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Ecological Significance of the Indigenous Community Fishing of the AO Naga Tribe of Nagaland

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ABSTRACT

Nagaland lies in the extreme North-East corner of India at the confluence of the Indo-Burma biodiversity hotspot. For centuries, community fishing has played an indispensable and integral role in the social, cultural and religious life of the Naga. The community fishing also symbolizes a close interdependence between man and environment and demonstrates the sustainable use of resources with clear understanding of the eco-centric approach. The proposed paper tries to draw light on the cultural lives, practices and deep ecological understanding of the Ao Naga while sustainably utilizing the resources from their environment which is demonstrated through community fishing.

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Introduction

Nagaland, located in the extreme North-Eastern corner of India is situated between 25°6' and 27°4' North latitude and 93°20' to 95°15' East longitude at the confluence of Indo-Burma biodiversity hotspot. The state covers an area of 16,579 sq.km and is bounded on the North by Arunachal Pradesh, West by Assam, South by Manipur and East by Myanmar. The average summer temperature varies from 16°C to 36°C and winter temperature from 4°C to 24°C. The annual precipitation varies from 2000mm to 2500 mm covering about 7 months from May to October with altitude varying from 150m to 3841 m above sea level (NSFAP, 2000). The state of Nagaland is known for its mountainous and hilly terrain at the same time presence of numerous rivers in the state. Doyang, Dhasiri, Tizu, Dikhu and Milak are the major rivers that drain the entire state. The state harbors a large variety of flora and fauna and is the home of many rare and endangered species including the rare Mountain Drought Fish.

For centuries Naga's have been dependent on the natural environment for their sustenance and development. Their close association with the nature has helped them to adopt with various ingenious ways that have helped them meet their basic necessities in life.

For Nagas, community fishing is a part of their culture since time immemorial. As part of the traditions, the practice for community fishing have been a regular feature in the bygone years. However, in the recent days this practice does not occur strictly as an annual event, though fishing and river harvesting is always part of culture more confined to an individual. According to Naga, community fishing is not just a fishing practice but plays important role in their social and cultural life. Each and every tribe has their own way of practicing community fishing but the underlying principle behind this practice is almost same for all the tribes.

Community fishing is a part of the annual rituals, generally done by men folks during the pre-sowing season in the field. Besides fishing and river harvest, the underlying issue is to cleanse oneself in the water. This event is also an opportunity for the village to discuss important issues and make strategy for the

village. Therefore such discussions and resolutions made in the jungle and river away from public lives is kept confidential with utmost care. It is also a time to rebuild their relationship with the river ecosystem, invoke blessings from God and call upon the nature / river to bring more fishes and aquatic lives so that the river remains a blessing to them. With such understanding, the people does not misuse and abuse the river for the rest of the year.

Methodology

The present paper is based on experiences and traditional practices of the Ao Naga tribe. Information and data collected from different village elders under Mokokchung district of Nagaland through focused interviews and group discussions. Various books, newsletters and journals were consulted for obtaining secondary data.

Study Area

Mokokchung district is the cultural center of Ao Naga's. It is situated between 93° 53' to 94° 53' E longitude and 25° 56' to 27° 40' N latitude with a total geographical area of 1,615 km², lying at an altitude of 1352 m and experiences an average annual rainfall of 250 cm (Singh and Tiwari, 2002). It is surrounded by Tuensang district in the north and north-east, Zunheboto district in the south, Wokha district in the south-west and borders the Jorhat district of Assam in the north-west. Its principle rivers include Milak, Dikhu and Tsurang.

Biodiversity- the most indispensable gift of nature is the most valuable life supporting system for the people. It forms the base of the Ao-Naga socio cultural, economic and spiritual life. Among the much valued indispensable indigenous knowledge inherited by the Ao Naga from their ancestors, the traditional practice of community fishing by the Ao's have played a crucial role in their understanding and development of symbiotic-relationship with their environment.

Results and Discussion

The Ao Naga's are one of the larger group of the Naga tribes of Mongoloid stock inhabiting in the hills of North eastern India. They are known for their strong customary laws and traditional practices for the past many centuries which continue even in the present days along with the modern systems and

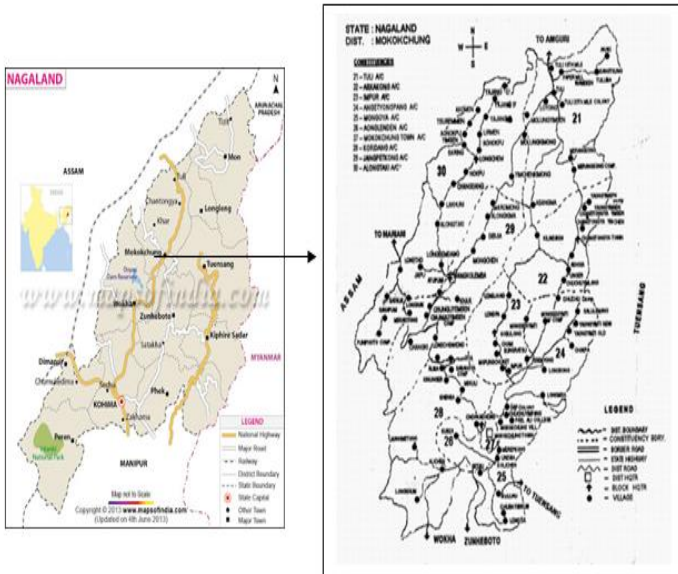
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lifestyle. Like most of the other Naga tribes, they have a strong ecological relationship with the nature in which they live. Community fishing forms an integral part in the socio-cultural system of the Ao Naga. Though the practice for Community fishing is in decline in the recent years, its significance and values and ethos remain unchanged. Community fishing is known as “*Tzüyok*” in the Ao Naga dialect, “*Tzü*” meaning “water” and “*yok*” meaning “release or liberate”. During community fishing the people pray to the Divine God to liberate or release them from the worldly burden and pain/sickness or other misfortune like drought and famine that may or befall upon them.

Location Map



Besides personal considerations and other important village issues, it is considered the most appropriate time to understand the nature of river ecology, its ecosystem and human-ecological relationship through physical contact. Therefore, community fishing has profound symbolic meaning than a mere form of merry making and fishing event.

Tzüyok is usually done between the month of November to March, when the water is less and river runs low, generally before the main activities in the field or before sowing time. It is practiced for the following reasons:

1. It is the most appropriate season of the year after all preparation for cultivation and before sowing seeds in the fields. The citizens of the village have time to self retrospect, cleanse and prepare themselves afresh for the year to come.
2. Make strategic plan for the village activities for the year long program. It is also the time to review village relations with the neighboring villages and make friendship with them.
3. Community fishing is also undertaken during and after change of guard in the village governance, generally known as *Putu Menden*¹ *atsungba*.
4. For consumption and recreational purpose

It is said that, after the completion of the *tzüyok*, it is very evident that their prayers are answered within few days in terms of relationship rebuilding with neighbors either through the initiation of the very village or from the later part. The village will carefully watch the signs from social conduct as well as from the environment. Change in weather, incidents in the village etc are some obvious signs considered as response from

god. Thus, *tzüyok* is deeply associated with their religious belief and socio-cultural lifestyle. During this occasion it is mandatory for every male member above the age of 5 or those who are capable of walking to take part in this community fishing. Its primary purpose is to appease their God and seek blessing from God. However, today *tzüyok* is done nominally for recreational and consumption purpose and in order to keep their age old traditional practice alive.

The selection of riverside for *tzüyok* is done after a series of deliberation among the village chief and village elders. Usually a stretch of 1-2 km is considered as ideal distance for this practice. After selecting the site, a day before the actual *tzüyok* begins, a soothsayer or village elder will go and pronounce a purification ceremony thereby seeking permission from the river God after which the villagers follow. In the words of Mills, “*Arrived at the bank all put leaf rain-shields over their heads as if rain were falling, and an old man, selected by a medicine man as one whose action will be efficacious, first enters the water and pounds his bundle of poison and says: is there no rain in the sky? Of course there is. Let it rain and never stop till the river is big enough to carry away an old man*” (Mills, J.P., 1926).

During this event, it is mandatory for every individual to camp in their own respective clan camp along the river bed. The division of labor force during this occasion is systematically divided among the various village age groups and is strictly followed. For instance, in each and every clan, *Süngpo zünga* (14-17 years) and *Süngsapang zünga* (17-23 years) will carry the clan’s load, while *Atsütsü zünga* (23-30 years), *Tatsüngtet zünga* (30-36 years), *Lanusapang zünga* (36-42 years) and *Angkolang zünga* (42-48 years) will collect the required leaves, barks and roots of plants from the forest. Further, *Pokla zünga* (48-54 years) and *Pangjong zünga* (54-60 years)² will monitor and ensure that all the necessary work is done throughout the occasion.

Tzüyok is done using leaves, barks and roots of certain plants (name and usage in Table 1). Usually they will lay a large tree across the river and the young working group (usually from *Süngpo* to *Lanusapang zünga*) of the village with their assorted indigenous gear will start beating the fresh plant against the tree that is laid over the river. Depending upon the volume of water, the quality and quantity of the leaves/root/bark, will be used, consequently the fishes will be affected by either becoming numb or balance-less affecting its agility thereby making it easy to catch.

After the river is poisoned, fishing is done with the help of spear, dao (Traditional machete), cast nets, small rafts made of bamboo and banana tree etc. Baskets made of bamboo and canes are used to collect and store the fish. At the end, a portion of fish is set aside for the sick and aged who could not come for the event and the rest is divided among the respective clans/ peer group.

Table 1. Plants used in fish poisoning

Sl.No	Name of Plant		Parts used
	Local Name	Scientific Name	
1	Akutong	<i>Juglans regia</i>	Whole plant is used
2	Suli	<i>Milletia pachycarpa</i>	Root is used
3	Ruja	<i>Diospyros lanceafolia</i>	Leave is used
4	Mesangsung	<i>Schima wallichii</i>	Bark is used

¹ *Putu menden*- Village Council, Generally the term of *Putu Menden* is 30 years.

² Interview with Imkumsashi of Longmisa village. This division of *zünga* (age groups) differs from village to village among the Ao community

Ecological significance

From an ecological perspective, Community fishing/*Tzuyok* is important for conservation of trees at species level used in fish poisoning. Such trees viz. *Juglans regia*, *Milletia pachycarpa* and *Diospyros lanceafolia* used for community fishing is considered almost sacred, they are preserved during clearing of jungle or carefully identified in all the jungle so that they can be used in times of need.

Thus leaving ample scope for the growth and preservation of these trees. The practice of purification ceremony before *tzuyok* also signifies mutual respect and symbiotic-relationship between the people and nature/environment. The fish and other aquatic lives that are not collected or caught will ultimately be left in its original habitat as the poison wear out easily in the water within a short period, thus have a chance to live again. Hence, fish and other aquatic diversity in the river are never threatened or endangered because of this practice, unlike the modern unethical uses where easy method of catching fish by using gelatine explosives, batteries, lime etc., which completely wipes out the entire fish population and the other ecosystem in the river is poisoned or completely destroyed. Besides, it is also physically and spiritually strengthens the bond between human and nature thereby signifying a perfect relationship of interdependence and sustainable use of resources.

The present day practices of indiscriminate use of explosive and numerous chemical and electrical gadgets for river fishing proved to be too expensive for river ecology and environmental hazards causing irreparable damage in a wide range. It is also unethical and uneconomic totally in contravention to the concept of sustainability of our environment. Consequently many rivers in Nagaland have become empty and water polluted, however due to the physiographic nature of the state, there is still scope to restore and regenerate the environment to its original status once again if plan out properly with commitment.



Figure 1. Suli (*Milletia pachycarpa*)



Figure 2. Mesangsung (*Schima wallichii*)



Figure 3. Tree laid across the river for beating of plants bark and roots



Figure 4. Ruja (*Diospyros lanceafolia*)



Figure 5. A villager catching fish using a raft made of bamboo



Figure 6. Villagers taking part in *Tzuyok*

Conclusion

Community fishing among the Ao Naga's is much beyond the harvest of fish and river. It strengthens the human-environment interdependence and also implies strong sense of using the natural resources sustainably with an eco-centric approach. Besides cleansing and harvesting, it is spiritually uplifting and signifies the continuity and association of the Naga culture with Mother Nature. Thus, the community fishing of Ao Naga with its indigenous knowledge and practices may serve as

a catalyst not only for the continuity of the cultural practices but for conservation of the river ecology and the entire environment in general.

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