



## **Harmony Unveiled: The Importance of Indigenous Knowledge in Nature Conservation in Northeast India (NEI)**

**Pilot Dovih**

**Ashoka University, Sonapat, Haryana**

**Email: [pilotdovih@gmail.com](mailto:pilotdovih@gmail.com)**

**Keywords: Biodiversity, Indigenous knowledge, Nature conservation, Northeast India**

As I ventured into the heart of Northeast India (NEI), I found myself standing at the crossroads of natural wonders. This remarkable region, nestled within the Eastern Himalayan and Indo-Myanmar biodiversity hotspot, beckoned me with its awe-inspiring landscapes. It served as a gateway, connecting the Indo-Chinese species with its geographical affinity to South China and Southeast Asia. Here, amidst the vibrant cultures and diverse terrain, I discovered the untamed beauty of NEI's lush forests, each harboring countless tales of ecological and cultural significance. NEI is a testament to nature's boundless generosity, hosting nearly half of India's wild flora and fauna within its modest 8% of the geographic area. Endangered species such as the Red Panda, single-horned Rhinoceros, Asian elephant, and majestic tiger find refuge in this biodiversity oasis. It is a sanctuary, nurturing about 60% of the country's endangered endemic species. The value of this ecological treasure trove cannot be overstated.

However, the path to preserving this priceless legacy is not without challenges. Habitat fragmentation, deforestation, and unsustainable resource extraction overshadow NEI's natural paradise. The fragility of its ecosystems demands our immediate attention and concerted efforts to ensure their survival.

### **Embracing nature's wisdom**

In response to these pressing concerns, a symphony of nature conservation programs has emerged across Northeast India. These initiatives are led by a diverse ensemble of local communities, non-governmental organizations, and governmental agencies that embody the region's unwavering commitment to protecting and restoring its ecosystems. At the heart of these endeavours lies the recognition of the invaluable wisdom held within the indigenous knowledge passed down through generations.

Growing up in the NEI, and involved in multiple research projects in different states, I witnessed firsthand the deep-rooted connection Indigenous tribes have with their ancestral lands. For generations, these communities have been custodians of sustainable resource management practices, nurturing the delicate balance between human needs and the well-



being of nature. As I explored the vast landscapes they call home, it became evident that their traditional knowledge holds the key to preserving our natural heritage.

Indigenous tribes and local communities in the NEI proudly own, manage, and inhabit most of the land. It is within the embrace of their traditional wisdom that the land thrives, witnessing a slower rate of nature degradation. Their knowledge encompasses an intricate understanding of maintaining environmental equilibrium, ensuring essential services such as clean air, water, fertile soil, nourishing food, secure shelter, and natural medicine persist. Their cultural practices and ancestral teachings revolve around protecting the delicate balance of ecosystems, allowing us to coexist harmoniously with nature.



**Life in North-East India (NEI). A. Hanging bridge, B. Jhum cultivation, C. Animal hunting trophies and, D. Harvesting rock honey** Photo: Author

There are over 200 tribes in northeast India belonging to various linguistic groups, each with distinct traditional practices, who have actively worked to preserve the environment and safeguard their unique habitats. This region has eight states, including Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. The indigenous tribes of each state add to the region's cultural diversity. Some ethnic groups in Northeast India have taken a proactive approach to protecting their environment. For Instance, the Mishing tribe is an Assamese tribe that lives on riverine islands in the Brahmaputra Valley. Arunachal Pradesh Ziro Valley is home to the Apatani tribe, renowned for its distinctive traditional farming methods. The Nyishi tribe has played a vital role in safeguarding the Pakke Tiger Reserve in Arunachal Pradesh. Native to Sikkim, the Lepcha tribe maintains a strong spiritual bond with the natural world. They adhere to a traditional ecological knowledge system called "Dzumsa," which encourages the management of natural resources



and sustainable land usage. Meghalaya's Garo and Khasi tribes have a rich cultural history intricately linked to their natural surroundings. Naga tribes such as Angami, Zeliang, Rengma, Ao, Lotha, and Tangkhul in Nagaland and Manipur have a tradition of conserving their forests and wildlife. They have set up community-based conservation areas where hunting and logging are strictly prohibited. The Meitei community in Manipur has taken part in initiatives on reforestation programs and wetland conservation. These are a few instances of the several tribes in Northeast India who have embraced nature conservation as a vital component of their traditional legacy.

### **The wealth of indigenous knowledge of nature conservation in NEI**

Thankfully, the path towards a brighter future is paved with collaborative efforts. With the invaluable support of NGOs and dedicated nature conservationists, many Indigenous communities in the NEI have embarked on a journey grounded in their traditions, known as Community-based Conservation (CCA). These initiatives ensure conservation efforts align with the community's cultural, social, and economic needs, safeguarding their invaluable heritage. Through active participation, Indigenous communities and organizations establish and manage protected areas within their communal lands, serving as sanctuaries for endangered species and fragile ecosystems. Guided by principles of sustainable farming, rotational grazing, and controlled hunting, these land stewardship practices strike a delicate balance between meeting communal requirements and promoting ecosystem health.

The inspiring story of the Khonoma village in Nagaland is etched deep within the heart of my experiences. This remarkable community is renowned for its unwavering commitment to wildlife conservation, fostering sustainable livelihoods, and nurturing eco-tourism. Their vision materialized in establishing the Khonoma Nature Conservation and Tragopan Sanctuary (KNTC), a beacon of hope for the endangered Blyth's tragopan pheasant species and its precious habitat. Khonoma's village KNTC was established in 1998 and is considered India's first green village. Initially faced with numerous internal challenges due to the community's traditional practice of hunting animals, the village witnessed a transformation as the decline in wildlife prompted the villagers, particularly the leaders, and youth, to embrace the cause of nature conservation. Collaborating with experts from various organizations, the villagers embarked on a journey of mindset change through conservation education, workshops, and meetings. Years of persistent dialogue and engagement with the villagers ultimately established the KNTC, a successful first community-led conservation project in India. Similarly, in Arunachal Pradesh, the government joined forces with the Nyishi tribe to protect and preserve the Pakke Tiger Reserve. With the Nyishi community at the forefront, engaging in eco-development, habitat restoration, and anti-poaching efforts, this reserve stands as a testament to the power of collective action. I must mention the Mawphlang Sacred Grove, a thriving Community Conserved Area near Shillong, the capital of Meghalaya, where nature flourishes under the watchful care of the local community. These stories are but a glimpse into the inspiring journeys of community-driven conservation in the NEI.



## Furthermore, exploration of Conservation Partnerships

In this region's diverse communities, I found a wealth of knowledge hidden within the Indigenous understanding of nature conservation. Their in-depth familiarity with regional ecosystems, plant and animal species, migratory patterns, weather prediction, and resource management practices is evidence of their close ties to the land. The foundation of sustainable conservation techniques is the invaluable knowledge handed down through the years through rich oral traditions. For instance, the protection of migratory bird Amur falcon (*Falco amurensis*) in Nagaland that makes an annual trip of thousands of kilometres from Siberia to



Community conservation sites. A. Forest near Khonoma village and B. Maphlong sacred grove  
Photo: Author

Northeast India has gained significant attention in recent years. The coordinated efforts of government organizations, non-governmental organizations, local communities, and other stakeholders have greatly aided the protection of Amur falcons in Northeast India. This is an excellent example of the positive outcomes that may be attained by collaboration, education, and community involvement in the conservation.

Immersing myself in the world of these indigenous communities, I witnessed the profound cultural and spiritual foundations upon which their conservation efforts are built. They perceive the intricate interdependencies of all living beings and embrace their role as custodians of the land. Their heritage guides their actions, ensuring that their efforts are ecologically sound and deeply rooted in their cultural identity.

Recognizing the importance of indigenous rights and perspectives is vital for the success of conservation projects in preserving the biodiversity hotspots that thrive within these lands. The United Nations, through its environmental programme, has acknowledged the immense value of indigenous tribes' knowledge and active participation. By allowing these local communities the flexibility to maintain their traditions and involving them as equal partners, we can enhance the resilience of these ecosystems and safeguard the remarkable biodiversity they house. It is through partnerships and the integration of scientific and traditional knowledge that we can embark on a collective journey of learning and growth.



## Harnessing indigenous knowledge to confront climate change

Indigenous knowledge holds immense potential in combating the challenges posed by climate change. Practices like rotational cropping, which promote the health of forests, stand in stark contrast to the government's ecologically destructive monoculture initiatives. We have realized the negative impacts of monocultures in other regions, such as the palm oil and rubber plantations in Malaysia and Indonesia. Given the region's ecological sensitivity, the mushrooming of the monoculture project promoted by the government agencies is



Nature awareness program among the children

Photo: Author

concerning. The immediate impacts of climate change, from rising temperatures to vector-borne diseases and loss of biodiversity, are felt in the vulnerable landscapes of NEI. Devastating annual floods in the NEI force communities to become environmental refugees, seeking solace elsewhere. However, Indigenous knowledge, refined over generations of keen observation and adaptation to environmental shifts, offers hope and resilience in these challenges. It is crucial to understand indigenous knowledge in order to address climate change effectively. Some of the initiatives that caught headlines showing Northeast India's commitment to fighting climate change, includes the Green Mizoram initiated by the state government that combine sustainable practices, environmental awareness, and community participation. The efforts contribute to building resilience and fostering a greener and more sustainable future for the region. The Sikkim Organic Mission launched by Sikkim



government, for its organic farming. The mission emphasizes on sustainable farming methods and minimizing the use of artificial pesticides and fertilizers.

### **Conclusion**

In conclusion, our shared commitment to honoring Indigenous and local knowledge can shape a brighter future where nature thrives, and communities flourish harmoniously. It is important to actively engage and involve the Indigenous communities in our conservation endeavors. Their profound insights and rich cultural heritage hold the key to unlocking a harmonious future for both humanity and the natural world. To achieve this, we must confront power disparities, promote equitable benefit-sharing, and support community capacity-building initiatives. By fostering true partnerships, we can collectively weave a vibrant conservation tapestry that celebrates and preserves the unique landscapes and cultures that define Northeast India. Let us embark on this journey together with the Indigenous communities of Northeast India, forging a path towards a sustainable and equitable world.