

TRADITIONAL BELIEFS AND BIODIVERSITY CONSERVATION IN AND AROUND NAMDAPHA NATIONAL PARK IN ARUNACHAL PRADESH, INDIA

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ABSTRACT

The indigenous people residing in and around Namdapha national park practices their traditional knowledge that help to conserve biological diversity ecofriendly. Different sacred sites and sacred trees are located around the national park with specific tradition and beliefs. The *Shiva temple*, the *Parbateswar temple*, the *Dangaria Baba temple* etc. are some specific sites where biological diversity and habitat are protected traditionally. About 20 tree species conserved in these sites with specific beliefs for ritual and sociocultural activities were highlighted in this paper.

Keywords: *Namdapha National Park, Sacred Beliefs, Socioculture, Conservation, Biodiversity*

INTRODUCTION

Traditional beliefs and practices have been playing major role in conservation of natural habitat and biodiversity in the form of sacred groves. In addition, a few plant species have also been considered sacred. Traditional tribal cultures provide a rich repertoire of images that give value and meaning to local landscapes.

They in turn bind identities and wellbeing to non-human rhythms and harmonies. The Namdapha National Park is one of the largest species rich protected areas in Arunachal Pradesh (Sarmah *et al.*, 2008), India, one of the hot-spots of biodiversity (Myers *et al.*, 2000).

Four different ethnic groups viz. *Lama*, *Chakma*, *Singpho* and *Mishmi* are living in the Northwestern periphery and *Lisu* tribes living in the Southeastern periphery of the park with different cultural and ritual beliefs (Sarmah *et al.*, 2006; Sarmah, 2012).

They follow some taboos and spiritual beliefs that have sacred trees and sacred groves in that area. A numbers of sacred trees and groves reported from the area during our field survey. The present paper focuses on the sociocultural religious valued species and protection through sacred sites in and around Namdapha.

MATERIALS AND METHODS

The study was conducted in the Northeastern periphery of Namdapha national park (latitude 27° 23' 30" N to 27° 39' 40" N and longitude 96° 15' 2" E to 96° 58' 33" E). For this study extensive field observations were conducted.

Household survey especially located in northwestern and southeastern periphery of Namdapha national park was conducted. Personal interview with traditional priest, village headman and other villagers were conducted.

RESULTS AND DISCUSSION

Results and Observation

There are some sacred sites or areas in and around Namdapha national park that are protected for worship. Each site has their specific spiritual and mythological belief or taboos. Of these one is located in the park area (the Parbateswar temple) and another near Anandapur-II village (the Shiva temple), which is about 3 km away from the park boundary.

Besides these two sacred sites, there are some plant species that have the sacred and sociocultural values (table 1).

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Table 1: The sacred sites located in the western part of Namdapha national park

Sacred sites	Place	Location	Year of establishment	Beliefs
<i>The Shiva temple</i>	Western periphery of the park	Near Anandapur-II village, 3 km away from western boundary of the park	The time of establishment in not known	Ritual believe that God will punish them if the natural habitat disturbed
<i>The Parbateswar Temple</i>	Inside the park	Inside the park near the ‘Anamika’ waterfalls about 4 km away from Deban, the base camp.	After the declaration the national park in (approx. 1985)	Natural calamities may takes place if don’t respect to the deity of mountains
<i>The Dangoria Baba temple</i>	Both outside and inside of the park	There are 3 idols in buffer zone and 2 outside of the park, near Deban, base camp	It being established traditionally no definite period is specified.	It is believe that worshipping <i>Dangoria Bba</i> , will protect themselves and the villagers as a whole from the wild animals and natural calamities.

The Shiva Temple

The Shiva temple is located near Anandapur–II village and is about 3 km away from the western boundary of the park. According to the information recorded so far from the local people, the Shiva temple site was created during the road construction by Garrison Road Engineering Force (GREF) to access to Diyun from Wakro. The GREF workers tried to break a big rock present beside the present-day temple site for road construction, but couldn’t succeed. Pugmark of a tiger was also engraved on the rock. Eventually the rock site was considered to have some spiritual power, and thereafter the area was not destroyed/disturbed, and since then became a spot for spiritual worship and presently it is a *Shiva temple*. People from different parts of the area come to worship regularly, especially during Shiva Ratri in the month of February every year. The site falls under Unclassed State Forests in the Diyun forest range. It is about 200m x 100m in size. Although the area has been considered sacred, and about 13 different tree species were recorded that have been protected through traditional beliefs (table 2).

Table 2: Species conserved for special purpose in Namdapha

Name of species	Reason of importance	Measures taken to conserve
<i>Albizia procera</i> (Roxb.) Benth.	Fuelwood	Only branches are lopped off
<i>Alstonia scholaris</i> Brown	Religious beliefs	Cut rarely due to some taboos
<i>Bombax ceiba</i> L.	Harbour honeybees	Trees are not cut
<i>Citrus medica</i>	Medicinal	Planted in the homegardens
<i>Ficus benghalensis</i> , L	Religious beliefs	Worshipped
<i>Ficus religiosa</i> , L	Religious beliefs	Worshipped
<i>Livistonia jenkinsiana</i> Griff.	Roofing	Planted in the homegardens
<i>Melia azedirecta</i> L.	Fuelwood	Harvested but only branches were cut
<i>Mesua ferrea</i> L.	Religious belief	Trees are not cut except to built temple.
<i>Sterculia villosa</i> Roxb. ex Sm.	Rope making	Bark is taken but in controlled way
<i>Ptereospermum acerifolium</i> Willd.	Harbour honeybees	Trees are not cut
<i>Terminalia myriocarpa</i> Heurck & Muell.	Harbour honeybees	Trees are not cut
<i>Zalacca sacunda</i> Griff.	Roofing	No harvesting is done in summer.

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The Parbateswar Temple

The Parbateswar (the deity of mountains) temple is located near a waterfall (presently the Anamika waterfalls). It is about 4 km away from Deban, the base camp of Namdapha within the national park. According to the local people, a girl named ‘Anamika’ was killed by the sudden flush of water from the fall in remote past. Thus the waterfall got her name. After that a temple, the Parbateswar temple was built to worship the forests and the Hills’ God to overcome the natural disasters in the area.

The Dangoria Baba Temple

The local people and most of the forest officials in the field station worship ‘Dangoria Baba’ as they consider ‘Dangoria Baba’ as the spiritual owner of the forests and wild animals. They also believe that worshipping ‘Dangoria Baba’ before entering any forest area would protect them as well as the villagers from wild animals and other natural calamities. Generally, the idol of Dangoria Baba is established and worshipped under *Ficus bengalensis*, a sacred tree.

Protection for Special Purpose

The traditional societies and the refugee settlers (*Chakmas*) of the western periphery of the park have been protecting many plant species of different social and economic importance. The *Chakmas* protect *Bombax ceiba*, *Terminalia myriocarpa*, and *Sterospermum chelonoides* species as the honeybees prefer to take shelter and makes hives on these trees. *Zalacca secunda* is also valuable species as it is the only roofing material and *Mesua ferrea* is a sacred tree for the *Chakma* community who consider that the God generally inhabit this tree. The ‘Singphos’ also conserve *Livistonia jenkinsiana* as it is the roofing material for their houses. A few (17) tree species and their purpose of conservation have been enlisted in table 3.

Table 3: Important tree species present in the sacred sites in Namdapha

Botanical name	Family	Local name	The Shiva temple	The Parbateswar temple
<i>Albizia lucidior</i> Roxb.)Benth	Mimosaceae	<i>Moj</i>	+	+
<i>Altingia excelsa</i> Noronha	Hamamelidaceae	<i>Jutuli</i>	+	+
<i>Artocarpus chaplasa</i> Buch	Moraceae	<i>Sam</i>	+	+
<i>Artocarpus lakoocha</i> Roxb	Moraceae	<i>Dewachali</i>	+	-
<i>Canarium resiniferum</i> Roxb.	Burseraceae	<i>Dhuna</i>	-	+
<i>Cinnamomum glanduliferum</i> Meissn	Lauraceae	<i>Gonsori</i>	+	+
<i>Dipterocarpus macrocarpus</i> Vesque	Dipterocarpaceae	<i>Hollong</i>	-	+
<i>Duabanga grandiflora</i> Buch	Sonneratiaceae	<i>Khokan</i>	+	+
<i>Magnolia griffithi</i> Hk.f. & Th.	Magnoliaceae	<i>Baramthuri</i>	+	+
<i>Mallotus abbus</i> L.	Euphorbiaceae	<i>Morolia</i>	+	+
<i>Pterospermum acerifolium</i> Willd.	Sterculiaceae	<i>Hatipoila</i>	+	+
<i>Shorea assamica</i> Dyer	Dipterocarpaceae	<i>Makai</i>	-	+
<i>Spondias pinnata</i> (L.f.)Kurz	Anacardiaceae	<i>Amora</i>	+	-
<i>Terminalia chebula</i> Retz.	Combretaceae	<i>Hilika</i>	+	+
<i>Terminalia myriocarpa</i> Heurck & Muell.	Combretaceae	<i>Hollock</i>	+	+
<i>Toona ciliate</i> Roem	Meliaceae	<i>Jiapoma</i>	+	+
<i>Zalacca secunda</i> Griff.	Arecaceae	<i>Jeng</i>	-	+

Note: ‘+’ and ‘-’ indicate the presence and absence of the species respectively

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Sociocultural Activities and Conservation of Biodiversity

Conservation of biodiversity is closely interrelated with the sociocultural activities of the most of the tribal people of Arunachal Pradesh. These traditional beliefs have the effect of binding human identity into the non-human landscape, creating strong attachment between a particular group and a particular ecosystem (Taylor, 1999). Not surprisingly, the people living in the fringes of Namdapha national park are fully dependent on the park forest resources for their livelihoods. The people do practice 'jhum' (shifting agriculture) in the Unclassed State Forests (USF) in the park periphery. Besides, jhumming, settled cultivation, bush fallow agriculture and gathering of forest products are a set of livelihood activities (Sarmah and Arunachalam 2011). The sacred values of *Mesua ferrera*, *Ficus religiosa*, *Alstonia scholaris* have also been recorded among the Buddhists of Srilanka (Withanage, 1998). Local people believe that God will punish them if the natural habitat of those particular areas and trees (the temple areas) is disturbed. The areas or the species have been protected due to spiritual beliefs and/or sacred values. The important tree species present in these spiritually protected areas are given in table 4.

Conclusion

Concept of the sacred values and sacred groves is common in Meghalaya and Manipur and are widely studied (Tiwari *et al.*, 1998 and Ashalata, 2004 respectively), but in Arunachal Pradesh the sacred values of biodiversity is yet not been inventoried and documented. Throughout this area there are elaborated annual ritual cycles which are enjoined to maintain the proper spiritual activities between human society and environment. Religious taboos and beliefs that serve to regulate resource use and to constitute human identity with non-human imagery. Almost all the plants that were protected around these sacred sites were play as keystone species.

Consequently protection of keystone species contributes to conservation of large variety of biological diversity and habitat. Thus there is a urgent need of documentation and detailed studied of sacred values in Arunachal Pradesh for sustainable management of biological resources.

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