

Significance Of Natural And Bio-Indicators In Agricultural Activities Of The Tangkhul Naga Tribe Of Manipur

Dr. A.S. Varekan
Post Doctoral Scholar
Manipur International University

Abstract

This article is an attempt to document and showcase the rich natural and bio knowledge of the environment of the Tangkhul Naga tribe. They were dependent on this bio and natural knowledge to survive for centuries together in the elements of the natural surroundings. Even though they did not have access to modern scientific technology, they had over the centuries learnt to observe the natural surroundings, to indicate the immediate or future events and to carry out their socio-economic activities. The traditional practices are all out of observation and experiences that have been passed down through ages. These natural and bio-indicators followed strictly by the tribals cannot be just ignored and brushed aside as unscientific or ancient but would be worth documenting and researching to give a scientific explanation.

Keywords: Bio-indicators, snowfall,

Introduction

The Tangkhul Naga tribe is one of the sub-tribes of the great “Naga” tribe that inhabit the sub-Himalayan Naga hills. The Ancestral Tangkhul territory covers the districts of Ukhrul and Kamjong in Manipur and the Somrā tracks in Myanmar. They are known for their bravery and warrior nature but above all for hospitality to all except to the village enemy.

The Tangkhuls lived an animistic life until the arrival of Rev. William Pettigrew in 1896. His arrival and the introduction of Western education and Christianity brought about significant social, economic, political, and religious changes in the culture and traditional practices of the tribe. With the adoption of western education over the traditional dormitory system, Christianity over animistic practices, western attires and lifestyle over the traditional costumes and lifestyles etc. the traditions of the tribe that had preserved the unique identity of the tribe has been lost or diluted.

Agriculture is the main occupation and source of livelihood. The life, the festivities, and the beliefs of the tribe is agriculture centric. The traditional practices of beliefs, the taboos, the gennas etc. are all to please the spirit to have bumper crops. They do what they do, or refrain from doing to have the spirits bless them with good climatic conditions for bountiful harvest. Like all other tribes, they were very observant, and every effort is made to live in harmony with nature. They believed in the revelation and phenomena of nature and therefore made every effort to maintain the ecological balance in relation to their agricultural activities.

Agriculture Activities

The staple food of the tribe is Rice. Rice is cultivated by all villages either in the Jhum fields or in the sedentary wet or terrace fields. Tangkhuls are well known for their skills in cutting out terraces for terrace farming on the hill slopes. It is monocropping in a year. Besides cultivation of rice, they too cultivate potatoes, beans, millets, job tears, pumpkin, cucumber, yam, chilli, horticulture etc. All agricultural produce was for on self-sufficient scale for household consumption. It was an economy based on collective cultivation or labor sharing, self-consumption, and sharing of produce within the clan or village.

The social life and status centers around rice cultivation and production. The first and the biggest festival of the tribe “Luirā” or Spring festival is the beginning of all agricultural activities.

This is followed by the subsequent festivals marking the beginning or the end of every stage of activities in rice cultivation.

Natural and Bio-Indicators“Thingnā-rahā, Sāyur-VāyurAmachut”:

Animistic beliefs and living amid nature, the natural phenomena play a vital role in the social and economic life of the Tangkhul tribe. They observe the natural phenomena as indicators of the year ahead and prepare accordingly. These natural and bio indicators of our ancestors are completely forgotten or neglected due to ignorance or as mere beliefs which have no scientific basis.

Experiences have proven these indicators to be true. This paper endeavors to bring to knowledge and preserve the rich knowledge of our ancestors of mother nature by being observant and eco-friendly.

1. HorāmKashib/Kathak (Snowfall)

The Tangkhul Naga territory does not normally receive snowfall even though it gets chilly cold in winter season but once in a year the famous “Shiroi” range in Ukhrul district or on “Zingchar” range in Senapati district receives snowfall “Phāmthakda” which is termed as “HorāmKashib”. The Shirui range has three mountain peaks “Kashong”, the lowest but the largest known as the “Shongrei” meaning the big or large mountain peak, the middle and the smallest but the highest peak known as “Shongrā” meaning the small or tiny mountain.

The snowfall is an indication of the end of the cold winter and the onset of the beautiful spring season. But the more significant observation and indication of the snowfall is bountiful or scanty harvest at the end of the season depending on the quantity and the location of the snowfall. If the snowfall is plenty in “Shongrei” and “Shongrā”, it is an indication that the year would be a good year for all. If the snowfall is scanty in both the ranges, then the year harvest would be scanty.

If the snowfall is only on the large, big mountain “Shongrei”, it is an indication that the harvest would be good for the fields of the commoners “Vāhongnao”. The larger mountain represents the large poorer population. When the snowfall is only on the highest and smallest mountain “Shongrā”, it indicates bumper crop for the royal and rich “Wungrei/Wungnao” only, and poor harvest for the general population.

2. Spring flowers

As the winter ends and spring arrives, the wildflowers and the fruit trees begin to blossom, the kind of flowers and its beauty is considered as an indication of the produce of the year. When specific flowers like the Himalayan Cherry (*Prunus cerasoides*) blossom (Sāhārwon), plum (*P. Salicina*) (Heikhāwon), peaches (Mayāngwon), and Kapaiwon blossoms (*Pyrus Pashiprofusely* “Ngahuiwuk”, it is an indication that the year would be a good year. The blossoming of such flowers is an indication to the villagers that the season has arrived for agricultural activities to commence. The spring festival “Luirā” is then observed and celebrated. If they do not blossom well, it is an indication that the year would not be good as the crops would be infested and destroyed by insects and pests “Shat”.

3. Migration of birds and its behavior

The arrival of migratory birds like Cuckoo “KoktuiSampheirok” indicates that it is time for agricultural activities to commence. The villagers would say “As the season has arrived” (Kazingkum uta, Koktuikhongurakho”). When Wagtail bird “Yāngyao” dance on the surface of the river water, and they build their nest high on the cliff or ravines, it is an indication that there would be heavy rainfall in the village or in the surrounding villages and therefore the water level in the river would be high. And If the Hornbills “Vākhokkharāng” soared high and their wings’ music faintly heard, that indicated scanty rain or untimely arrival of monsoon.

4. Indicators of rainfall

Being an agrarian economy, mountainous topography and lack of irrigational facilities, the agricultural activities are solely dependent on the arrival of timely and normal monsoon. The decision to commence or prepare for all agricultural activities will depend on the indicators of rainfall. There are several indicators of good or scanty rainfall, which have been briefly listed below.

1. If the white ant hill “Chiphung” has fresh damp soil on the surface, it is an indication that it would rain within a week and therefore preparation of related activities can begin.
2. Plentiful gooseberry indicates that the monsoon would be normal.
3. If the clouds spread out sporadically, then there would be no rainfall.
4. If the night sky was starry with no clouds, there would be no rain the next day.
5. Rain mostly at night is a bad omen “rotkhaei”, and an indication that there would be poor harvest.
6. In the ancient world before the arrival of Christianity, Tangkhuls were practicing animism and therefore phenomena in the nature had significant socio-economic and political implications. Those days the village chief with the assistance of the village priest performs certain traditional rituals, one such ritual at the beginning of the year is for the priest “Sharva”, to take an earthen pot to the forest, performs the traditional rituals, climb a specific tree and tie pot to a branch with the pot tightly covered and live it overnight. They next day, the priest would visit the spot, take the pot and uncover it, if.
 - a. The pot is dry and has husk in it, it indicates that the year would have insufficient rainfall and therefore there will be scarcity of foodgrains.
 - b. The pot contains a good amount of water, and it indicates that there would be good monsoon and bumper harvest.
 - c. The pot has husk in it, then it indicates that the harvest would be poor as insects and pest “Shat” would destroy the crops.
 - d.

5. Egg, Chicken legs, and Axe

When it comes to selection of the direction and areas of Jhum cultivation (Ahanglui/Khayailui), Tangkhuls performs traditional rituals as indicators of acceptance and permission by the spirit of nature.

1. Boiling egg:

An egg with a small opening is placed on top of pile of husk. The husk then is burnt, if the egg begins to simmer and boils over, it is a bad omen but if it slowly gets heated up and overflows, then it is a good sign, and the site is selected for Jhum cultivation.

2. Chicken legs

The selected chicken would be taken to the selected area and sacrificed by sliding the throat. The chicken would then struggle for a while and ultimately when it dies, the position of the legs would be observed. If the right leg is on the left leg, it is a good omen but if the left leg is on the right, then the area is abandoned and a new area is identified.

3. Axe “Ngahā”:

The concerned individual of the village or clan or family would select a particular tree in the area identified and leave the axe on the tree overnight by cutting into it. The next day, if the axe is still found attached to the tree as was left behind, then it indicates a good omen or else it is abandoned as it indicates that the spirit does not want you to cultivate in that area. This same principle applies to the observance of the Merit feast “Tarung Kashun”.

6. Others

- a. The sun alignment with the highest peak “Shongrā” on ShiruiKashong (Mountain):

When the sun aligns with the highest peak of the Shirui mountain, it is an indication that it is time to do rice seedling in the selected plot before it is transplanted.

b. *Phyllanthus Emblica* L (Gooseberries) “Shakshathei”

In the year of plenty gooseberries, it is said that there would be bumper crop.

c. Fertility of soil

If the selected plot of land is very fertile resulting in bumper crop, it indicates that there will be death in the family in the first year of its cultivation “Luisot” and in the year when it is abandoned “Luizan”.

d. Fruits

When the *P. Napaulensis* “Theikāngthei” tree bears much fruit, it is an indication that the monsoon would be scanty as the name itself mean “fruit of dry year”.

e. Hornets “Khui”

Plenty of hornets indicate poor harvest.

f. *Juglans regia* (Walnut) “Shirangthei”

The year of plenty walnut in its due season indicates that the harvest would be very poor.

g. Mushroom “Vār”

The year with many mushrooms in the wild indicates that a philanthropist in the village would die.

h. Mendy “Khaosom”

Healthy and fat Mendy indicates that there would be bountiful and bumper harvest.

i. *Myrica esculenta* “Mahuithei”

The rain would be scanty and untimely if there were much “Mahuithei”.

j. Bamboo flowering “Kahawon”

Indicates poverty, starvation, sickness, and hardships.

Conclusion

Tribal communities depending on nature and living in harmony with nature from time immemorial have learned to observe nature and consider it a source of everything. Even in the absence of scientific technology to predict and explain the occurrence of things, their observation and experiences of the natural phenomena has guided their lives in the natural world for ages. These are the reasons why tribal communities such as the Tangkhuls respect nature and do not exploit it.

Traditional agricultural practices never result in natural degradation, in fact it is over exploitation of monetary considerations, and modern consumerism and commercialization that has destroyed the natural resources. Tribals may not have the scientific explanation and technology, but they have the experience and knowledge of time-tested natural indicators. These rich natural and bioindicators cannot and should never be forgotten or ignored as unscientific, in fact every concerted effort must be made to give a scientific explanation to the wisdom and knowledge of the tribe. These could be some of the greatest contributions of tribal communities to the world of science and in the preservation of nature and climate change. Being respectful, observant, and having the right perspective of the natural surroundings is the essence of living in harmony with nature or else it will become an existential crisis for humanity. Natural phenomena and the law of nature cannot be controlled nor substituted by Machinery and Advanced Technology.

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