

Significance of Non-Timber Forest Produces with a Special Reference to Banana Plant in the Animistic Religious Practices: A Micro Study on the Karbis in Karbi Anglong, Assam

Somenath Bhattacharjee¹ and Bamonkiri Rongpi²

Department of Anthropology, Assam University, Diphu Campus, Diphu, Karbi Anglong 782 462, Assam, India

Contact: ¹<+919401767410 (M)>, ²<+919531263986; +917002267609>, E-mail: ¹<bhattacharjee_somenath@rediffmail.com>, ²<bamonanthro@rediffmail.com, bamonkirie@gmail.com>

E-mail: ¹<bhattacharjee_somenath@rediffmail.com>, ²<bamonanthro@rediffmail.com, bamonkirie@gmail.com>

KEYWORDS Floral Resources. Indigenous Knowledge. Magico-religious Healing. Cultural Values. Sustainability

ABSTRACT Every culture irrespective of its simplicity and complexity has its own concept of religious belief and practices. The Karbis are the early settlers of Karbi Anglong district, Assam. Most of them are animistic regarding their religious belief and practices in daily livelihood. The present study examined the use of minor forest products in religious practices of the Karbis. It discussed the significance of NTFPs, with a special reference to the banana plant, as used in a number of their rituals. The data were collected through empirical fieldwork by applying appropriate anthropological research methods. It has been found that different forest resources are immensely important in the cultural and religious practices of the studied people. In this regard, different NTFPs and banana plants are inseparable in such rituals and cultural traditions.

INTRODUCTION

Forest and biodiversity is the key to all life forms. The richer the diversity of life, the greater the opportunity for medical discoveries, economic development and adaptive responses to such new challenges as climatic change (Bhattacharjee 2018: 48). Forests serve as watersheds, as almost all the water ultimately comes from the river and lakes and from forest deprived table. Some rivers running through forest are also kept cool and from drying out. Forests also serve as a home to millions of animals (Bhattacharjee 2018: 48).

As per the state of forest report in 1999 by the Forest Survey of India, Dehradun, 6,044 sq. km. of Karbi Anglong district are under dense forest cover while 2,776 sq. km. are under open forest cover. The important forest types found in Karbi Anglong district are:

1. Moist semi evergreen forest
2. Moist mixed deciduous forest
3. Riverain type
4. Miscellaneous type with scattered pure or mixed patches of bamboos (Bhattacharjee 2015a: 25).

Though a large part of Karbi Anglong District is covered with thick forest cover, the legal status of notified forest area is as follows:

1. State reserved forests: 1962.06 sq. km.
2. District Council Reserved forests: 1011.26 sq. km.
3. Proposed reserved forests: 1317.01 sq. km. (Bhattacharjee 2015a: 25).

Anthropologically forest products are of two types, that is, major forest produce and minor forest produce. Major forest produce include the timber and minor forest produce are the different other parts of the plants (Bhattacharjee 2018: 49). Non Timber Forest Products (NTFPs) are the produce from the forest like fruits, barks, flowers, nuts, vegetables, medicinal plants, shrubs, herbs etc. but not timber or logs, which are produced in the forests (Bhattacharjee 2015b: 135). Many tribal animistic groups of people are dependent on the forest products for their livelihood, as they live in close vicinity to the forest (Bhattacharjee 2015b: 136). Most of their religious activities are also associated with the NTFPs and forest.

India has the second largest tribal population in the world, next only to Africa (Bhattacharjee 2017: 1). Northeast India is considered as the tribal hub, with many tribal groups having their own traditional cultures, dress and livelihood, and this multiculturalism adds a rich vibrant. Northeast India is home to many indigenous tribes, which are very rich in their culture and traditions. The people

of Northeast India comprise of ethnic diversity, mainly the Mongoloid, the Indo-Aryans, the Australoids or Austric and the Dravidians, the last being a very minor group represented by some immigrant population. While the original settlers were the Mongoloids, the Indo-Aryan and other groups arrived later. There is undoubtedly a dominance of Mongoloid ethnic groups in the population of northeast India (Bhattacharjee 2017: 1). Northeast India is a rainfed zone with lush evergreen rainforest (Subba and Ghosh 2003: 5). Most of the indigenous community is dependent on forests for their survival in terms of food, medicine or crafts.

The tribes of India are mostly dwelling in the hills and forest covered regions (Bhattacharjee 2017: 9). Different forest resources play a very crucial role in the perspective of tribal livelihood and culture. The tribal people used to collect different roots, fruits, leaves, flowers and vegetables from the forest as a prime requisite of their daily food resource. The tribal people use the leaves of the plants and their barks to thatch the roof of their traditional hut. The tribal people to construct their houses extensively use bamboo and cane.

Within the forest a number of herbs, leaves, flowers, etc. are utilised by the tribal people as a source of local medicine or indigenous medicine. Their traditional knowledge is associated with the application of such plant resources to prevent the ailment of concerned people.

It can be noted that different forest resources play a very crucial role in the perspective of tribal livelihood and culture (Bhattacharjee 2018: 51). They collect the branches of trees and leaves as a source of their daily requirement of fuel for cooking and other domestic purpose. Further different forest products like honey, latex, fruits are collected and sold by them to earn money. It can also be noted that forest is the core place where different totemic objects are present. Many tribal people worship them and it is known as the sacred groove. Among the tribal societies, a number of folk cultural performances are associated with forest. They worship nature as their mother.

Roy Burman truly said that the tribal are the real children of the forest (Vidyarthi and Rai 1976: 233). It is a fact that the tribal livelihood and culture is intimately related with forest and forest resources

(Bhattacharjee 2017: 5), which can be represented through Figure 1.

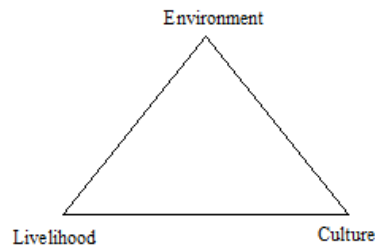


Fig. 1. Relating man environment and culture
Source: Somenath Bhattacharjee

Animism is concerned with the soul and spirits. Animism is the oldest known type of belief system in the world that even predates paganism. It is still practiced in a variety of forms in many traditional societies. Animism is used in the anthropology of religion as a term for the belief system of many indigenous peoples, especially in contrast to the relatively more recent development of organised religions (Bhattacharjee 2015b: 136). Although each culture has its own different mythologies and rituals, “animism” is said to describe the most common, foundational thread of indigenous peoples’ “spiritual” or “supernatural” perspectives (Vidyarthi and Rai 1976: 239).

Bagal and Nanda (2022: 180-185) had analysed in detail about the traditional usage of NTFP, related to the livelihood securities of different ethnic groups in the Shivalik hill region of Jammu. Singh and Rai (2022: 135-144) studied in detail about the use of different wild edible fruits by the Bhotias of Niti valley in Uttarakhand. Rahman and Roy (2021: 280) discussed in detail how NTFPs had shaped up the livelihood of the forest dependent communities of Bangladesh. Such resources were immensely important as a source of food, shelter, medicinal value, fuel, animal fodder and so on. Balasubramayan and Sangha (2021: 1) had analysed in detail how ecosystem services and indigenous knowledge systems have functioned in integration to preserve the biodiversity hotspot of western ghat hills in India. Islam and Kuli (2017: 2184-2195) analysed the role of NTFPs, in shaping up the tribal economy of Jharkhand. Kumar (2015: 387-404) had focused on the impact of NTFPs on food and livelihood security among the tribal groups of Dangs district in Gujarat.

Aims and Objectives

The aims and objectives of this study were to:

1. To know about different types of NTFPs used by the Karbis, as available in their close vicinity.
2. To find out the significance of NTFPs in the religious and healthcare practices of the Karbis.
3. To analyse the emerging challenges related to the usage and preservation of NTFPs.

MATERIALS AND METHOD

Karbi Anglong District is situated in the central part of Assam. Administration wise, the district is divided into three sub-divisions namely, Diphu, Bokajan and Hamren (Bhattacharjee 2015c: 118). According to Census of India 2011 the district has a population of 9,56,313 including 4,90,167 males and 4,66,146 females. The district has a sex ratio of 951

The Karbis are the indigenous community of the said region. The Karbis are settled mostly in Karbi Anglong and are also distributed in some places of northeast India (Bhattacharjee 2015a: 25). The studied people were all belonging to the Karbi tribal group, who was the numerically dominant people of the district.

The present study has been done on the basis of empirical fieldwork among different villages throughout all the sub divisions and blocks of Karbi Anglong district in Assam (Bhattacharjee 2017: 5). The study was conducted among 1246 families with a total population of 6783, including 3465 males and 3327 females, during the period of January 2011 to February 2020, periodically from time to time.

Methodology

There were three divisions of the total fieldwork. Two to three times of fieldwork was done under each division as per the requirement.

Division 1: Fore mostly, the general observation of the village was done along with the completion of Preliminary Census Schedule (PCS) to know the demographic composition of the studied people.

Division 2: Case studies were taken on the concerned families. It was focused on the issues of their historical background (Bhattacharjee 2015b: 134), dependence on forest for livelihood and indigenous knowledge on health and treatment.

Division 3: Detailed open structured interviews were taken from the key informant, eldest person of the settlement, administrative authority related with the studied settlement, traditional medicine man and Magico-religious healer (Bhattacharjee 2017: 5). It focused on the significance of forest and its significance in the livelihood of the concerned people (Bhattacharjee 2018: 50).

FINDINGS AND DISCUSSION

Forest and its products have been the major sources of livelihood for the Karbis. They are dependent on the forest for many things right from the food items to their construction of settlement, religious practices, indigenous knowledge of healthcare system and so on (Bhattacharjee 2015b: 26). Sacred Groves are small groves that vary in size from a few hectares to a few kilometres protected by local communities as being the sacred residence of local deities and sites for a number of rituals (Bhattacharjee 2015b: 28). Those are also a very valuable storehouse of biodiversity. Sacred Groves are forests that have been protected since the ages by traditional societies. A miniature form of lake in west Karbi Anglong is a sacred groove where catching of fish is prohibited. The lake is named as *Chiklo arni abi*. Also, there is a sacred groove in *Ronghang Rongbong* Hamren, where the forest is protected by the Ronghang Rongbong (Teron 2011: 16). The non-timber forest products are used by the Karbis, not only for the religious practices and rituals but also for building houses and several other implements as used by them.

Use in Rituals

The Karbis perform various rites and rituals throughout the year in order to appease different deities and spirits. Every step of their traditional life is marked by some kind of ritual with religious or magical significance (Bhattacharjee 2018: 52). The Karbis perform many rituals and to conduct those rituals, they collect the required material cultural items, from the surrounding forests. Some of the Karbi rituals like *Chojun*, *Se karkli* and *Vur Kamatha* are performed very often for the familial and societal well being. In such rituals the non-timber forest products are immensely important. Such issues are discussed as follows.

Chojun is an important religious festival of the Karbis. *Chojun* literally means feasting, where *cho* stands for eat and *jun* stands for drink. During *Chojun*, bamboo and plantain leaves are very much used. These are collected from the nearby forests, and fowls and pigs are sacrificed to appease the deities. During *Chojun*, the Karbis collect *Phongrong*, which is a kind of tree, *Inghet* which is also a kind of tree, *Tarsing* is a small plant, which is used for building the alter for the deities, *Bamchok* is a kind of shrub, *Chehelobor* is kind of plant with long and thin leaf, *Mirtaksu* is also a kind of plant having white flower, *Loru* is a kind of weed with big and flat leaves, and *Jintak* is a rope made from split bamboo, and all these are collected from the forest. *Phongrong* is used for making the *dovan* hem (alter), *Inghet* is used for *Langtung karchung*, *Tarsing* is used for building the house of God, and *Loru* is used for covering the pillar, which is tied with *jintak*.

Tarsing, *Bamchok*, *Chehelobor*, *Mirtaksu*, *Loru* and *jintak* are categorised as *baap amung*. These things are collected from the forest. To sacrifice the pigs, two wooden pestle called as *lengpum*, are used, which is made from *Marley* tree.

Chomangkan or *Chom-Kan* is a festival dedicated to the dead. It is primarily a death ceremony. Although the Karbis perform the funeral ceremony at the time of cremation of the deceased, they also perform the death ceremony called “*chomangkan*” at a later date for the eternal peace of the deceased (Bhattacharjee 2018: 53). It is the most significant socio-religious ceremony of the Karbi, which continues for four days and four nights at a stretch. It is only during this festival the *Jambili Athon* is used. The ceremony does not require any formal invitation and anyone can participate in it particularly the own clan members of the deceased person (Bhattacharjee 2018: 53). In spite of the sad undertone it is an important occasion for the family to welcome all with great warmth. They come in batches and everyone carries a symbolical and ceremonial totem, there is a wooden ‘*Vojaru*’ (racket tailed drongo). The totem is called *Jambili athon*. This is the symbolical representation of the tribe and it is also the symbol of clan unity (Bhattacharjee 2018: 54).

During this festival, many items are collected from the forests such as *lorop* (a kind of leaf, which is used as plates to serve the deities), *chek* that is bamboo used during various social and religious

purposes, *Langpong*, which is a kind of vessel used for drinking purposes made by cutting the bamboo, and *Phamri* a kind of rope made from barks of trees. Many kinds of plants, timber and leaves are collected from the forest for the *chomangkan*. During *chomangkan* the materials like bamboo and leaves, which are to be collected from the forest, are collected by the youths of the village, which is led by the *klengdun* and *klengsarpo*.

Se karkli is a ritual, performed for the wellbeing and safety of one’s family, agricultural field and to protect themselves from any evil attack, sickness and suffering. The Karbis used to perform *peng karkli* and *rit anglong* every year. There are several types of *se karkli*, for which the requirements vary. Most of the items are collected from the nearby forest. It can be noted that some plants are considered as taboo to grow at home, but those were very much important in their rituals. In such cases, forests are the only source for the studied people to collect those plants or their different required parts.

During *Se karkli*, they use *Chek arvo*, which are the leaves of bamboo called *Arnam A bikron* a kind of creeper found in the forest, and also *thap*, which is fermented rice cake. Related to the preparation of *thap*, they first soak the rice, then they pound it to make it into a rice flour, then they mix it with *marthu arvo* that is leaves from *Marthu* plant, *jangphong arvo* leaves of jackfruit, and *theso arvo* which is orange’s leaf. The ingredients are known as *aseng*. *Thap* is used for preparation of liquor, which is called as *hor*, which is immensely significant in every ritual and social activity of the Karbis. *Thap aphi* or *achili* are the fermented rice cakes, which are kept in *ingkrung* or *beleng*. This is a perforated or meshed utensil for separating solids or coarse materials from liquids or fine particles. It was covered with *sokpun* (hay) for three days, and afterwards they were sun dried for three to four days. *Bi-ari* was made from *Jintakong*, or *Munsuri*, which was a rope made from barks of tree or split bamboo, for tying up the goats. *Bi aput* was made from *arjang*, which is a kind of bamboo, and it is the handle made for tying up the goats. These are required for performing the *hem angtar* rituals.

Source of Ethno-medicine

The studied Karbi people used various kinds of leaves and herbs from the forest to cure various

diseases. For dysentery and diarrhoea they used the leaves of *bap keho* a herb. They used to make it into a paste by grinding the leaves and mixing it with juices obtained from bamboo plants and also with the bud of guava. Then the paste was diluted with water, which they used to drink. For cough and cold they used honey and ginger with the basil or *Tulsi* leaves and for skin diseases they used to take bath with the boiled leaves of neem.

Traditional House Type

The traditional house type of the Karbis is mostly noticed in the interior rural areas of Karbi Anglong. Nowadays instead of having raised bamboo platforms, the houses are constructed on grounds (Bhattacharjee 2015c: 124). The Karbis usually built their houses with locally available bamboos, wood, etc. Those were thatched with straw. The walls were made up of bamboo splits and mud-plastered. The floor of the houses was also plastered by mixing cow dung and mud. The plastering of the floor was mainly associated with the women. During the time of cultivation the Karbi people built a temporary house of straw, just adjacent to the paddy field, in order to guard the paddy and crops from wild animals. A temporary house of straw was completely made of hay and it is called as “*Kuntiri*”. The raw materials used in building such kind of houses need highly available local resources like bamboo, thatches, straw, cow dung and mud.

A typical Karbi hut (*Hemtun*) is neither too small nor too big. It is built on a bamboo platform using timber post for super structure. The platform is several feet above the ground (Bhattacharjee 2015c: 125). It is thatched with straw. The walls were made up of bamboo splits and were plastered with mud. The houses used to have two balconies, one at the front and other at the back. The house is divided into two parts lengthwise. The front part or room with a hearth at the centre is called “*Kam*” or guest room while the inner chamber called “*Kut*” is used as the living room for the family members. A wooden or bamboo ladder is used as an approach to the front of balcony (Bhattacharjee 2015c: 125). Cattle are generally kept under the bamboo platform. The traditional housing pattern has more or less abandoned by the Karbis. Instead of having raised bamboo platform. The houses are constructed on grounds. It is also termed as the *Hem thengsong* (Bhattacharjee 2015c: 126).

In the process of building such traditional houses, they used different non-timber forest products like *Chek* (*Bambusa vulgaris*) for *Nujok* (pillar), and also for *Karlo* (used for tightening the split bamboo), *Keipho* or *Chek Bangtang* was used for this purpose. The bamboos were collected from the forest. For roof they used *Phelang* (thatch), a kind of grass, which they collect it from the forest. There were two types of *phelang*, *phelang chirik so* and *phelangpi*. *Phelangpi* is the bigger variety of *Phelang*, which the Karbis used to thatch their hut. In some places of Karbi Anglong, they used the leaves of *Toko* plant. However, it is getting diminished day by day.

They used bamboo also to erect the walls of the houses. The walls of the house are known as *Arpong*. For making this they used different varieties of *Chek* like *Arthem*, *Artungso*, *Arnai* and *Nujam*. They first cut the bamboos into desired length and then make splits on the bamboo. The Karbis used *Jintak* to tie bamboos posts and also split bamboo. It is split strands of bamboo, which they use it as a rope. They use *Keipho chek* to prepare *jintak*.

Kesoi keret means craft or occupation requiring skilled use of the hands. Different materials like *Micham*, *phak-um*, *Vo-um*, *beleng*, *tar*, *hoton*, *ingkrung*, *burup*, *chethang*, *chake*, etc. were made from bamboo and cane, which are found in the forest.

Significance of Banana Plant

In the livelihood and cultural tradition of the Karbis, banana plant is immensely important. Among the Karbis, different parts of this plant are used in many different religious performances (*Chojun*, *Chomangkan* and *Rongker*) and social ceremonies, like marriage ceremony, feast organisation. Moreover, it is immensely important as a source of ethnic dishes and ethno-medicine. Specially, the leaves are most important in Karbi society. The use of banana plant in the Karbi cultural life is governed by ritualistic performances accompanied by chants. These are associated throughout their entire rites-de-passage. Chants are intimately associated with various rituals including the narrative about the origin of banana plant, named as ‘*Lochin, Lore keplang*’. The concerned people used to place this leaf towards east direction during the time of ritual performances, *Kuru-*

sar (priest) start with *poromkangthum* (narrative) in the form of chants. It is mentioned below:

Piloso, poloso
Piloklar, poloklar
Pilodo, polodo
Pilome, polome
Piloso, poloso
Pilome, polome
Pilodak, polodak
Piloklar, poloklar
Lota-e, lotame
Rambamon, Khonbamon

The studied people used to collect them from home plantain plant, either from their own courtyard or in the surrounding forest region.

Different Names of Banana Plant among the Karbis

It can be noted that among the Karbis, there are several names or identities of the banana plants, like:

1. *Lochin*: a kind of wild banana plant, used in rituals.
2. *Lore*: a kind of wild banana plant, its flower can be eaten and used as ethno-medicine too.
3. *Lorop*: a kind of wild banana plant, used for ethno-medicinal purpose and rituals.
4. *Nuso*: a kind of regular banana plant, used as fruit, vegetable.
5. *Lobongkengtong*: a kind of regular banana plant, used as vegetable.
6. *Nusador*: a kind of regular banana plant, used as fruit, vegetable.
7. *Nuang*: a kind of regular banana plant, used as fruit, vegetable.
8. *Nuteplong*: a kind of regular banana plant, used as fruit, vegetable.
9. *Nuchan*: a kind of regular banana plant, used as fruit, vegetable.
10. *Nubonglong*: a kind of regular banana plant, used as fruit, vegetable and ethno-medicine.
11. *Nujit*: a kind of regular banana plant, used as fruit, vegetable and ethno-medicine.

Banana as a Source of Food

It has been noticed that the Karbi people used banana for the preparation of different ethnic cuisines with its different parts. These are mentioned below.

sines with its different parts. These are mentioned below.

Athe (fruit): Banana is not only an edible fruit but it can also cure human diseases. In case if a person is suffering from dysentery the Karbi people prefer to eat fruits of *nusador* (name of banana plant) (Bhattacharjee 2018: 52). This fruits have lots of seeds and have sweet taste with a good smell. The name of banana plant that the fruits can be taken are like, *Nuang*, *Nuteplong*, *Nuchan*, *Nubonglong* and *Nujit*. Raw fruits of banana are also boiled for having light refreshment. These type of food is usually taken in the morning and evening.

Langduung (banana blossom or heart): Banana blossom is a vegetable that can be cooked or either boiled. Firstly, outer cover portion of banana blossom was taken out. Secondly, inner soft-heart was used for preparing a traditional dish by adding a pinch of salt to enhance the taste. These vegetables can be cooked with pork, fish, chicken, etc.

Aop/Angpong (stems or trunk): Banana is an herbaceous plant, which has large leaves that closely roll one over another. Those looks like a stems or trunk, but they are leaves itself from under stems. Those are removed the outer layer of banana stems to get the tender part, after that it is used for making a traditional food "*kangmoi*" by adding pinch of salt, little amount of water and the basic ingredient is '*phelo*' alkali.

Phelo (Alkali) prepared from banana plant: The Karbis have an indigenous method of making '*phelo*' (alkali). The barks and leaves of '*nusador*' (a local variety of a giant banana) are usually dried and burnt, and this is turned into ashes. The ashes are placed into '*phelo-bisir*' (conical strainer made from bamboo) and clean water is poured over '*phelo-bisir*'. This material is hung on the house wall. However, the clean water passed through the ashes and comes out in the form of alkali. This alkali is stored in a bottle for further used. This is how the Karbi people traditionally prepared and preserved alkali. These alkali are used in health care practices. It is accompanied with '*Kapherem*' (charm) or healing to cure the patient who is suffering from '*Bout*' and '*Ruiting*' ailment.

Use of Phelo (Alkali) In Karbi Cuisine: One of the special cuisines is *Kang-moi* or alkaline. However, '*Hen*' (yam), '*Chophe*' (black lentil), '*Bonghom*' (pumpkin), '*Riho*' (a kind of bitter egg-plant), varieties dried fish and smoked meat are

prepared in '*phelo*'. There are however in Karbi tradition '*An-kimikecho*' (eating of new rice) rituals and occasions are essential to cook '*kang-moi*'.

Lo Arvo (leaves of banana): Banana leaves are much important in daily livelihood of the Karbi people. These leaves are flexible and waterproof. In the traditional Karbi society both dried leaf and fresh leaf are taken in a unique fashion. The dry leaf usually used as '*amarthu*' (cover) to keep things secured like dry fish, salt, sesame, mustard seeds, chilli, etc. are stored in '*Langpong*' (made from bamboo looks like a tube) covered with dry folded leaf. The fresh leaves are used in various ritual circumstances. In the rituals like *Sekarkli*, the use of banana leaf is inseparable.

Further, it can be noted that leaf of banana can be used as a plate for serving food. Even in Karbi society food is served on a banana leaf, with the traditional method of packaging named as *Kepor*. In social gatherings they take these leaves for eating food, keeping meat, etc. Karbi have their own custom to use '*lo-lon*' (end part of banana leaf) in the time of ritual performances. On the top of '*lo-lon*' the priest offers '*horkangthir*' (liquor), '*him*' (rice), '*voarveng*' (feathers of hen), '*avi*' (blood of sacrifice animals), etc. In the Karbi traditional marriage '*lo-lon*' is used for '*man-peng kepi*' (an honour), which is an exchange of betel leaves and betel nuts in between the two families (bride and groom). Karbi people used leaf of banana for rolling the rice and put inside the '*langpong*' (made from bamboo) and put into the fire until it is fully ripe. These leaves are also used in Karbi traditional loom, which make the thread more smooth and fasten weaving.

Taboo Related to Langdung (banana blossom): Since the formation of the society it has been influenced the impact of taboo in the Karbi society. It becomes part and parcel of the Karbi society. Taboo is a social religious custom or restriction on the particular thing or person. It becomes an important feature of the Karbi society. "Eating of '*langdung*' or banana flower (also various called banana blossom or banana heart) is taboo. A priest is forbidden to eat *langdung*" (Teron 2011: 94). Since the inception of the society there is a taboo not to take or eat '*langdung*'.

Religious Significance of Banana Leaves

Banana leaves play a vital role in the religious and cultural practices of the Karbi people (Bhattacharjee 2018: 53). In every ritualistic practice ba-

nana leaves were compulsorily used in order to appease their deities. In such ritualistic performances like *Tirim Kangduk* (ancestor worshipping and remembering the ancestors), banana leaves are as much important in any other ritualistic performances. In this part of ritual, banana leaves are torn into pieces and offering to the ancestors are conducted on the banana leaves. They use to offer, traditional liquor "*Hor*", as poured on the banana leaves and also pieces of meat, tails of fishes and dry fishes, to appease the ancestor's soul. The use of '*lo-lon*' (leaf of banana) during the rituals of '*nihu Kachingtung*' (maternal uncle), are offered with five piece of '*toman*' (dry fish) and five balls of rice. This is to be given to the sick person by the maternal uncle for curing mental depression like symptoms. Banana leaf is intimately associated with traditional healthcare practices of the Karbis and it is based on their magico-religious healing method.

CONCLUSION

In the context of daily livelihood of the studied Karbi people, multifarious NTFPs used to play a very vital role. The concerned people were intimately depended upon nature for their sustenance. Thus for them, it was very much significant to worship the nature and to appease the supernatural agencies for their social security and well being. Their worship of nature was associated with numerous folk performances. Such performances were not merely for their recreation, but it denoted their devotion to the supernatural power and agencies. Among the Karbis a number of religious performances and rituals can be noticed. Most of their rituals were performed at the community level in the village and all the villagers collectively participated in those. Their entire worship was focused and related to the issue of safety, security, protection and betterment of the entire community. In this regard, different Non Timber Forest Produces play a very vital role to conduct such rituals, which are present in their close vicinity only.

Among the Karbis banana plant has an oral history, origin and different ethnic names. These banana plants have much significance in their daily livelihood. However, they have their own indigenous knowledge of utilisation, preparation and preservation method. Social activities are intimately associated with cultural tradition. The method

of utilising these natural resources may vary from culture to culture. Further, the livelihood of the tribal people is intimately associated with forest and natural resources.

RECOMMENDATIONS

At present the environmental degradation and sustainable development have become globally emerging issues. In this concern one can apply the indigenous knowledge of the tribal for environmental preservation as well as to protect the environment from its gradual degradation and sustain it for one's own sustenance. The tribal concept of environmental preservation may have some regional variation but the key concept lies to the issues of safety, security and sustainability of the local ecology, culture and practices. In this context the concept of 'Sacred Grove' had a special resemblance. They culturally used to demarcate a particular geographical area and all the community members worshipped it. Thus it can be noted that through such socio-cultural sanction and socio-religious recognition, important environmental resources like NTFPs were significantly sustained by them. Further, it can be noted that most of their rituals conducted during the major religious festivals required different parts of certain auspicious plants and without their presence such rituals were socially not sanctioned. It is to be mentioned here that the sacred groves of Karbi Anglong were very little known. During the study it was observed that primarily those were dedicated to different deities and the places were demarcated for ritualistic and traditional cultural practices. The Sacred Groves and their adjacent localities was a rich zone of diversified floral and faunal resources. A number of such floral resources were an inseparable part of their animistic rituals as well as indigenous knowledge of health care practices. The Karbi people were preserving and sustaining those resources through their indigenous knowledge throughout generations. Consequently, it is sustaining the traditional folk cultural practices and animistic beliefs, through its transmission by oral tradition and enculturation process.

REFERENCES

- Bagal YS, Nanda R 2022. Traditional use of non-timber forest products: Boon for livelihood security of people in Shivalik range of Jammu region. *Indian Journal of Traditional Knowledge*, 21(1): 180-185.
- Balasubramanian M, Sangha KK 2021. Integrating capabilities and ecosystem services approaches to evaluate indigenous connections with nature in a global biodiversity hotspot of Western Ghats, India. *Global Ecology and Conservation*, 27: 1-17.
- Bhattacharjee S 2015a. Indigenous knowledge of health care system among the Karbi Tribal group of Assam. *Tribal Health Bulletin*, 22: 23-32.
- Bhattacharjee S 2015b. Sacred grooves in Karbi Anglong: An anthropological observation. *The Eastern Anthropologist*, 68(1): 131-141.
- Bhattacharjee S 2015c. Significance of natural resources in material culture: A study on the Karbis of Karbi Anglong, Assam. *Humankind*, 11: 117-143.
- Bhattacharjee S 2017. Role of environment in tribal livelihood: issues and challenges. *Indian Journal of Human Development and Information System*, 10(1): 1-13.
- Bhattacharjee S, Rongpi B, Beypi J 2018. Folk culture and folk festivals of the Karbis in Karbi Anglong, Assam: An Anthropological Observation. *International Journal of Research in Management & Social Science*, 6(1): 48-57.
- Census of India, 2011. New Delhi: Government of India.
- Islam MA, Kuli SMS 2017. The role of Non-Timber Forest Products (NTFPs) in tribal economy of Jharkhand, India. *International Journal of Current Microbiology and Applied Science*, 6(10): 2184-2195.
- Kumar V 2015. Impact of Non Timber Forest Produces (NTFPs) on food and livelihood security: An economic study of tribal economy in Dang's District of Gujarat, India. *International Journal of Agriculture, Environment and Biotechnology*, 8(2): 387-404.
- Ministry of Environment and Forest 1999. *Forest Survey of India*. Dehradun: Government of India.
- Rahman H, Roy B, Islam Md. Shahidul 2021. Contribution of non-timber forest products to the livelihoods of the forest-dependent communities around the Khadimnagar National Park in Northeastern Bangladesh. *Regional Sustainability*, 2: 280-295.
- Singh B, Rai KM 2022. Ethnobotanical notes on some potential wild edible fruits used by the Bhotia community of Niti Valley, Uttarakhand, India. *Indian Journal of Traditional Knowledge*, 21(1): 135-144.
- Subba TB, Ghosh GC 2003. *The Anthropology of North East India*. New Delhi: Orient Longman.
- Teron D 2011. *Karbi Studies Vol-2*. Guwahati: Assam Book Hive.
- Vidyarthi LP, Rai BK 1976. *The Tribal Culture of India*. New Delhi: Concept Publishing.

Paper received for publication in March, 2022
Paper accepted for publication in May, 2022