

Traditional Environmental Knowledge and Inherent Practices Amongst the Bodo People: A Special Reference to the BTC

Daithun Goyari¹, Kunjulal Narzary²

¹Research Scholar, KAV, Department of History

²Research Scholar, KAV, Department of Philosophy

Abstract:

This paper attempts to explore the traditional environmental knowledge, values, insights and its important practices amongst the Bodo's. The Bodo people who speak Bodo language and belong to the Mongolian race living in states of Assam, West-Bengal, North-east India, neighbour countries like Bangladesh, Nepal, Tripura. The Bodo people are very close to nature and the environment, and they follow many traditional environmental practices in their daily life. All these practices are based traditional knowledge of nature, and it kept passing generation to the generation. The Bodo people belief nature is close relation of human life that is why they think nature is very important in life. Therefore, they respect nature such as land, water, trees and animals, on the other hand, negative side also affecting due to modernization, pollution and their changing lifestyle in their traditional practicing. Such reasons many young generations are gradually forgetting the old traditional practices. In this paper trying to know the traditional practices, importance of environmental values, cultural heritage, impact of modern technologies, and community-based conservation. This study highlights the traditional environmental knowledge and practices of the Bodo people with special reference the Bodoland Territorial Council area. In these paper, descriptive and analytical methods have been used. Interviews and discussions were done with the village head man and senior citizens.

Keywords: Bodo Traditional, natural resources, modernization, practices, insights.

1. Introduction:

The Bodo people, an indigenous ethnic group from the northeastern region of India, (Brahma, 2008) particularly Assam, possess a rich cultural heritage deeply intertwined with the natural environment. Their way of life, shaped by centuries of interaction with the forests, rivers, and land, has fostered a unique system of traditional environmental knowledge and practices that have allowed them to sustainably manage their natural resources. This body of knowledge encompasses a wide array of practices, ranging from agriculture and water management to forest conservation and biodiversity preservation, all of which reflect a profound understanding of the local ecosystem. (Intellectual Property need and expectations of traditional knowledge holders, WIPO report on Fact, April 2021) In recent years, the growing challenges of climate change, deforestation, and the loss of biodiversity have highlighted the importance of indigenous knowledge systems in addressing contemporary environmental issues. The Bodo people's traditional environmental practices offer valuable insights into sustainable living, providing a model for

resource management that is deeply rooted in ecological balance and respect for nature. The Bodo society cannot live without traditional practices as it has been a vital health care system for them (Narzary, 2026) However, as modernization and globalization exert pressure on these practices, the continuity and transmission of such knowledge are increasingly at risk.

This study highlights the traditional environmental knowledge and inherent practices of the Bodo people, focusing on their sustainable resource management strategies, agricultural methods, and community-based conservation efforts. A cultural worldview represents a social group's perspective on the nature of existence, thus how it conceives nature, self, and society. (M. Leon 2025) By examining how these practices are integrated into their daily lives, this research aims to highlight the relevance of indigenous knowledge in contemporary environmental management and to underscore the need for its preservation in the face of rapid socio-economic changes. Through this study, the paper will not only contribute to the understanding of the Bodo people's ecological wisdom but also explore how their practices can inform broader conservation strategies in a rapidly changing world. The Bodo people, an indigenous ethnic group from the northeastern part of India, particularly the Assam region, have a deep connection to the land, their environment, and natural resources. Their traditional environmental knowledge and practices are vital in promoting sustainable resource management, agriculture, and community-based conservation. This knowledge has been passed down through generations and continues to guide the Bodo people in maintaining a balance with their environment. (Maheswari, 2019)

2. Sustainable Resource Management:

Traditional environmental knowledge plays a central role in sustainable resource management within Bodo communities. The Bodo people understand the importance of maintaining ecological balance and using resources wisely to ensure their availability for future generations.

I. Agro forestry Systems: Bodo farmers practice agro forestry, which involves cultivating crops alongside trees like they mostly plant many kinds of trees in the boundary of the land, they grow bamboo, banana, jackfruit, cocoanut, betel nut and mango along with rice vegetables and pulses and creates a balanced ecosystem that preserves soil fertility and biodiversity. This technique promotes the sustainable use of both forest and agricultural land, enhancing long-term productivity without depleting natural resources. In the Bodo villages many Bodo people use the Bamboo and wood from trees to build houses, fences and household items enhancing security and providing additional bio-resources. (Narzary, 2011)

II. Slash-and-Burn Agriculture: It is very old farming method used by some Bodo people Historically, Bodo people practiced shifting cultivation, where land is cleared, cultivated for a few years they grow crops like maize, jute, vegetable and pulses, and then left fallow to regenerate. The Bodo mostly depend on rainwater for their farming. In this method they cut the small trees and bushes and make it dry to burn them carefully. The ashes make the soil good for farming and allow the soil to recover and helps maintain biodiversity. However, it is important to note that modern pressures have led to challenges regarding this practice, requiring more sustainable approaches to prevent over-exploitation of the land.

III. Water Management: The Bodo people traditionally ways of managing water have an intricate understanding of their water resources moreover they also make small canals to carry water from the river. But earlier they grow the crops like rice in the rainy seasons but after becoming modern era they use modern technology for managing water in the agricultural land, they collect water from channels in the field. The Bodo people believes the importance of rivers, streams, and wetlands to their agricultural

practices, and there are traditional methods for managing water for irrigation and preventing water pollution. Their knowledge of seasonal changes in water levels helps them plan agricultural activities.

3. Traditional Agricultural Practices:

The Bodo community is one of the tribes of India's many ethnic groups. They have an exceptional history of ecological and expertise through their customs and in the agricultural practices time they select the seasons because all the seasons are not suitable for all crops. The Bodo people traditionally select the seasons for their agricultural practices because all the seasons are not suitable for all crops. The Bodo people are closely tied to their understanding of the local environment and are designed to be ecologically sound. Traditional Bodo farming systems are primarily subsistence-based, but they also incorporate aspects of sustainable farming that ensure long-term viability.

I. **Mixed Cropping:** mix cropping is a farming method where Bodo farmers grow two or more crops in the same field such as rice with vegetables, maize with beans, mustard with pulses, (black gram, green gram, lentil) Potato with sweet potato, Sweet potato and vegetables, are grown in the same field it helps farmers to get more food from one field. This reduces the risk of crop failure due to pests, disease, or unpredictable weather patterns, and maintains soil fertility by rotating plants with different nutrient requirements.

II. **Crop Rotation:** Traditional the Bodo people grow different crops in the same field and to prevent soil degradation, the Bodo farmers rotate crops to maintain soil fertility. This also helps in controlling pests and diseases without relying on chemical pesticides.

III. **Sowing and Harvesting Based on Local Seasons:** The Bodo people have a profound knowledge of local climatic patterns and are adept at predicting the best times for sowing and harvesting. They understand the significance of aligning agricultural activities with the cycles of the moon, rainfall patterns, and the changing seasons.

4. Community-Based Conservation:

Community-based conservation is an integral part of the Bodo people's traditional environmental practices. The Bodo people view nature not as a commodity to exploit but as an interconnected system that needs to be preserved for their survival and the well-being of future generations.

1. **Sacred Groves and Forest Conservation:** The Bodo people have historically protected forests and sacred groves, areas dedicated to the preservation of biodiversity. These groves are considered sacred and often protected from any form of exploitation. This practice has helped preserve various plant species and ecosystems. Forests are also seen as sources of medicinal plants, firewood, and timber, but the Bodo people manage them carefully to avoid over-harvesting.
2. **Traditional Hunting and Fishing Laws:** Bodo communities have traditional laws that regulate hunting and fishing practices to avoid over-exploitation of animal species. For example, hunting is often restricted to certain seasons or areas, and there are taboos against hunting certain endangered species.
3. **Fire Management:** The Bodo people practice controlled burning to clear agricultural land, but they have traditional knowledge of how to prevent wildfires from spreading uncontrollably. The controlled use of fire helps manage weeds, regenerate grasslands, and maintain the ecological health of the region.
4. **Wildlife Protection:** The Bodo people respect wildlife and have created informal but strong community-based protection systems for animals and forests. This includes prohibiting the hunting of

certain species, especially those that are threatened or endangered.

5. Role of Traditional Knowledge in Modern Conservation:

In recent times, there has been increasing recognition of the importance of traditional knowledge in contributing to modern environmental conservation efforts. The Bodo people's practices offer valuable insights into how traditional systems of resource management and conservation can complement modern scientific approaches to sustainability. Local indigenous communities, through their sustainable ecological livelihood, live in harmony with the environment, thus ensuring conservation of their forest and land resources.(Chakravarty. 2026)

1. **Cooperation with Modern Conservation Initiatives:** Many Bodo communities are working alongside conservation organizations to promote sustainable practices and biodiversity protection. Their knowledge of ecosystems, animal behavior, and climate patterns is invaluable in formulating strategies for the preservation of habitats and species.
2. **Reforestation and Community-led Environmental Projects:** With the help of NGO's and local government, Bodo communities have participated in reforestation projects and other community-based environmental initiatives aimed at restoring degraded ecosystems and improving livelihoods. They are participating in reformation of forest by planting number of plants and somehow managing by agriculture. . Empowering indigenous communities to manage their forest and land will promote sustainable development and biodiversity conservation.(Chakravarty. 2026)

In spite of the strength of these traditional practices although the Bodo people many challenges face today like due to increasing agricultural demand and industrialization and population pressure have led to deforestation and it is reducing the indigenous Bodo people's ability to maintain sustainable practices

6. Conclusion:

The Bodo traditional knowledge system and practices provide valuable insights into sustainable agriculture, resource management, and community-based conservation. The traditional environmental knowledge of the Bodo people has Developed through centuries of close interaction with nature; these practices help maintain ecological balance and environmental sustainability. Traditional practices of Bodo techniques such as agro forestry, mixed cropping, water management, and forest conservation reflect their deep understanding of the environment. It is very important to note that modernization, deforestation, climate change, biodiversity loss, and the declining interest of younger generations threaten the survival of this traditional knowledge. Integrating indigenous knowledge with modern conservation strategies can offer sustainable solutions to present environmental challenges. The environmental practices of the Bodo people not only support local sustainability but also contribute important lessons for global efforts in sustainable development and climate change adaptation.

Last but not the least, the traditional environmental knowledge of the Bodo people with modern conservation strategies can offer sustainable solutions to present environmental challenges and their practices not only support local sustainability but also contribute important lessons for global efforts in sustainable development and climate change adaptation.

References:

1. Brahma.K. (2008) Aspects of Social Customs of the Bodo, Guwahati, Bina Library.
2. Intellectual Property need and expectations of traditional knowledge holders, WIPO report on Fact

- Finding Missions on Intellectual Property and Traditional knowledge (1998-1999), Geneva, April 2001. P.25
3. Maheswari, J.K. (2019). Ethnobotany and medical plants of Indian Subcontinent. scientific Publisher.
 4. Narzary. Vaben. (2011). Boro- Kocharyni Somaj arw harimu, Chirang Publication Board.
 5. Basumatary. Bakul Chandra.(2009). Bodo Civilization in India, Ganda Offset Press, Kokrajhar.
 6. Narzary, Yutika. Traditional Knowledge System of the Bodos, Ujjal Bora, Guwahati.
 7. Endle, S. (2017) The Kachari. Guwahati, Bina Library
 8. Narzary Kunjulal & Newar Pallab Naba. (2026). “The values of an indigenous ethnomedicines of Bodo tribes and its sustainable challenges”, Lyceum the learning: An interdisciplinary approach on philosophy, management, politics and culture. Bharti Publications, New Delhi. P.354-362
 9. Chakravarty. Anindita. (2026). “Conservation of forests and indigenous rights of the Bodo people – a case study of Chirang district of Bodoland Territorial Council”. Pratibha Volume:IX, a multilingual, multidisciplinary & Peer-reviewed research journal ISSN:2349-5286 Pp.1-5
 10. Leon M. (2025). Bodo Cultural Beliefs: Knowledge Effective for Managing Historical and Contemporary Challenges Imposed on Indigenous People. Cultural and Religious Studies, March 2025, Vol. 13, No. 3, 101-115 Doi: 10.17265/2328-2177/2025.03.001
 11. Brahma. K. (1st edition 1998). A study in cultural heritage of the Boro’s. Bina library.
 12. Albrow Martin et.al. Globalization, knowledge and society: reading from international sociology, sage. ISSN:978-0-8039-8323-6
 13. Brahma K. (1st edition 1988). Boro Harimu. Bodo publication Board (BSS)
 14. Driem V,G. (2002). Tibeto-Burman replaces Indo-Chinese in the 1990s: a review of a decade of scholarship, Lingua 111.
 15. Baishya D. (2009). Traditional science and material culture of early Assam, EBH publishers (India), guwhati-01
 16. Bordoloi N.B. (1988). Application of science and technology for tribal development. TRI, Assam