

# Sustainable Development and Traditional Knowledge with Special Reference to the Bodo Community

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## Abstract

Traditional Knowledge of local or indigenous communities are developed and nurtured over many generations. Its wisdom has enabled communities to adapt and interact with their environment. The knowledge system of indigenous communities is embedded in their traditions, customs and practices. In many cases, such knowledge is orally transmitted through folklore, art, customary laws and rituals. Indigenous communities possess a wide array of traditional knowledge developed through the collection of insights of their surroundings and as a response to it. This has allowed them to sustain and reduce risks, thus enabling them to co-exist, utilize and adapt with their surroundings. Traditional knowledge, therefore, forms a vital asset for the indigenous communities such as the Bodos of North-east India. Due to globalization and the development of modern sciences and technology, the traditional knowledge of indigenous societies faces multiple challenges and have witnessed the reduction in its importance. However, the growing emphasis on sustainable development has begun to shed a new light in its direction. This paper, therefore, is an attempt to study the relevance of traditional knowledge in the achievement of sustainable existence of human beings with an emphasis on the Bodos community.

**Keywords:** traditional knowledge, communities, environment, sustainable development.

## Introduction

On 18<sup>th</sup> December, 1992, the General Assembly of the United Nations adopted a resolution declaring the year 1993 as the International Year of the World's Indigenous People. This was considered as a significant step towards recognizing the importance of finding solutions towards the problems faced by the indigenous communities. This was followed by a two-day conference on 'Traditional Knowledge and Sustainable Development' on the 27<sup>th</sup> and 28<sup>th</sup> September, 1993 which was attended by groups of indigenous people, representatives of Non-governmental Organizations (NGOs) and the United Nations (UN). It has been recognized that traditional knowledge preserved by the indigenous communities play a crucial role in the culmination of development which is both socially and environmentally sustainable. Indigenous communities faced multiple challenges due to the marginalization and discrimination. Although, with the increasing focus on finding methods for promoting sustainable development, there has been an increased focus on the traditional knowledge of the indigenous communities.

The recent years have denoted the increasing importance of traditional knowledge of indigenous communities towards sustainable development and conservation efforts. This has garnered the attention of international organizations such as the UN and the World Bank as well as received much attention from

scholars, NGOs and scientists. There are however multiple challenges towards maintaining and preserving of the knowledge due to modernization which can only be achieved through a holistic approach and proper understanding of the characteristics of traditional knowledge.

The Bodos, considered to be the one of the earliest settlers in the North Eastern states of India, belong to the Tibeto-Burman linguistic group. They are inhabitants of North Bengal, East Bengal, Assam and Burma. The traditional knowledge of the Bodos developed as a response to their environment and a plethora of activities performed by them. Such knowledge has enabled them to not only co-exist in their natural environment but also enabled them to sustain themselves despite the changing economic developments. The Bodos preserved their knowledge through oral sources such as folklore, songs etc. which is passed down on to the next generation. The main purpose of the paper is to study the relationship between Traditional Knowledge of Indigenous Communities, its role towards achieving the goal of Sustainable Development and the challenges it faces with a special reference on the Bodo community of Assam through the use of ethnohistorical methods along with a critical study of the existing secondary sources.

### **Traditional Knowledge and Indigenous Communities:**

The World Intellectual Property Organization defined ‘Traditional Knowledge’ (TK) as comprising of “literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields” (WIPO, 2001). It plays a crucial role in defining the identity of a community or a particular group. However, the term ‘traditional knowledge’ has often been debated and deemed to be insufficient for its purpose. The term ‘traditional’ may obscure the dynamic nature of TK and its ability to adapt and change according to context and time. (Payyappallimana and Koike 2010, 168). Nevertheless, the terms ‘traditional knowledge’, ‘Indigenous Knowledge’ or ‘Local Knowledge’, often used synonymously, refers to knowledge accumulated across generations which has been tested and adopted by indigenous societies which enabled them to interact with their immediate environment.

TK is diverse in nature, guided by customary laws and denotes a closely shared relationship between the ecosystem and the ethnic communities. It is guided by customary laws and mostly transmitted orally. TK is also dynamic in nature and adapts to the changes around them and thus it is hard to ascertain its existence to a certain period in time. It has also been observed that although there may be variations in the means of knowledge production, there are certain similarities in the manner by which indigenous communities perceive the world around them. Indigenous and local communities have amassed vast knowledge on biological diversity in their extensive history of interacting with the environment. Most indigenous and local communities resided in regions with access to natural resources and biodiversity hotspots. These communities have devised methods of utilizing them in a sustainable way since time immemorial. This knowledge has allowed the communities to thrive in their respective regions. Therefore, the indigenous and local communities have better wisdom in the means of protecting the local flora and fauna compared to the rest of the world.

For the indigenous and local communities, TK is a part of their culture and a means of their existence. They have devised methods through which the TK can be practiced as well as preserved for many generations. Thus, customary laws play an important role in its maintenance. However, the transmission of such knowledge and the laws that protects them is not possible without a proper means of communication. In such circumstances, language, therefore, forms a crucial element. Preservation of

language diversity is vital in the protecting the TK of different communities. While some communities have developed their own written scripts, many communities were dependent on spoken languages and thus transmitted knowledge orally. It has been estimated that there are approximately 370 million indigenous peoples in the world that speak more than 4,000 of the world's almost 7,000 languages (Harrison 2007). They possess, inhabit or use up to 22 per cent of the global land area, which is home to 80 per cent of the world's biological diversity (UNDP 2011). When language become extinct, associated traditional ecological knowledge in local communities is often lost as well (Djoghlafl xxii). Therefore, oral sources such as folk legends, songs are integral preservers of TK along with traditional and folk art, crafts, music etc.

Apart from language, the culture of a particular indigenous community is also its major asset. TK on the other hand, is closely related to culture, identity as well as belief system. Indigenous communities view TK as a vital component of their culture, heritage and survival. With globalization, there has been an increased interest in utilizing TK in developmental projects or in gaining economic benefits. The economic value of TK especially on biodiversity and medicinal plants have continued to increase. This is however, not entirely welcomed by the communities themselves. This do not indicate that they are reluctant in associating with developmental processes or using modern sciences but there exists an underlying fear that their existence will be hampered in case the knowledge is no longer remembered to be belonging to them. Therefore, it will deprive them of the benefits which the association with developmental projects can provide them.

The development of modern sciences resulted in conflicts between the conventional mainstream and traditional knowledge systems. TK distinguishes itself from mainstream knowledge in its methods of knowledge generation, transmission and the principles and values related to its use for various purposes (Subramanian and Pisupati, 3). Due to its affinity with cultural and religious connotations, mainstream or western sciences tend to diminish its importance, often denoting it as superstitious beliefs rather than scientific knowledge. Thus, TK became limited to the households, priests and the traditional healers of the community. However, with recent developments in the past years, scientists and scholars began to pay utmost attention towards the rich knowledge of indigenous communities and since then, established that TK has immense potential as it contains vital information regarding the biodiversity and the environment. The TK of an indigenous community is embedded in activities such as farming, weaving, crafting etc. impacting the well-being of human beings through contributions to health, agriculture, food security, environmental and natural resource management, land use, livelihoods, disaster management among others. In the sphere of medicine, the World Health Organization (WHO) estimates that traditional medical practices cater to a major percentage, up to 70%-80% in certain regions, of the world population's health requirements, especially in developing countries (WHO, 2002a). These practices involve locally available resources and cost-effective means in treating illnesses. The dynamic nature of traditional knowledge allows it to sustain and evolve for many generations.

### **Traditional Knowledge and Sustainable Development:**

Traditional knowledge and practices can be seen as a pivot between natural or ecological resources on the one hand and human intervention and social and economic development on the other hand (Berkes & Folke, 1994; Cochrane, 2006). However, the dominant discourse has failed to provide due attention to the exploration of the potential of alternate knowledge systems by considering it a barrier to development. A

crucial challenge therefore is to find suitable tools to bear the leading roles that traditional knowledge, norms and values can play in the achievement of Sustainable Development.

There are however certain challenges in the integration of TK. Modernization has dramatically diminished traditions and put them up into the lens of a very generalised view of the world. This has made TK seem like a disadvantage towards progress. The modernist attitude towards TK has been one of ‘either modernize or disappear’ in a context where the strongest comes to be identified with the best rationale (Payyappallimana and Koike, 169). The newer generations are also not very eager to learn and utilize TK and thus diminishing its importance.

Moreover, there has been a constant effort to achieve economic growth and progress. Thus, the role of TK in contemporary societies has been examined through the viewpoint of the various commercial or economic benefits which it can provide. For instance, local arts and crafts were seen to be relevant only if it has marketable or commercial demand. There is hardly any focus on its value and importance for the indigenous community. The prevailing misconception of TK is that it is archaic and non-dynamic. Thus, reducing it to a status of an object meant to be documented and preserved. The discourse has been dominated by the protection of intellectual property rights while neglecting efforts to strengthen the social and cultural processes of continuity and contemporary utility of such knowledge (Payyappallimana and Koike, 169). While the documentation and preservation of TK are vital especially for the ones on the brink of extinction, it is also important to accept its dynamic characteristics which are also vital for its existence. This will also lead to the understanding that not all TK are reserved for a particular community but rather that they are also shared by different communities across regions. Thus, there is a lack of sufficient understanding on TK and its nature which cannot be captured through the modern viewpoint.

Indigenous communities have obtained numerous amenities from the environment. The continuous availability of these products and facilities is crucial to their existence. Therefore, such indigenous communities had devised their own methods, to ensure its continuity which led to the dynamic characteristic of TK, thus making it a part of their culture. Emphasizing the role of TK in development and the need for appropriate policies, the UNESCO convention, says that while making certain that there is “free circulation of ideas and works,” there is a need to create a conducive environment for production and propagation of varied cultural goods and services that have the strength to exert influence at the local and global level (UNESCO, 2005). But such a viewpoint can undervalue the cultural significance of TK to the communities. The UNESCO convention therefore, also underlines the importance of the relationship between culture and development in all countries, specifically in developing regions, and to promote strategies both nationally and internationally to acquire recognition for this. While emphasizing the central role of culture and the complementary nature of economic and cultural dimensions of development it recognizes the necessary participation of individuals and communities. As a core principle, protection, maintenance and promotion of cultural diversity are vital requirements of sustainable development for present and future generations.

Most of scholars, indigenous people and NGOs reject the view that conventional intellectual property rights (IPR) can help protect or promote TK. They instead profess that there is a need for an all-inclusive system that embraces the rights and responsibilities to natural resources, knowledge, and culture, which cannot be achieved without the involvement of the communities themselves. Documenting TK although important, can never be a substitute for the live propagation and evolution of the knowledge through its holders themselves, thus there is also the need to protect the environment in which they prevail.

### The Bodos and their Traditional Knowledge

Like many other communities in the various parts of the world, the Bodos have a rich treasure of traditional knowledge. They mostly made use of the available resources around them which is reflected in their socio-cultural and economic practices. The ancestors of the Bodos mostly resided in forested plains regions adjacent to water bodies like rivers and streams. They were mainly agriculturists and actively engaged themselves in the cultivation of rice, their staple food and other vegetables. Hunting and fishing were common activities engaged by the Bodos. The forests provided them with not only timber but with wild animals and edible plants which formed a part of their diet. While harvesting of certain plants like grains, the Bodo communities' knowledge on the flora and fauna of the region and its preparation enabled them to have a diverse diet which include mushrooms, edible ferns, edible river snails, crabs etc.

Engaging in activities such as agriculture, fishing and hunting required the use of tools and implements. The Bodos used the available materials such as bamboo and forest wood. There are a number of folk literatures to denote that the men actively engaged in collecting timber and firewood from the forest. They carefully chose the materials used for making the implements which required them to amass the knowledge of the various species of plants around them. Bamboo due to its durability and fast growth, the Bodos used them for various purposes such as building houses, traditional fishing implements (*zakhai*, *kobai*) and home implements such as *songrai* (winnow) and *khada* (basket) etc.

The forested plains of Assam along the monsoonal climate required the Bodos to be well-versed in the knowledge of medicinal plants in order to treat diseases. The traditional healing practice comprised of a healer (*oja*) who would chant the *mantra* (incantations), while treating the patient with medicines made of locally available resources. Apart from this, the Bodos also utilized medicinal plants for treating domestic animals and pest control. The Bodos also engaged themselves in sericulture, art, weaving etc. which displays the wide variety of TK amassed throughout their co-existence in their respective environment.

However, urbanization and influence to modern conventional methods led the Bodos to lose interest in learning and utilizing their TK. In the fast-growing economy and focus on commercialization, the TK of the Bodos was pushed to the background. The changing environmental circumstances also made accessibility to certain resources difficult. The changing circumstances instilled a sense of fear among many Bodo intellectuals, that their TK will end up being a memory of the past. Therefore, they began to emphasize on documentation and seeking legal assistance of patenting their TK. Recently, a number of articles and products traditionally used by the Bodos have been registered for Geographical Indication (GI), which marked a significant step in the protection of TK. Scholarly publications, use of mass media for documentation etc. are some other measures through the Bodos worked towards preserving them. However, documentation can run the risk of biopiracy. Many community organizations and NGOs have raised their concerns regarding it. This can however be prevented to a large extent with the active participation of the members of the community themselves during the process of documentation as well as preservation of resources. Educating the future generations, interactions with other communities on TK can go a long way in achieving the sustainability of TK systems.

### Conclusion:

Cultural diversity is a pre-requisite for revitalization of traditional knowledge as important for sustainable development. TK is often presumed to hold the key to sustainability due to its interconnectedness with various facets of life, as well as local patterns of resource use and management. However, traditional



knowledge has been marginalized in the process of modernization. In the case of the Bodos, TK experienced the reduction in prominence due to the non-inclusive methods of developmental processes. A sensitive approach is therefore, required to promote the dynamic growth of such knowledge systems which can also ensure the involvement of indigenous communities for attaining sustainable well-being.

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