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Daikhow: traditional ecological knowledge and biodiversity conservation among the Dimasa tribe of Dima Hasao, Assam

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Abstract

The global biodiversity crisis necessitates exploring effective and sustainable conservation models beyond conventional, state-managed protected areas. Indigenous and Community-Conserved Areas (ICCAs), often rooted in Traditional Ecological Knowledge (TEK) and socio-cultural norms, represent a critical alternative. This paper presents a detailed academic examination of the *Daikhow*, the sacred groves of the Dimasa tribe in the Dima Hasao district of Assam, India, as a potent example of such a system. It argues that the Daikhow transcends its religious significance to function as a sophisticated, community-enforced mechanism for biodiversity conservation and ecosystem service provision. By weaving together, the Dimasa's cosmology, social structures and subsistence strategies, the Daikhow system ensures the preservation of forest patches that act as vital refugia for flora and fauna in a fragmented landscape. This study first establishes a theoretical framework linking biocultural diversity, sacred natural sites and TEK. It then provides an ethnographic and geographic profile of the Dimasa people and their environment. The core of the paper analyses the socio-cultural, religious and ecological dimensions of the Daikhow, elucidating the taboos, rituals and institutional arrangements that govern its protection. Finally, it evaluates the tangible conservation outcomes while also addressing contemporary challenges posed by modernization, market integration and state policies. The paper concludes that the Dimasa Daikhow offers invaluable lessons for integrative conservation, underscoring the imperative to recognize, legally empower and support indigenous conservation initiatives as a cornerstone of global biodiversity strategies.

Keywords: Indigenous, Knowledge, Sacred, Natural Sites, Traditional Ecological Knowledge (TEK), Biodiversit, Dimasa Tribe, Dima Hasao

1. Introduction

The 21st century is confronted by an unprecedented rate of biodiversity loss, a crisis so profound that it is often termed the Sixth Mass Extinction (Ceballos et al., 2015). Conventional conservation strategies, predominantly characterized by a top-down, state-centric 'fortress conservation' model, have established national parks and wildlife sanctuaries. While these have been successful in certain contexts, they have also been critiqued for their frequent exclusion of local and indigenous communities, leading to social conflict and, paradoxically, alienating the very people who have long been stewards of these ecosystems

(Brockington et al., 2006). This has prompted a critical re-evaluation of conservation paradigms and a growing recognition of alternative, community-based approaches.

A crucial element within this shift is the acknowledgment of the profound and enduring role of Indigenous Peoples and Local Communities (IPLCs) in conserving biodiversity. Their worldviews, often encompassing a deep spiritual connection to the land and their sophisticated Traditional Ecological Knowledge (TEK), have fostered the sustainable management of ecosystems for millennia (Berkes, 2018). These systems of governance and practice are now formally recognized as Indigenous and Community-Conserved Areas (ICCAs), defined as "natural and/or modified ecosystems containing significant biodiversity values and ecological functions, voluntarily conserved by IPLCs through customary laws or other effective means" (IUCN, 2008). Among the most widespread forms of ICCAs are Sacred Natural Sites (SNS), such as sacred groves, lakes, mountains and rivers, protected primarily for their religious and cultural significance (Verschuuren et al., 2010).

This paper focuses on one such sacred institution: the *Daikhow*, the sacred groves of the Dimasa people in the Dima Hasao district of Assam, India. The Dimasa, a Tibeto-Burman speaking tribal community, inhabit a region of exceptional biological richness, part of the Indo-Burma biodiversity hotspot. Their socio-cultural fabric is intricately woven with animistic beliefs and a deep reverence for nature. The Daikhow, a patch of forest set aside for resident deities and spirits, serves as a physical manifestation of this worldview. This paper seeks to answer the central research question: How does the Daikhow system of the Dimasa tribe function as an effective, community-driven mechanism for conserving biodiversity and what are its key socio-cultural underpinnings and ecological outcomes?

2. Theoretical Framework: Linking Culture, Religion and Ecology

To fully appreciate the conservation function of the Daikhow, it is essential to situate it within a robust theoretical framework that moves beyond a purely utilitarian view of nature. This involves understanding the inextricable link between biological and cultural diversity, the nature of Traditional Ecological Knowledge and the specific role of sacred sites as instruments of conservation.

2.1. Biocultural Diversity: The Complex Link

The concept of biocultural diversity posits that the diversity of life in all its forms—biological, cultural and linguistic—is co-evolved, interdependent and mutually reinforcing (Maffi, 2005). This perspective challenges the Cartesian divide between nature and culture that dominates Western thought. For many indigenous societies, the environment is not an external, inert resource to be managed but a living community of beings with which humans share kinship and reciprocal responsibilities (Kimmerer, 2013). The Dimasa worldview, with its pantheon of nature spirits and deities inhabiting forests, rivers and mountains, is a quintessential example of this biocultural entanglement. The erosion of their language, rituals and belief systems is therefore not just a cultural loss but directly threatens the ecological knowledge and practices that sustain their environment. The Daikhow, as a biocultural site, is a locus where this diversity is actively maintained and expressed.

2.2. Traditional Ecological Knowledge (TEK) as a Complex Adaptive System

Traditional Ecological Knowledge is a "cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment" (Berkes, 2018,). TEK is not static folklore; it is a dynamic, practical knowledge system encompassing:

- **Empirical Observations:** Detailed understanding of local phenology, animal behaviour, plant properties and ecological succession derived from generations of intimate interaction with an ecosystem.
- **Ethical and Spiritual Frameworks:** A set of values, norms and cosmologies that dictate appropriate human behaviour towards the environment.
- **Management Practices:** Concrete rules and techniques for resource harvesting, agriculture and hunting that ensure long-term sustainability.
- **Social Institutions:** Community-based organizations, such as councils of elders or kinship groups, responsible for enforcing rules and resolving disputes (Gadgil et al., 1993).

The Daikhow system embodies all these facets. The prohibition on felling trees and hunting is a management practice based on the ethical principle that the grove belongs to deities. The enforcement of this taboo by community leaders reflects the underlying social institution. TEK provides the cognitive and operational basis for the conservation outcome.

2.3. Sacred Natural Sites (SNS) and ICCAs as Conservation Arenas

Sacred Natural Sites (SNS) are the physical anchors of biocultural diversity. They are areas of land or water that have special spiritual significance to peoples and communities. The protection of SNS is often rooted in the belief that transgression will invite supernatural retribution, a powerful deterrent often more effective than secular laws (Bhattacharyya & Kumar, 2018). A meta-analysis of sacred groves across India by Ormsby and Bhagwat (2010) demonstrated that these sites consistently harbour higher species richness and greater forest cover than surrounding unprotected areas. They function as reservoirs of rare and endemic species, refuges for wildlife and crucial sources of ecosystem services.

The Daikhow fits seamlessly into this global phenomenon while retaining its unique Dimasa character. As an ICCA, its governance is rooted in customary law rather than state statute. Its effectiveness lies in generating a sense of collective ownership, spiritual duty and social accountability. This contrasts with state-managed forests, which can suffer from a "tragedy of the commons" where local communities feel dispossessed and lack the incentive for sustainable use (Hardin, 1968). The Daikhow, therefore, represents a form of 'commons' governance, managed not through open access but through carefully regulated, community-accepted tenure and use rights. This theoretical triad of biocultural diversity, TEK and SNS provides the lens through which the Dimasa Daikhow will be analyzed in the subsequent chapters.

3. Study area: A Geographic and Ethnographic Profile

3.1. The Dima Hasao Landscape: A Biodiversity Hotspot

The Dima Hasao district, formerly known as the North Cachar Hills, is a rugged, mountainous district in the southern part of Assam —occupies a strategic ecological niche within the Indo-Burma Biodiversity

Hotspot. This region, spanning approximately 3,722 square kilometers (25° 3′ N to 25° 47′ N latitude and 92° 37′ E to 93° 53′ E longitude) (District Profile, Dima Hasao), is distinguished by its rugged topography (Fig.-1). The landscape is marked by steep mountain ridges, deep valleys and an intricate network of rivers and streams that feed the Brahmaputra River system. Elevations vary dramatically, from 100 meters in low-lying riverbanks to 1,950 meters in the Barail Range (district Profile, Dima Hasao), creating a mosaic of microclimates. This altitudinal diversity, coupled with a subtropical monsoon climate characterized by heavy annual rainfall, supports a spectrum of ecosystems, including tropical evergreen forests, semi-evergreen woodlands and moist deciduous forests (Deb & Sundriyal, 2007). These habitats are not only vital for regional biodiversity but also serve as critical carbon sinks and watersheds for the broader Brahmaputra basin.

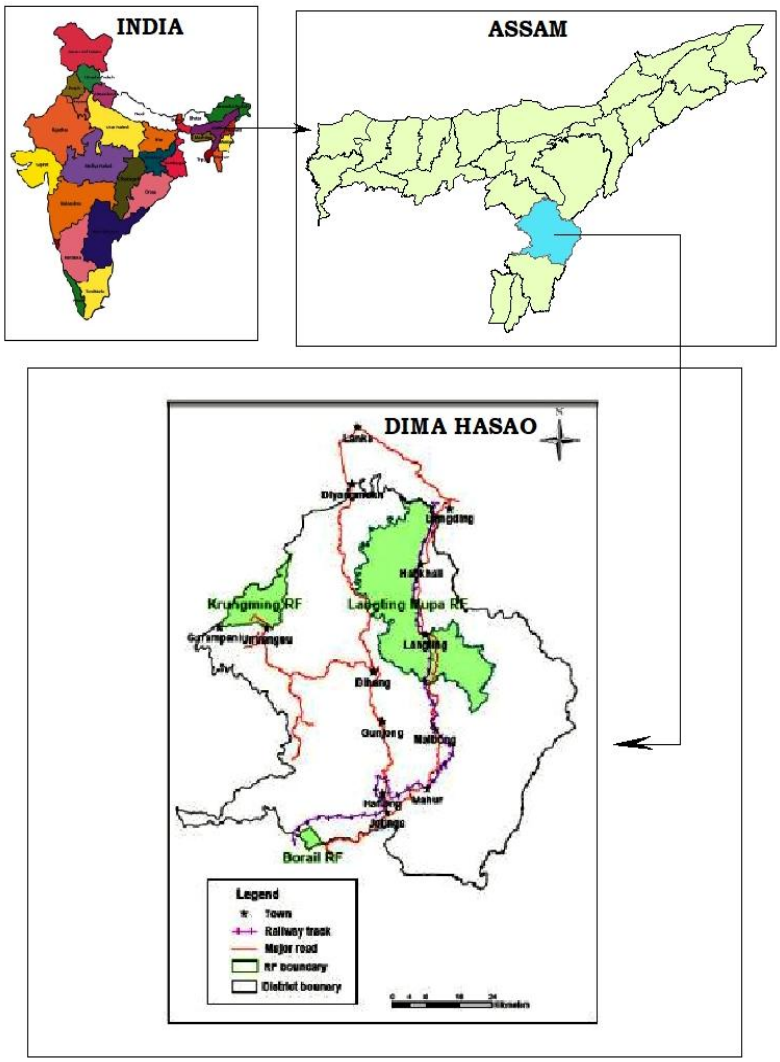

Fig.-1: Location of Dima Hasao District, Assam

The ecological value of Dima Hasao is further underscored by its three key reserve forests: Langting Mupa, Krungming and Barail. Each of these protected areas plays a distinct role in sustaining the district's rich biodiversity and supporting local socio-economic systems. **Langting Mupa** in the northern region is renowned for its diverse timber species, including both hardwoods and softwoods, which are integral to the

district's forestry economy (Assam Forest Department, 2018). **Krungming**, located in the northwest, hosts commercially valuable species such as *Schima wallichii* (Red Ironwood) and *Neolitsea dealbata*, which not only contribute to the regional timber trade but also anchor cultural practices among Indigenous communities reliant on forest resources for livelihoods (Deb & Sundriyal, 2007). In the southern part of the district, the **Barail Reserve Forest** is particularly significant for its endemic flora, such as the rare *Dipterocarpus turbinatus* and *Mesua ferrea* (Nahar), whose conservation is critical to preserving the genetic diversity of the region's ecosystems (Singh, 2000). Collectively, these reserves serve as ecological lifelines, buffering against habitat fragmentation and climate-related disturbances while providing essential ecosystem services.

As a part of the Indo-Burma Hotspot—one of 36 globally recognized biodiversity hotspots—the district harbors an extraordinary array of flora and fauna. This hotspot is characterized by high levels of endemism and severe habitat loss, making conservation efforts in Dima Hasao particularly urgent (Myers et al., 2000). The forests are home to over 2,000 plant species, including endemic orchids like *Dendrobium findlayanum* and *Rothschildia indica*, valued for their medicinal properties (Singh, 2000). Notably, the region's biodiversity extends to iconic wildlife: the Hoolock Gibbon (*Hoolock hoolock*), India's only ape species and the endangered Slow Loris (*Nycticebus bengalensis*) depend on the contiguous forest cover for survival. Avian diversity is equally remarkable, with species such as the Ward's Trogon (*Harpactes wardi*), Manipur Wren Babbler and various hornbill species (e.g., *Buceros bicornis* and *Anorrhinus sanguineus*) occupying specialized niches within the canopy layers. Reptiles, including the globally threatened Siamese Crocodile (*Crocodylus siamensis*), further underscore the region's ecological uniqueness.

Despite its natural wealth, Dima Hasao faces escalating anthropogenic pressures that threaten its ecological integrity. **Shifting cultivation** (jhum), a traditional agroforestry practice once sustainable, has intensified due to population growth and land fragmentation, leading to soil erosion and loss of regeneration capacity in forest ecosystems (Deb & Sundriyal, 2007). **Timber extraction**, both legal and illegal, exacerbates biodiversity loss, particularly for slow-growing, high-value species in Krungming and Barail Reserve Forests. **Infrastructure development**, including road construction and hydroelectric projects, fragments habitats and disrupts wildlife corridors. For example, the construction of the North East Eastern Coalfields Limited's mining operations near the Barail Range has raised concerns over water pollution and habitat degradation (District Profile, Dima Hasao). Additionally, **mining** for coal, limestone and rare earth elements introduces heavy metals into water systems, threatening both aquatic and terrestrial biodiversity. These pressures are compounded by climate change, which alters precipitation patterns and increases the frequency of extreme weather events, further destabilizing fragile ecosystems.

Community-based conservation initiatives are pivotal to addressing these challenges. The **Daikhow Conservation Area**, a community-owned forest, exemplifies participatory models where Indigenous groups like the Dimasa Kachari and Halam communities manage natural resources through traditional governance systems (Assam Forest Department, 2018). Such approaches not only promote sustainable resource use but also integrate cultural knowledge into conservation planning, enhancing resilience against climate and socio-economic stressors. Similarly, the **Forest Rights Act (2006)** has been instrumental in recognizing the land rights of Indigenous communities, enabling them to act as stewards of biodiversity (Deb & Sundriyal, 2007). However, scaling up these initiatives requires strengthened institutional support, including capacity-building programs and legal frameworks to deter illegal activities.

Dima Hasao's ecological significance as a biodiversity hotspot necessitates urgent and coordinated conservation efforts. The interplay between its unique topography, climate and biological diversity creates a delicate balance that is increasingly strained by human activities. While the district's reserve forests and community-led initiatives offer hope for sustainable management, systemic challenges such as illegal resource extraction and infrastructure expansion remain unresolved. A multidisciplinary approach—combining scientific research, policy reform and community engagement—is essential to ensure the long-term preservation of Dima Hasao's irreplaceable ecosystems and their contributions to global biodiversity.

3.2. The Dimasa People: An Ethnographic Overview

The Dimasas are one of the oldest indigenous communities of Assam. They speak a language belonging to the Bodo-Garo branch of the Tibeto-Burman family. Their society is patriarchal and organised into 40 male clans (*sengphongs*), each with its own totem and deity. These clans regulate marriage and social conduct. Traditionally, the Dimasa lived in village settlements, often located on hilltops for strategic advantage.

3.2.1. Cosmology and Belief Systems: Traditional Dimasa religion is fundamentally animistic. Central to their belief system is the concept of a supreme entity, *Madai-Raja* (or *Madai-Mohadi*) and a host of lesser deities, spirits and demons (*daki*, *daikho*) that inhabit the natural world. From a Dimasa perspective, the landscape is animate and imbued with spiritual agency. Spirits reside in ancient trees, large boulders, rivers and, most significantly, in the sacred groves (*Daikhow*). This cosmology is not abstract but directly informs daily life and resource management. The natural world is a community of persons and a reciprocal, relationship-bound ethic governs human interaction with it.

3.2.2. Livelihood and Subsistence: Historically, the Dimasa economy was based on shifting cultivation (*jhum*), supplemented by hunting, fishing and the collection of non-timber forest products (NTFPs). The *jhum* cycle, typically of 10-15 years, involved clearing a patch of forest, cultivating crops for a few years and then leaving it fallow to allow forest regeneration. While often characterized as destructive, a long-fallow *jhum* system, integrated with sacred groves, can be a sustainable form of agroforestry in rugged terrain, as it preserves forest refugia and maintains landscape heterogeneity (Ramakrishnan, 1992). In recent decades, there has been a gradual shift towards settled wet-rice cultivation and a greater reliance on wage labour and government employment. This transition has profound implications for traditional institutions like the Daikhow, as the direct dependence on the forest for subsistence decreases, potentially weakening the cultural and economic incentives for its protection.

This context—of a biologically rich but threatened landscape occupied by a people whose very identity is rooted in the sacredness of that landscape—sets the stage for understanding the central role of the Daikhow system.

4. Understanding Daikhow: The Sacred Groves of the Dimasas

The Daikhow (literally, 'sacred forest' or 'the forest of spirits') is the cornerstone of Dimasa conservation practice. It is a designated patch of primary or secondary forest, usually located adjacent to or near the village settlement, which is strictly protected due to its religious significance. It is the abode of the village's presiding deity (*Madai*), ancestral spirits and other spirits believed to be the protectors of the community.

4.1. Establishment and Typology

A Daikhow is often established when a new village is founded. The village elders and priest (*khunang* or *phulendi*) identify a suitable patch of forest, usually one with a dense canopy, prominent trees, or a unique natural feature like a spring or rock. Through elaborate rituals, they invite the deity to reside there, thereby consecrating the space. There are two primary types:

- **Village Daikhow:** These are the most common, located in proximity to the settlement and under the primary control of the village community. They are dedicated to the protection of the village from diseases, calamities and malevolent spirits.
- **Regional/Clan Daikhow:** Some larger groves or entire forested hills are considered sacred to an entire clan (*sengphong*) or a larger group of villages. These often have more complex governance structures.

4.2. Socio-Cultural and Religious Significance

The protection of the Daikhow is not driven by an abstract conservation ethic but by a deep-seated fear and reverence. The grove is the domain of the spirits and any transgression is believed to incur divine wrath, manifesting as illness, crop failure, or personal misfortune for the individual and the community at large. This belief system translates into a powerful and effective set of taboos and regulations.

4.3. Rules, Regulations and Enforcement

The management of the Daikhow is governed by customary laws enforced by the village council and the priest. These rules, transmitted orally through generations, are typically non-negotiable and include:

- **Prohibition on Felling Trees:** Cutting trees is strictly forbidden. The only exception might be the removal of a specific tree for a vital ritual and that too requires permission from the priest and is often accompanied by a propitiation ceremony.
- **Ban on Hunting and Trapping:** All forms of hunting, trapping, or even disturbing the animals within the Daikhow are prohibited. Animals are considered the 'livestock' of the deity.
- **No Extraction of Resources:** The collection of firewood, thatch grass, medicinal plants, fruits, or leaves for commercial or even regular household use is banned. However, certain plants or leaves might be collected once a year for specific festivals, under strict supervision.
- **Restrictions on Entry:** In many Daikhows, entry by outsiders is restricted. Women, particularly during menstruation, may be barred from entering, as they are considered 'impure' in a sacred space. While problematic from a modern gender perspective, this taboo effectively limits human disturbance.
- **No Polluting Activities:** Littering, defecating, or bathing within the confines of the grove is forbidden.

The enforcement of these rules is remarkably effective due to its integration with the community's spiritual belief system. The primary enforcer is not a forest guard but the collective conscience of the community and the perceived vigilance of the spirits. The priest (*khunang*) acts as both the mediator with the divine

and the guardian of the grove's sanctity. The village council (*rajya*) adjudicates any transgressions, which can result in social boycott or fines, often in the form of a sacrifice to the deity to cleanse the transgression. This socio-religious governance ensures the long-term protection of the forest without any formal monetary investment or state intervention.

5. Daikhow as a Mechanism for Biodiversity Conservation: An Ecological Analysis

The religious and cultural prohibitions governing the Daikhow translate into direct, measurable ecological benefits. By creating protected islands in a human-dominated landscape, these groves function as critical refuges for biodiversity and provide a range of essential ecosystem services.

5.1. Conservation of Floristic Diversity

Scientific studies on sacred groves in India have consistently shown that they harbour higher plant diversity, greater basal area and a higher density of large trees compared to surrounding government-managed or reserved forests (Malhotra et al., 2001). The ecological functions of the Daikhow are manifold:

- **Refugia for Rare and Endemic Species:** As undisturbed patches of primary or old-growth secondary forest, Daikhows often serve as sanctuaries for plant species that are sensitive to disturbance and have disappeared from the surrounding areas due to *jhum* or logging. This includes rare orchids, medicinal herbs and commercially valuable timber species.
- **Genetic Reservoirs:** By preserving mature, seed-producing trees, the Daikhow acts as a genetic reservoir. It ensures the survival of local, adapted genotypes and provides a source of seed dispersal into the surrounding fallows and secondary forests, aiding in natural regeneration.
- **Conservation of Ritualistic and Medicinal Plants:** While extraction is limited, the groves are the only source for certain plants required for specific rituals, festivals and traditional medicine. The protection of the grove ensures the survival of these culturally significant species. The Dimasa *khunang* (priest) and traditional healers are often the repositories of knowledge about these plants, a direct link between conservation and cultural survival.

5.2. Conservation of Faunal Diversity

The 'no-hunting' and 'no-disturbance' rules of the Daikhow create a safe haven for wildlife. A study by Teron and Raghunathan (2015) on sacred groves in Northeast India found that they were crucial for the conservation of avifauna, particularly frugivores and insectivores. The Dimasa Daikhow would likely provide:

- **Habitat for Mammals:** The intact canopy and understory provide critical habitat for arboreal species like the Hoolock Gibbon, Slow Loris and various species of squirrels. It also offers cover for ground-dwelling mammals such as wild boar, barking deer and civets, which are otherwise hunted.
- **Avian Sanctuary:** The groves are sanctuaries for a wide variety of birds, including hornbills, pheasants and other forest-dwelling birds that are highly sensitive to habitat fragmentation and hunting pressure. They act as breeding and nesting grounds, safe from human interference.

- **Refuge for Herpetofauna and Invertebrates:** The moist, undisturbed microclimate within the grove supports a rich diversity of reptiles, amphibians and insects, which play vital roles in ecosystem functioning such as pollination and pest control.

5.3. Provision of Ecosystem Services

Beyond species conservation, the Daikhow provides invaluable ecosystem services that directly and indirectly benefit the community.

- **Hydrological Regulation:** Acting as a 'sponge on the hills,' the undisturbed forest floor of the Daikhow maximizes water infiltration, recharging groundwater aquifers and maintaining the flow of springs and streams that are the primary sources of water for the village. In the monsoons, the dense root systems and canopy cover prevent soil erosion and landslides, protecting the settlements downstream.
- **Soil Conservation:** By preventing soil erosion, the groves maintain the fertility of the surrounding agricultural lands, which are often located on the slopes below them.
- **Climate Buffering:** At a local level, the grove helps in microclimate regulation. Globally, like any old-growth forest, it acts as a significant carbon sink, contributing to climate change mitigation.

In essence, the Daikhow is not a 'locked-up' forest but a functioning component of the landscape and the community, providing spiritual security, material benefits (in a regulated manner) and life-sustaining ecological services. It is a classic example of a socio-ecological production landscape.

6. Challenges and the Future of Daikhow

Despite their resilience and efficacy, the Daikhow system is not immune to the pressures of the modern world. Their future is precarious, facing a combination of internal and external threats that demand urgent attention.

6.1. Erosion of Traditional Beliefs and Institutions

The most significant threat is arguably internal. The younger generation of Dimasas is increasingly exposed to mainstream education, globalized culture and non-indigenous religions like Christianity and Hinduism. This can lead to a gradual erosion of animistic beliefs in the sacredness of the groves. As the spiritual foundation weakens, the associated taboos become less compelling. The authority of the village council and the priest may be challenged, leading to a breakdown in the customary enforcement mechanisms. Furthermore, a shift from subsistence-based livelihoods to cash-based economies can alter the community's relationship with the forest, transforming it from a sacred space to a potential source of timber or land.

6.2. External Development Pressures

Dima Hasao is witnessing rapid infrastructural development, including the expansion of roads and railways and extractive activities like coal mining and stone quarrying. These projects often lead to deforestation, habitat fragmentation and pollution, which can isolate or directly encroach upon sacred groves. Market forces create a strong incentive for illegal logging and the commercial extraction of NTFPs, tempting

community members to violate traditional taboos for financial gain. The 'fortress conservation' policies of the state forest department can also be inadvertently detrimental. By declaring large swathes of forest as Reserved Forests or Wildlife Sanctuaries without recognizing the customary rights of the Dimasa, the state can alienate the community, undermine their sense of ownership and paradoxically weaken their motivation to protect resources like the Daikhow.

6.3. Pathways Forward: Empowerment and Integration

The future of the Daikhow hinges on a dual strategy of community empowerment and integration into formal conservation frameworks.

1. **Legal Recognition and Tenure Security:** The Indian government has mechanisms that could support the Daikhow. The Wildlife (Protection) Act, 1972, allows for the creation of 'Community Reserves' on private or community lands and the Forest Rights Act, 2006, recognizes the customary rights of forest-dwelling communities. Legally recognizing Daikhows as Community Reserves and securing the community's tenure and management rights over them would provide a powerful tool against external encroachment.
2. **Biocultural Revitalization:** There is a need for programs that document and revitalize the traditional oral traditions, rituals and ecological knowledge associated with the Daikhow. This could involve community-led eco-tourism, where visitors learn about the Dimasa culture and ecology, generating income that directly supports the conservation of the grove.
3. **Integrative Conservation Planning:** State forest departments and conservation NGOs should move away from exclusionary models and adopt a collaborative approach. They can work with Dimasa communities to create participatory management plans that integrate the TEK of the Daikhow system with modern conservation science, for example, in restoring degraded landscapes or monitoring wildlife.

7. Conclusion

The *Daikhow* sacred groves of the Dimasa tribe in Dima Hasao offer a profound and living testament to the power of culture in conservation. This paper has argued that the Daikhow is far more than a religious relic; it is a dynamic socio-ecological institution where cosmology, customary law and ecological function are seamlessly integrated. By consecrating forest patches to their deities, the Dimasa people have, for centuries, inadvertently and intentionally created a network of community-governed protected areas that serve as vital reservoirs of biodiversity, anchors for ecosystem stability and pillars of their cultural identity.

The efficacy of the Daikhow stems from its deep-rootedness in the Dimasa worldview, where the forest is not a mere resource but a sentient community. This spiritual foundation gives rise to a system of taboos and social sanctions that, in the absence of any formal state infrastructure, has successfully enforced conservation norms. The ecological analysis confirms that these groves act as crucial refugia for flora and fauna, regulate hydrological cycles and conserve soil in a fragile, hilly landscape.

However, this time-tested system now faces an existential threat from the forces of modernization, market economy and state-driven conservation policies. The erosion of traditional beliefs and the increasing

external pressures on land and resources risk unravelling a biocultural heritage that has sustained both people and nature for generations.

The lesson from the Daikhow is clear and urgent: effective, long-term conservation cannot be achieved through technological fixes and top-down regulations alone. It must be rooted in the cultural landscapes and knowledge systems of the people who live with and depend on biodiversity. The future of places like the Dima Hasao district depends on our ability to recognize, respect and legally empower indigenous conservation initiatives. Supporting the Dimasa Daikhow is not just about conserving a patch of forest; it is about honouring a sophisticated knowledge system and championing a more inclusive, just and ultimately effective paradigm for preserving the planet's irreplaceable biological and cultural heritage.

Conflict of Interest: *The author declares no conflict of interest.*

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