CHAPTER VI

ETHNOBOTANICAL DISCUSSION
Food and shelter are the two primary necessities of human being, they determine the fundamental nature of man's relation to his environment. In the earlier stages sparse population could easily feed free at the bountiful table, the nature. That was the age of gatherers but gradually growing concentration of population and irregularities of natural supply forced man to establish a more permanent relation with nature based on something more dependable than her mere whims. This resulted in the human control over the vegetation and animal world. So domestication started and with the domestication of plants agriculture came into being and as plants could be better controlled than animals, agriculture as a means of procurement of food had gained predominance over the other sources such as hunting and fishing. The history of the 'Adis' can be traced back to that stage when hunting, fishing and gathering continued to be their significant occupation, though subsequently practice of agriculture came up. It is the principal means of support in respect of food. But it is still at the subsistence level in places especially towards the North-East. Surplus crops are bartered for the essentials and luxuries.
The purpose and method of cultivation and the nature of crops raised determine the character of agriculture. From the point of view of method, Adi agriculture has been described as shifting cultivation or slash and burn cultivation. These two names together bring out the most characteristic feature of this system. In this method a patch of land in the forest is cleared by cutting down the undergrowth and felling the trees which are dried and subsequently burnt. Crops are raised in these areas for one to three years. The period depending on the retention of the fertility by the soil. Period of fallow intervene between the periods of tillage and normally every third year, cultivation is shifted to a fresh area cleared for the purpose. This cycle of cultivation, fallow, shift and clearing by slash and burn goes as long as there is a forest near the village. Thus, cultivation moves in a circle round the village which forms a permanent nucleus. This type of cultivation is known, in this part, as 'jhum'. But in the Adi society, this type of cultivation has no definite name, however, the cultivated fields in general are locally known as 'arik'.

This system is an outcome of various natural factors. The land occupied by the hill tribes consists of rainy low, sub-tropical and temperate high lands which fall within the tropical belt. Infertility of the soil, among other factors, gives rise to this type of agriculture. Soil in the Lohit Division consists of clay loam and sandy loam with few stretches of alluvial clay in the low lying areas at the foot hills and in the bottom of the valleys. The soils of the hills have been classified as loam and sandy loam, sometimes mixed with gravel. On the whole, the distribution of soil on the hill side is uniformly sandy loam, with an upper layer of humus. Soils freshly cleared of trees are rich in organic deposit with thick layer of leaf mould. Quick growth of the tangled vegetation at the low lands render cultivation process very difficult and hardly any considerable stretch of level ground with proper soil is available for an intensive and permanent cultivation. As the rain washes away nutritive minerals of the soil, the land soon gets exhausted exposing fresh surface of the soil to the top. Quick exhaustion of the soil minerals and speedy growth of the tangled jungle have forced man in these areas to the migratory type of agriculture. Natural drainage, salubrity of climate,
and defence facilities have led the Adi to select hillside in preference to the narrow level strips at the foot hills. Theoretically the land belongs to the people, there is no such land that may be considered free or unoccupied. As the people are not a single political unit, but, is divided into villages which are independent of one another, every village has its own territory demarcated by prominent natural features such as rivers and mountain ridges. These boundaries are well known and respected, within these the entire land falling under the jurisdiction of the village supposed to belong to the families inhabiting the area. There may be clanwise grouping of holding in some ancient village such as 'Damroh' and 'Riga'. Division of land is not always made according to clans, but, according to families. Every inch of soil has its owner and his right to it is absolute. Though this right concerns cultivation only, as by theory, the land belongs to the village as a whole.

His rights descend through the male line i.e., all sons equally sharing the estate of the father.
This right also persists in all the phases of operation that the land passes through. However, during fallow period individual ownership stands suspended for grazing in the land during that period. Theoretically there is no legal restriction in about the transfer of land. But, in practice, it is limited to relatives and within the village. Land transfer is usually affected through sale, lease and exchange. Land, however, is never rented out. Dispute regarding ownership of land are rare but not unknown. In such cases, it is customary to induce the disputing parties to agree to submit their cases to the decision of a 'Kebang'. 'Kebang' is a meeting of villagers Chaired by the village Chief. The aim of the 'Kebang' is to bring about a compromise between the parties, in case the 'Kebang' fails to solve a problem acceptable to either or both the parties divine intervention is sought through an ordeal. In case both the parties are proved to be in the wrong by ordeal, the land is equally divided between them. In case one of the parties refused to face the ordeal, the decision goes in favour of the others.

Lands are generally used for three main purposes— one for residential purpose, second for hunting and third for agriculture which as has been stated earlier serves as grazing land in fallow periods. There is no
technical distinction between any two of these three categories of uses. They are selected on the basis of advantages and disadvantages. For agricultural purposes, there is no codified idea about fertility or exhaustion of soil but a latent idea may be detected in their tillage cycle and thus selection of land for different crops in different part of the year. This knowledge gathered from long experience of the Padam have led them to classify 'Sollas', 'Mane', 'Marak mougham', 'Liru' and 'liyak' in a descending scale of fertility.

But, this idea of fertility is taken into consideration only at the time of sowing. The entire land of a village is divided into a number of blocks which are ear-marked to tillage after the blocks are abandoned for a definite number of years. Such blocks are known as 'Patat'. In an ideal case a village consists of eleven blocks. In the starting year, a block 'A' (say) is brought under cultivation. Next year another block 'B' is opened newly and 'A' continues to be tilled. In the 3rd year, 'C' is opened and cultivation continues in 'A' & 'B'. Supposing this is to be a 3 year village tillage period area in the 4th year 'A' is left fallow and block 'D' is taken up for
cultivation. In this way, tillage cycle continues upto the 10th year when 'A' is taken up again. This allows 10 year fallow of every block. Every 'patat' has a special name.

This cycle is commonly called jhum cycle and ensures against the exhaustion of nutrients from the soil. The cycle depends upon the number of 'patat' available. The names of the different patats are:

(i) Eying
(ii) Pipulimuk
(iii) Rangen lumbesoko
(iv) Ginkong kaying
(v) Lumberinging
(vi) Kaying Ginkong
(vii) Situng kirung
(viii) Upsing yokel
(ix) Berung garang
(x) Berung garang Ralek
(xi) Berung garang Ralek sosing
(xii) Ralek Rasing Ionging
(xiii) Ionging etc

Land form the habitation for man and the store house upon which he depends for all his needs. Due to custom of frequent shifting, land for cultivation has to be selected every year afresh. Therefore, the selection
of land is an extremely important decision. The tribal feel that the land is the source of everything whereon we have born and it will take away everything when He die. So, the tribals deal with the soil with greatest care. The selection is very important on their daily life. It is usually the Headman of the village who decides on which patches they will cultivate but he always consults with the other old persons of the village and the wishes of the spirit are also considered, by means of 'Omens'. The main feature in this is the area of utilisation of as large a block of land as possible. Even the largest village with two thousand inhabitants has only two or three patches in use in any particular season. Gentle slopes of the hills are usually preferred for cultivation but in some cases the fields are extremely steep. 6000' has been recorded as the highest altitude of agricultural field.

The tribals divide a year into twelve months. The divisions are, however, not very clear cut as they differ from place to place and sometimes the same month appears to have different names at different places. This is caused due to their reckoning of the seasons according to agricultural activities. The Padam usually start their year with the sowing of seeds. The year
begins with the month 'Terem' which roughly corresponds to January of Roman calendar, 'Terem' is followed by Buising, Kombong, Galling, Kijir, Diking, Lobo, Ylo, Tuno, Lyo, Yite and Disang.

As agriculture is still mainly at the subsistence level, usually no hired labour is engaged in agriculture. In cases, however, when death and disability deprives a family of its working hands or in case of accidental taboos which upset the agricultural programme of a family, outside help is acquired to meet such emergencies. Generally there are two systems:

(i) 'Siglap' (hired on payment)

(ii) 'Enlik' (village person who help volunteerly)

Once the land has been selected and approved by the spirit, a day is fixed for clearing it. Clearing comprises cutting down of jungles and trees and burning of the debris when dry. A festival known as "Mopun" is performed during cutting down of jungles.

The old people of a village collect bamboo poles and fix these along the ground along with branches of Tan (Livistonia jenksinsianâ) and Sinkong (Caryota urens) trees. A cane basket called Mopun is hung on two
branches. The basket is filled with earth and wild leaves which are supposed to represent crops and grains. Pigs are sacrificed near the poles and the blood is sprinkled over the Mopun with the following incantation:

"Ngoluke arik anam ali aye takåmen kine nane no aipe ibilanka emla ngolu doni aji takame noon silai Mopumen punbigung Noke ngoue doibötëmela kine nane nom siki mopunum punbiging".

(Source: Resarun, 76. Res.Deptt, Arunachal Pradesh)

The major share of the sacrifice goes to the old people, the rest is shared by the young. The function is followed by dance and drinking in the 'moshup' and "Rasheng" (community houses prepared for these purposes).

The cutting is extremely thorough, natural vegetation is completely razed to the ground and no trees are left standing beyond mere stumps. On the day fixed for clearing of the jungle, the entire village people except the invalids go out to the selected spots and do work on a
family basis. As the clearing of the new field and weeding of the old fields are done simultaneously, they adopt a rough division of labour. The old fields require only weeding which is entrusted to women, whereas the new field which requires a good deal of hard labour is undertaken by man. Big logs of wood are used in the demarcation of boundaries. They use the rest as fire wood. Cutting of jungles usually takes from one week to one month and the debris collected are left to dry for about a fortnight. The implements used in clearing are locally made dao and the common axe purchased from the market.

The operation of cleaning of jungle is performed first in the month of March to April and the second time in July to August. After burning, the land is cleared.

The closing clearing operation come to a close with propitiation of domestic spirit ('Gumia soi'). This festival is known as 'Aran' or 'Pombi'. The entire village abstain from work in the field for 5 days and offer ginger (Zingiber officinalis), meat and rice to spirit and fasten, ginger offering to the post of a house. An adult then goes out to the jungle for collecting bamboo for constructing a platform near the 'Moshup'. A few bamboo poles and branches of Sinkong
(Caryota urens), tan (Livistonia jenkinsiana) and Pejang (Mangifera indica) trees are thrust into a hole made at the centre of the platform. A pig and chicken are sacrificed with incantation. Pigs are suffocated and flowls are cut at the throat for sacrifice. The blood of chicken is sprinkled over the platform along with some rice paste. Old people of the village are invited and feasted with meat, rice, 'Apong' (rice beer) especially prepared for them. The festival is solemnised to propitiate spirits, some of whom are believed to preside over the field. As collected from local people, two of them control the fertility of soil and jungle treasures respectively while another concerns itself with the welfare of domestic animals. The Doying Angong is believed to be a spirit of rain.

Sowing of vegetables, cotton, maize, jobstear, paddy, foxtail millet, finger millet and sweet potato starts after completion of those festivals in the month of March/April. Sowing operation of winter vegetables takes place in the month of September and November.

While sowing, people line up in a row at one end of the field. Each of them collects two seeds from the granery, take the seeds in a small basket and hang the basket on to the left shoulder. Further, they carry a Dao and a digging stick in the right hand. They slowly
march to the other end of the field, stopping here and there to dig small holes in the soil, about a foot and a half apart from one another. In each hole, seeds are placed from the bamboo basket with left hand. In case the line of sowers fail to cover the width of the field on reaching the other end, the party comes to the line of start and continues as before.

Paddy, lobtears and maize are sown by digging but finger millet, foxtail millet are sown by broadcasting.

After sowing the fields are fenced to keep away herbivours animals. The fencing is not carried out on individual basis but on community basis. This is followed by a few days rest and 'Ettor' (Lord of Animal) festival is performed during that time. They day is fully enjoyed with feast and offering to the 'Agam! Lord of the animals, the major contribution coming from the owner of the 'Mithuns'. The first weeding starts in the month of June/July and September when the seedlings have grown about one foot and a half. They erect effigies of man and erect them on bamboo poles to scare crow and other animals after the first weeding. 'Ik' a horse-shoe shaped bamboo scraper is used for weeding. The
implement is held at the joint and the soil is scraped by the horse-shoe end. The second weeding is carried out when the crops are almost ready for harvesting.

After the first weeding is over, all the women of the village perform Lune solung (origine or crops festival) or Taku Binyal in their respective houses. This is similar to Mopun excepting that two pieces of ginger are stuck on an arrow planted near the house. Then a chicken is sacrificed near the granary and the blood is strewn round the granary and the body of the bird is kept inside for the whole night. The feathers are taken out and planted near the granary. At night, young girls dance and sing about the origin of crops.

Thus before the final weeding is done, they perform Luttor solung festival for propitiation of Togup Yogam and Agam. These festivals are meant solely for prosperity of the cattle. All the families possessing Mithun bring them home from the jungle and tie them to a post in the yard in front of their houses. Every family then sacrifices pigs and chicken according to their means and the sacrificed meat along with pieces of ginger are offered to spirits.
A bow and few arrows are hung over the door of every house. At night, every owner of Mithuns throw a feast of 'Apong' and rice. Sometimes, this festival continues for four to five days. The climax of the festival is the Solung dance performed near the Moshup.

The main bulk of agriculture is food crops. Both grains and garden crops are cultivated. Rice is the most important crop which is generally of upland variety. The kharif crops are of three types. They cultivate paddy in their best lands known as 'Manne'. The second to rice in importance are the cereals viz Job's tears (Coix lachryma), 5 varieties of these cereals are grown, they are raised in the Muruk fields inferior to paddy lands.

Four varieties of finger millets (Eleusine coracane) are grown mainly in the second and third grade soils. Though far less important than finger millet Foxtail (Setaria indica) is also one of the chief grain crops. Its importance lies in providing food to the people before the main rice crop is harvested.

Appreciable quantities of maize (Zea mays L) are also grown as mixed crop in the 1st grade and second grade soils. Maize is an important crop among Rumos, Bokars and Pailibos.
Namdung (*Perilla oscimoides*) is a kind of oil seed grown mainly in the 4th grade soil. These seeds are eaten as whole or ground but never used for extraction of oil.

Green vegetables are of two types according to seasons. The winter vegetables in these regions are mustard, country bean, pumkin, white gourd, small onion, soyabean and flat bean.

Brinjal, bitter gourd, french bean are grown in summer.

Bamboo shoots are gathered from the jungle and eaten. Potatoes and tomatoes introduced recently are becoming popular. Nine varieties of Taro (*enge*) (*Colocasia antiquorum*) are grown in small patches in the jhum fields.

Jack fruit (*Artocarpus integrifolia*) and citrus fruits are the main fruit trees.

Papaya and bannana are also commonly cultivated in these areas. Pineapple (*Ananus squamus*) has been introduced recently.
Chilli and ginger are the only spice crops in this area. Sugarcane (Saccharum officinalis) is introduced recently and it has gained popularity for preparation of gur.

Besides food crops, the tribals raise fibre crops. The most important is cotton grown in the jhum fields. Other fibre plants locally known as Ridin, Repung and Sajoke grow wild in jungle. Tobacco is grown along with cotton in jhum fields.

The last important agricultural operation on the field are reaping and thrashing. Crops are harvested from one to one and a half months after the last weeding. The universal method of reaping is stripping the ear by hand, occasionally for paddy they use the small knives. Girls and women go to the field with their conical baskets and start stripping and empty their hand directly into their basket. The straw left in the field is burnt for manure. The usual daily collection amounts to one basket per head. The grains after reaping are carried to the field house for thrashing. Arik ippo is a small temporary house in the jhum fields built by the owner of the field while harvesting. They spend the night at these houses.
The grains are put in a large basket called Jare and thrashed with bare foot and then seeds are carried to the main granaries. In some villages, the storing is elaborated by Rikti ceremony (storing festival). Their daily requirement is carried out daily and husked with wooden mortar and pestle every morning. The husked rice is put in wooden or metallic vessel and boiled rice is used in day to day routine.

When cooked rice is ready it is served hot round the fire place. Sometime in some family all members eat from the same plate. The meal consists mostly of leafy vegetables. These are also boiled, salted and powdered chilli is added for taste. Meat and fish are seasonal items. These two are just boiled and taken with salt and chilli. Meat and fish are also preserved after smoking.

There is no variation of menu in different meals. Cooked rice with boiled salted vegetables are generally used. In fields also, when they work, they take cooked rice.

The gap between the meals are filled up by sips of Apong from gourd jar. It is a beer - brewed from rice mirung and other cereals. Every household brew their own apong and serve it as a drink and
food through out the day for everybody, irrespective of age. Apong is prepared by fermenting millet Ragi, locally called Mirung (Eleusine coracana) or with a mixture of Mirung and other cereals or red variety of rice Oryza sativa locally called Amkel. The millet or rice often boiled with water, slightly cooked and then mixed intimately with sufficient quantity of paddy husk charcoal and sufficient quantities of powdered 'medicinal cake'. The mixture is kept in a bamboo basket lightly covered with banana leaves. After two days, the content are mixed and again kept in the same way. After about another two days, the mixture is ready for extracting apong and it is extracted with boiled water from the fermented millet in a funnel shaped vessel made of bamboo strips and lined with banana leaf. The fermented mixture can be preserved up to a month but after preparation of Apong it cannot be preserved even for 24 hours. Besides disintegrated cereals apong contains a quantity of charcoal dust. When apong is prepared from Amkel rice alone, charcoal is not added and extracts are obtained by pressing the mixture with water through a small bag made of cane strips.
The diet including Apong has been reported to be sufficient for healthy growth of the body.

They pay more stress on the quantity of apong prepared by them rather than on its quality. During certain seasons of the year when meat or vegetables are not found abundantly, the tribals do not bother so much and they try to depend on Apong alone as they believe that apong alone can keep up their health.

Narcotics are represented by tobacco (Nicotina tabacum) and opium (Papaver somniferum). Tobacco is taken in various ways, this is smoked as cigarette or in pipes or chewed with betel leaf. Betel leaf seems to have been introduced from the plains and taken profusely in lower regions.

Opium smoking is a common practice among the tribals. It is smoked out of bamboo pipes. The system resembling that 'hookah'. Opium is mixed with luke in warm water to which citrus juice, sugar and thinly sliced bannana are added and made into a paste. The mixture is then smoked.
2. **FOOD TABOOS AMONG THE TRIBES OF LOHIT DISTRICT:**

The system of food taboo is prevalent among all the tribes.

Among the Adi group, the Pailibo girls do not eat animal heart, lung and stomach. Bori girls do not eat meat of dog.

In the society of Khamptes and Singphos expectant mothers during pregnancy are prohibited from taking honey and egg.

Taking of any kind of meat either domesticated or wild except the meat of mouse and wild bird by the female of Idu Mishimis is tabooed. Taking of meat killed by gun, arrow and other such pointed implements is tabooed to the husband if his wife is carrying a baby.

Digaru and Mishimi (Miju) girls do not take meat during the period of menarche to menopause.

The Nocte take almost all kinds of animal meat, some people, however, do not take beef, dog and tiger. All birds except crow and hornbill are eaten.
Besides the above taboos, there are other kinds of food taboos. Those are observed at the time of pregnancy, at the time of festival celebration and some rituals at the time of sowing and harvesting, returning from community hunting and fishing etc. These taboos are observed for a limited period only.

3. **Utensils Used**

Utensils are usually not many.

(i) **Cooking pot**:

Either of clay or metal.

(ii) **Cooking tube**:

Cooking of food in bamboo tube is most common. Bamboos are available and the food prepared in the tube gives special kind of taste and flavour. The bamboo tube is also used in storing and bringing water.

(iii) **Cooking on leaves**:

The leaves of banana and kaupat (Phrinum arietium) are extensively used for cooking food. The items
to be cooked are wrapped with these leaves and burnt in charcoal. Bannana and Kaupat leaves are also used in taking food stuff.

It is seen that the traditional type of food preparations are gradually facing changes, but, boiling, smoking, roasting (burning), making porridge are still common.

4. **VEGETABLE**

The wild plant plays an important role among all tribal population of the Lohit district. All sections of the people are directly dependent on wild plants for vegetable stuff. Generally, the women and young girls go to the forest for collection of vegetables. About 90% of their vegetables are collected from the forest. From the field, they collect leafy vegetables, indigenous beans and some underground roots as fleshy vegetables.

The following are the plants, generally used and collected from the agricultural fields or from forests for use as vegetables.

They generally prepare the vegetables by boiling, which is the most common method among all the tribes.
Plants used as vegetables are:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Basella alba Linn</td>
<td>116</td>
</tr>
<tr>
<td>2.</td>
<td>Basella rubra Linn</td>
<td>118</td>
</tr>
<tr>
<td>3.</td>
<td>Bischofia javanica Blume</td>
<td>124</td>
</tr>
<tr>
<td>4.</td>
<td>Buchanania latifolia Roxb</td>
<td>139</td>
</tr>
<tr>
<td>5.</td>
<td>Butea frondosa Roxb</td>
<td>140</td>
</tr>
<tr>
<td>6.</td>
<td>Carica papaya Linn</td>
<td>155</td>
</tr>
<tr>
<td>7.</td>
<td>Clerodendron viscosum Vent</td>
<td>170</td>
</tr>
<tr>
<td>8.</td>
<td>Coccinia indica (W&amp;A) Roxb</td>
<td>175</td>
</tr>
<tr>
<td>9.</td>
<td>Cocculus hirsutus Diels</td>
<td>176</td>
</tr>
<tr>
<td>10.</td>
<td>Dolichos lablab Linn</td>
<td>193</td>
</tr>
<tr>
<td>11.</td>
<td>Indigofera linifolia Retz</td>
<td>230</td>
</tr>
<tr>
<td>12.</td>
<td>Indigofera pulchela Roxb</td>
<td>233</td>
</tr>
<tr>
<td>13.</td>
<td>Lufta actuangular Roxb</td>
<td>255</td>
</tr>
<tr>
<td>14.</td>
<td>Louchous cephalotus Spreng</td>
<td>251</td>
</tr>
<tr>
<td>15.</td>
<td>Morinda oleifera Linn</td>
<td>267</td>
</tr>
<tr>
<td>16.</td>
<td>Nyctanthes arbortristis Linn</td>
<td>279</td>
</tr>
<tr>
<td>17.</td>
<td>Nymphae lotus Linn</td>
<td>280</td>
</tr>
<tr>
<td>18.</td>
<td>Oxalis comiculata Linn</td>
<td>282</td>
</tr>
<tr>
<td>19.</td>
<td>Phlogocanthus thyrsiflorus Nees</td>
<td>290</td>
</tr>
<tr>
<td>20.</td>
<td>Polygonum hydropiper Linn</td>
<td>303</td>
</tr>
<tr>
<td>21.</td>
<td>Pouzolgia vimea Wedd</td>
<td>307</td>
</tr>
<tr>
<td>22.</td>
<td>Psidium guyava (L) Benth</td>
<td>308</td>
</tr>
<tr>
<td>23.</td>
<td>Solanum lycopersicon Mill</td>
<td>322</td>
</tr>
<tr>
<td>24.</td>
<td>Solanum nigrum Linn</td>
<td>323</td>
</tr>
</tbody>
</table>
5. **EDIBLE FRUITS:**

Tribal people are most familiar with forest and forest products. The young boys and girls, when they go to the forest for collection of fire-wood and to help their parents in the agricultural fields, they also collect edible and fleshy fruits from the forest.

The Cow boys are more interested to collect fruits and taste them. The girls generally and regularly go to the forest for collection of leafy vegetables, fire-wood etc. So, they also gather edible fruits from the forest. Following are the common fruits that are edible. Among these fruit plants, some plants are wild and some plants are semi-cultivated. Among the tribes, there is no permanent fruit garden.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of edible fruits</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Aegel marmelos Corr</td>
<td>83</td>
</tr>
<tr>
<td>2.</td>
<td>Artocarpus heterophyllus Linn</td>
<td>111</td>
</tr>
<tr>
<td>3.</td>
<td>Bridelia stipularis Blume</td>
<td>136</td>
</tr>
<tr>
<td>4.</td>
<td>Carica papaya Linn</td>
<td>155</td>
</tr>
<tr>
<td>5.</td>
<td>Celustras paniculata Willd</td>
<td>164</td>
</tr>
<tr>
<td>6.</td>
<td>Crinum asiaticum Wall</td>
<td>178</td>
</tr>
</tbody>
</table>
The tribes of Lohit district are not accustomed to beverages. The only light beverage used by them is tea (Camellia sinensis). During the study, it was observed that the Khampti, Singpho, Nocte are well accustomed to tea. They use indigenous tea which grow wild in the forest. They collect tea leaves from wild tea plants; these leaves are kept up in a bamboo tube and pressed inside it as tightly as possible. After that, they cover the mouth of the tube by leaves of Koupat (Phrniium imbricatum) and preserve for one or two months (or as long as they like). The tea leaves inside the bamboo tube become fermented and are dried up later. When they intend to use the tea, they open the tube with a knife and boil the tea in a bamboo tube and use it without sugar or milk.
All the tribes of the Lohit district are well accustomed to alcoholic drinks. This drink is the most important menu of daily routine. They like to receive all guests with their local drink called 'Apong'. Apong is used by all irrespective of age and sex. Further, it is offered to Gods and spirits in worship. Apong is used in all ceremonial occasions and religious festivals. Every household brew their own 'apong' and serve it as a drink throughout the day to young and old. Apong is an extract of millets either singly or in groups in hot or cold water. A fermenting agent is added to the millets. This agent comprises of some plant specimen. Generally the following plants are made into paste and mixed with rice powder and made into balls and added to cooked rice for fermentation.

Brewing agent for rice beer (Apong)

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Acacia stipulata  (DC) Roxb</td>
<td>74</td>
</tr>
<tr>
<td>2.</td>
<td>Artocarpus heterophyllus Linn</td>
<td>111</td>
</tr>
<tr>
<td>3.</td>
<td>Caryota urens Linn</td>
<td>157</td>
</tr>
<tr>
<td>4.</td>
<td>Calatropis gigantea Dryond</td>
<td>150</td>
</tr>
<tr>
<td>5.</td>
<td>Lygodium flexusum (L) SW</td>
<td>256</td>
</tr>
</tbody>
</table>
8. **CONDIMENTS:**

Tribal people of the district use very few number of plants as condiments. They preserve the condiment inside a bamboo tube called Luktir Duki/Alum (small bamboo tube with a lid used for storing condiments). They generally preserve the chilli in powdered condition, but, they preserve all other condiments in raw state.

Following are the plants, chiefly used as condiments:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Allium sepa</em> Linn</td>
<td>: 93</td>
</tr>
<tr>
<td>2.</td>
<td><em>Allium sativum</em> Linn</td>
<td>: 94</td>
</tr>
<tr>
<td>3.</td>
<td><em>Amomum aromaticum</em> Roxb</td>
<td>: 99</td>
</tr>
<tr>
<td>4.</td>
<td><em>Caspicum annum</em> Linn</td>
<td>: 154</td>
</tr>
<tr>
<td>5.</td>
<td><em>Curcuma longa</em> L</td>
<td>: 183</td>
</tr>
<tr>
<td>6.</td>
<td><em>C.zedoaria</em> Rose</td>
<td>: 184</td>
</tr>
<tr>
<td>7.</td>
<td><em>Piper nigrum</em> Linn</td>
<td>: 297</td>
</tr>
<tr>
<td>8.</td>
<td><em>Zingiber officinale</em> Linn</td>
<td>: 345</td>
</tr>
</tbody>
</table>
9. NARCOTIC AGENT:

Use of narcotics and smoking is common among all the tribals. Tobacco is most familiar among the Mishimi people. Both ladies and gents are addicted to smoking. They smoke the tobacco in pipes continuously even at the time of walking and talking. Mishimi women are most widely accustomed to it.

The Khampti and Singpho are addicted to opium smoking. The process of opium smoking is very lengthy. However, they usually smoke it in pipes.

Another important narcotic agent is hemp. Hemp is also used by smoking. The plants mentioned below are frequently used as narcotic agents by the tribals of Lohit district:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Nicotina tobacum Linn</td>
<td>278</td>
</tr>
<tr>
<td>2.</td>
<td>Cannabis sativa Linn</td>
<td>151</td>
</tr>
<tr>
<td>3.</td>
<td>Papaver somniferum Linn</td>
<td>287</td>
</tr>
</tbody>
</table>

With Cannabis sativa (Hemp) seeds of Ricinus communis is widely used for increasing the intoxicating power of 'Bhang'.
The pattern of houses of most of the tribals is common in Lohit district. All people build their houses on piles. Locally available materials as bamboo, cane, wood and jungle leaf are used in building houses. The house of Mishimi are also built on bamboo or wooden piles. The floor is made of split bamboo. The roof is thatched with palm leaves fastened to strips of bamboo below. A house may be of size upto 30 m by 5 m. The Mishimi house look like a corridor of a train. The house has a hearth burning continuously.

There are slight variation in the shape and size of the houses of every tribe. In case of a Mishimi house there is no separating wall inside a house i.e it is a hall-type one. But, the Khampti and Singpho tribes have houses with separate rooms.

The following plants are generally used for house building purposes:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Name of plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>Bamboo:</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td><em>Pseudostachyum polymorphum</em> Munro</td>
<td>307</td>
</tr>
<tr>
<td>2.</td>
<td><em>Bambusa tulda</em> Roxb</td>
<td>115</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Name of the plant</td>
<td>Description on page</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>10.1</td>
<td><strong>Bamboo:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. <em>Bambusa balcooa</em> Roxb</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>4. <em>Dendrocalamus humiltoni</em> Nees</td>
<td>187</td>
</tr>
<tr>
<td>10.2</td>
<td><strong>Cane:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. <em>Calamus tenuis</em> Roxb</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>2. <em>C. Trifolius</em> Griff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. <em>C. floribundus</em> Griff</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>4. <em>C. erectus</em> Roxb</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>5. <em>C. flagellum</em> Griff</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>6. <em>C. rotang</em> Linn</td>
<td>148</td>
</tr>
<tr>
<td>10.3</td>
<td><strong>Thatch:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. <em>Imperata cylindrica</em> (L) P. Beauv</td>
<td>228</td>
</tr>
<tr>
<td></td>
<td>2. <em>Livistonia jenkinsiana</em> Griff</td>
<td>254</td>
</tr>
<tr>
<td>10.4</td>
<td><strong>Varieties of timber:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. <em>Bischofia javanica</em> Blume</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>2. <em>Kydia calycina</em> Roxb</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>3. <em>Bombax malabaricum</em> DC</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>4. <em>Terminalia myriocarpa</em> Heurek</td>
<td>332</td>
</tr>
</tbody>
</table>
For covering the surrounding wall of a house, they generally use split bamboo of the variety 'Dendrocalamus humiltoii' moreover sometimes they use Nol (Phragmites korka) and Ikra (Erienthus ravennae) also.

11. FISHING & HUNTING:

The people of Lohit district enjoy hunting and community fishing.

They usually poison the river for fishing. The following plants are generally used for fish poisoning. They prepare a paste of the plants by pounding the roots or the shoots and throw it in to the water. After a few minutes the fishes get poisoned and begin to float on water. At this stage the fishes are mechanically collected by the tribal people. The plants used as fish poison are:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Derris ferruginea</em> Benth</td>
<td>187</td>
</tr>
<tr>
<td>2.</td>
<td><em>Euphorbia nivulia</em> Ham</td>
<td>204</td>
</tr>
</tbody>
</table>
12. **HOUSEHOLD ARTICLES**

The domestic and household articles usually consist of agricultural tools, a loom, vessel, gourd vessel, bamboo containers etc.

The furniture comprises of bamboo or cane mat and stools made of cane and bamboo. Although the tribals prepare their own furniture and different types of baskets. Harversack and other useful articles are made of bamboo and cane.

The following species of plants are used in manufacturing cane basket and bamboo articles:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant/Article</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hauka bet <strong>Calamus latifolius</strong> Griff</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Jati bet <strong>Calamus tenuis</strong> Roxb</td>
<td>149</td>
</tr>
<tr>
<td>3.</td>
<td>Raidang bet <strong>C. flagellum</strong> Griff</td>
<td>145</td>
</tr>
<tr>
<td>4.</td>
<td>Kako bah <strong>Dendrocalamus humilioni</strong> Nees</td>
<td>187</td>
</tr>
<tr>
<td>5.</td>
<td>Jati bah <strong>Bambusa tulda</strong> Roxb</td>
<td>115</td>
</tr>
<tr>
<td>6.</td>
<td>Bojal bah <strong>Pseudostachyum polymorphum</strong> Munro</td>
<td>307</td>
</tr>
<tr>
<td>7.</td>
<td>Bhaluka bah <strong>Bambusa baccoa</strong> Roxb</td>
<td>114</td>
</tr>
</tbody>
</table>
The detailed name and process and uses of different house-hold articles are given below:

Bamboo and cane baskets are invariably used for collecting raw materials from the forests. Many other articles for day to day use are also prepared from bamboo and cane. The climate and soils facilitate abundant growth of different species of bamboo, cane and reeds. Bamboo is locally called 'E' and cane is called 'Usa' by the tribals. Basketry is most familiar among tribals. Two major types of basket making is common among them. They are:

(1) Coiling
(2) Weaving

The basket is specially made for storage and transportation. The most beautiful cane work is seen in making variety of hat, which is called 'Balup' of various sizes. The following are the most common house-hold articles made of cane and bamboo.

**Bamboo utensils:**

(1) **Patyang/Adung:**

Made of bamboo tube, small or big, used for storage of salt, storing fish, Apong and carrying water from streams.
(2) **Tirkak/Pette:**

A bamboo tube from an internode is used as a mug for drinking 'Apong'.

(3) **Lajok:**

It is a bamboo tube and is used for drinking 'Apong'.

(4) **Ambin Dupung/Ambin Dusing:**

It is a bamboo tube used as a paddy container. The open mouth is provided with a bamboo lid and a cane handle.

(5) **Ashi Bomnun:**

A big hollow bamboo tube which is tied to a piece of cane. Ashi Bomnun is used for storing fish/salt.

(6) **Ashi Dupu/Hillek:**

It is a long bamboo tube having no lid and is used for carrying water.

(7) **Dukam:**

A long and bigger sized bamboo tube. This is used for storing water.
(8) **Kaksur:**

It is a tube made of bamboo which is covered at the open end with a section of bamboo and is used for storing Apong.

(9) **Dume Petu:**

A bamboo tube used for storing tobacco is called Dume Petu.

(10) **Luktir Duki/Alum:**

A small bamboo tube with lid used to store chilli powder.

(11) **Paku:**

It is a bamboo dish used for eating purposes.

(12) **Terdung:**

A Terdung is a long bamboo tube which is usually used for measuring rice.

The tribals prepare various types of baskets for various uses. They have to carry heavy load of firewood, grains and water tubes and store agricultural products
so depending upon needs the shapes and sizes of baskets vary. The following are some of the common indigenous house-hold baskets:

(1) **Suje/Oshi**:

These are made of bamboo and cane which are generally used for storing rice.

(2) **Egin**:

This is a very handy type of basket, the open end of which is round and big, gradually tapering from the middle towards the base. The base is square. A cane belt is attached to it for fastening across the shoulder. It is very useful for carrying food grains.

(3) **Eppu**:

Eppu is made from flat bamboo pieces having a parabolic shape. It is used to separating chaff from food grain.

(4) **Apong Perop/Ape/Poa**:

Made of bamboo strips, cylindrical in shape and open hexagonal type. It is used for storing fermented rice from which 'Apong' (rice beer) is prepared.
(5) Popur/Borju:

Made of cane strips. It is also cylindrical in shape with a pointed circular base. It is used as a strainer for pressing beer.

(6) Susak:

A small basket made of cane and bamboo strips. Uses - to store small house-holds, bidi and tobacco.

(7) Obo (Abong):

Thin strips of cane are woven in two layers, palm leaves being inserted between them. It has a parabular top and a concave shape. Use - to protect against rain.

(8) Apu/Epu/Pese:

It is made of flat bamboo strips. It is used for drying cereals, rice grains. It is also used as a sleeping mat.

(9) Kodong:

Made of bamboo and cane. It is used to catch fish.
(10) **Pajung/Koraj:**

Made of bamboo strip, used as a basket for storing vegetable, meat etc.

(11) **Leong/Tali:**

It is a haversack used by men. The outer side is covered with bark of tree or palm leaves to make it water proof. This type of basket is used for carrying meat, fish and meal or any other small things.

(12) **Lakkang:**

It is of cane, used as harversack.

(13) **Saiki/Hua:**

Jute (*Chorchorus olitorius*) rope for tying Mithuns.

(14) **Meru:**

Fine bamboo sticks are tied together and used as a torch by burning at one end.

(15) **Puny:**

Big spoon made of bamboo.
(16) **Etpen:**

Made of fine cane strip, used as a belt for carrying a baby on the back.

(17) **Edir:**

It is made of bamboo and used for catching fish.

(18) **Esing Ebar/Kiro:**

Made of plated bamboo strips used as a belt for carrying bamboo tube.

(19) **Ebi/Eke/Hanga:**

Made of flat bamboo strips and the broader end is tied with canes. It has also a lid attached to the open mouth. It is used for storing paddy, maize, rice and other grains in the granary.

(20) **Hobuk:**

A basket made of cane for keeping Dao. It is made by simple twilling method.

13. **WEAVING & KNITTING:**

13.A. The Digaru, Mishimi, Singpho and Khamptis are the major tribes inhabiting in Lohit district of Arunachal Pradesh. Weaving is only the occupation of women. Men help the women
in collecting wild plants for making fibre and preparing yarn. They weave their cloth in the waist loom called Tatu.

The traditional waist loom is a simple one. It is made of bamboo and wood. The loom consists of the following major parts:

1. Taglung
2. Tanwa
3. Tabru
4. Tabieke
5. Niaje

1. **Taglung**:

Taglung is the frame, consist of two vertical bamboo poles in between which another bamboo pole is fitted horizontally. The threads are arranged into a wrap. The wrap is divided into two folds, upper and lower. The folded end of the wrap is attached to the horizontal pole of the Taglung while the other free end is tied to a small stick. The waist belt is fitted in their stick.

2. **Tanwa**:

It is a flat stick which separates the two folds of the wrap.
(3) **Tabru:**

It is made of reed which separates the thread of the wrap from each other.

(4) **Tabick:**

It is the loom consisting of flat bamboo stick. Tabick passes thread in the wrap.

(5) **Niage:**

It is the shuttle which consists of a thick stick.

Following plants are used for preparing weaving implements:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Calamus tenuis</em> Roxb</td>
<td>: 149</td>
</tr>
<tr>
<td>2</td>
<td><em>Bambusa tulda</em> Roxb</td>
<td>: 115</td>
</tr>
<tr>
<td>3</td>
<td><em>Erianthus ravennae</em> Beauv Argost</td>
<td></td>
</tr>
</tbody>
</table>

13.B **PROCESS OF WEAVING:**

The threads are wound in the Niage is sent between two folds of the wrap and pressed by Tabick. This
process is repeated to unite thread. The weaver sits towards the free end of the wrap and ties into her waist with the belt.

14. PREPARATION OF YARN & DYE:

Prior to cultivation of cotton, the people prepare their own yarn and dye from different kinds of trees. These trees are locally called Nyajombo (*Butea monosperma*), Nyssabre (*Hibiscus manihot*) and Asarimbo (*Sterculia villosa*). Their barks are picked up in sufficient length and twisted in bundles and then immersed in the stream of water for decomposition. Then, the decomposed bark is washed out thoroughly and allowed to dry in the sun. The fine fibres are spun out to yarn and rolled into a ball. This process is repeated till sufficient yarn is prepared for weaving. The yarn is then again unrolled and coiled on the hanking instrument. The yarn so prepared is then boiled in rice water or maize-bran water to bind the loose fibres for sizing and then the yarn is dried and stored for weaving.

Now-a-days, cotton cultivation has become popular among all tribes. Men help in cotton cultivation but, collection of capsules and processing and weaving depends entirely on women.
14(A). **Plants used for fibre:**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alpinia allughas Rose</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Boehmaria sidaefolia</strong> Wedd</td>
<td>130</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Bombax malabaricum</strong> DC</td>
<td>132</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Caryota urens</strong> Linn</td>
<td>157</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Erythrina superba</strong> Roxb</td>
<td>207</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Hibiscus manihot</strong> L</td>
<td>223</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Gossypium herbaceum</strong> Linn</td>
<td>218</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Sterculion villosa</strong> Roxb</td>
<td>329</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Boehmeria nivea</strong> Hook et Am</td>
<td>129</td>
</tr>
</tbody>
</table>

14(B). **Method of dyeing yarn:**

Prior to the availability of different colour in this region, the tribal people obtained various colours from different trees, roots, creepers and leaves which possessed natural colour. The process for dyeing is the same for all materials.

The colouring agent is first pounded into paste. The paste is then boiled in water till permanent colour is distinctly seen to have impregnated the yarn. Leaves may be boiled in water until the colour of the leaves come out.
The following colours are generally used by the Mishimi people:

(1) **Red (Shu)** colour
(2) **Yellow (Mi)** colour

The yellow colour is prepared from *Coptis teeta* (Mishimi teeta) which are dug out and dried for a few days over a hearth placing in a basket, the dried root pounded on stone into small pieces. The boiled and yam immerge in coloured water.

(3) **Black (Ma or Mandikhi)** colour

Following plants are used for different colours:

(1) **Red (Shu):**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Curcuma longa</em> L</td>
<td>: 183</td>
</tr>
<tr>
<td>2.</td>
<td><em>Garcinia cowa</em> Roxb</td>
<td>: 213</td>
</tr>
<tr>
<td>3.</td>
<td><em>Mangifera indica</em> L</td>
<td>: 258</td>
</tr>
</tbody>
</table>
(2) **Yellow (Mi):**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Aegel marmelos Corr</td>
<td>83</td>
</tr>
<tr>
<td>2.</td>
<td>Bixa orellana Linn</td>
<td>125</td>
</tr>
<tr>
<td>3.</td>
<td>Curcuma longa Linn</td>
<td>183</td>
</tr>
<tr>
<td>4.</td>
<td>Coptis teeta</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Indigofera tinctoria Linn</td>
<td>231</td>
</tr>
<tr>
<td>6.</td>
<td>Piper bettle Linn</td>
<td>296</td>
</tr>
</tbody>
</table>

The dye prepared from these plants is permanent and most fascinating.

15. **RELIGIOUS PRACTICE IN RELATION TO PLANTS:**

The Mishimi, Khampti, Singpho and other small groups of tribes perform many religious functions and observe practices and beliefs. They believe innumerable spirits to control human happiness and prosperity. Their beliefs are expressed in the form of worship of nature as well.

15(A). **SPIRITS & Dainties RELATED TO PLANTS AMONG MISHIMIS:**

**Brewing:**

Sun God is believed to play important role on all creatures.
Wata:

He is believed to show how to do agriculture.

Cupe:

It is believed to be an evil spirit of gigantic structure like a Palm tree.

Cupa/Kapa Barn:

It is a spirit which lives in big tree as *Ficus benghalensis*. If anybody cuts trees where he lives, he gets leporsy for offending the spirit (a belief). The singphos believe that the spirit controls their daily activities, some of them are beneficial and some are mal-efficient. They have their abode in house, trees, water, forests and in ponds and other water bodies. The beneficient spirits are:

1. Rukju-nat: Abode in big trees
2. Smathi: Abode in house
3. Pnuu guzu: Abode in forest

While cutting a big tree as *Ficus benghalensis* (Kun phun), the tribals of Lohit district beg leave of the spirit residing in it and request him to leave the tree and to move to some other tree. It is believed by the tribals that plants seen in dream have also some
significance on life as stated below:

*(1) An uprooted tree seen in a dream indicates that an old member of the family may die.

*(2) Similarly climbing up a hill or tree indicates that a desire will be fulfilled.

15(B). PLANTS IN RELATION TO CEREMONIES & FESTIVALS:

The social and cultural lives of the tribal people of the Lohit district are very fascinating expressing them through various ceremonies and festivals. Only plants related to festivals are described below:

Tamlas:

Performed by Taraons to please the spirit which is believed to protect a village. On this occasion a tree top is placed at the entrance of a village and blood of a sacrifice like a fowl is sprinkled over its branches. A small basket containing the dead fowl is kept hanging from the branch of the tree. The next day is followed by a taboo restricting the inmates of the house from going out.

This is the most important festival of the Idus performed for increasing crops and wealth. Mithun is sacrificed in this festival and Apong is widely used.

Among the Khamptis:

Sangken:

A small house is made by villagers and is decorated with leaves of *Mesua ferrata*, Palm trees, *Livistonia sps* and flowers of *Hibiscus* and *Tagetes* etc. A Buddha image is placed in this house and kept there for three days and water is poured on the image. Men and women come out of their houses and sprinkle water on each other. Guests are entertained with rice cake prepared from boiled rice and sweets.

Apart from Sangken the Khamptis and the Singphos perform certain other festivals:

Nawasang Sitang:

On this festival villagers go to Bihar (Shrine) and offer fruits like guava, banana, flowers of *Hibiscus*, *Tagetes* etc. Boiled rice is invariably offered and prayed.
Ma-ok Siting:

Celebrated on a full moon night of Kartika. This festival is observed to remember that Lord Budha's disciples meditated for three months during the rainy season. Artificial Devine trees (Kalpa-taru) are made out of long bamboo with coloured branches of trees. Packets of food stuff are kept hanging from these branches. These trees are given as gifts to the monks.

Maiku Sum Phai:

Known among the Khamptis, Maiku Sum Phai means putting wooden stick into fire. There is a particular tree known as maiku which they select for the purpose. The tree is cut into pieces of equal length and the pieces are stacked with the support of a long bamboo to construct a structure - generally square-sized and projected upwards. The structure is then decorated with flowers. On the auspicious day, people invite monks and set fire to the structure which is followed by community feast.

Some plants are used for this purpose but the names of these plants are kept secret.

There are other festivals also which are performed by the tribals of Lohit district.
Following plants are most commonly used for the purpose of religious and other ceremonial purposes:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the plant</th>
<th>Description on page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Hibiscus rosasinensis</em> Linn</td>
<td>222</td>
</tr>
<tr>
<td>2</td>
<td><em>Picea smithiana</em> Lamb</td>
<td>295</td>
</tr>
<tr>
<td>3</td>
<td><em>Piper betle</em> Linn</td>
<td>296</td>
</tr>
<tr>
<td>4</td>
<td><em>Areca catechu</em> Linn</td>
<td>107</td>
</tr>
<tr>
<td>5</td>
<td><em>Ocimum sanctum</em> Linn</td>
<td>281</td>
</tr>
<tr>
<td>6</td>
<td><em>Nerium odorum</em> Soland</td>
<td>276</td>
</tr>
</tbody>
</table>

16. **DRESS & ORNAMENTS:**

The dress and ornaments of each tribe are unique and they are distinguished from one another.

Mishimi dress is remarkable for its uniqueness and beauty of its design. They make most of the dresses partly from wood, partly from cotton and sometimes from nettle fibre. The head gear is a carefully inter woven canehat. The colour and design of the head gear are admirable. From the fibres of *Boehmeria nevea* they knit jackets. The all weather hat, Aptala, made by woven cane are very hard and sword-proof. They wear necklaces made of various kinds of beads.
The Khampti people wear neat and clean dress. A gent's dress is a cotton jacket and a lungi. A woman wears a black skirt, a long-sleeve jacket, a waist cloth and a white shawl.

17. **MUSICAL INSTRUMENTS**

Dance and music are important media through which art and tribal culture find expression.

The following are the musical instruments of the Khamptis:

(i) **Kong pat**:

It is a convex drum made of one piece of hollowed out wood (preferably from the wood of *Artocarpus integrifolia*) and covered with dressed animal skin on both ends.

(ii) **Yam nong**:

It produces a rubbing sound, similar to Kong pat.

(iii) **Ting trow**:

A kind of two-stringed fiddle.
(iv) Pitok:

It is a musical instrument made of small bamboo tube.

(v) Pi-son-sau:

This is an wind instrument.

Besides these, the tribes have some metallic instruments as cymbell etc.

18. CEREMONIAL EQUIPMENTS OF IDU:

(i) Amra-la:

A belt prepared from the teeth of a tiger. Each tooth is perforated near the base. The perforated teeth are stitched with a cord or string 2" (two inches) apart from one another.

(ii) Golo (ng) Pu (ng):

A ring of inter woven cane strip decorated outside with decorated shells in rows. The Golo (ng) Pu (ng) is put on the head as a crown. A bunch of hair collected from animal tail is hung down on one side.
(iii) Ryipu (nq):

A fully matured bamboo root is dried up over the fire place and then designed as a conical cup. The cup is hollowed out with the help of sharp knife, a small projection being left at the centre. A hook is then fitted in the projection to hold some metal pieces. The open end is then closed with a dry skin of monitolizard by means of cane strips.

(iv) Gerembo:

A drum is prepared from seasoned tree trunk which on beating with a stick gives a sound.

19. (a) GAMES PLAYED WITH SEEDS:

Certain games are played with the seeds of trees by the Khamptis. This game is known as Malim. It is a game of accurate aiming. Players consists of two teams. The first team 'owns' the seeds and the second team shoots them. Chila seeds (Endata scandens Benth. = E. phaseoloides Merr) are used as strikers and targets and are placed in a horizontal line at a distance of 5-6 feet apart. Each of the seeds has a guardian who replace it in the line. Every time it is struck out of position. A man stands 20 feet away from the seed and taking a turn at a time, he has displace a seed. Similarly, taking turns he has to remove all the seeds taking one after another.
19. (b) CLIMBING ON POLE:

In this game one has to climb up a pole, as high as possible, without touching the pole with one's feet. The player who tops in climbing higher wins the game.

19. (c) TO MAI (OVER THE BAMBOO):

This game is played in an open field by a batch of 12 to 20 boys. A long thin pole is placed horizontally on the ground. One player volunteers or is selected to be the 'It' (origin). While the other players arrange themselves standing one behind the other, each straddling the bamboo pole.

The 'It' much try to touch the other players without crossing the pole. The rest of the players, however, can dodge 'It' by crossing over the pole. 'It' can touch the players by reaching across the pole, but, should actually cross over the pole. If he cannot cross the pole, he is out of the game and another player takes over as the 'It'. The game continues until interest flags.

20. PLANTS IN RELATION TO NAMES OF PLACES:

It is interesting to note that names of places or areas are kept after the name(s) of certain plants. It
has got some significance. In Arunachal Pradesh name of a place may speak for its geography, flora, fauna and even human ecology, language and history of the past.

NAME OF A PLACE IN RELATION TO PLANT IN LOHIT DISTRICT:

Roing - Santipur Roate:

(1) **Idili (Idu):**

Idi means Mekahi trees (*Shorea assamica*). This village is situated in an area where Mekahi trees are found. The name of the village was coined in the year 1968-69. The village is situated on the left bank of Deopani river lying to the east of Jia.

(2) **Bolung (Adi):**

This is a short form of 'Tabo alung'. Tabo is a kind of bamboo, alung means group. Bolung (Tabo + alung) is, therefore, a name of a village where Tabo bamboo is abundant. This village is situated on the left bank of Dibang river at a distance of 18 miles from Sadiya towards Nizamghat.
(3) **Iduli (Idu)**:

It is named after a large 'Idumbo' i.e Simalu tree (*Ceiba malabaricum*). It is named in the year 1972 and is situated near Kabång village.

(4) **Injono (Idu)**:

Inju is a kind of tree and ando is a village situated around the Inju tree (*Ficus religiosa*).

(5) **Elopa (Idu)**:

(Elembo pa) Elombo is a Hollok tree (*Terminalia myriocarpa*), Pa stands for hill. A village in hill area where hollok trees are abundant is known as Elopa (Elembo + pa).

(6) **Poblung (Adi)**:

Shipob + alung = Poblung (*Bauhinia vahlili*) Shipob is a tree called Hatikonia in Assamese. Its barks is used for dyeing yarn. A village where this particular plant is found is, therefore, given the name Poblung.

(7) **Ahoka (Idu)**:

Ahoka (*Lygodium flexusum*) is a kind of edible fern containing yeast. The village which is situated
near an area where this fern is abundantly found is given the name - Ahoka.

(8) **Epali:**

*Epa* (*Mangifera indica*) is a kind of edible tree. Therefore, Epali is the name given to a village where this plant grows in abundance.

It is seen that sometimes a name of a place may indicate more than one aspect such as Iduli, Idili and Elopa refer to the geography of the area as well as they give indication to the local flora.

Normally, the names come from dialect of the inhabiting the area and hence contribute to the human ecology.