Chapter VIII

SUMMARY AND CONCLUSIONS

In spite of the several favourable measures taken by the Government through various development activities, the economic condition of tribals in the mountain lands is still deplorable. There are many factors identified for this poor plight. One of them is the massive in-migration of people from thickly populated plain land to this thinly populated mountain slope and the changes in land use pattern which ensued. The immediate consequence of such migration was large scale deforestation; it was followed by the introduction of different land use activities, quite different from the traditional ways of land use in this region. In the course of events, tribals lost their land; the demographic structure of Attappady changed; the cropping pattern got diversified; traditional techniques of production were ruined; new crops and new techniques of cultivation came to stay; and the entire cost and return structure of production underwent radical change. Though several studies attempted to explore the impact of such settlement on tribal economy, much attempt has not gone into the investigation of the process of in-migrant settlement and the resultant dynamics of land use. The present study, is an attempt to understand the changes in land use and the factors held responsible for such changes, on the basis of a micro level enquiry.

For the purpose of detailed field investigation, we have chosen two villages of Attappady block, one of the tribal concentration centres of the State. Till the second quarter of this century, the area was inhabited only by tribals. However, since then it witnessed massive influx of people from the plain land and the entire demographic profile of the region changed. Uncontrolled deforestation, over-grazing of cattle and introduction of agricultural practices inappropriate to the ecological and agro-climatic conditions of the region, have changed the entire land use pattern of Attappady. The area
is now characterised by wide crop diversity handed down by the history of crop succession among both the settlers and the indigenous people.

After a detailed statement of the problem in global and local context, we discussed the specific objectives of this enquiry, namely, the dynamics of land use in a new forest settlement. It encompassed a discussion of the process of settlement and land acquisition; and review of the course of land degradation, crop successions, the development of farming systems and the factors which influenced it. We have also analysed the structure of costs and returns and the relative profitability of cultivation of the different crops and crop combinations practised by the settlers and the tribals.

Though both primary and secondary data have been used in the analysis, we have relied more on primary data collected from a sample of 367 cultivators in two selected villages of Attappady. Proportionate random stratified sampling was used to draw the sample from the sample villages and from among the three farming groups in the region. Besides, several early settlers and social workers were interviewed for gathering historical information.

After furnishing a detailed account of the study area and its socio-economic set-up of the settlers and tribals in the area, we highlighted the crucial importance of agriculture in this area and examined the types and extent of land dependency of the indigenous people and the in-migrant groups.

8.1 Summary of Findings

8.1.1 Settlement and the Process of Land Acquisition

We have examined the process of settlement and the extent of land alienation in Attappady valley using historical data and oral history accounts collected from old
settlers, tribal moopans and social workers. Land-hungry people from Travancore began migrating to the Malabar region during the first quarter of the present century. Migration to Attappady is essentially a continuation of the Malabar migration process from Travancore, though, some people from Tamil Nadu also had migrated to this region earlier. The cavalier approach of the jenmis of the lands and the lack of state control were the major factors which facilitated the massive influx and settlement of in-migrants in the early stages of the process. The early settlers were rich land owners from plain land who had direct influence over jenmis. The main motivating factor for the inflow of these people to the region in the first stage was acquisition of land for extraction of forest timber; cultivation of land became the major motive only in the next stage. Even earlier than the entry of these rich land owners from the plains a few traders from Tamil Nadu and other parts of Kerala had occupied the valley. The process of settlement, turned increasingly exploitative in nature over time, particularly since massive influx of landless and economically backward people to the region began. In their frantic efforts to acquire land, tribals underwent indiscriminate exploitation at the hands of in-migrants from both sides of the valley. As a result, a large number of tribal households lost their land to malayali and tamil settlers. In most cases of land transaction tribals were got cheated, the in-migrants exploiting them of their ignorance and fear. In this process, most of the fertile river beds and other low lands under tribal occupations passed on to settlers, especially to the tamils. Tribals were pushed in the process to the steepest parts of Attappady hills.

The demographic structure, along with land structure, has changed in favour of the settlers within a short span of time. A dualistic society and economy emerged by the mid-1970s; the tribals constituting the aboriginal and indigenous section (Adivasi) and the settlers becoming the new settlers (Vandavasi). There is a further division among the settlers themselves - between the tamils and the malayalis. The process of land transfers from the tribals to settlers continued unabated till most tribals were reduced to the status
of landless agricultural labourers. The very few tribals who were left with some bits of land were either located in the remotest parts and the lands they retained were the least fertile type. As a result the agricultural practices of the valley have undergone total change from the unique tribal mode of production to a variety of modern agricultural practices.

There exist many tribal families who lost their lands and many settlers who lost large amount of money in this bid to acquire land in the valley. The issue of restoration of land to tribals has created fear of eviction among settlers. An integrated development strategy in which all the groups - tribals and settlers - participate with equal enthusiasm is yet to evolve.

8.1.2 Factors of Crop Succession and Crop Selection

Since the 1950s remarkable changes have taken place in the farming system of Attappady. A variety of agricultural crops ranging from millet to coconut have come to stay in the region. In this process, the quality of land has degraded thanks to indiscriminate removal of forest trees and wanton misuse of land for a variety of purposes such as by grazing and raising crops on hill slopes without taking measures to prevent soil erosion. This has been further accentuated by inappropriate land conservation activities and attitudinal change among tribals towards traditional cropping technique. In their hurdle to find a livelihood, from the early days onwards, settlers adopted various land use activities, indiscriminate of its consequence, which resulted into erosion and a gradual degradation of forest cover and land quality. Cultivation of ramacham and theruva and the use of forest trees as firewood for distilling oil from these crops are cases in point. Tamil cultivators do not allow tree in their land as its shades are not suitable for the crops they practices. Gradually tribals also follow, at least
partially, the mode of operation of settlers, which was a severe setback to soil conservation and sustainable agricultural practice of the area.

The land use practices of both the settlers and the tribals have been undergoing changes continuously over time. Tribal cultivation practices have almost entirely disappeared due to low productivity on the one hand and introduction of non-traditional crops, on the other. Among the factors which have influenced land use and cropping patterns, prices are found to be the most important.

Lack of security of ownership has acted as a strong reason for wanton exploitation of land resources. The major influencing factors on crop choices among settlers were labour endowment, date of settlement and education. Those families endowed with large amounts of labour power and high educational levels followed more diversified cropping patterns with emphasis on cultivation of perennial crops and development of home gardens. The trend of land degradation has lately disappeared and has teemed to adoption of sustainable agricultural practices, by the settler groups. Poverty and lack of adequate resource were the prime factors for the destructive exploitation by the settlers, the precious land in the area during the early periods of their settlement. Accumulation of economic resources, and better understanding of the environmental hazards of indiscriminate land use are showing positive results.

8.1.3 Farming System Development

The existence of three different farming groups - the malayalis, the tamils and the tribals - was the main reason for the emergence of diverse farming systems in the area. Perennial-crops-based farming system is followed by malayalis; dry-crops-based system followed by tamils; and indigenous-crops-based system is followed by tribals. High density home gardens, low density home garden, home garden with forest mix, mono
perennial crops and annual or seasonal crops exist in the area. The growing importance of high density home gardens among malayalis indicates that the resource degradation phase among them has ended and is being reversed. Tamil farmers still adhere to a dry-crops-based farming system due to their preference for quick-income-yielding cultivation and their strong attachment to their own traditional practices. However, in-migrants who acquired more land in the early date could convert larger areas under perennial-crops-based farming system than late comers. The practice of tribals to cultivate perennial crops and dry crops have not only provided them with insufficient income but also resulted in total ruin of their traditional cropping system. The main reason for their failure in the adoption of settlers' crops is their technological backwardness. It is high time that a review of the development of the farming systems of the area is made with particular emphasis on the status of the traditional cultivation practices of the tribals.

8.1.4 Cost of Production and Relative Profitability

We have calculated per acre and per unit cost of important seasonal and perennial crops among the settler groups and the tribals. In general, low yield has a negative influence on unit cost among farmers. In the case of all the crops, both the settler groups are able to produce at lower unit costs than the tribals could. High per acre cost of production and low yield are found to be the main causes of high unit cost of production among tribals. Inadequate knowledge and know-how of modern cultivation techniques and practice, tend to reduce their yields. On the other hand, intensive use of modern inputs and technical know-how, ceteris paribus, tend to reduce per unit cost of cultivation among settlers.

Unit cost of pepper is also the highest among tribals. Even though per acre cost is less for them, yield rates are also lower. Among the settlers, unit costs are the lowest among malayalis. The adoption of settler's crops has not benefited tribals either for yield
improvement or in cost reduction. Settlers could manage, however, to produce the crops at low unit costs, due to adoption of modern techniques like application of fertilisers, chemicals and irrigation.

Dry crops, cotton and groundnut, cultivated along with thuvara, are profitable both for settlers and tribals. However, tapioca and ragi-with-chama are unprofitable for all cultivators, except malayalis at Cost C level. A comparison of perennial crops with these crops, taking benefit-cost ratio and net yearly income shows that, cotton and pepper cultivation are lucrative, pepper being the more profitable of the two.

Cost factors should obviously receive more attention in planning for the future. Agricultural extension services have to be strengthened so that cultivators are enabled to bring down cost of production and increase yield rates. Although cotton production is found to be profitable, its cultivation should be expanded only if adequate protective measures are taken to prevent soil erosion and related aspects of land degradation caused by it. The ecological effects of expansion of dry crops and tree crops in Attappady need careful analysis.

8.2 Some Implications to Policy

Attappady is a unique place in the state of Kerala characterised by many inter-connected features. A single measure or a one-shot injection of activity cannot take the region to the path of sustainable development. The area requires a ‘big-push’ along with a package of programmes. The following policy suggestions can be put on the basis of the present study.
1. As there is chance for further degradation of land, when security of ownership of land is in question, steps should be taken to provide adequate security of ownership not only to tribals but also to settlers to a limited extent.

2. For a full and augmented prosperity of this part of the State, along with the existing Integrated Tribal Development Programme, an Integrated Attappady Development Programme with more emphasis on sustainable development is recommended.

3. The hidden hand of environmental degradation is a grave danger especially on sloppy terrains, which are under cultivation of tapioca and dry annual crops like groundnuts, cotton, grams, etc. Soil erosion as a result of the unplanned cultivation of these crops has resulted in dramatic decline in soil fertility and hence low crop productivity. This calls for a watershed management approach for the sustainable development of the region.

4. For the improvement of traditional cultivation, which are on the verge of ruin, sufficient technological backup should be given through a package of programmes.

5. A progressive agrarian transformation is warranted to maintain the homegarden as a sustainable production system in ecological and socio-economic terms.

6. Degradation as a result of excessive cultivation of dry crops needs to be limited through appropriate measures.

7. For a faster development of the area the link between Attappady and outside world should be improved. This may be made possible through a variety of ways such as tourism development, increased trade, and the like.