



ORIGINAL RESEARCH PAPER

Philosophy

TRADITIONAL ECOLOGICAL KNOWLEDGE: CONVERGENCE CULTURE AND ENVIRONMENT

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Mrs. Beroleeka Debbarma

Research Scholar, Department of Philosophy, Tripura University (A Central University).

ABSTRACT

Traditional ecological knowledge (TEK) refers to indigenous and tribal people's understanding of the structure and functioning of nearby natural ecosystems, as well as their usage for human wellbeing. In this paper, I have evaluated the literature on TEK possessed by tribal and other traditional cultures in North East India and emphasize the link between culture and environment among the tribal people. The indigenous people of the North East India region have a wealth of TEK relating to species, ecosystems, and their interconnections, as well as sustainable management and use in forestry, fisheries, agriculture, food, crafts, dye, and health care. Some of these TEK-based knowledge systems are on par with, if not better than, resource management approaches that have grown within the scope of current knowledge. Despite the fact that a significant portion of tribal cultures' TEK has been documented, yet immensely precious of such information still remain undocumented and thus on the brink of extinction.

INTRODUCTION:

In recent years, the link between culture and environment has sparked lively debate in sociological and anthropological literature. The subsequent development of cultural ecology focuses on the relationship between individual cultural traits and a group's adaptation to its overall ecosystem. The settlement pattern and agricultural system are thought to have an impact on cultural elements, while the environmental variety has an impact on community-based natural resources. Everyone's interaction with the environment or surroundings in which a cultural community lives. Because knowledge is created in a cultural context, each culture can be thought of as a knowledge system that creates, reproduces, and renames knowledge.

Culture is a key component of ecological conservation in indigenous communities. Ecological conservation areas from a community's moral and ethical commitment to nonhuman entities. In other words, such devotion is rooted in indigenous society's traditional ethics of living in harmony with the environment, as well as their emotional bonds with nonhuman entities such as animals and plants, which they regard as vital to their survival. To put it another way, indigenous civilizations' environmental ethics are based on cultural norms that recognise the importance of nonhuman entities for human life on the planet. As a result, culture creates a network of human-nature relationships. Marx and Engels believed in a mutually dependent and interactive relationship between humans and nature. In reality, Marx considered nature to be the foundation for the advancement of society and history. He saw nature as a fundamental component of man's being, a validation of his being as a living person, and the world as a mutually respectful connection between humans and nature. Marx envisioned the man-nature interaction as a relationship between two living entities that mutually modify each other. Man and nature do not exist in isolation; on the contrary, they are in a permanent state of interdependence. The emergence of capitalism, which is founded on human and natural alienation, has disrupted this pleasant relationship. The rise of the capitalist method of production shattered human environmental ethics and ecological consciousness.

Traditional Ecological Knowledge emerges from the interaction of a cultural community and the environment (TEK). The creation of TEK is founded on a cultural community's reaffirmation of environmental principles, which is independent of any legal or governmental authority. TEK, on the other hand, is the result of numerous civilizations' cultural impulses coalescing over time, rather than a spontaneous occurrence. Local knowledge, folk knowledge, rural people's knowledge, oral knowledge, applied knowledge, and empirical knowledge are all terms that are

used interchangeably to describe it. It is frequently described as experimental knowledge based on observation and passed down from one generation to the next. Nature is a wellspring of wisdom in all of these forms. Culture-related social habits and customs frequently built a bond between groups, particularly indigenous populations. The preservation of TEK is critical for the survival of larger ecosystems, and as a result, there is a growing recognition that it can stifle biodiversity in a culture.

Only in the 1980s did the phrase TEK become popular, and it was assumed to be related to human origins. This created ecological relationships of one ethnic community with nature, and is often referred to as 'ethnoecology.' TEK is gained over time through direct contact with the environment by humans. It is a culturally transmitted adaptation process that has been passed down through generations. TEK is the total of environmental knowledge, spiritual values, and practises that have been passed down from generation to generation. According to Berkes, "the growing interest in traditional ecological knowledge since the 1980s is perhaps indicative of two things: the need for ecological insights from indigenous practices of resource use, and the need to develop a new ecological ethics in part by learning from the wisdom of traditional knowledge holders." TEK is based on the study of local ecosystems in order to conserve resources. It is locally created knowledge targeted at resource sustainability and environmental conservation. As Berkes argues that "traditional ecological knowledge represents experiences required over thousands of years of direct human contact with the environment." The preservation of TEK is now viewed as a viable option to ecological preservation.

The word 'traditional' has been a stumbling block in the development of TEK since it is frequently associated with progressive, illogical, conservative, static, and outdated concepts. Traditions, which are sometimes defined as anti-modern, are culturally distinctive social attitudes and beliefs that obstruct the drive for change. Cultural transmission leads to knowledge transfer and knowledge of the physical world transmission from one generation to the next, just as it does traditionally from one generation to the next. It's based on local legends, oral histories, and myths, among other things. Traditions are invented, built, and formally instituted, according to Eric Hobsbawm. He says, "invented tradition is taken to mean a set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviour by repetition, which automatically implies continuity with the past." Levi-Strauss contends in *The Savage Mind* that ancient societies could not have developed the technological ability comparable to that required to make

watertight pots without an inquisitiveness scientific approach and a thirst for knowledge for its own sake. According to him, "the universe is an object of thought, at least as much as it is a means of satisfying needs."

Traditional civilizations have a spiritual bond with one another. The critical approach toward traditions is explained as follows: some traditions are built on exclusion and injustice, while others are a sphere of battle for correcting it. Traditionality opposes liberation in this regard. In a traditional community, customs serve as the foundation of order and social control, and they are associated with superstition and dogma. Tradition, according to Oakeshott, not only reflects our connection to the familiar, but it also guarantees that social institutions function better since they operate inside a framework of established laws and practices. (Oakeshott, 1962). Tradition, according to Shils. (1981), entails "anything transmitted or handed down from the past to the present." Tradition obstructs humanity's reasonable outlook, thinking since it is made up of a wide range of domains such as institutions – social, political, beliefs, and values – and has a long history. As a result, humanity has a negative attitude toward tradition because it impedes progress.

Ecology as the Source of Epistemology

In the above-mentioned concept, ecology is the source of knowledge production and reproduction. TEK is frequently referred to as an alternate type of knowledge. The manifestation of ecological epistemology is linked to tradition, culture, and practises that arose from a community's lived experiences, practises, and beliefs. The knowledge produced has local communities as stakeholders. The TEK is founded on a comprehensive system of knowledge, practises, and beliefs, which includes cosmology. According to the Environmental Information Partnership in Ontario, Canada, the TEK is: "environmental knowledge that has been gathered by aboriginal peoples who have lived in and observed a particular area for generations, and has been handed down by statements, beliefs, legends, customs, from generation to generation by word of mouth or by practices, based on facts, truths, or principles." According to Berkes, TEK is "a cumulative body of knowledge and beliefs handed down through generation by cultural transmission, about the relationship of human beings (including human) with one another and with their environment." Stories, song, folklore, proverbs, cultural values, beliefs, practises, experiences, ritual community laws, and local knowledge are all ways that TEK is passed down from generation to generation. There are spiritual and moral components to TEK. It is only created in a certain cultural and ecological context and is beneficial to long-term environmental growth. TEK is becoming increasingly important, despite advances in scientific knowledge.

Culture And Environment

Culture and religion are essential factors in the preservation and conservation of the environment. Indigenous peoples have had a close relationship with the natural world since the dawn of civilization. Nature plays a significant role in the indigenous community's cultural development. Culture has an important role in global environmental consciousness since it begins with the subjective condition of one's place in connection to the environment. In the anthropological literature, the connection between culture and environment is extensively addressed. Each cultural group has its own unique ecological knowledge and builds human-nature connections. The TEK is a new type of knowledge created by the interaction of a cultural community with the natural environment. The environment's conservation and management have a significant role in the formation of cultural identity. The biophysical world and the human social world are inextricably linked with the culture-environment interaction. Without nature and the ecosystem, culture would perish. Ecological management is built on the foundation of

tradition and is vital to the survival of humanity and the ecology.

Cultural Diversity And TEK

TEK is derived from cultural diversity. Cultural diversity has been shown to strengthen biodiversity by conserving distinct traditions, belief systems, and social norms. Any endeavour to introduce cultural uniformity or build a monolithic culture not only discredits the ecological system, but also jeopardises the human-nature interaction. The interaction between community and nature is essentially reciprocal, comparable to the relationship between community members and other living things. TEK is frequently viewed as a manifestation of cultural variety aimed at the conservation and management of natural resources. In a civilization, celebrating diversity fosters biodiversity and the preservation of natural ecosystems.

TEK is based on people's awareness of their environment as well as their local observational knowledge of species. The base of such knowledge is determined by local social norms and group cultural internalisation. Oral tradition and firsthand observation are used to communicate it. The development of TEK is inextricably linked to a region's cultural identity. Article 8 of the Convention on Biological Diversity urges us to "... respect, preserve and maintain knowledge, innovation and practices of indigenous and local communities embodying traditional life style relevant for the conservation and sustainable use of biological diversity..."

As already said, the term 'tradition' in TEK frequently sparks disagreement and disputes. TEK is widely seen as diametrically opposed to 'scientific,' which is founded on rationality and universality. It is, nevertheless, based on the subjective reality of a community's cultural practises, as well as the larger knowledge system of their life world, land, natural resources, and, lastly, the environment itself. The hidden risk in the concept of tradition pushes one to use the term indigenous instead. TEK is frequently defined as unreasonable, outmoded, primitive, unscientific, and subjective bias in this context. Because it is dependent on cultural traditions, oral norms, and beliefs, questions concerning its significance have arisen.

Conception Of 'sacred' Space.

In indigenous society, the interaction of culture and nature results in a concept of "Sacred" space. In contrast to the religious understanding of 'Sacred', here 'sacred' is culturally defined and linked to religious myths and socio-cultural belief systems. The religious definition of 'Sacred' has consequences for practical life and survival. The sacred space is a place where religious rites are done, and it is frequently associated with nature-human interactions. Most indigenous groups have strong cultural norms for maintaining forests, which are commonly referred to as "holy groves," demonstrating the human-nature connection. The sacred groves are protected by the community's commitment to maintain the sacred place. The link between humans and the environment is incompatible with indigenous communities' traditional lifestyles. The concept of sacred groves is, in fact, an expression of local communities' spiritual and cultural character. The majority of sacred groves are socially legitimate, preserving a healthy balance of tradition and nature. For example, requiring permission from traditional institutions before entering the forest. No human meddling is permitted in the sacred groves, according to community norms. All of them depict the involvement of local communities in environmental protection through spiritual beliefs and spiritual relationships between people and their surroundings.

Man is placed in the greater context of society in the sacred grove. Sacred created a resonance between living and non-living things, allowing one to connect with non-human

entities. The building of sacredness in knowledge production is important not only for environmental but also social sustainability. It combines the human and ecological selves, which is critical for humanity's survival. According to Neisser, "the ecological self is the self as perceived with respect to the physical environment: 'I am the person here in this place engaged in this particular activity.'" Sacred groves are frequently the result of animistic religious beliefs, although they have persisted even as society has progressed. Individual self-development might take place in the context of a larger relationship with the environment. The TEK is a situation or embedded knowledge in which an individual's self emerges from the culture and the environment in which they live. The ecological self, drawn from an indigenous community's moral conviction, recognises humanity's reliance on the environment for survival. When the individual self is connected to the greater context of the environment self, it matures and bears fruit. By integrating the individual self with ecological through the maintenance of sacred space, the individual is always taken away from the self defined by religious canons. The western view of an individual as self-contained, autonomous, and utilitarian, who does not need to rely on others or the environment, is incompatible with this understanding of self. Capital development, thus separates the individual self from the ecological self by creating an alienated self.

Important Of Morality

Morality and spirituality impose limits on human acquisitiveness towards nature. The necessity of morality, on the other hand, stems from the dread of retaliation from nature or the local deity who lives in the holy forest. Rather than believing in a transcendental God or local deities, the tribal society's dedication to morality and spirituality is stifling human beings' individualist and acquisitive tendencies. The primitiveness of the group gives rise to such morality. Despite the creation of classes over time and the emergence of acquisitive drives, tribal tribes maintain their symbolic bond with nature. Ecology is not just a science, but also a moral and ethical framework that connects humans to cosmology and the interdependence between human and non-human beings. Such ethical engagement has resulted in the formation of a new sort of traditional authority-based responsibility, in which tradition plays an important role. The introduction of morality, on the other hand, adds a new level of obedience. Sacred grove maintenance is founded on the moral, physical, and political commitments of tribal community members.

The moral need to obey ecology is based on moral values. Moral obligations are strengthened by a cultural tradition based on environmental ethics. Fear of retaliation from the local deity motivates physical responsibility. The political duty is founded on the conventional political institutions' dread of the action.

Communitarian Ecological Self

The relationship between nature and the environment creates a communitarian ecological self, in which environmental conservation is founded on the tribal tribes' relational selves, which are more communal than individualist. The tribal community's communal and ecological selves are integrated. The communal ideals, in reality, complement the eco-centric principles. As a result, the community's situation self develops ecological self, which frequently contradicts the individualist anthropocentric self. The community-with-nature approach fosters an inter-subjective engagement with nature. It's a satire on the individual self. The preservation of the environment is a part of the community's cultural ethos. It is the realisation that human-nonhuman interactions provide the cornerstone for ecosystem preservation. As it is related to the community, the ecological self is linked to the communal self. The ecological self is a community's integrated self. Self-realization is possible here, thanks to the preservation of non-

human things such as flora and fauna. According to Neisser, "the ecological self is the self as perceived with respect to the physical environment: 'I am the person here in this place engaged in this particular activity'". Arne Naess, a Norwegian philosopher who works in the field of environmental philosophy known as "Deep Ecology," created the concept of ecological self. Deep ecology assumes that humans are inextricably linked to nature and care for it. Individualist, self-contained, rational, and not reliant on others for survival is the western understanding of self originating from the Enlightenment. It is more anthropocentric, ignoring non-human aspects of self-development. Ecosystems and natural resources are not considered because it is based on hedonistic utilitarianism. An individual is identified with the surrounding-ecological self as it is regarded in relation to the physical environment in the ecological self. An individual or a group develops ties to the natural world. Individual and community growth is both reliant on a positive relationship with nature. Individual selves are entrenched in a community selves, which are in turn linked to ecological selves. The survival of the community and, by extension, the person is dependent on the sustainability of ecological self-identity.

The planetarian self is tied to the tribal communitarian self. Whether individual or communal, one's self is defined by one's planetarian existence. Planetarian responsibility is that people act responsibly by considering the impact of their activities on others. People might derive satisfaction and significance by contributing to causes and goals that are larger than their own personal lives. They can feel fulfilment and reward in assisting others, especially if they know they are doing so in a just and democratic system.

Everyday Life And Local Rationality

Local context is thought to provide knowledge, as opposed to universal rationality. As a result, a community's social-cultural environment is critical to its existence. Respect for animals, woods, rocks, mountains, and rivers has developed as a result of the tribal worldview. Outsiders were to be rigorously regulated, according to Nehru. He followed a strategy of moderation in his five principles of tribal development. He was not ready for forced assimilation and integration because he was concerned that such measures would obliterate tribal society's distinct cultural values. Nehru's approach to tribal development was realistic in this way, balancing isolation with inclusion. He advocated for the conservation of tribal land and forest rights.

Traditional Knowledge And Scientific Knowledge

Regarding the link between TEK and Western Science, there are two points of view. According to the first viewpoint, TEK and Western science are compatible since they are both based on observation and establish resemblance and commonality. The accumulated knowledge based on observation, inference, and verification is referred to as TEK. However, because it involves indigenous cultures, inaccuracies are possible, and absolute correctness cannot be guaranteed. The indigenous community engagement with the physical environment in which they live has resulted in the TEK, or experimental knowledge. The main characteristics of TEK identified by Menzie and Butler are local holistic embedded moral and spiritual embedded moral and spiritual embedded TEK, they claim, is local since it is based on precise and thorough information on traditional resource use areas. It is holistic in the sense that all elements are interconnected and cannot be understood separately. As part of a certain cultural environment, TEK is embedded. It refers not only to an ecosystem, but also to a moral and spiritual way of perceiving the world, as it is founded on a spiritual and reciprocal link between people and their environment. According to Menzie and Butler, "the natural world is often understood as sentiment and proactive and infused with spirit... Practices are governed by not just a principle of sustainability for a survival"

sake, but by moral sanction against waste or greed."

However, unlike scientific knowledge, TEK has some limitations, such as the issue of recording and documenting knowledge. Furthermore, their diversity of numerous versions for different populations makes demonstrating scientific validity challenging. As previously said, TEK is defined as specific knowledge relevant to a particular cultural environment. The positivist tradition is the source of western scientific knowledge. According to the positivist paradigm, genuine events may be observed experimentally and explained by logical analysis. Value-neutral information is emphasised in positivist knowledge. TEK is founded on indigenous people's beliefs, ethics, and lifestyles.

Traditional Knowledge (TK) is empirical knowledge based on human interactions with nature. However, because it is based on beliefs, traditions, and values, it is frequently presented outside of the scope of scientific knowledge. Traditional knowledge, on the other hand, is seen as a supplement to, rather than a replacement for, Western science. Levi-Strauss, a well-known anthropologist, believed there are two methods to learn about the universe and nature. The first is a concrete Traditional Knowledge method, and the second is an abstract Traditional Knowledge approach. In his opinion, "the physical world is approached from opposite ends in two cases: one is supremely concrete (indigenous knowledge) and the other supremely abstract (modern science)".

Australian philosopher Feyerabend distinguishes between two types of knowledge: abstract and historical. While the abstract tradition is based on scientific and Western knowledge, the historical tradition is based on the information that people have as a result of their daily cultural practices. Feyerabend was an outspoken critic of Western science's quest for ultimate truth. Only in a cultural framework, he believes, does knowledge make sense. To put it another way, the cultural context facilitates the generation of knowledge. As a result, knowledge has subjective values and is not entirely founded on pure logic. Knowledge, in a broader sense, is a reflection of the material world and human interactions with it. Western knowledge is frequently referred to as scientific knowledge because it is based on logic. In order to explain natural occurrences, Western scientific knowledge, which is founded on analytical and reductionist approaches, employs positivist rigour.

Both Levi-Strauss and Feyerabend's concepts pave the way to tackling the concept of TEK. Cultural production is a variable that exists between human beings and their surroundings. In the cultural sphere, myths, beliefs, ethics, and Folkways increase the interaction with ecology and nature. The connection between communities and groups creates the cultural environment. Both TEK and scientific knowledge are empirically derived from nature and based on observation of the environment. TEK is holistic knowledge in which all natural aspects are seen as interrelated rather than isolated. Humans and nature are inextricably linked in this scenario. There is a cultural component to knowledge because nature is inextricably linked to subsistence. The indigenous population's cultural values, spiritual beliefs, and customary laws are all influenced by TEK. Situated knowledge, embedded knowledge, and observed knowledge are all examples of situated knowledge. In contrast to current science, its argument is based on Etna-science. Environmental sustainability is encouraged through TEK, which is built on a symbiotic relationship with nature.

Between TEK and scientific knowledge, there are subtle differences (Table 1.1). Scientific knowledge is based on rationality and logic, whereas TEK is based on a belief system, culture, and lived experience. As it relates to the greater framework of time and space, TEK is founded on spatial and communal specifics. In fact, identity and culture have an

impact on its creation. Traditional knowledge, like Western science, is based on observation. TEK is typically founded on beliefs, customs, ethics, and culture, and is not at all related to rationalism. The subjective rather than the objective understanding of knowledge is frequently used in the production of TEK. Knowledge production is linked as a social activity rather than a commodity production process in this way.

Table 1.1: Difference Between Traditional Ecological Knowledge And Scientific Knowledge.

Traditional Ecological Knowledge	Scientific Knowledge
Qualitative	Quantitative
Intuitive	Rational
Holistic	Reductionist
Fusion of mind and matter	Separation of mind and matter
Moral	Value-free
Spiritual	Mechanistic
Empirical observation and accumulation of facts by trail and error	Experimentation and systematic, deliberate accumulation of fact
Data generated by resource users themselves	Specialized cadre of researchers
Diachronic data (i.e. long time series of information on one locality)	Synchronic data (short-time series over a larger area)

Sources: Berkes, F. (1993), p. 4.

Observation and generalisations underpin both TEK and scientific knowledge. While TEK is spatially localised in a specific area and time, scientific knowledge is universal. TEK is created in a specific location and setting. Territoriality and cultural specificity, on the other hand, contribute to this type of understanding. As opposed to the rational and the universal ethos of modern scientific knowledge, TEK is built on moral and ethical principles. Berkes defines TEK as: first, factual information about ecological components and processes; second, knowledge applied to environmental challenges; and third, cultural values and philosophies that define human connections with their surroundings and the natural world in general (Berkes, 2000). Indigenous peoples and empirical knowledge have a deep understanding of nature and natural resources.

CONCLUSION

The interaction between humans and the environment has changed dramatically since the dawn of modernity. Anthropocentric development creates inequalities in the interaction between nature and society since the development model it promotes is based on the exploitation of nature for the benefit of people's greed. The biophysical world and the human social world's mutual interplay became disrupted. Traditional values are widely believed to be a hindrance to the development brought about by modernity. To put it another way, being modern requires a rejection of tradition, beliefs, norms, and morality. The impact of modernism on the environment has created a climate in which TEK is seen as irrational and unscientific. Such an alarming trend poses a serious threat to both environment and humanity's long-term viability.

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