

TRADITIONAL MANAGEMENT OF FOREST RESOURCES BY THE  
AKAS OF NORTH - EASTERN INDIA

*SUBMITTED BY - GIBJI NIMACHOW*

*[Gibji26@yahoo.co.in](mailto:Gibji26@yahoo.co.in)*

*&*

*OYI DAI*

*[oyidai07@yahoo.com](mailto:oyidai07@yahoo.com)*

DEPARTMENT OF GEOGRAPHY  
RAJIV GANDHI UNIVERSITY  
RONO HILLS, DOIMUKH  
ARUNACHAL PRADESH (INDIA)

# TRADITIONAL MANAGEMENT OF FOREST RESOURCES BY THE AKA TRIBES OF NORTH - EASTERN INDIA

*(Abstract)*

GIBJI NIMACHOW \*

OYI DAI \*\*

*The concept of forest resource management has become a serious issue in the today's world. From the first day of their occupance, man has been using forest resources of the area without realizing how far it is being damaged. But, due to the population explosion, rapid pace of urbanization, advent of technical knowledge and related industrial development had led to the gradual degradation of forest resources of the earth. The concern towards conservation and the management of forest resources has gained momentum throughout the world. Many of the tribal societies are still in the early stage of economic development and they are making eco-harmonic living in their sylvan jungle.*

*Still majority of tribal people of Arunachal Pradesh depend on the forest resources. Their very existence and livelihood revolves round the nearby forests. The economy, material culture, rites and rituals & food habits, of the tribals are inter-woven with the surrounding forest ecosystem. As the life of the people is so intricately associated with the surrounding forests, they have developed numerous methods and techniques which are vital in management of forest resources. In this article an attempt has been made to analyse various methods of forest resource management practiced by the Akas, a small tribal group inhabiting the southern parts of West Kameng and East Kameng districts of Arunachal Pradesh. The traditional methods of conservation of plants, animals, sacred groves, etc, have been appropriately discussed.*

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Key Words: Traditional Management - Forest Resources - Tribes - Conservation - Taboos - Rituals - Sacred Groves - Sustainable Management.

\* Lecturer, Department of Geography, Rajiv Gandhi University, Itanagar - 791112.

\*\* Research Scholar, Department of Botany, Rajiv Gandhi University, Itanagar - 791112

## INTRODUCTION

The tribals are not only forest dwellers but they have also evolved a way of life which on the one hand is woven round the forest ecology and forest resources and on the other ensures that the forest is protected against depredation by men and nature (Roy Burman, 1982: (ii)).

Conservation and management of plant and animal resources is not a new concept for the tribals. Rather, it is an integral part of the folk culture. Traditional modes of conservation and management of forest resources refer to the life long practices of mankind in relation to the optimal utilization of the plant and animal resources. It deals with the indigenous methods of conservation and management of plant and animal resources for the sustainable development in their economic system. Indigenous knowledge system of the tribe displays many traditional practices vital for conservation and management of forest resources. These include various faith and beliefs that are pertinent in protection of sacred-groves, from which extraction of plant material is restricted / restrained. The festivals are linked to the forests. Traditionally, they practice an annual hunting ritual after worshipping the forest god. During such hunting, they spare pregnant as well as immature animals. The herbal practitioners belonging to the community do not promote medicinal plants from over extraction / harvesting, fire and grazing (Gadgil, 1998: 1-9).

Like many tribes of our country, tribal people of Arunachal Pradesh also depend on their surrounding forest ecosystem. They do not only use various plant and animal resources but also reflect heterogeneous beliefs and practices intricately associated with ecosystem. Study on such beliefs and practices have tremendous implications as these can be perceived in the process of natural resource management. Thus, it has vital significance in maintaining the bio-diversity of the region.

The Akas have their own indigenous knowledge system useful in the conservation of forest resources. Numerous species of plants are not extracted from the forests. Similarly, some animals are neither killed nor

eaten by these people. They spare the immature and pregnant animal in the forests. Small saplings of certain plants are not destroyed. Only required parts of the plants/trees are collected from the nearby forests. As such, these people have developed an eco-friendly relation with the surrounding forest ecosystem.

## LAND AND PEOPLE

Akas are a small tribal group inhabiting the sub-Himalayan part of India. According to a myth *Buslou Aou* was their ancestor who is said to have originated from the sky and the earth. In fact, the name Aka has been given to them by the people of the plains of Assam and the British officials, which means a painted, that may be because of their custom of painting forehead, nose and chin. They are territorially divided into two sub-tribes namely *Hrusso* and *Korou*. Further they are divided into a number of exogamous clans. They believe in *Nyezino*, which is a combination of two Aka terms i.e. *Nyezi*, meaning the sky and *No*, meaning the earth. They have a distinct feature of traditional dress, dialect, appearance; etc. They speak their own dialect, which is affiliated to Tibeto-Burman family of language. They belong to Mongoloid traits.

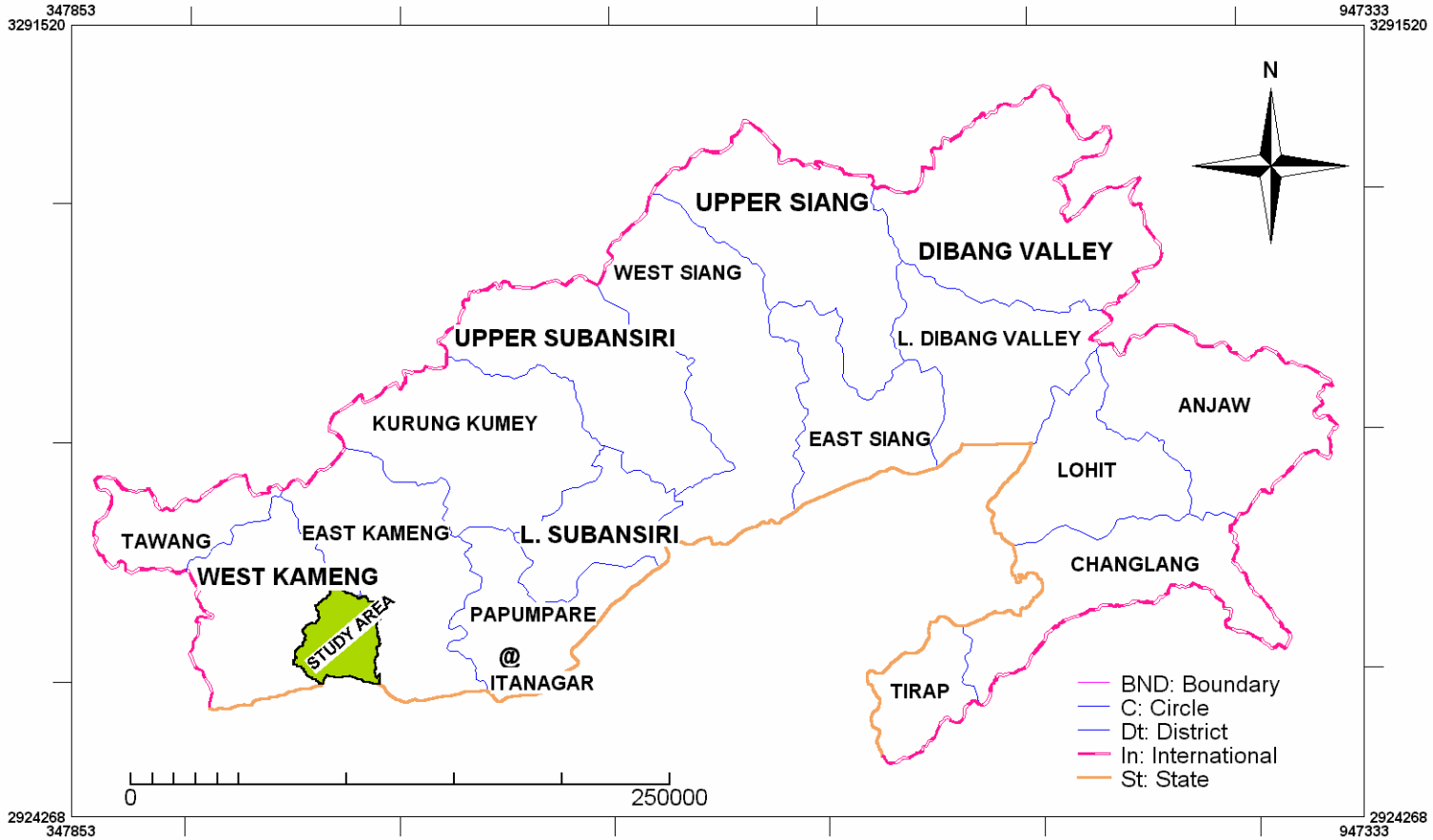
According to 1991 census, the population of the Akas was 3, 531, which increased to 5027 in the year 2006. The family in the Aka society comprises of the husband, wife(s) and their children. Marriage in this society is a socially sanctioned institution. Marriage can take shape in two ways, either by negotiation or by the romantic way of capture.

*Nyetchidow* is the major festival of the Akas. These people practice the traditional *jhum* cultivation. The Aka area is located in between 27° 0' N and 27° 30' N latitudes and 92° 35' E and 92° 55' E longitudes. The Aka territory is surrounded by the Mijis on the north, Sonitpur district of Assam on the south, the Bangnis on the east and the Monpas on the west. The altitude of the area varies from about 200m to 2500m above mean sea level. The area is traversed by the Kameng river system. Bichom (*Humtru*)

and Tenga (*Hudgji*) river form the main tributaries of Kameng drainage system. In all there are thirty Aka villages.

Forest and its forest products have great impact on the economy of the people and all the activities of the people revolve round the forests. Agriculture (jhum) and other associated activities like hunting, fishing and food-gathering have a direct link with their forests. The constructional materials like wood, bamboo plantain and canes play significant role in building their traditional houses. In addition to that hunting & fishing implements, agricultural tools, dress and ornaments, domestic utensils and other implements are directly or indirectly linked with timber and forest products. Thus the material culture of the people is dependent on the surrounding environment and forest ecology. Their food chart shows preponderance of various types of vegetables, fruits and nuts, hunted animals and various collected materials from the forests. The social customs, beliefs, faiths, tradition, etc of the people reflect deep imprint of the nearby forests. Probably, it is the realisation of their ancestors that they worship the forests as feeder (*Thou*) and rearer (*Gew*) to human beings. The pattern of interaction with their immediate forest appears to be deterministic. Hence, the dominance of nature on man is prominent.

# LOCATION MAP OF THE STUDY AREA IN ARUNACHAL PRADESH



## **METHODOLOGY / DATABASE**

In order to achieve authentic information, the investigator had an extensive interview and discussion with the inhabitants of about 30 Aka villages. The respondents comprised of young and old, male & female. Interview was mainly confined to generation of information / facts about their techniques and methods relevant to conservation of forest resources. The investigator adopted the participant observation method for the collection of other important data. In order to analyze population growth and other demographic attributes, data from census and reports of Economics and Statistics Department, Government of Arunachal Pradesh have been used. As the population of many villages is mixed with other tribal communities, the researcher has used arithmetic method of projection to determine approximate population in 2001. Due to non-availability of secondary information the scholar had made use of the narrations of elderly people. The English, Botanical & Zoological names of the various trees and animals have been collected from the subject experts in Rajiv Gandhi University, Itanagar.

## **Usages and conservation of Plant Resources**

As said, Akas make use of different plants for different purposes. But while making use of these plants they follow certain conservative techniques. They always think for the future continuation of its supply. They do not ransack the forest as others believe to be. The following table shows the usages and conservation of selected plants by Akas.

## Traditional method of conservation of various plant species and its usages

**Table - 1 (Plants of economic value)**

Local Name	English Name	Scientific Name	Use of Plants	Mode of Management / Conservation
<i>Kegetroni</i>	Bola	<i>Marcus Laevigata</i>	It is a tall tree with large trunks. The trunks of this tree are used as a pillar in house construction.	This tree is conserved by felling the required number of pillars. Small saplings are always cared.
<i>Jebalu</i>	--	--	It is used as a substitute for the above tree. They also consume the fruits of this tree.	This tree is not felled frequently, only when the above tree is not available then it is felled for the pillar of house construction.
<i>Seloin</i>	Holock	<i>Terminalia Myrocarpa</i>	Used as house building material. Branches are used for firewood.	Small saplings are collected from river side and planted on the nearby kitchen garden for their needs and requirements in future.
<i>Kuwogyin</i>	Hokon	<i>Duabanga grandiflora</i>	It is used as substitute of hollock in house building.	It is also planted on the nearby gardens for their requirements.
<i>Munyumu</i>	Bonsum	<i>Phoebe sp.</i>	This is a big tree used in house building. Its fruits are consumed in raw form with chilly and salt.	As this gives material for house construction and fruits. Trees are not felled unnecessarily. Rather it is planted for future requirement.
<i>Miinyin</i>	--	<i>Xanthoxy-Illum alatum</i>	This is a small tree with numerous numbers of small fruits, which is consumed by these people.	When small saplings of these trees are found in the forest these people cleared the nearby creepers and shrubs and let the tree grow freely and protect the tree from any kind destruction.
<i>Brovje</i>	--	--	It is a medicinal plant and is used in curing the joints pains.	Whenever this plant is found in the forest they clear the surroundings of it.



<i>Syobrovji</i>	Dhuna	<i>Canarium strictum</i>	This is an incense tree. Its juice after dried is used as <i>dhuna</i> (incense) in all kinds of pujas.	People do not cut these trees and collect the dried incense, which fell from the tree on the ground.
<i>Subeautro</i>	--	--	Any kind of puja needs this tree for making puja decorations / altars. The fruits of this tree are consumed to cure the disease of dysentery. It plays very important role in the life cycle of these people.	When people realized that these trees have been over-utilized they use to plant these trees in and around the village for its requirement in future.
<i>Tuksonyi</i>	--	<i>Callicarpa arborea</i>	This tree is very important for marriage and festivals. The trunk of this tree is used for sacrificing the mithun for community feast. Besides, the bark of the tree is used as bettlenut.	They plant small saplings of this tree in and around the village for its multiple uses. During marriages and festivals this tree is extracted from the forest.
<i>Setu</i>	<i>Bamboo grove</i>	<i>Dendocalamus hamiltonni</i>	Bamboo plays a vital role in the construction of traditional house and the bamboo shoot is also consumed as vegetable.	People use to grow bamboo groves in their kitchen gardens for their uses in future and immediate use. Only the required parts are being extracted and use of.

### (Tabooed plants and its protections)

<i>Jigyму</i>	--	--	People believe that this tree is very useful for the life of the human beings. Anyone who cuts this tree would suffer from dreadful diseases.	Felling of this tree is restricted for every individual of the village and people worship this tree.
<i>Jigyчу</i>	--	--	They believed this tree as the house of ghosts. As such they do not use any part of this tree.	They do not cut this tree from the immemorial time. Only if two or more members of a family are lost they believe that it is due to this tree they cut this tree after performing lots of rituals.

<i>Kspeo</i>	--	--	It is a creeper and its fruits are locally known as <i>leba</i> Fruit is burnt in their houses to prevent the entry of ghosts.	Whenever this creeper is found they preserved it. Cutting of this creeper in normal time, other than festival and ritual is strictly prohibited.
<i>Pyey</i>	--	--	It is a small plant which bears fruits. None of the part of this plant is used by them in any form. They believe that these plants are responsible for diseases to the children of 6 to 7 years (swelling of tongue, vomiting and dysentery).	As destruction of these plants causes diseases. So they worship this plant for the betterment of their lives and do not destroy these plants.
<i>Syolyen</i>	--	--	They do not use this tree because felling of this tree leads to skin diseases.	Felling of this tree is prohibited for every individual in the Aka area.

## Conservation of Animal Resources

It is interesting to note that numerous species of animals are found in the area. The tradition and culture of these people were set on the lap of the nature. By trial or error method they got acquainted with do's and don'ts while interacting with the nature for sustainable development. Though, hunting & fishing are the primary occupation next to jhuming, people always restrain from killing of certain species of animals and contribute towards their conservation. Although conservation in its strict sense is not practiced by the Akas, their traditional faith and beliefs indirectly help to conserve the forest resources. Glimpses of various species of animals that are protected by the Akas are given in table - 2.

## Traditional practices in conservation of Wild Animals

Table - 2

Local Name	English Name	Scientific Name	Peoples beliefs	Mode of Management
<i>Hiitru</i>	Tiger	<i>Panthera tigris</i>	The Akas believe that the tiger used to be afraid of man and vice-versa. People do not consume the flesh of tiger and therefore it is not killed. Killing of tiger is believed to be inauspicious and there is a long process of ritual performance for killing tiger.	As killing of the tiger involves such a long process of puja performance people do not went for hunting tiger and whenever on their way they meet any tiger they follow another path. When the tiger killed some villagers then all the villagers gather and tiger is being hunted. So, it is not killed by a normal man. Every one fear of killing tiger.
<i>Achie</i>	Elephant	<i>Elephas maximus</i>	Killing of elephant is restricted in the Aka area. It is killed only when it causes more damages and loses of life & property to the villagers. Killing of elephant requires members from at least ten villages. A piece of red thread is tied around the arrow of the person who is supposed to shoot the elephant. The priest will chant mantras that elephant has been killed by a man from other community and not by the Akas.	Any person who killed the elephant has to remain outside of the house for ten days. The Akas worship the elephants by burning incense ( <i>syobrovji</i> ). As the killing of elephant involves such a long process, people avoid killing the elephants. This is the reason that lots of elephants are found in the Aka inhabited forests.

## Traditional practices in conservation of various species of Wild Birds

Table - 3

Local Name	English Name	Scientific Name	People's Beliefs	Mode of Management
<i>Sujo</i>	--	--	This bird is treated as equal to man. They believe that the chattering of this bird symbolizes the grief or sadness.	So this bird is not killed and conserved as because it is essential for the people to know about the bad times approaching them.
<i>Gudruw Sugro</i>	Hornbill Rufous-necked Wreathed Great - pied	<i>Aceroa nipalensis</i> <i>Ryticeros undulats</i> <i>Buceros bicornis</i>	The Akas believe that this is the largest bird found in their area. The females are not allowed to eat the flesh of hornbill; therefore, it is not killed.	Management of this bird is done by imposing restrictions among the villagers. The fat of these birds is used by this people for curing chest pain, headaches and joints. So, it is only killed when it is required.
<i>Pulwam</i>	Crow	<i>Garcinia periculeta</i>	These people believed that this bird carries numerous bad diseases.	Killing of this bird is restricted throughout the Aka villages. This is the reason why there are lots of crows in the area.
<i>Ase-fokki</i>	--	--	They believe that this bird is the owner of the sacred thread, which is worn by the Akas in their right hand. They believe that this bird is related to the myth of the creation of the earth and sky.	These birds are never killed since long history of the Akas. Also they believe that they have never heard that somewhere, someone had killed this bird. In the forests, when they find this bird they always try to save the life of this bird by allowing it to fly away from those hunters who are not aware of the beliefs associated with this bird.

## Conservation of Fishes

The Akas conserve the fishes indirectly by practicing traditional techniques such as netting, angling, diversion of river course, *tuvo peo*, *hujudou*, etc., which are less accurate. They use to spare young ones when it is caught also. The local people do not allow the use of chemicals and blasting. Any one is found violating, fine (five numbers of mithun plus amount ranging from Rs. 500 - 5000 /-) is imposed. This is kept for the development fund of the village community. The following are some of the fishes found in the area and the beliefs of the people.

**Traditional practices in Conservation of certain species of Fishes**  
Table - 4

Local Name	English Name	Scientific Name	Peoples Beliefs	Mode of Management
<i>Chimso</i>	--	--	This fish is considered to be the cleanest among the fishes available in the Aka area. A dried piece of this fish is essential for successful completion of a puja, <i>Huda-Kuwuow phuda kuwuow</i> ; worship of river and mountains. It is also essential during harvesting of paddy.	This fish is considered to be lucky because it is used in good times. Therefore, this fish is not killed frequently. It is caught through net and other traditional methods when it is required.
<i>Trankam duwom</i>	--	--	This fish is considered as bad fish and consumption of this fish is restricted for <i>Nugom</i> (rich women) person, who had killed tiger, man, etc.	As the consumption of this fish is a restriction to most of the people, only the common people catch them through traditional method of fishing.
<i>Humey</i>	--	--	The Akas believe that this fish will never extinct because they use to conserve the eggs, which were thousands in number. In due course of time the eggs will turn into fishes.	It is a small variety of fish, which carries thousands of eggs. This fishes use to lay their eggs for at least two months in the small rivulets/streams, which are connected to main river. People catch this fishes during their return after laying eggs. It is considered as a material wealth of these people.

## Sacred groves (*Nowu-Husu Yiew*)

The concept of sacred groves finds mention in our literature throughout the length and breadth of India as Panchavati. It refers to five (*pancha*) groves (*vati*). *Panchavati*, therefore means a grove of five trees. These trees are the banyan, the peepal, the ashoka tree, the bela tree and the harada tree. These species of plants have their own significance; therefore, Hindus worship the plants that ultimately led to its conservation and protection. To Akas, the *Nowu-Husu yiew* means the forestland and ponds/lakes, which are believed to be sacred and have vital significance to the mankind in one way or the other, is used as substitute to term sacred groves. The areas where some trees grow in a grove, which bear a distinct character are protected. Any sort of interference to such grove would result in loss of human life. Further, they believe the presence of some unseen supernatural power *ubro* or *ubram* in such grove. As such, these areas remained free from human interference. These have made people exercise maximum restraint in the sacred grove and bears significance to conservation of forest resources.

The Aka inhabited area is generally characterised with hilly terrain and covered with very dense forest. To them forests, rivers, hills and so on are the creation of supernatural powers. So they worship the forests as *Thouw-gew*, meaning rearer and feeder. They also worship the mountains and rivers as *Huda kuwuow phuda kuwuow*. In fact, these people are the worshippers of nature. These people worships the nature and there are some areas at Palizi village, Nechiphu, etc., which are considered as sacred groves. Visiting and extraction of any kind of material from such groves are strictly prohibited because of its linkage with some beliefs and myths. The following places are believed as sacred points by Akas.

### **Wojo phu (Name of Mountain)**

This mountain is considered as the highest mountain peak in the Aka area. The mountain is believed to be sacred. It is believed that this mountain is very far away from the human settlement and one has to struggle hard to reach there. Extraction of forest materials, collection of stones, hunting, etc. from

this mountain is strictly prohibited to all the villagers. A saying goes 'if someone plucks some leaves or anything from the mountain, he/she will lose the way and suffer from dreadful diseases, which may result into bleeding from nose and mouth and ultimately loss of life. This belief of the people is so strong that even today also no one even dares to visit over there. Such beliefs have either directly or indirectly helped in the conservation of various forest products of the area which ultimately contributed to improvement of the quality of forest.

### ***Nearma Husu* (Name of Pond)**

This pond is located near the Nechiphu pass, which is about 5,000 feet above mean sea level. This pond is situated on the top of mountain and has preponderance of betel nut tree and pan plants. These people go to worship at the pond. People visit this pond but plucking of any leaves from this pond is prohibited. They believe that if someone plucks leaves and wish to return home, he/she lost the way to home and would return the same place again and again. Only after leaving the plucked leaves on the pond he / she would get the lost way and will be able to return home safely.

The extraction of forest resources from such sacred groves in any form is restricted for every individual throughout the area. The people have such a strong (superstitious) belief that even in this age of science and technology people restrain extraction of any forest items.

There are innumerable myths, songs, folktales, proverbs, etc. regarding creation and existence of the forest resources. Detail description and interpretation of this myths, songs, folktales, proverbs, etc. is very difficult because it will take long time. Some examples may be cited as a reference, instead of its detail description. A song known as *Asi fokiyu* is related to a bird, named *Asi fokki* and its contribution to existence of human beings. A folktale known as *chicho fumoji* is related to the evolution of a flower, etc. Besides, some areas such as *Jyopsinfo* at Prizin, *Nyezowoh* at Jamiri, *Paliri-Kunumro* at Palizi, etc. are being preserved and these have become a places of worship.

## CONCLUSION

The Akas are very much wise in utilization of their forest resources. In order to meet their day to day needs and requirements the Akas have to largely depend on the forests. The traditional way of hunting, fishing, food gathering and extraction of materials for construction of house are done in such a way that it ensures continuous supply in future too. The in built mechanism in their social and cultural tradition have made them follow restraints on over exploitation of the forests and contributed towards protection of the forests. The influx of the scientific and technical personnel for meeting developmental needs, exposure of people to science and technology and their greed of becoming rich caused degradation of vegetation cover including extinction of many species of flora and fauna. Further, the contractors who are tempted to make more earnings do not follow the traditional practices and continue to exploit the forest to a great extent. The ban imposed by the Supreme Court of India in the last decade on timber exploitation effectively controlled exploitation of forest resources. As change is inevitable in every society, the Aka society is also experiencing a faster change in many respects. The influences of organized religions and exposition to the scientific knowledge have considerably influenced the thinking of the younger generations that led to the gradual fading of their traditional belief system and practices.

There is a growing realization throughout the world that people's participation is crucial factor in sustainable development. Forest policy makers should consider traditional way of management of their forest, which would bring more fruitful result and cooperation from local people, rather than imposition of new policies on them.



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