes that cultivators are interested in taking advantage of market provided all are able to withhold the produce for some period which the marginal and small farmers cannot afford.

The study also concludes that majority of the farmers’ face problems during marketing of their produce as they hold that even after launching so much government policies and programmes for the promotion and marketing of apple industry, various bottle necks are not taken care of in its marketing process. These include high transportation rates, lack of direct contact with exporters, less availability of fruit markets (mandis) at the local level, and lack of the cold stores for storing and agro-processing industries in the area. Such problems are more common among the marginal, small and many of the medium apple / fruit growers. Singh, et.al., (2004) too have observed similar problems in their study. Large fruit growers often transport their produce outside state markets. The cost of fruits containers of course increases during the harvest season but the big fruit growers keep a stock or order the stock in advance keeping the optimum level of production into consideration. In addition, the tense and volatile political environment is also a reason that affects the cultivators in the marketing of their produce.

To curb the marketing hassles, various measures have been suggested that range from easy institutional loan disbursement, control over commission agents and fixation of transportation rates, establishment of cold stores, setting up of food processing industries and construction of fruit markets. Most of the marginal and large farmers view the establishment of fruit markets as a measure to resolve their marketing problems. On the other hand, most of the small and the medium farmers view government control of commission agents and fixation of transportation rates and easy access to institutional loan may help them to some extent but the problem is not fully tackled owing to administrative, political and sometime emergence of syndicates of transporters and commission agents.

These marketing problems have their impact as well; as direct impact is economic that translates lately into social one. The mostly affected class of fruit
growers comprises of marginal and small ones who hold that such problems ultimately affect the education and marriage of children.

The study concludes that the government benefits reach to a small section of the fruit growers. Most of them regard political affiliation, size of owned land ownership and economic status of a family besides affiliations with concerned officials as the factors that help one to get such benefits. At the same time, they find that sub-standard products are distributed which do not support the productive efficiency of the crop.

Class wise analysis shows that the marginal and the small farmers regard socially, economically and politically sound people as the beneficiaries; whereas, large farmers regard socially and economically unsound farmers as the beneficiaries whereas, medium farmers view it otherwise. It may be deduced that both the upper and lower class of horticulturalist get advantage of the government facilities.

The efforts of the government to provide easy credit to the cultivators and also fixing the limit of the credit advanced, K.C.C. scheme has been initiated. Most of the K.C.C. holders divert the advance for non-productive uses that includes house construction, marriage and education of children and the like. Some of the K.C.C. holders use it for productive purposes which include purchase of fertilizers, pesticides and other sprays and for the transportation of the produce. In this way, K.C.C. has both positive and negative effects. Positive in the sense, that most of the farmers use it for productive purpose by easy access to credit thereby decreasing the importance of artiyas. It also enables them to sell their produce directly in fruit markets without taking advance money from commission agents. Its use is also negative as it makes them indebted and increases diversion of funds or expenses on heavy dose of fertilizers and pesticides which ultimately affect crop productivity negatively despite heavy expenses.

From the study, it may be concluded that land use plays very vital role in shaping social and economic status of the farmers. The subsistence based land use has changed to commercial one. The farmers have shifted from agricultural land use to horticulture as the later provides comparatively better returns on the farm than the former. Moreover, horticulture ensures economic security because of its marketability on the larger level as compared to that of agriculture whose marketability is limited to
the local level. The shift from agriculture to horticulture has been found not a phenomena of one generation but two or three generations besides the shift has been gradual. In this context the land use has been operationalized. The process of change in complete land use to a large extent is observed among the marginal, small and medium farmers. Large farmers still continue some sort of agriculture along with horticulture. The shift from exclusive agriculture to horticulture has not been associated with land market rather the land market is not volatile in the region.

Agricultural mode of production has been gradually transforming into capitalist one. This is evident from the study as all class categories of cultivators are sowing crops such as beans, tomato and potato, fodder etc., in their apple orchards largely till apple trees turn fruit bearing. Not only this, the farmers keep on adding such crops which are expected to be in demand in future, which not only helps them to generate returns but keeps them in touch with changing market trends. This way cropping intensity on the farm has increased. Owing to the better returns on the farm in terms of fruits and vegetable, the land owners have built capital assets such as tractors, water pumps, spray motors, cutters and the like. Secondly, wage labourers are deployed for sprays, picking of fruits, its packing and transportation; a feature of capitalist mode of production. In the process, the credit institutions have gained importance in such institutions-formal and informal- advance credit to the farming community depending upon the size and class of the cultivator and the expected returns on the farm.

The study concludes that the shift from agriculture to horticulture is coupled with the shift in climate of the region which is evident from less snow days, increased rainy days and shift in temperature.

Climate changes have equally affected the crops/ fruits in term of increasing incidence of insect/ pest attack. The scientists owe the outburst of insect/ pest attack to over-watering, sub-standard agro-chemicals, non-scientific methods of cultivation. All class of horticulturalists rely more on their experience rather than the advice of scientists. The different class of cultivators uses the agro-chemicals depending upon their land status and economic viability.

The Government for the promotion of horticulture support orchard farmers by providing subsidized or free of cost pesticides, fertilizers and sprays. Although, these
facilities are being provided on the basis of size of land holdings but other considerations such as political influence and inter-personal relations etc., are given due attention. In spite of Government support and provision of credit advancing institutions, the farmers -marginal and small- sell their produce through moneylender-cum-commission agents thereby fetching less return as compared to medium and large farmers who sell it directly to agents or withhold the produce to take advantage of market. In other words, the shift from agriculture to horticulture has benefited the upper class of orchard farmers thereby widening the economic disparity between the classes.

To sum up, the orchard farming in the valley is on the capitalist line. Equally the capitalist development has widened the economic disparities among different class of land-owners. The wage labours are now better placed than before. In spite of better returns on the farm and disparity in income, the land has not come into the market for sale and purchase; may be because of olericulture that generates returns in addition to that from horticulture. Thus, the adoption of horticulture at large scale has been responsible for economic growth of the rural society and latently the social standing / position of the cultivators of horticulture. Certainly, the class differences have increased among different categories of cultivators.