CHAPTER VII

CONCLUSION

Forest is one of the primary components of the environment which plays a pivotal role in the lives of the humankind. It plays an important role in determining the other elements within the environment itself such as influencing and regulating the climate, producing vital oxygen, preserving the biomass and bio-diversity, maintaining the soil fertility and controlling soil erosion and preventing natural calamities like floods and droughts. All such factors and conditions are necessary for humans to live, work and survive. Besides, forests provide with all the essential necessities such as food, medicine, fuel wood, timber, raw materials as well as shelter and protection. And forest based activities fundamentally constitutes the economy of the human society. As such, humans are dependent on nature, land and forest for their sustenance and livelihood.

The present study focuses on the practices related to management of forest by the Nagas in view of the significance of the forest in their social and economic life. The study tried to examine the role of the communities and the Village Council in the management of village forest and the challenges and issues faced by the communities in relation to their traditional system of forest management in view of the changes taking place in their socio-economic life. Besides, an attempt was made to look into the new trends that are emerging in relation to the management of forest and its impact on the forest management practices and the social and economic lives of the Naga communities.
The present study focuses on the Naga community as a whole, but the actual field study was carried out in Waromung and Khonoma village. Waromung village which is an Ao-Naga village is located in a rural set-up away from the urban areas whereas Khonoma village, inhabited by the Angami-Nagas is located near the urban areas of Kohima and Dimapur. In both the villages, agriculture is the main economy of the community, with forest based activities forming an integral part of their livelihood. And for the communities from these two village land and forest forms their most valuable resource and these resources are owned and managed by the community themselves. Based on the field data from Waromung and Khonoma village, the primary findings of the present study can be summarised into the following issues as discussed below:

1. FOREST HOLDS AN IMPORTANT PLACE IN THE SOCIAL AND CULTURAL LIFE OF THE NAGAS

Forest occupies a primary place in the Naga way of life. The nature of relationship of the Nagas with the surrounding land and forest encompasses an extensive spectrum of their life and extends beyond the physical and material linkage. The land and forest are considered as the material symbol which gives them their identity and holds the family, clan and the tribe together. Moreover, the land, forest, rivers, hills, mountains are revered and considered as the giver of life. It is also regarded as the most valuable resources, thus, ownership of land, forest implies wealth, status and security in the Naga society. The significance of forest in the Naga way of life is illustrated in the following parameters of forest usages in the Naga society-
i. **Forest and Customs:** Forest serves as the traction for a variety of their cultural and symbolic functions. The presence of forest is an important factor during the selection of the site for the establishment of the village and the use of diverse forest produces like the plants and its different parts, trees, animals and birds during the birth and naming ceremonies, marriage, death, festivals and various other occasions implies the importance of forest and its produces in the Naga customs and traditions.

The Nagas relation with the forest also had a religious connotation, where their activities were intrinsically linked with the land and forest and have a significant bearing on the preservation of their forest. The traditional religion of the Nagas revolved around the belief on a number of spirits associated with rocks, mountains, rivers and trees. As such, forests, paddy fields, trees, bamboo groves, streams, peaks and caves were considered to be the abodes of the spirits and were worshipped. Consequently, rituals and sacrifices were performed in these areas and such sites were considered sacred and felling down of trees, collecting forest produces or cultivation was prohibited from these areas. With the conversion to Christianity, many of the beliefs and practices associated with their traditional religion were given up but till date the land and forest surrounding the sacred sites are still maintained and preserved by the people. And such beliefs and practices have helped the Nagas to regulate the utilisation of the forest produces and conserve the land and the surrounding forest.

ii. **Forest Produces as a Part of Subsistence Strategy:** Forest provides with a variety of products such as food, medicine, firewood, timber, fodder and raw materials for their crafts. Thus, the Nagas hunt, fish and collect wild leaves and
vegetables, wild fruits, roots, tubers, mushrooms, honey, herbs etc., from the forest to meet the nutritional needs of the household. Collection of firewood from the forest is also a very important chore because for the Naga household, especially for the rural households, firewood is the main energy used for cooking and keeping the house warm. Timbers, canes, bamboos and other raw materials for house construction, making furniture and weaving baskets and mats are also collected from the forest. Household items like the dishes, plates, spoons, forks, cups are also made of wood, bamboo and cane. Even their traditional attires and ornaments, traditional musical instruments are made of natural products.

iii. Forest Produces Used as Medicine: The utilisation of the flora and fauna from the surrounding environment to treat illness and diseases is a part of the Naga culture and practice. Their dependence on forest and its produces and their close interaction with it on an everyday basis have led the Nagas to have a rich knowledge about how different forest produces are a good source of nutritious diet, its medicinal values, plants that are herbal or aromatic and the various zoo-therapeutic usages of the faunas. Such practice was pertinent in light of the fact that scientific medical treatment was not available in the Naga areas in the past. But with the modernisation of the Naga society, medical treatment and allopathic medicines were introduced which changed their beliefs about illness and their practices related to treating the illness. However, the community of both Waromung and Khonoma village mentioned that though modern medical treatment is available and they do not practice the traditional treatment to a large extent, they still depend on it. The absence of proper medical care or hospital in the village and poor financial conditions as well as the benefits of the natural treatment of their traditional methods
were the reasons stated by the respondents as to why they resort to traditional home remedies. Such folk knowledge of medicine from the nature and practices of the Nagas has an enormous potential and can be developed as an alternative approach for health care and management.

**iv. Traditional Ecological Knowledge of the Nagas:** The fact that they are largely dependent on the forest and its resources has led the Nagas to acquire and have an intimate understanding of the forest environment and its habitation. They are quite adept with the flora and fauna, their local distribution and habitat preferences, life histories and their seasonal manifestations, behaviours and usages. Such Traditional Ecological Knowledge of the Nagas is deeply linked to their day-to-day experience and survival needs. Their ecological knowledge such as determining the fertility of the soil based on the colour of the soil, presence or absence of certain trees and plants, soil conservation practices based on their traditional knowledge, identifying the signs and seasons in nature based on their ecological knowledge to guide their agricultural, hunting and fishing activities, ethno-medicinal knowledge of plants, animals, birds, insects etc., was applied by the Nagas in their everyday lives to obtain food, medicines, fuel wood and other necessities and to avoid danger and calamities in their life. Through generations, such knowledge was passed on orally through their folktales, folksongs, proverbs, cultural values, beliefs, rituals and community laws and it has helped the Nagas to sustainably utilise and conserve the natural resources.

However, at present due to the changes in their social and economic lives, introduction of modern methods at the expense of the local knowledge, absence of the documentation of their traditional knowledge has led to decline of the Traditional Ecological Knowledge among the Nagas. In the present study, the responses of
community from both Waromung and Khonoma that they are aware of the usage of
the various produces from the nature by their ancestors to treat their illness but they
do not know which produces were used to treat which illness except some few which
are used in their daily live, indicates the gradual loss of their Traditional Ecological
Knowledge.

2. FOREST FORMS AN INTEGRAL PART OF THE NAGA ECONOMY

Forest constitutes an essential part of the Naga economy. It ranges from
collection of food, firewood, medicinal plants, fodder, timber and raw materials for
their arts and crafts to hunting, fishing, cultivation and selling of the forest produces
to earn their livelihood. The roles of forest in the Naga economy are as follows-

i. Forest and Agriculture: Agriculture is the backbone of the Naga economy. In
both Waromung and Khonoma, agriculture is the main occupation of the villager,
with 48 per cent of the respondents from Waromung and 41 per cent of the
respondents from Khonoma practising it as their primary occupation. Jhum
Cultivation and Wet Rice Cultivation is practised in both the village, but in
Waromung jhum cultivation is the dominant form of cultivation whereas Wet
Terrace Cultivation is the major form of cultivation practised in Khonoma. The
agricultural practise of the Nagas is intimately linked to the forest starting from the
clearing of forest lands for jhum cultivation. The presence of forest is essential for
the agricultural fields as it acts as the water catchment and the water from the forest
irrigates the fields, and the forests and trees helps in maintaining the fertility of the
soil, controls the erosion of soil, thereby, enhance the crop production.
At the same time, the Nagas have adapted agricultural practices that are environmentally friendly such as never clearing the forest completely while burning and slashing the forest land for cultivation, maintaining the cycle of jhum cultivation by cultivation plots of land for two years and keeping it fallow for certain periods of year in order to regain the fertility of the land and regenerate the vegetation and the forest, practice of organic farming using natural manures only and planting trees along with the crops in order to control soil erosion and maintain the fertility of the soil. In addition, the trees from the fields are harvested and used for their daily needs, thus it reduces the pressure on forest for firewood and timber etc. Such agricultural practices have helped the Nagas to keep the forest preserved and maintain the ecology of the land.

**ii. Forest and Livelihood:** In both the villages of the present study, it was found out that though the villagers practise diverse occupations, all the households were engaged in various forest related activities such as collection of forest produces, hunting, fishing etc. The villagers procure a number of forest produces such as wild leaves and vegetables, fruits, flowers, seeds, tubers, mushrooms, honey, game meat fish and edible insects as dietary supplements. In addition, firewood, timber, fibres, broom grass, bamboos and canes, weaving and dyeing material, raw materials for their art and crafts and medicinal plants and herbs for traditional way of treatment are also gathered from the forest.

Apart from the collection of forest produces for household sustenance, marketing of the forest produces for income forms an integral aspect of their livelihood. In both Waromung and Khonoma village, collecting and selling of forest
Photograph: 32 Forest and Agricultural Produces sold in the Market
produces such as wild vegetables and fruits, wild leaves, tubers, roots, bamboo shoots, edible insects, wild game meat and fishes, honey and bee larvae, broom grass, wild flowers, timber, firewood and charcoal etc., has been one of the main sources of livelihood income for the villagers. The present study reveals that the villagers, especially the womenfolk from both the Waromung and Khonoma collect and sell forest produces like wild leaves, vegetables, fruits, mushrooms, roots, tubers, broom grass, honey, honeycombs, herbs, wild flowers etc. However, the respondents from Khonoma stated that due to restriction in their village on the collection and selling of forest produces, they sell only the crops and produces collected from their agricultural fields. It was also revealed that due to the proximity of Khonoma to urban areas like Kohima, Ghaspani, Dimapur, the womenfolk from here are more involved in collecting and selling of their agricultural crops in the urban markets on a daily basis whereas in Waromung due to the long distance from the urban areas, the villagers give the produces in bulk to whole sale traders or sell it from their home whenever visitors to the village wants to buy the produces to take home.

In addition to the collection and selling of Minor Forest Products, the Nagas, mostly the men, sells firewood, timber, charcoal, and hunt and sell the game meat, fish, sell bamboo and wood crafts like bamboo baskets and mats, wooden dishes and showpieces to earn their livelihood. However, though the collection and selling of forest produces is a major source of income for the Naga villagers, lack of good transportation facilities, poor market infrastructure such as absence of proper market stalls, cold rooms and storage facilities for preserving the goods, lack of assistance from the state government are some of the challenges faced by the villagers in terms of selling the produces. Introduction of better marketing strategies, establishing
marketing linkages, constructing proper roads and introducing better transportation facilities, training the community about techniques of food preservation and food packaging and marketing skills, and a proactive role by the government in rural marketing can enhance the livelihood of the community.

3. COMMUNITY FOREST MANAGEMENT PRACTICES AMONG THE NAGAS HAVE CONTRIBUTED TO THE CONSERVATION OF THEIR FORESTS

The role of the community in both the villages of the present study reveals that the Nagas are well aware of the fact that they are dependent on the forest and its produces for their sustenance and livelihood and that their well-being is based on the long term availability of the forest produces. Such perceptions have influenced the Nagas to manage and maintain their forest as a sustainable resource system. In order to manage and maintain the forest, the following practices are observed by the Nagas:

i. Restriction against Misuse of Forest Land and Products: If anyone destroys the forest and the environment by exploiting the forest produces, recklessly cause fire or misuse the forest premises for carrying out any illegal activities like drinking, gambling etc., it is a customary practice among the Nagas to penalise the offender/s.

ii. Traditional Practices in Relation to Felling of trees from the forest: It has been a traditional practice of the Nagas to never clear the forest completely while clearing the forest for cultivation and to cut only those trees that have grown sufficiently big and leave the smaller ones to grow while felling the trees for timber and firewood. Also, the trees are never cut and uprooted completely but two or three feet of the tree
Photograph: 33 A View of Forest in Waromung Village

Photograph: 34 A view of Forest in Khonoma Village
trunk are usually left for new sprouting. Based on their Traditional Ecological Knowledge of which trees can be used for firewood, trees that can be used for construction purposes, and trees that give good quality of timber, they cut down the trees according to the needs. Such traditional practices can be said to be a method of harvesting the forests, whereby the forest and its produces are not destroyed unnecessarily but utilised prudently according to the necessity of the community.

iii. Regulation of Logging Activities: Logging is a very profitable business and many of the Naga villagers are engaged in logging trade to earn their livelihood. But as the extensive logging was destroying the forest and its rich resources, they started to carry out logging under certain regulations. The present study reveals that in Waromung village cutting and transporting the timbers is allowed within a specific time period only and selling of timber from the village community forest is managed by the Waromung Village Council. On the other hand, in Khonoma village the community have imposed a total prohibition on logging for commercial purpose and they cut down the trees for household firewood use and for construction purposes only. Such practices have helped in controlling large scale logging and check wanton felling of trees.

iv. Traditional Practice of Maintaining Firewood and Bamboo Reserves: In both the villages, it has been a traditional practice of the community to maintain firewood and bamboo reserves in the immediate surroundings of the village boundary where naturally grown and useful species are preserved and trees and bamboos for domestic needs are maintained. Such practice have helped in reducing the pressure on the forest since they get their daily requirement of firewood, poles and bamboos for house construction, firewood and other basic necessities from the reserved areas.
v. Traditional Agricultural Practices and Conservation of Forest: The Nagas are aware of the crucial role of land, forest and water in relation to their agricultural system, thus they have adapted agricultural practices and methods which would help them procure maximum produces for their subsistence at the same time help them in maintaining their land, forest and water sources sustainably. Their traditional agricultural practices such as keeping the land fallow to restore the fertility of the soil and regenerate the vegetation and the forest, planting of beneficial trees like Alder (Alnus nepalensis) in the field to maintain the stability of the land, use of natural manures etc., have helped sustain the land and the forest and thereby aided in maintaining the forest and ecology of the village.

vi. Traditional Hunting Practices: Hunting is a part of the Naga tradition and constitutes as one of the important activity of their economic life. However, the community being conscious of the importance of the wild lives maintain certain practices to check uncontrolled hunting. Restriction against hunting during the breeding season, especially hunting of female species, hunting or bringing of the young animals and birds to home to keep as pet or total prohibition on hunting as in Khonoma village have controlled large scale hunting and preserved the faunas of the area.

vii. Traditional Fishing Practices: Use of chemicals and explosives during fishing is prohibited in the Naga villages. Instead the community make use of natural products like leaves, seeds and roots of plants and creepers to trap the fishes. In the present study, it was found that in Waromung, a local fruit known as retsa, the leaves of akha tree and creepers like suli and traps made of bamboo are used while fishing. Similarly, in Khonoma also, roots and stems of plants and creepers were used during
fishing. At present, though the use of natural products has reduced, they still use bamboo traps, bamboo mats and baskets, cast-nets and fishing rods to fish. Such practices based on their traditional methods of fishing have helped in maintaining the quality of the water source, the aquatic flora and fauna and prevent it from the hazardous effects of explosives and chemicals.

**viii. Traditional Practices to Prevent Forest Fire:** Wild forest fire is one of the main causes of the destruction of the flora and fauna and the surrounding forest. The Nagas practise preventive measures such as making proper fire lines by clearing the surrounding areas before burning the fields, fixing the days for the whole community to burn their field during the jhuming operation, putting off fire, match sticks or cigarettes after smoking in the fields and forest. And during the burning of the fields, it is a practice for the male members of the village, especially those from the younger age-groups to keep watch on a rotation basis to check on the fire and control the fire in case it starts to spread to other areas.

**ix. Tree Planting Practices and Management:** The Nagas have the practice of planting trees in their fields, barren areas of land and in and around the village surroundings. It is a practice of the Nagas to plant native species of trees and those which are suitable to the environment and soil of the village as they are prone to grow faster and survive longer without hampering the fertility of the soil. The utility of the trees is also taken under consideration. Thus, they plant those trees which are economically viable as well as ecologically suitable to the climate and soil of their land.

**x. Collection of Forest Produces:** The Nagas are largely dependent on the forest for their basic necessities as such collection of forest produces form a part of their
subsistence strategy. However, in order to prevent unnecessary wastage and
destruction of the forest produces, the different Naga communities take different
preventive measures. For example, in Waromung, medicinal plants, edible fruits and
leaves, tubers and roots for human consumption and fodder to feed the livestock can
be collected by anyone from anywhere. But the general principle is that they should
not be wasted. Any destructive method invites censure or even punishment in the
form of fines. Similarly, in Khonoma also collection of wild leaves, vegetables,
herbs, plants and other forest produces for household consumption is allowed but
collection of forest produces for commercial purpose is restricted. In addition, taking
of plants and soil sample for testing or experiments without the permission of the
Village Council is not allowed.

xi. Domestication of Wild Plants: The Nagas have started to plant wild edible
plants, vegetables, fruits and flowers in their jhum fields and homesteads for the
nutritional supplements and medicinal values they get from these produces and such
practices have helped in preserving the wild products. They have also started
maintaining herbariums and nurseries of wild plants, wild flowers and medicinal
plants etc.

xii. Traditional Practice of Maintaining Demarcations: Land, forest and water
sources are important resources for the Naga community, thus, the Nagas maintain
proper boundary demarcations within the village and with the neighbouring villages.
Among the Nagas landscapes features like rivers, streams, mountains, trees acts as
the traditional natural boundaries within the village and with the neighbouring
villages. But in the absence of such natural markers, two or three stones are grouped
together and placed along the boundary lines, and removal of the stones or
misplacing it from the original position is considered a serious offence which calls for a case against the offenders, who has to pay fine for his offence. The tradition of proper maintenance of demarcations have helped in managing their forest, land and water sources and in maintaining good relations within the village as well as with the neighbouring villages.

4. THE NAGA VILLAGE COUNCIL PLAYS AN IMPORTANT ROLE TOWARDS THE MANAGEMENT AND CONSERVATION OF THE FOREST IN THE VILLAGE

As the apex body of the village, the Village Council in every Naga village is responsible for planning the developmental activities for the village, maintaining law and order, managing the resources of the village, delivering justice and securing defence, maintaining diplomatic relationship with other villages as well as making treaties with the neighbouring villages to share or jointly manage resources in contiguous areas. Apart from these functions, the task of maintaining the forest and supervising the utilisation of forest produces is one of the main priorities of the Village Council. Based on the traditional practices and customary laws of the village, the council make rules and regulations concerning sustainable use of the forest and its resources, and checks and control the misuse or destruction of the forest and its resources within their village jurisdiction. It is also their duty to ensure that the rules are followed and punish those who violate the rules and regulations of the village. To manage and conserve the forest, the Village Councils enforces the following checks and regulations—

i. Maintenance of Forest Boundaries: Most of the Naga villages shares contiguous forest areas as the boundaries among the villages. Thus, the Village Council oversees
the proper maintenance of traditional boundary demarcations so as to prevent encroachment or land dispute with the neighbouring villages. Also, because of the proximity of the villages there are chances of villagers from nearby villages or outsiders intruding the forest and misusing its resources. To avert such incidences the Council members inspects the forest areas and the bordering areas from time to time.

**ii. Role of the Village Council in Regulating Logging Activities:** Felling of trees for personal, community or commercial purpose is stringently supervised by the Village Councils. The Council ensures that trees are never unnecessarily felled and checks illegal cutting of trees from the forest. The Village Council being in-charge of the village forest, the community take permission from the Village Council to cut down trees from the Community Forest, and the Council after assessing the purpose and the need of the individual allots certain number of trees to be cut down. Anyone caught cutting down more than the allotted number or trees or caught felling trees without permission whether from the Community Forest or Clan Forest or Individual Forest area is penalised by the Village Council. Also, as in Waromung village, the Village Council is responsible for collection of logging tax and assessing the Community Forest and putting up the tender for sale of timber from those areas with already matured trees. The Village Council also fixes the time period for cutting and transporting the timbers and imposes fine on anyone caught transporting the timbers during the off-season.

On the other hand, in order to conserve the forest in Khonoma, the Village Council has imposed a total prohibition on logging activities in Khonoma village forest areas and anyone caught indulging in such activities is punished. Moreover, to
preserve the forest, the Council has made it mandatory for every household to cut one ‘trip’ of firewood from the community forest in a year. The allotted firewood for each year is valid for that year only and can be neither carried over to the next year nor sold within or outside the village. And whenever the villagers need timbers from the Community Forest for their personal use such as construction of house, they have to take permission from the Village Council or the *Catsu Kuotsu Merhü* Action Committee and submit an estimate of the house to be built, which the council or the Action Committee examines and accordingly allots the number of trees for the construction.

### iii. Role of the Village Council in Regulating Hunting Activities:

The Village Council ensures that the rules such as restriction against hunting during the breeding season, total prohibition on hunting as in Khonoma Village are observed by the villagers and checks to ensure that outsiders do not come and hunt in the village forest without their permission. The Village Council checks and if anyone is apprehended, the Council imposes fines on the defaulters.

### iv. Role of the Village Council in Regulating Fishing Activities:

In all the Naga villages, there are strict rules against the restrict use of explosives and chemicals during fishing. The Village Council ensures that such practices are followed by all and anyone caught breaking the rules is penalised by the Village Council.

### v. Role of the Village Council in Controlling Exploitation of Forest Produces:

In order to control the exploitation of the forest and its produces, the Nagas practise prudent utilisation of the produces in order to avoid unnecessary wastage and destruction of the forest produces. And the Village Councils makes sure that such traditional practices are followed and punishes those who go against the practices.
The Village Council also inspects the forest to check illegal cutting of trees, misappropriation and illegal selling of forest produces, and entry of outsiders for hunting, collecting forest produces, fishing within the village vicinity without permission from the village and punishes the culprits.

**vi. Role of the Village Council in Implementing Practices to Prevent Forest Fire:**

It is the responsibility of the Village Council (or the Khels as in the case of Khonoma village) to decide and announce the day/s for the whole community to burn the jhum field so as to prevent any major fire incidents. Anyone who burns the field on any other day than the day fixed by the community is penalised by the Village Council. And before setting the forest on fire, every household/individual should take proper precautions like making fire lines by clearing the nearby forest so as to prevent the spread of fire to the nearby forest areas. If the fire spreads to the uncultivated forest due to carelessness or not making proper forest lines the Village Council penalises the defaulters. Also, if any one causes forest fire due to their negligence such as not putting off fire properly in the forest, throwing away of burning match sticks and cigarettes without putting it off etc., the Village Council apprehends and penalises the defaulter/s.

Thus, the Village Council of Waromung and Khonoma village plays a significant role in the utilisation, protection and conservation of the forest and its produces by setting rules and regulations to control its misuse and manages it according to the customs and traditions practised in their respective village.
5. CHANGES IN THE SOCIAL AND ECONOMIC LIVES OF THE NAGAS HAVE IMPACTED UPON THE RELATION OF THE NAGAS WITH THE FOREST

The Nagas have experienced changes in their socio-economic, political and cultural life due to factors such as modernisation, westernisation, urbanisation and contact with societies other than their own. Such changes had an impact on their everyday lives, beliefs, norms and value as well as their relation with their environment. The changes that have impacted their relation with their land, forest and environment are -

i. Conversion to Christianity: With the advent of Christianity among the Nagas, they have discontinued many of the practices that were associated with their traditional religion and adopted Christian values and ethics. Believing and worshipping of the hills, mountains, rocks and trees was considered a sin and it was stopped. Consequently, the sacred relation they had with nature was severed and the Naga’s relation with the forest which had a religious connotation, where their religious beliefs and rituals were intrinsically linked with the land and forest and had a significant bearing on the preservation of their forest was also weakened to a great extent.

ii. Introduction of Formal Educational System: The introduction of the modern educational system in the Naga Hills was one of the most important factors that transformed the Naga society. They were not only able to read and write but became aware of the world cultures, ideas and values. But at the same time, this resulted in the replacement of the traditional institutions like the Morungs and girls dormitories,
which were centres of learning for young Naga boys and girls, by the formal educational institutions. With the negligence of such traditional institutions, knowledge about their land, people and society, importance of different areas within the village vicinity, the significance of a ritual, festival or ceremony, their Traditional Ecological Knowledge, their tradition and culture also declined as the formal educational system was based on the Western educational system and there was no place for their traditional knowledge and practices in such system.

**iii. Changes in Material Culture:** The contact of the Nagas with outside culture and its influence upon them ensued in new changes in their material culture as well. Their simple artefacts and objects created by themselves from the natural materials they get from the surroundings were replaced by objects brought from the markets. For example, wooden platters, earthen potteries and bamboo mugs are supplanted by steel, clay and ceramics dinner and tea sets. Another very significant change in their material culture was the change in their hunting and trapping equipments. As gun replaced their weapons like spears, bows and arrows, *daos*, birds and animals were hunted in large number and such extensive hunting resulted in the loss of biodiversity and gradual decrease of the fauna’s population. Also the introduction of electric saws and machines which can cut numerous trees in a day comparing to their simple axes that can cut a tree or two in a day has led to large scale deforestation due to felling of large number of trees for firewood and timber.

**iv. Economic Changes:** Transition from a solely subsistence agricultural economy to money oriented economy and the introduction of public and private service sectors was another factor that impacted the man-forest relation among the Nagas. The
livelihood strategy of the Nagas changed- agriculture, hunting, fishing, handicrafts and blacksmithing were replaced by new forms of occupations like government office employees, teaching, medical services, religious services like Pastorship, trade and commerce etc. At the same time, agricultural products which were produced only for domestic consumption, hunting and fishing which was carried out mostly as a community activity were transformed into a commercialised activity. Moreover, as the demand for timber for railways, industries and constructions heightened logging became one of the most lucrative businesses for the Nagas. Such changes has resulted in the over exploitation of the forest and its produces leading to deforestation on a large scale.

v. Administrative Establishment: The creation of Nagaland Statehood in 1963 under the Indian Government lead to the establishment of bureaucratic system of governance among the Nagas. Different administrative departments were established, and the State Forest Department was also established in 1963 with the objective to administer the forest of the entire state. An important aspect of the Forest Policy of India was the empowerment and recognition of the Village Councils to manage the forest according to their customary laws and regulations and the conservation and preservation of the forest through local community participation in the forest programmes and projects. Thus, in Nagaland, every village manages their land and forest under the supervision of their respective Village Council according to their customary laws and traditional practices, at the same time, various government policies and programmes like conservation of the flora and fauna, biodiversity conservation, wood and timber harvesting, regulation of tree felling and sale of forest
produces, transportation of forest products, implementation of forest policies, afforestation programmes etc., are implemented in all the Naga villages through the collaboration of the State Forest Department with the village community.

vi. Forest Policies: The National Forest Policy of 1988 states that at least one third of the geographical area should be under forest cover. It further says that in the hills at least 66 per cent of the area should be under forest cover to prevent soil erosion and degradation of land and to maintain the stability of the fragile ecosystem. Accordingly, the Government of Nagaland formulated the State Forest Policy and programmes for preserving and managing the state forest. The introduction of the forest policies has led to the systematic administration relating to forest, the transit of forest produces and the duty leviable on timber and other forest produces. But how far these policies have been implemented and practised in true spirit, transparency of the policies, whether it brings benefits to the local population or not are some of the key issues that needs to be reconsidered. For instance, the question of the practicability of discouraging jhum cultivation which is a way of life for the Nagas and the question of how far these helps in contributing or whether it impinges on the rights and customs of the villagers, its impact on the livelihood income of the villagers is still a contested matter.

vii. Industrial and Infrastructural Development: After India’s independence, with a vision to build up the new nation, numerous industries were set up and an overall built-up of the country’s infrastructure was initiated. The forest was found to be one of the potential natural resources for industrial and infrastructural development. Timbers were liberally used in construction of buildings, bridges, furniture and other
structures. Forest based small and cottage industries like saw mill, veneer mill, carpentry workshop, etc., grew up all over the country pushing the demand for various qualities of wood. Though no large scale industries were set up in Nagaland, its rich forest was systematically cleared for industrial use in other parts of the country. And similar to other parts of the country, numerous saw mills, veneer mills and plywood units mushroomed up in Nagaland, and logging became a very lucrative industry. Also natural resources such as cane, bamboos, sands, boulders were also commodified on a large scale. The high demand for the natural resources combined with the desire for earning money has led to the emergence of a perspective among the Nagas, where forest is viewed as an avenue of profit. And such changes have resulted in the destruction of large tracts of forest land and the over-exploitation of the forest produces.

6. EMERGING TRENDS IN FOREST MANAGEMENT PRACTICES AMONG THE NAGAS

The mentioned changes in the social, cultural, economic and administrative spheres have led to the transformation of the Naga society. Such changes are in turn having an effective influence in their tradition and practices leading to the emergence of new trends. Based on the field data of the present study, the following are the emerging trends in relation to the management of forest among the Nagas-

i. Changes in Agricultural Practices: As mentioned, agriculture which is the main economic activity among the Nagas is substantially dependent upon forest. With change of time, many of the Naga communities are adopting settled pattern of cultivation. In the present study it was found out that in Waromung, 39 per cent of
the household have taken up Wet Rice Cultivation and only 30 per cent are still continuing with jhum cultivation whereas in Khonoma only 9 per cent of the household practices jhum cultivation while 50 per cent of the households are practising Wet Terrace Cultivation. The reason mentioned by the respondents of both the villages was that Jhum cultivation was more time consuming and labour demanding as they have to spent and work the whole year in Jhum fields but the output is less as compared to the Wet Cultivation where they labour for few months and reap the harvest. The practice of permanent cultivation has led to the reduction of clearing of forest for jhum cultivation and thus helped in the maintenance the forest land.

Along with the change in the method of cultivation, it has been observed that in both the villages, the varieties of crops cultivated have also changed. Cultivation of traditional crops like sticky rice, millets, Job’s Tears has declined and it has been replaced by cash crops like cabbage, potato, garlic, ginger etc. One of the main reasons mentioned by the respondents was the decrease in the utility value of the traditional crops. And they can earn more income by selling the cash crops which are in high demand in the market.

**ii. Practice of Diverse Economic Activities:** Related to the changes in the method of cultivation and types of crops cultivated, the practice of diverse economic activities is emerging as well. Apart from the agricultural activities, the villagers are nowadays engaging in different activities such as growing of cash crops, establishing plantations, nurseries etc. During the period of the present study, it was found out that in Waromung 62 per cent of the households has set up orchards, 59 per cent has
Photograph: 35 Improvised Traditional Products
betel tree plantation, 48 per cent has started rubber plantation and 40 per cent of the households has started tree plantation. Similarly, in Khonoma also 54 per cent of the households are engaged in cultivating cash crops, 15 per cent have started nurseries and herbarium and 24 per cent have started tree plantation. Additionally, in Khonoma, after its declaration as the ‘Green Village’, eco-tourism has opened up new avenues for alternative economic activities such as opening Home Stays for tourist, working as tourist guide, plying taxis, marketing of their traditional items and showpiece etc are recent developments that are being established in the village.

The Nagas are also venturing into different activities such as fusion of their traditional art with modern art to create wooden, cane or bamboo decorative pieces, craving household items with wood and bamboos, modifying their traditional items and showpieces etc. And such enterprising activities are an innovative means of showcasing their tradition and culture at the same time it has become a good source of income for them. Thus, there is a shift from a traditional agriculture based economy to a more diversified form of economic activities among the Nagas.

iii. Commercialisation of Natural Resources: As the economies of the Naga communities are gradually liberalised, a wave of consumerism is setting in and the income needs of the people has been steadily growing. Such changes have its impact resulting in large scale commercialisation of the forest produces. In the past, the forest produces were utilised for internal consumptions within the household for the family’s subsistence but with the transition of the economy, the forest produces are commercialised in a large scale being one of the best source for the State Revenue income. At the same time for most of the families from the rural areas selling of the
forest produces is the sole means of earning an income. Timber, sand, boulders, minerals are marketed for industrial and infrastructure purposes both within and outside the state and Non-Timber Forest Products like rattan, bamboos, medicinal and aromatic plants, honey and bee-wax, broom grass, wildlife products, wild leaves and vegetables, fruits, etc., are marketed to meet the needs of the community. However, though the commercialisation of the forest produces is a good means of income for the community, the unbalanced nature of its commercialisation where the demand for the products is higher than the supply and the prospect of it as a means to earn more money has led to the over exploitation of the forest and its produces.

iv. Tree Plantation Practices and Management: It has been a traditional practice of the Nagas to grow and manage trees along with the agricultural crops and plant trees in the surrounding areas for ecological, practical and economic gain. For them, the first steps starts when they clear and burn the forest land for jhum cultivation during which the trees are never cut-down completely but usually two or three feet of the tree trunk are left for the re-growth of the trees. Furthermore, they plant fruit trees, trees for firewood and shade-giving trees along with their crops in their jhum field. Such practices have helped in controlling soil erosion, enhance the productivity of their crops by improving the soil fertility and provided them with firewood. Basing on such traditional practices, the Naga community have started establishing tree plantations in their Individual Land, Clan Land and in waste land areas as well. Such initiatives have multi-purpose goals like plantation of trees for timber and firewood which are harvested for household utilisation as well as sold for income generation, plantation of trees to re-establish forest cover, plantation of ornamental
trees along the streets and village vicinity for landscape scenery, providing shades and maintenance of the environment, plantation of fruit bearing trees because of its value as food and plantation of trees to prevent soil erosion, landslides and to preserve water catchment areas. The awareness of the importance of trees and forest has further facilitated in promoting such practices of tree plantation. And such practices are aiding the community in improving the land management system and conserve the forest by reducing the pressure on it for firewood and timber at the same time enhance their livelihood strategies.

v. Role of the Youth in Land and Forest Management: The change in their social, economic, religious and political life has led the Nagas to venture to the urban areas in pursuance of better education and new occupational opportunities. In this process many of them left their native village and settled in the nearby towns and even outside the state, as such most of them entrust the responsibility of managing their agricultural land and other landed property to their families and kinsman. But, presently, there is a noticeable tendency where the younger generations have started taking initiatives to protect and manage their land and forest as they became aware of the importance of the environment and the significance of the land and forest in their social and economic life. For instance, in Khonoma when the Conservation initiative was started, the youth of the village became the most active players. As such, the Village Council entrusted the KYO the authority and responsibility to monitor illegal logging and hunting on the village forest and punish the defaulters. At the same time, maintaining and keeping the surroundings of the village clean is managed by the Khonoma Student Union. At least once or twice in a month, on a selected day,
students starting from Class V to Class X sets out to pick up the litters, sweep the village roads and clean the surroundings.

Similarly, in Waromung also the Waromung Kaketshir Telongjem, the Sungu Yanga and Tenapang Yanga (the youngest two age-groups in Waromung) are playing a proactive role in managing the land and forest. They have started taking initiatives such as cleanliness drive, maintaining farms and orchards, tree plantations and bamboo grooves in their land in the village. The students from Class IV and upwards clean and sweeps the village surroundings every alternate week. And every year during vacations the youngsters who stay in the towns and cities come to the village to clean, check and improvise their farms and plantations and ensures that the land and forest is utilised in a rational manner.

vi. Role of Education in Environmental Conservation: The conservation of land, forest and water through sustainable utilisation, keeping the environment clean has taken a central place in the education system in the context of global warming, climate change and environmental degradation. In tune with the ongoing transformations, the schools in Nagaland are incorporating environment-based activities in their extra-curricular activities such as introducing the Eco-Clubs. The Eco-clubs are established under the Ministry of Environment and Forest, India to sensitize the young school students about environmental issues and to encourage them to take eco-friendly actions. All the schools in both Waromung and Khonoma village have introduced Eco-Clubs. Each school has a teacher representative of Eco-Club and under his/her supervision the students undertake various environmental activities such as planting trees in their school compounds and around the village,
collecting waste and cleaning the school and the village surroundings, going on field trips to the forest and other important areas in and outside the village, organising programmes on World Environment Day and helping the old and the aged in their agricultural activities.

In addition, the teachers also mentioned that they discuss about planting tree, preserving water, protecting the wild life, in relation to the topic they are teaching and work with the students on school projects based on the land, forest, water, and the flora and fauna of the village. Except for such efforts by the teachers, study of environment as a separate subject has not been introduced in the school curriculum, thus, there is a need to incorporate environmental education where not only the topics of environmental importance and awareness, its preservation etc., will be included but also the Traditional Ecological Knowledge of the community and its applicability, Traditional practices of land, forest and water management, information about the local flora and fauna, the local ecology can be a part of the syllabi.

vii. Joint Venture of the Community and State Agencies: One of the most important tasks for the government of Nagaland after the establishment of the State and its administration was the management of the land and the forest, as these natural resources are considered as the richest wealth and the most valuable assets for the progress of the state’s economy and the improvement of the people’s livelihood. However, the ownership of land among the Nagas being such that the land is owned by the communities and individuals, the government has no authority over its management and utilisation. But with the co-operation and active participation of the
communities, the State government of Nagaland has successfully implemented its programmes and policies to protect, conserve and restore their land, forest and the natural resources. Department of Horticulture, Department of Agriculture, Department of Forest, Department of Land Resources, Department of Soil and Water Conservation, Department of Rural Development are some of the governmental agencies that are actively involved in working towards the better management of the land, forest, water and natural resources in the rural areas. The mentioned departments takes initiatives such as distribution of seedlings and saplings to the villagers, implementing and funding various projects such as construction of water tanks, dams, irrigation channels, roads etc.

One of the noteworthy community-state venture programmes for managing and preserving forest is the JFM. Under JFM, taking into account the land holding pattern among the Nagas, where execution of any developmental activity is not possible without prior consent and active co-operation of the community concerned, the State’s Department of Environment, Forest and Climate Change with the cooperation and participation of the local communities have started to manage, develop and protect the forest through regeneration of the degraded forest and increasing the Forest and Tree cover and jointly shares the forest produce profited through the JFM with the communities.

viii. Impact of Population Growth and Migration: Population growth and migration has resulted in clearing of large areas of forest land for settlement and for cultivation purposes, thereby decreasing the forest areas as well as leading to land fragmentation. This is primarily noticeable in the urban areas like Kohima, Dimapur,
Mokokchung etc., and those villages that are adjoining to the urban areas. Kohima village is an example where most of the village land has been sold or donated to build the infrastructures for setting up the state capital. Moreover, the migration of people from the rural areas and small towns to the state capital for education and employment, which means the need for more space for accommodation, has led to a trend where leasing out house for rent has become a lucrative source for income. This has resulted in mushrooming up of buildings everywhere in Kohima where even those areas which had good forest areas have been replaced by an urban landscape.

However, the extent of the impact of population growth, migration and commodification of land varies from place to place. For instance, in Waromung and Khonoma Village, the scenario differs from the urban settings. In the present study, it was found that in Waromung, the villagers are planning to establish a new settlement, an off-shoot of their village in the village land itself. They stated that the decision was taken on the basis that Waromung has enough area of Village Land where the villagers can establish new settlement. And through the establishment of the settlement the area can be developed by the settlers with the help of the villagers instead of simply leaving it unutilised.

On the other hand, in Khonoma there is a reverse trend where instead of the villagers migrating to the urban areas, the villagers who migrated to the urban areas to work are returning back to the village after their retirement. And even those who are employed outside wants to come back after their retirement or at least build a house in Khonoma. The villagers stated that in urban areas like Kohima and Dimapur it has now become very difficult to buy land because the price of land is very
expensive due to the scarcity of land, whereas, in Khonoma, the villagers can settle in their own family, lineage or clan land or even buy land if they find a willing seller. Moreover, because of the easy accessibility from Khonoma to Kohima and Dimapur, Khonoma’s healthy environment and its acclaimed name with lots of possibilities for new avenues, people prefer to settle back in Khonoma.

Thus, in Waromung and Khonoma, though the trend differs, as far as land is concern, the problem of land scarcity within the village is absent. However, in Khonoma, scarcity of land in the urban areas is having an impact because most of the villagers are returning to settle in the village after their retirement as it is very difficult to buy land in Kohima and Dimapur. As of now, the two villages have enough area of land, nonetheless a careful assessment should be taken and plan accordingly so as to avert the likelihood of large scale deforestation for need of land. Because the new settlement in Waromung means land for settlement and cultivation, this would lead to clearing of the forest land as the settlement area and population increases later. Similarly, in Khonoma also more returnees means the need for more land which would result in the clearing of the family, lineage, clan or village land and forests.

ix. Changing Land Relations: Among the Nagas it is a customary practice to buy and sell land among the members of the same village only in the villages and among the Naga communities in the urban areas but never sells the land to outsiders i.e., non-Nagas. However, due to the commodification of land, such practices are changing, mainly in the urban areas of Nagaland where the non-locals have started to acquire large tracts of land. The commodification of land combined with the scarcity
of land has also led to the high rise in the price of land which only a few could afford. In relation to this is the monopoly of a few wealthy and powerful individuals, who purchase large tracts of land from the individuals as well as from the community land is one of the factor that has led to the privatisation of land. This has further given rise to inequality in the Naga society. The Naga practice of allotting the community land for residential and cultivation purpose to the individuals/ households which over the generations gets converted into the individual’s property has also led to the privatisation of the community land. In addition, acquisition of land by military forces and by the state government for developmental activities has resulted in the alienation of the community from their land and livelihood as.

x. Community Initiative for Forest and Environment Conservation-Khonoma Green Village: Many of the Naga communities have started to take initiatives to conserve and protect important areas within their village vicinity to conserve the biodiversity of the village. Khonoma- Green Village is one of the success stories based on such community initiatives taken by the people of Khonoma to conserve their forest and environment. The substantive groundwork for Khonoma Green Village Project was laid down by the community of Khonoma themselves when they started conserving their environment and resource rich forest to safeguard their natural heritage. The first step was taken with the imposition of total prohibition on logging in the year 1996 to stop the large scale logging which was threatening the timber resource base of the village. Next was the establishment of Khonoma Nature Conservation and Tragopan Sanctuary (KNCTS), in 1998 by the ecologically conscious community of Khonoma to protect the endangered Blyth’s Tragopan and
other wildlife and rare plant species in the village, which was followed by a total prohibition on hunting in 2000. They further imposed restrictions against the collection and selling of wild produces and taking of plant and soil sample outside without permission from the village for experiments and tests. This was met with stiff resistance at the beginning because people were mostly dependent on such activities for their livelihood. However, the tireless and sincere efforts of the people who were working for the conservation and the cooperation of the community led to the success of the initiative and on 15th February 2001, the whole forest of Khonoma was officially declared as fully conserved.

The conservational approach of the Khonoma community was appreciated and different organisations and agencies also extended their support and assistance. And the government of India acknowledging the conservational effort of the Khonoma community granted the villagers an amount of Rs. 3 (three) crores ,which was utilised by the villagers to develop and improve the infrastructure and facilities in the village for eco-tourism, and declared it as the first Green Village in India, on 25th October, 2005. Thus, the Khonoma Green Village is a success story of the community themselves taking the initiatives to conserve their forest and environment, and such practices can also be replicated by the other communities in order to conserve the land, forest and environment.

From the above discussed emerging trends among the Nagas in relation to the forest management we can conclude that the trends such as commercialisation of the natural and forest produces, increasing pressure on forest land in the rural areas due to scarcity of land in urban areas are drawbacks that result in the over exploitation of
the forest produces and destruction of the forest. However, change in their agriculture practices and emergence of diversified economy, active participation of the younger generation in forest management, tree plantations and management, community initiatives to conserve the forest can be said to be innovative adaptations where the Naga traditional practices and new techniques have been integrated for better management practices of land and forest and improvement of their livelihood strategies.

7. CHALLENGES FACED BY THE NAGAS IN MANAGEMENT AND CONSERVATION OF FOREST

i. Lack of Marketing Facilities: Collecting and selling of forest produces is a source of income for many of the rural Naga community, especially for the womenfolk. However, the respondents mentioned that the poor road conditions and lack of good transportation facilities makes it difficult for them to transport the goods from the village to the urban market, especially if the distance between the village and the urban areas is far as in the case of Waromung village. Lack of proper market infrastructure such as absence of proper market stalls, cold rooms and storage facilities for preserving the goods adds to the difficulty. Moreover, lack of marketing linkages with outside markets which the middlemen take advantage of and pays less to the villagers for the produces, lack of assistance from the state agencies and good marketing strategy for facilitating the sale of the produces within and outside the state are some of the challenges faced by the villagers in terms of selling their products which results into missed opportunities for the villagers to earn a better livelihood.
ii. Large Scale Commercialisation of Forest Produces: Though selling of forest produces is a good source of income for the Naga villagers, the extensive commercialisation of the forest produces because of the high demand for it in the market, especially for timber and firewood, has resulted into large scale deforestation due to heavy logging. Also the demand for various minor forest produces, game meat for nutrition and medicinal purposes has lead to extensive hunting and over exploitation of the forest produces which has further led to the endangerment of the flora and fauna. Thus, depletion of the forest and its produces due to large scale commercialisation of the forest produces is one of the biggest challenges that the Nagas are facing at present.

iii. Decline of Traditional Ecological Knowledge: The Traditional Ecological Knowledge of the Nagas has guided them to prudently utilise the natural resources for their nutritional needs, to treat their illness and meet their necessities according to the seasons and needs and helped them conserve the land, forest and environment. However, with the change and development in the Naga society such as modernisation and urbanisation, change in their life styles, introduction of modern knowledge at the expense of the Traditional Ecological Knowledge and absence of documentation of their Traditional Ecological Knowledge, there is a decline in the awareness about the Traditional Ecological Knowledge and its applicability. And such decline has a detrimental impact on the environment, their conservational practices as well as on the livelihood of the community.

iv. Lack of Financial Resources: Lack of financial support from the government and other bodies and inadequate fund within the village governing bodies are some
of the critical factors that hinder the process of development. In the present study, 80 per cent of Waromung Village Council members and 73 per cent of the Khonoma Village Council members mentioned that insufficient fund is one of the major factors that impedes in initiating plans and programmes for developing and maintaining the land and forest. They mentioned that though the Council has the authority to legislate and execute the plans and rules, and their approval is required in every matter but when it comes to financial matters, their ‘source of income is very limited’. Moreover, the fund sanctioned by the government for various development projects goes to the Village Development Board and very often they have to borrow from the Village Development Board.

v. Lack of Proper guidance and support from the Government: The respondents from Waromung and Khonoma village mentioned that apart from the introduction of the programmes and plans by the government, trainings camps and proper guidance are hardly given by the officials. 87 per cent of the Council members from Waromung and 93 per cent of the Khonoma Village Council members mentioned lack of proper assistance and support from the government as a factor that impedes in proper implementation of managing forest and its resources.

vi. Incompatible Forest Projects and Programmes: The villagers also mentioned that some of the projects and programmes introduced by the government are incompatible with the practices and needs of the villagers. The Village Council members also mentioned that though there is a high level of participation by the community in programmes for improving their land and cultivation practise, forest management and conservation programmes etc., but again many of the villagers do
not have much interest in governmental projects and programmes since it involves many formalities and investment where they have to spend their own money and time. Thus, incompatible projects and programmes and long formal procedures are the factors hindering the participation of the community and the failures of the projects and programmes.

vii. Lack of co-operation from certain section of the community: 47 percent of the Council member from Waromung and 53 per cent from Khonoma expressed that though majority of the villager obey the rules and regulations, there are some individuals who do not co-operate at all and indulge in logging activities, poaching of wild animals and illegal sale of forest products and such practices are destroying the forest and the flora and fauna in the forest. Such lack of cooperation from certain section of the community hinders the good management practices of conserving the forest, land and the environment as a sustainable resource system.

viii. Impact on the community: The Nagas depend on the forest and its produces for their daily needs as well to earn their livelihood. However, factors such as deforestation, loss of biodiversity, depletion of forest produces and destruction of the natural habitats of the flora and fauna are having an adverse effect on the lives of the community. It implies decrease in the diversity of food for the family nutrition, more difficulty in obtaining the produces as such they have to spend more time and energy for gathering the forest produces, less variety and quantity of produces available for selling which consequently led to a decrease in their means of income. Further, deforestation has resulted in environmental damage affecting the climate variables,
the land and water system which is affecting the crucial sector of agriculture which the people are dependent on for their livelihood.

**Summary**

In conclusion, we may say that, for the Nagas, forest is one of the most valuable resources as it provides them with all their necessities starting from food, timber, firewood, raw materials for their art and crafts, fodder for their cattle, medicine as well as shelter and protection. As such, the use of forest and land underlies all other aspects of their society and they have established an inextricable link with the forest where they have woven their social and economic lives, ceremonies and festivals around their land and forest. Their dependence on the forest and its resources is such that they regard it as the ‘healer, guide, provider and protector’ (Jamir 2013:168). Further, the rationale that their lives and livelihood depends on the forest and its resources made the Nagas perceive the importance of the land, forest, rivers, the flora and fauna, and establish a reciprocal relationship where the forest provides them with their essential need, on the other hand, they protect the forest and its resources from wanton destruction and preserve it. Such interrelationship has been the base of their livelihood for ages. And this has led them to the notable tradition of managing the forest by prudently utilising the forest and its produces and conserving it as the future resource system.

But presently, the Nagas are at the risks of influence from the large scale commercialisation of forest produces due to which deforestation, depletion of forest produces and loss of biodiversity is beginning to assume in an alarming proportion. Though in many villages there are rules and regulations framed for logging and
hunting activities, these activities are still rampanty practised in many areas of Nagaland due to the high market value of the forest produces and the opportunity to earn more money through it. With regard to jhum cultivation, though the practice of keeping the land fallow is still being followed it has been observed that due to increasing demand for food, the fallow period has considerably reduced which is affecting the fertility of the soil, the quality of the crops and the quantity of the crop production as well. Also jhum cultivation has been discouraged by the state agencies due to the detrimental effects it has on the land and forest but as jhum cultivation is a way of life for the Nagas, it is affecting the livelihood of the community as they encounter the difficulty of finding alternative livelihoods. Although the people have started practising permanent cultivations like Wet Rice Cultivation, orchards and plantations, for most of the rural households apart from harvesting rice from the Wet Rice fields, it has become difficult to procure vegetables, roots, tubers, fruits etc., for their daily sustenance which they were able to acquire easily from their jhum fields earlier.

However, the Nagas traditional practice of managing the forest by sustainably utilising the produces and following different methods to conserve the forest, land and the surroundings have to some extent helped in conserving the extensive tracts of forest with its rich biodiversity in their region at the same time it has helped them in maintaining a sustainable livelihood. Moreover, at present, the Naga community being receptive towards various new scientific techniques that are complementary with their traditional practices are adapting practices and method that would help them improvise their forest management system. Such innovative adaptations where
their traditional practices and new techniques are being integrated has not only resulted in better management of land and forest but has led to the improvisation of their livelihood strategies. Besides, the growing awareness about the biological potential and the beneficial effects of forest and the impact that forest has on the environment and climate has led the Naga communities to take up further initiatives to conserve their land and forest.

As such, the present study is an attempt to examine and understand the traditional system of forest management among the Nagas. However, the present study is not without its limitations and there are more areas in which further inquire can be done. First of all, as the different Naga communities have distinct traditional forest management practices, research on these areas will be insightful in getting a comprehensive view. Secondly, the factors behind the gendered division of labour in forest based activities and the unequal distribution of income, where women engaged-activities are less economically viable than men can be examined. Thirdly, detailed study can be done on the working relationship between the state agencies and the communities in relation to forest management practices. Fourthly, issues on better marketability opportunities for sale of forest produces in consonance with the sustainability of these produces for an improved livelihood for those communities who are dependent on the sales of such produces can be looked into. Finally, the benefits of the integration of the traditional system with the modern scientific system of forest management can be looked into. Thus, further research can be undertaken in the aforementioned areas.