

Folk Knowledge, Sustainable Development and Tribal Culture: An Anthropological Perspective

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ABSTRACT The essential criteria that differentiate tribal society from other societies are the distinctiveness of the tribal culture itself. It gives them the status of being a tribe. The uniqueness of tribal culture results from living isolated within hills and forest areas. One of the crucial characteristics adopted for identifying a group as a tribe is their close association with nature. It is due to their culture, which contributes more to managing their habitat and helps in developing a harmonious relationship with nature through their belief system. It is well known that living close to nature makes life more sustainable. This way of life gives rise to such knowledge types called folk knowledge. It includes a knowledge system related to forest produce collection, hunting, animal husbandry, agriculture, craft, and medicinal use of flora and fauna. This paper highlights how tribes use their folk knowledge in managing and sustainably conserving natural resources.

INTRODUCTION

Folk knowledge is a unique system that manifests its distinctiveness to a culture. It implies the knowledge, practices, and innovation resulting from experience accumulated by the indigenous community. The knowledge systems related to forest product collection, utilisation, and consumption maintain their harmonious relationship with nature. The tribe has always been very close to the forest. Therefore, they were referred to as “Forest Tribe” in 1881 and “Hill and Forest Tribe” in 1921. It is one of the crucial facts that are different from mainstream society. This uniqueness gives them the status of being a tribe. Their harmonious relationship with nature results from their knowledge of sustainable use of natural resources. Subsequently, local culture has adopted it to maintain their habitat and ecological management. It includes a knowledge system about the collection, utilisation, and consumption of forest produce, vegetation and their natural use, knowledge of agricultural practices, livestock, and handicraft. It has been identified as folk or indigenous or traditional knowledge that transmits over generations within a community. It subsequently takes the form of folklore, proverbs, folk song and stories, cultural beliefs, values, and

rituals, which provide a spiritual and cultural identity to that group. It has been incorporated into their daily life, behaviour, and oral literature (Joshi 2019).

Objectives

Folk knowledge refers to the understanding of the knowledge of a community inculcated in their lifestyle in maintaining a cordial relation with nature, which accumulates over a generation. Such knowledge has been gained over centuries and adopted in the local culture. This study, therefore, seeks to understand the significance of folk knowledge in managing the ecological system based on the review of ethnographic accounts of selected tribal communities in India. It will be fruitful in understanding how the tribal community exploits the natural resources in a sustainable way. The study has also been focused on their mutual interdependence with the geographical environment.

RESULT AND DISCUSSION

Habitat, Religion and Tribal Identity

The tribal communities living in the different geographical regions of the country have their knowledge system of managing their habitat

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(forest or hilly or plain area) according to their cultural tradition. Their emotional attachment to their habitat develops a cordial relationship and perfect harmony with nature. Because of their forest habitat and socio-cultural background, they were labelled as 'forest tribe' in 1881. Territory as a basis of nomenclature of tribal communities was considered in 1921, and hence, they were termed as 'hill and forest tribe'. Religious practices were supposed to identify a group as a tribe in 1901 and 1911. They were therefore labelled as 'tribal animists' in 1901. "Practicing Animism" was one of the essential features of the tribe, based on which they were differentiated from the caste society. Tribal religion as a broader identity of a group for a tribe was accepted in 1911. Hence they were identified as a group 'following tribal religion'. Living in isolation, primitive way of life, backwardness, distinctive culture, and shyness of contact are features based on which a tribe is distinguished from other communities (Ministry of Tribal Affairs 2014).

Cultural Ecology, Religious Complex and Tribal Life

Wissler (1926) and Kroeber (1939) explained the interrelationship between man, culture, and ecology. Steward's concept of cultural ecology (1955) refers to the interrelationship between human culture and the ecosystem. The ecological approach is very fruitful in understanding the role of ecology in the formation of culture and the intimate relationship between culture and specific ecosystems (Sarkar and Dasgupta 2000). The cultural ecology approach in anthropology explains the interaction between man and nature. It describes how the exchange goes on between ecological conditions, religious complexes, and human life. Nature exerts a profound influence on human life. Worship of nature is an integral part of tribal religion. Their belief in the supernatural power of nature is seen as a form of their religion. It helps in maintaining a harmonious relationship between nature and tribal life. "Tribal religious belief is an ecological expression of their existence that maintains an intimate relationship with nature" (Kukreti 2020). Baiga, a particularly vulnerable tribal group, is often known as a nature worshipper and son of nature (*Dharti Mata*). They consider '*dharti*' as their mother. As per their belief system,

ploughing the field is like pressing upon one's mother's chest (Singh and Mollick 2020). The Bhil tribe of Udaipur in Rajasthan consider nature as their mother, as it nurtures them. If they utilise and exploit nature too much, it would be debilitated and destroyed (Srivastava 2018).

Similarly, followers of the *Sarna* religion are usually known as nature worshippers, as it is based on nature worship. It depicts tribal identity through ecological tradition. The knot made of the '*Sal*' tree at the place of *Sarna* is considered sacred. Worship and religious function are performed under the '*Sal*' tree at the place of *Sarna*. It is the sacred centre of the religious beliefs of tribal living in the Jharkhand region. It spreads over the state of Jharkhand, Odisha, West Bengal, and Chhattisgarh. The tribal of Jharkhand has demanded *Sarna's* recognition as a distinct tribal religion. It expresses eco-nationalism by highlighting the role of nature in building nationalism and pride of tribal religion. "*Sarna Dharam* can teach a lot to the world facing problems, such as pollution and environmental degradation, as it is all about worshipping nature, forest, and mountain" (Kukreti 2020).

In the belief system of Gond, a prominent tribal group of Chhattisgarh, the *Saja* (*Terminalia tomentosa*) tree is considered sacred, as *Bura Dev* resides in it. It is auspicious to use its leaves, wood, and bark in socio-religious ceremonies. Another example can be taken from Baiga, a particularly vulnerable tribal group. They inhabit the Achanakmar Amarkantak Bio-Sphere Reserve spreading over Madhya Pradesh and Chhattisgarh. As per their belief system, *Mohua* (*Madhuca longifolia*) and *Sal* (*Shorea robusta*) are thought sacred, as *Bura Dev* (creator of nature) inhabits it (Singh and Mollick 2020).

Makadia, a particularly vulnerable nomadic tribal group inhabiting in Simlipal of Odisha, believes that *Bura Dev* resides in the oldest tree of *Sal* (*Shorea robusta*), *Mohua* (*Madhuca longifolia*), and *Peepal* (*Ficus religiosa*) on the top of the mountain in the forest. The wood of *Sal* (*Shorea robusta*) is considered as *daru*, which means god. A tree such as *Saja* (*Terminalia tomentosa*) as the symbol of *Dharan Devta*, *Jamun* (*Syzygium cumini*) as the symbol of *Bagghra Dev*, *Neem* (*Azadirachta indica*), *Mango* (*Mangifera indica*), and *Bargad* (*Ficus benghalensis*) are considered sacred in the religious belief of the Halba tribe. Halba is an agriculturalist tribe, mainly inhabiting

the state of Chhattisgarh and Maharashtra. They also believe that *Satbahini Mai*, *Bhainsasur Dev*, and *Path Dev* inhabit the agricultural field as protecting deities (Mollick and Kumar 2009). Beliefs in the sacred object are seen in tribal religion. Sacred objects are always held in respect. It is the functional part of religion for maintaining a harmonious relationship in society. It contributes to living a happy, peaceful, and healthy lifestyle.

Ecological Management and Tribal Culture

In the indigenous philosophy of environmental management, plants, birds, and animals are treated as sacred and included in the religious context of the tribe. The clan like *Basa* (a kind of tree), *Kujur* (a type of fruit), *Lakra* (tiger), *Toppo* (a species of long-tailed bird), *Ekka* (tortoise), *Tirki* (young mice), and *Pursa* (fruit of *Kusum* tree) of the Oraon tribe are identified after the name of their 'Kuldevta'. Each clan has a totem in the form of an animal or plant. It symbolises the god of a clan, which is locally known as 'Kul Chinh'. The respective clan members respect their totemic object, as it is considered sacred. 'Kul Chinh' acts as their identity as well as their protector. Clan members are forbidden to eat, kill or injure the plant, bird and animal, symbolising their totem (Roy 1915, 1928). It indicates a unique relationship of tribal life with nature and provides continuity and longevity.

Similarly, among the Gond tribe, clans like *Markam*, *Tekam*, and *Irpachin* respect the mango, teak and *mohua* trees, respectively (Mollick 2009). Baiga considers the wildlife as members of their family. They establish their kinship relationship with them by addressing different kinship terminologies, such as *Bhalu Kaka* (bear as paternal uncle), *Bandar Mama* (monkey as maternal uncle), and tiger as their *Bada Bhai* (elder brother). They worship the tiger as 'Bagdev' for protection from the untoward circumstances in the forest (Sahu and Mollick 2019). This belief system helps maintain their close affinity with nature and the management of forest and ecology according to their culture. Joshi (2019) thinks that the exploitation of forest resources can be restricted and systematised through sacred religious beliefs and practices. He cited the example of *Nanda Devi* Biosphere Reserve to support his view. Natural resources of the biosphere reserve are well protected due to its association with *Nanda Devi*.

As per the belief system of Makadia, *Gram Devta* resides in a sacred forest having an abundance and variety of trees. Collecting the leaves and dry wood for worshipping and religious function from this area is merely exempt. Makadia, a particularly vulnerable tribal group, inhabits the bio-conservative area of Simlipal bio-reserve in Odisha. It is the responsibility of each member of the group to manage and protect the sacred part of the forest. The management of the sacred grove is done either by keeping alive the custom and tradition associated with the forest or by forming a committee at the *gram sabha* level (Sinha 1991; Singh and Mollick 2020).

Another example can be taken from the tribal of Bastar in Chhattisgarh and Raygada district in Odisha. Tribal of South Bastar in Chhattisgarh agitated against the mining operation in *Nandraja* hill. They believe that it should not be destroyed in the name of the mining operation as *Pithoda Devi*, wife of *Nandraja*, resides in *Nandraja hill* (Droliia 2019). Similarly, *Dongria Kondh*, a particularly vulnerable tribal group of Odisha, also protested against the mining operation in *Niyamgiri* hill. The *Niyamgiri* hill in Odisha state is the home of *Dongria Kondh*. *Dongria Kondh* considers *Niyamgiri* hill of Raygada district as sacred, where *Niyam Raja* resides (Bera 2015). In the tribal philosophy of ecological management, forest, hill, river, plant, bird, and animal are considered sacred and included in their religious context. It helps establish their close affinity with nature by managing the natural resources and wildlife according to their culture.

Ecology, Livelihood and Indigenous Knowledge

In addition to livelihood, the forest is also a source of tribal knowledge. So, they were known as the forest tribe in 1881. Making rope from the bark of *Siyadi* (locally known as *Siyal lata*) is one of the primary sources of the economy of Makadiya, a particularly vulnerable tribal group of Odisha. It is not only a means of their livelihood but also a knowledge system. The use of *Siyal lata* and the belief system related to it is a form of indigenous knowledge incurred from generations. *Siyal lata* climbs on the top of trees by wrapping, for which the entire forest looks green and dense. In fact, the creeper holds the tree so tightly that it blocks the growth of the tree, so cutting the creeper from the tree increases the

life of that tree and helps for its development. They cut the vine from top to bottom at several places to remove the thick peel. It is used to make the rope and the hard woody part of the inner surface later as firewood when it dries. Cutting the *lata* from the top does not harm the root of *lata*, and subsequently, it can re-grow during the rainy season. So it remains a continuous source of their livelihood. Cutting the *lata* from the tree is a way of practice of taking care of the tree on the one side, while on the other side, it provides endless greenery to the forest. Indeed, it protects natural resources and maintains a balance between nature and human life (Singh et al. 2014).

One can take another example of natural resource management from the Bonda tribe, a particularly vulnerable tribal group of Odisha. A particular type of agricultural practice locally known as '*Dhongar Chas*' (agricultural practice in hilly region) has been ensuring food security for the generations of the Bonda tribe. They do not plough the field (*Dharti*), as it loosens the soil and increases erosion in the hill. Instead, they slowly dig up the soil to sow seeds. A unique variety of paddy (*Dangar*) is sown along with local coarse grain and oilseed in the agricultural field. *Dangar Chas* is done in a small area called '*Padu*'. It is left for three years after cultivating the *Dangar chas*. It promotes the natural growth of shrubs and plants in the field for nutrients. By adopting this indigenous agricultural practice, they nurture plant species found in the area, and on the other hand also provide food and habitat to the local fauna, insects, butterflies, and birds (Basu 2019). Thus it would strengthen in maintaining their natural habitat by establishing a cordial relationship with nature. In brief, one can say that tribal indigenous practice helps in sustaining the local ecological environment and their natural habitat.

Ecology, Tribal Knowledge and Development

Tribal life is more sustainable because of its closeness to nature. It, in turn, provides continuity and sustainability to nature. The tribal philosophy of environmental management is the result of their knowledge enhancement. It protects the natural resources, maintains a balance between nature and tribal life, and preserves the ecology of their habitat. It makes a significant contribution to sustainable development by establishing nature

more sustainably. However, as one becomes aware of their invaluable knowledge, the threat to their knowledge system increases. Since independence, with the declaration of the green revolution and the establishment of industry in tribal areas, the knowledge system of tribal communities, their forest-based lifestyle, and their coexistence relationship with nature are gradually disappearing. Forest policy seems to reflect the interference of modern perspective and biases. As a result, they are being forcibly displaced from the forest by ignoring their culture. The displacement of tribes from their natural habitat is a reason for the disappearance of their knowledge system. It is well known that tribal knowledge has particular relevance in the maintenance and management of local ecology and environment. On the other hand, in the name of forest and wildlife conservation, tribal people like Baiga are being evicted from their habitat (Mollick 2016). When tribal communities are displaced, it breaks in the chain of transferring their indigenous knowledge from one generation to another. So there will be a change in the process of traditional knowledge, and subsequently, that knowledge will almost disappear and eventually permanently become extinct.

Looking sincerely at the issues of forest conservation, the displacement of the tribal communities from the forest in the name of forest and wildlife conservation is not the only way of its solution. First of all, one has to find out alternative ways to the mining activities, establishment of industry, and construction of the big dam, as it is the main reason for the continuous depletion and devastation of forest (Singh and Mollick 2019). Another reason for the disappearance of tribal knowledge is the so-called development programs. Their dependency on forest resources is not often to be considered at the time of preparing the development programs. The program's success depends on how it can prove that its dependency on forest resources is over, and they have integrated into mainstream society, even if they are working as daily wage labour. Change in the traditional livelihood of tribal communities is the reason for diminishing their traditional knowledge. The younger generation is migrating towards the cities searching for livelihood, leaving behind their nature-based life. Due to changes in the source of livelihood,

the learning process has been disrupted. They adopt the modern way of life in the changing period of modernity. As a result, their traditional knowledge system is gradually disappearing, although it has been universally accepted that nature-based human life is more sustainable (Singh and Mollick 2020).

CONCLUSION

Tribal cannot imagine their life without flora, fauna, forest, river, mountain and other natural resources available in the local ecology. It plays a significant role and contributes more to their socio-economic and daily lives. In contrast, man acts like a greedy human who considers natural resources as a consumable item in a so-called civilised society. More emphasis gives exploiting the natural resources for their use without considering the interest of future generations. They never think about what will be happening in the future. Now the time has come to save nature for the survival of human society. Harmonious relationship with nature is only possible by recognising traditional knowledge as future knowledge.

RECOMMENDATIONS

For this, traditional knowledge has to be practiced in daily life as much as possible. The participation of the local people would also be required in integrating their knowledge into government schemes. There is a need to develop a chain of understanding with the experts to share the local knowledge and convert local knowledge into scientific terms. At present, traditional knowledge is not only valuable for those local people whose daily life depends on it. Still, it is also useful for manufacturing products of health, medicine, cosmetics, and so on. Today, traditional knowledge is being discussed more in the name of knowledge and science. The scientific approach to environmental management is fundamentally human-centred. This approach scientifically emphasises the enrichment of forests to make forest resources more beneficial to human society. Therefore, there is a need to build up a good rapport between traditional and scientific knowledge so that both can go head simultaneously. For this, local people, policymakers, and social scientists, especially anthropologists, will have to work together.

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