

ROLE OF ENVIRONMENT IN TRIBAL LIVELIHOOD: ISSUES AND CHALLENGES

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Abstract: *The livelihood of human being is deeply correlated with the nature and natural resources. We get our food, water and respiratory means from the surface of the Earth to satisfy the needs of our hunger, thirst and respiration. Thus the need of the human society is totally depended on the nature. In our country, the tribal people are dwelling in the high hills, isolated forest covered region. Their entire livelihood is very much depended on the forest based natural products. The contemporary world is deeply concerned with environment as well as ecological issues. At present the world is facing a tremendous environmental crisis, because in different ways a continuous environmental degradation is happening and increasing the crisis of survival. It is telling upon the forest based livelihood resources of the tribal people. In this context the present study has been focused on the Karbi people who are the early settlers of Karbi Anglong district in Assam. They are deeply depended on the nature for their sustenance. Even their folk culture denotes the tune of preservation of natural resources as well as sustainable development. Thus in the contemporary period of rapid environmental degradation, sustainable development has become a global emerging issue. In this concern we can apply the knowledge of the tribals for environmental preservation as well as to protect the environment from its gradual degradation and sustain it for our improvement.*

Key Words: *Environment, Culture, Livelihood, Environmental Degradation, Folk culture, Environmental Sustainability.*

INTER –RELATIONSHIP BETWEEN MAN, ENVIRONMENT AND CULTURE

The term ecology was first defined by Ernst Haeckel in 1866 as “the science of relations between organisms and their environment”

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(Barnwell, 1989:40). Human population have an ongoing contact with and impact upon the land, climate, plant and animal species in their vicinities and these elements of their environment have reciprocal impacts on human (Salzman and Altwood, 1996:169). We get our food, water and respiratory means from the surface of the Earth to satisfy the needs of our hunger, thirst and respiration. While we get fuel, minerals and ores from the stratum beneath the surface of the Earth which provides us the required energy to meet up with different economic pursuits. Thus the need of the human society is totally depended on the nature in a diversified manner and their way of accumulation reflects the culture of the human being. Man selects and tries to modify his environment in such a way that that the inevitable adaptation shall admit the greater fulfillment of his wants.

In our country, the tribal people are dwelling in the high hills, isolated forest covered region. Their entire livelihood is very much depended on the forest based natural products. They collect their foods from their environment. They primarily consume the fruits, roots and tubers of the locally available plants. Moreover, they collect the honey from their surroundings. In the concerned areas there a number of local rivers and other water resources. Those provide them the fishes and other aquatic animals as a source of animal protein. Thus, the prime requirement of food of the concerned people is totally depended upon environment. Moreover, the environment not only provides food to the human society, rather it is the major source of animal fodder too. Meanwhile, being closely associated with forest and environment, the concerned people are very much depended on the natural products for their dresses. For this purpose they collect the raw materials from their surroundings and weave it by their own hands. The economic aspects of the simple societies are intimately related with their environmental perspective. They collect the fuel from their surroundings. Moreover, a number of forest based products like latex, honey are major economic pursuit for them. Most of the communities in the North–Eastern states are depended on the shifting hill cultivation by utilizing the natural resources and climatic conditions in a proper manner. A number of communities are depending on the handicrafts by utilizing the

natural resources like bamboo and cane. Ultimately, the ecological and surrounding environmental consequences are deeply co-related with economic feature of the human being. One of the basic requirements of the human being is the habitation and it is very much depended upon the environment. They collect the wood, bamboo and other raw materials from the natural surroundings to build up the houses.

The religious aspects deserve a special attention in the livelihood of the human society. The people of the simple societies are primarily animists. Being closely associated with the nature, they have a number of deities related with their forest and environment. For them all spots and places are holy as they are the seats of spirits. Animals, plants, trees, rivers, stones, hills or mountains are all abodes of spirits. Apart from nature as a whole the people of simple societies have also cognated themselves with the animals and plants in the form of totem (Vidyarthi, 1977:236-244). They believe to be the descendants of the totemic plants and animals and forbid to kill them or to harm them in any sort. Their livelihood in the lap of nature is made up of a strong community sentiment. Another major cultural aspect of the simple societies is their folk cultural heritages (Vidyarthi, 1977: 308-330). These are not merely for their recreation but they are performed to reflect the beauty of the nature. Another major aspect of their folk based tradition is the environmental sustainability. They have a common sentiment to use the natural resources equally and only according to the need. They do not misuse those and also they have a strong desire to preserve them as precious material.

In the multifarious relationship between man and environment, one of the major aspects lies in the domain of health. Every culture, irrespective of its simplicity and complexity has its own beliefs and practices concerning health, disease and treatment. The health care system and traditional treatment are based on their deep observation and understanding of nature and environment. The concerned people use a number of plant and animal resources for the ailment of their different types of diseases and in this regard they have their indigenous knowledge which is carried out from generation after

generation. From the overall discussion it can be summarized that, the role of environment upon the livelihood of the human being has a multidimensional aspect. Roy Burman opined in 1982 that “ directly or indirectly in the tribal mind forest symbolizes life in its manifold manifestations i.e. home, worship, food, employment, income and entire gamut. Tribals can in fact be regarded as children of forest.

ENVIRONMENTAL DEGRADATION: AN EMERGING GLOBAL PROBLEM

The contemporary world is deeply concerned with environment as well as ecological issues. At present the world is facing a tremendous environmental crisis, because in different ways a continuous environmental degradation is happening and increasing the crisis of survival. In this regard accelerated land degradation and soil erosion is a serious matter or problem. More than 50 per cent of the total area of India is affected deleteriously by land degradation resulting from soil erosion (Seghal and Abrol, 1994).

Table 1.1
Nature and Extent of Land Degradation Severity in India

<i>Type of degradation</i>	<i>Severity of degradation (million hectares)</i>				
	<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>Very High</i>	<i>Total Area</i>
Water erosion	5.0	24.3	107.2	12.4	148.9
Wind erosion	-	-	-	-	-
Loss of top soil	-	-	6.2	-	6.2
Loss of top soil or terrain deformation	-	-	46	-	4.6
Loss of soil due to terrain deformation/ over-blowing	-	-	-	2.7	2.7
Chemical deterioration	-	-	-	-	-
Loss of nutrients	-	-	3.7	-	3.7
Salinization	2.8	2.0	5.3	-	10.1
Physical deterioration	-	-	-	-	-
Water logging	6.4	5.2	-	-	11.6
Total area	14.2	31.5	127.0	15.1	187.7

Source: Sehgal and Abrol, 1994: 5-7

Deforestation is also another major issue related with environmental degradation. Officially the forest in India cover an area of 7, 43,584 sq.km. Between 1951 to 1980 India had lost 4.3 million hector of forestland which means 1, 40,000 hector annually and it was converted to non forest uses. Forest and environment help to maintain a balance ecosystem and provide sufficient food to the people. So any type of degradation of the forest environment and ecological set up is likely to affect the whole balance and thereby create an adverse effect on the concerned people. Thus, environmental degradation can cause a rapid change to the socio-cultural, socio-economic as well as religious life of any tribal community in the world.

The Studied Area and The People

The Karbi Anglong District is situated in the central part of Assam. The district with dense tropical forest covered hills and flat plains. The population of the district is predominantly tribal. Karbis are the indigenous community of the said region. It has the total geographical area of 10,434 sq. K.M.s. It mostly consists of undulating and hilly terrain with numerous rivers and streams. The district can be broadly divided into two physiographic units viz. hills and plains. About 85 percent of the district is covered by the hills. As per the State of Forest report 1999 of Forest Survey of India, Dehradun, 6044 sq. Km of the district are under dense forest cover while 2776 sq. km are under open forest cover. The important forest types found in Karbi Anglong District are:-

1. Moist semi-evergreen forests.
2. Moist Mixed Deciduous forests.
3. Riverrain Type.
4. Miscellaneous type with scattered pure or mixed patches of bamboos.

The livelihood of the Karbis has a deep co-relation with surrounding forest and environment from multidimensional perspective. However due to continuous growth of habitation and several other factors, 6844 hectares of land became degraded. It had

reduced their scope of accessibility of natural resources. However, for the sustenance of their livelihood, prevention of environmental degradation is earnestly required. In this regard the folk culture of the concerned community can be applied for environmental sustainability and security of livelihood.

To conduct the present study, a field work was conducted in the selected villages of Karbi Anglong district.

The studied areas were the earliest settlements of the Karbi people. The study was conducted among 525 families with a total population of 2890. Among them there were 1450 males and 1440 females.

Methodology Applied: In this study Preliminary Census schedule was applied to collect data about their period of present occupational pursuits, daily working schedule, demographic composition, concept of health, disease and treatment and their daily food habit. Further, interviews were taken from the key informants to know about their traditional cultural practices particularly focusing on the issue of folk culture. Thereafter, case studies were taken on the people who are involved with different occupational pursuits and in this regard, their resources of economy were given a major emphasis. Case studies were also taken on their traditional health care practices and in this concern the prime importance was focused on locally available medicinal plant resources and their way of utilization by the studied people.

Purpose of the Study

The present study is primarily focused on three important aspects-

1. To know about the relationship between environment and livelihood of human being.
2. To know about the importance of environment on the livelihood of the Karbi people.
3. To focus on the issue of environmental sustainability and its importance in the folk cultural tradition of the Karbis.

Environmental Resources and Livelihood of the Karbis

a) **The Economic Life of The Karbis:** Forest, streams and natural resources have emerged as a prime resource of economic pursuit among the studied people. Their different economic pursuits of the studied people and the role of women in them are discussed below in brief-

1. **Agriculture:** The major economic pursuit of them is agriculture. The people have to survive on the collected fruits, roots and tubers from the jungles. Most of the people depend on jhum cultivation and settled agriculture.

The shifting hill or jhum cultivation is mostly practiced in the hilly regions. It begins from the middle months of February or the beginning of March. The principles crops are Rice, Maize, Cotton, etc.

Settled agriculture is done on the plains areas. The technological implements related with agriculture were of quite primitive type. Paddy cultivation with the help of plough is also extensively carried along the narrow and isolated foothill plains bordering.

2. **Kitchen Gardening:** It occupies a very important position under the permanent or settled system of agriculture. It had generated among the people a substantial amount through the cultivation of ginger, pineapple, jackfruit, betel nut, betel leaves, maize, sesame, taro, ginger, turmeric, brinjal, chilly, pumpkin, cucumber, sweet potato etc.
3. **Animal Husbandry:** Apart from agricultural crops, they keep domestic animals for socio- economic purpose. Pigs, chickens and goats are not only indispensable for various ritual and social feasts but these are also good cash earner. A number of streams particularly the Longnit river is flowing in a close vicinity from the studied area. It has provided them the scope to get involved in fishing with the help of self prepared bamboo made implements. It is used as a source of animal protein as well as sold in the market as a major source of earning.

4. **Handicrafts:** Natural resources play a prime role in the economic pursuit of the Karbis. With the help of bamboo, locally available cotton, thread and different wild fruits, they prepare lucrative handicrafts and garments. It is one of their prime secondary occupational pursuit. The traditional costumes of the Karbis are quite expensive. Again, they also give the colour on the threads which are collected from different jungle fruits collected from the forest. It is to be mentioned here that, these locally prepared garments play a dual role. It is their source of earning as well as they meet their requisite of cloths in daily livelihood.

Another major handicraft of the studied people is made up of bamboo products. It primarily includes bamboo mats, baskets, agricultural implements or house hold uses like for carry rice and vegetables, Mats, Storage for rice, Hand fan etc. Along with daily usage they prepare the bamboo and wooden models of traditional Karbi Houses, Jambili athan i.e. the traditional symbol of Karbi social structure, different sculptures, masks, table mats and a number of other decorative implements. These have a huge demand among the common mass in the market both among the Karbis and non Karbis.

- b) **Traditional Health Care System of the Karbis:** It is to be mentioned here that, in the studied area there were a number of medicinal plants and the concerned people had adequate knowledge about their utilization. Such plants and their medicinal properties had provided the scope to the concerned people for their ailment related with a number of ill health condition. It is to be mentioned here that some instances of the utilization of the medicinal plants like leaves of *Bap kaen* plants collected and washed with water. It was then squashed and the juice was used as coagulant of blood physical portion is met with any injury and also sometimes during malaria and belly ache. The leaves of *Thui ang* and *Thui ache* were washed and then squashed. The juice was then used as antidote during snake bite which is believed to prevent the spread of the poison through the blood. For this purpose they also used the extract of honey

comb known as *Joram*. The leaf extract of *Thui ang* and *Thui ache* were also utilized for the treatment of dog bite. During the period of recovery there food taboo related with spice, turmeric and garlic. The fruit of Prampri and Pramso plants were utilized for the remedy of cold and cough. Again their leaves were mixed together, grinded and the extract or juice was drunk to prevent the skin rash. Apart from these stomach ache and dysentery were a few other major health problems of the concerned people. For its ailment they used to mix the leaves of lemon and guava. Further it was grinded and consumed by them. So they had the scope and knowledge to utilize the local resources and medicinal plants for the ailment of a number of health problems which were a common occurrence. Besides them the concerned people utilized some wild varieties of plants, both as vegetables and indigenous medicinal resources in their daily livelihood. The following table illustrates the multifarious utilization of local plant resources in few cases-

- c) **Environment and folk Culture:** The Karbis are the early settlers of Karbi Anglong in Assam. They have a deep own ness about nature and environment in every aspect of their livelihood through multifarious ways. They have deep faith on the existence of God. Being a dweller of the hilly, isolated tracts they worshipped the dense forest, big rivers, mountains, waterfalls and even sun and moon as God (Bey,2009: 2). In their daily livelihood nature has played a major role. On the other hand the concerned people were also aware of the fact that, proper utilization of natural resources could sustain their livelihood. So, in every aspect their socio-cultural aspects are deeply correlated with nature. Their daily livelihood and its close interaction with environment could be noticed through a number of verses as mentioned below-
- The verse related with their first ever village establishment named as *Miring Rongsopi* stated that, it was on the bank of river *Kopli* and the villagers fetched drinking water from there. The river was abundant in fishes and the people never felt scarcity of it.

Table 1
List of different plants used as medicine by the Karbi tribe

Sl.	Botanical name of the plant	Local name	Consumed for	Method of use and dosage No.
1	<i>Abrus precatorius</i> Linn.	Chuselok	Cough	Two table spoons of fresh juice, twice daily after meals for six days.
2	<i>Acmella paniculata</i>	Bapchuki	Stomachache	One table spoon of leaf juice is taken after meals, twice daily for five days.
3	<i>Adhatoda zeylanica</i>	Jok -an-kelok	Dysentery	Juice of two matured leaves, trice daily before meal for three days.
4	<i>Alpinia galanga</i>	Phrikangnek	Bronchiitis	Half a tea cup of rhizome juice, once daily after meal for ten days.
5	<i>Alternanthera sessilis</i>	Raeaba	Skin disease	Fresh leaves paste applied on the affected parts twice daily for eight days.
6	<i>Amorphophalus bulbifer</i>	Hen saiku	Piles	100g tuber boiled and taken with rice twice daily for a month.
7	<i>Antidesma acidum</i>	Ingchum	Apetetizer	Two boiled tender shoots taken with rice, once a day for five days.
8	<i>Arisaema tortuosum</i>	Chamua	Piles	50g tuber boiled and taken with rice, twice daily for a month.
9	<i>Beta vulgaris</i>	Bengali dido	Jaundice	50g boiled tender shoots taken once a day with meal for ten days.
10	<i>Calamus rotang</i>	Pri	Vitality	50g boiled tender shoots taken with meal for twenty days.

- The verse related with the establishment of their second village *Teron Rongsopo* was actually praised the greatness of *Harbamon*, who became the village *Sarthe* (headman). Here a creeper plant was nursed and as it was gradually grown up it bore the flowers and fruits. The flowers were sucked by the birds coming from distant places and the fame of *Harbamon* was spreaded everywhere.
- The concerned people worshipped the God of cultivation *Rit Anglong Arnam* for good cultivation and harvesting. They worshipped the God of forest *Duikari* with a prayer to get plentiful of medicinal plant resources.
- According to Karbi verse, when the “vo krokchur” (a small bird) chirped on the trees, it sets the New Year and season for cultivation. The youth group or ‘jirsong’ then used to go for cultivation with tools, weapons and a number of bamboo made musical implements like cheng burup, cheng kumbang, cheng langpong. They used to perform a dance Hacha kekan on the occasion of sok keroi kekan (harvesting festival) to mark the completion to carry paddy.
- Since the formation of Karbi society, a kind of creeper fruit called as ‘bong’ (gourd shell) has its social importance from the cradle to grave. Throughout the entire rite-de-passage dry gourd shell was an inseparable part related with ritual blessings and purifications. Yeast also had a major importance in their social life to produce the country liquor, and it was an inseparable part of their rituals.
- The Jambili Athon or traditional emblem of Karbi society was build up of a tree called as ‘Bengvoi’. The emblem had five branches. On the top of every four branches there was a wood cutter bird and on the top of main branch there was ‘vojaru’ (racket tailed drago). The concerned people believed vojaru as the king of birds. Its feather was generally used on the occasion of traditional death ceremony and the bird had an immense social importance among the Karbi people (Bey, 2004: 2-37).

GENERAL OBSERVATION

Every society is exposed to an environmental milieu and it is the main resource from where the concerned individuals can accumulate their requirements. Culture controls the social behaviour of human beings and it is keenly related with the environment. The ample production of environment control the economic backbone, material needs of the society in diversified ways. The tribal society worship the nature as their mother and the impact of environment on their social, economic and cultural life can be noticed from several dimensions. Particularly their folk tunes reflect the beauty of nature and simultaneously it is the prayer for its preservation.

From the above all discussion it can be easily revealed that, the Karbi society had an inseparable interaction with nature and natural objects. They utilize the natural products for the well being of their entire community. They were quite well known about the importance of such resources. In every aspect of their livelihood, they had the notion to preserve the environmental resources for the sake of the safety and protection of their entire community. They had a deep obedience to the natural objects which marked their own traditional social identity. Their folk culture carried out the note of environmental preservation and sustainable community development approaches from one generation to another as well as it demarked the natural beauty of their place of habitation from a prolonged period.

At present the environmental degradation and sustainable development has become a global emerging issue. In this concern we can apply the knowledge of the tribals for environmental preservation as well as to protect the environment from its gradual degradation and sustain it for our improvement. 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 environment.

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