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Forest-Based Livelihoods and the Role of the State in Mizoram: Balancing Conservation and Economic Needs

Dr. Janet Vanlalhlimpuii[1]*, R.V.L. Thianghlima[2], Ramthanpuia Pachuau[3]

[1]*Associate Professor, Department of Public Administration, Government Aizawl West College, Email: jvlhpuii1@gmail.com
[2]Research Scholar, Department of History, Email: Mizoram University, Email: thianghlima@gmail.com
[3]Research Scholar, Department of Public Administration, Mizoram University, Email: ramthanapachuau@gmail.com

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ABSTRACT

This study delves into the intricate relationship between forest-based livelihoods and conservation policies in Mizoram, a state in Northeast India known for its dense forests. These forests are central to the lives of local communities, providing resources for activities like shifting cultivation (jhum), bamboo harvesting, and collecting non-timber forest products. However, these traditional practices often clash with modern conservation efforts aimed at reducing deforestation and protecting biodiversity. By exploring the history of forest governance—from pre-colonial systems led by village chiefs to post-independence policies like the New Land Use Policy (NLUP) and Joint Forest Management (JFM)—the study sheds light on the socio-economic importance of forests and the challenges posed by unclear land rights, limited community involvement, and global frameworks like REDD+. Through qualitative research and case studies, it highlights the need to blend traditional ecological knowledge with modern approaches, promote sustainable livelihoods, and create policies that include and benefit local communities. The findings emphasize that with inclusive strategies, Mizoram can protect its biodiversity while ensuring the prosperity of its people, offering valuable insights into sustainable development for forest-rich regions worldwide.

Key Words: Forest, Ecology, Pre-Colonial, Colonial Period, Post Independence, Policies, Administration, Sustainable.

INTRODUCTION

Mizoram, a picturesque state in Northeast India, is characterized by its lush green forests that cover approximately 85% of its geographical area, making it one of the most forested regions in the country (Forest Survey of India, 2021). These forests, which form part of the Indo-Burma biodiversity hotspot are not only biodiversity hotspots but also vital sources of livelihood for a majority of the rural population. The local population depends on forest-based activities like shifting cultivation(jhum), bamboo harvesting, and non-timber forest product collection to meet subsistence and economic needs. However, the ecological cost of these practices is significant, often clashing with conservation priorities aimed at reducing deforestation, mitigating biodiversity loss, and ensuring environmental sustainability.

Forests are central to the rural economy, supporting activities that are deeply entrenched in the socio-cultural fabric of the Mizo people. Shifting cultivation(jhum), a traditional practice, remains a predominant livelihood strategy, involving the cyclical clearing and burning of forest land for agriculture. While this method is adaptive in regions with low population densities, its sustainability has been called into question due to soil erosion, reduced fallow periods, and diminishing yields (Maithani, 2004; Gadgil & Guha, 1992). These practices, while economically vital, often lead to overexploitation, threatening long-term forest health.

The transition from shifting cultivation (jhum) to settled agriculture, as promoted under policies like the New Land Use Policy (NLUP) was started by the Congress Government in 1985 and was met with mixed reactions. While the policy aims to provide sustainable alternatives, such as horticulture and animal husbandry, it overlooks the socio-cultural importance of jhum and the lack of market access for alternative livelihoods. Additionally, forest-dependent communities face challenges like unclear land tenure and limited participation in policy formulation, exacerbating their vulnerabilities (Springate-Baginski & Blaikie, 2007.).

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Efforts by the state to navigate the challenges of forest dependency and conservation underscore a broader dilemma observed in many developing forest-rich regions. Therefore, this article delves into these complexities, analyzing the historical trajectory of forest governance in Mizoram, the socio-economic significance of forest-based livelihoods, and the challenges posed by conservation-oriented policies.

RESEARCH OBJECTIVES

- To analyse the socio-economic role of forest-based activities like shifting cultivation, bamboo harvesting, and non-timber product collection in Mizoram.
- To evaluate the effectiveness of state policies in promoting conservation and addressing ecological challenges.
- To examine the evolution of forest governance from pre-colonial to post-colonial periods, focusing on changes in land tenure and community participation.
- To identify key challenges to sustainable forest management and propose strategies to balance conservation goals with community livelihoods.

RESEARCH METHODOLOGY

This study employs a qualitative research design to examine the relationship between forest-based livelihoods and the role of the state in Mizoram, focusing on historical, socio-economic, and ecological dimensions of forest governance and its impact on conservation and community welfare. Data collection involves reviewing literature, government reports, policy documents, and academic studies, alongside analysing legal frameworks like the Mizoram Forest Act (1955) and the Central Government Forest Conservation Rules.

Case studies of initiatives like the New Land Use Policy (NLUP), Joint Forest Management (JFM), and the Mizoram Biodiversity Conservation and Forest Enrichment Project (MBCFEP) provide insights into policy impacts, while thematic and policy analyses evaluate socio-cultural practices and sustainable resource use.

The methodological framework integrates political ecology, comparative historical analysis, and community-centric perspectives, bridging traditional ecological knowledge with modern conservation strategies. Content analysis and policy evaluations assess governance effectiveness, ensuring ethical considerations that respect indigenous knowledge systems and socio-economic vulnerabilities. This comprehensive approach highlights the balance required between conservation and economic development in Mizoram.

ECOLOGY AND GEOGRAPHY OF MIZORAM

Location and Topographic Features

Situated in the extreme northeastern corner of India, the Lushai Hills (now Mizoram) lie between latitudes 21°56'N - 24°31'N and longitudes 92°16'E - 93°26'E ((Pachuau, 2013, p. 24). This strategically positioned region is bordered to the north by Cachar and Manipur, to the west by the Chittagong Hill Tracts, to the east by Burma (modern-day Myanmar), and to the south by Arakan (Chambers, 1899, p. 64). Currently, Mizoram shares an international border of approximately 585 kilometres with Bangladesh and Myanmar, underscoring its pivotal transnational location (Pachuau, 2013, p. 24).

The topography of the Lushai Hills is characterized by a blend of mountainous terrains, ridges, and valleys, categorized based on altitude. The western region, in particular, features expansive valleys and prominent ridges, while the overall landscape consists of steeply inclined hills interspersed with narrow, deep valleys. Flatlands are rare and appear only in isolated patches across the region. Geologically, the hills are predominantly composed of tertiary rocks, with ranges running in parallel series from north to south, separated by narrow, deep river valleys. Elevation within the region varies dramatically, from 21 meters at Tlabung to 2,157 meters at Phawngpui, with mountain ranges typically rising between 900 and 2,157 meters. Notable peaks include Lengteng, Chalfilh, Lurh, Hmuifang, and Tan tlang.

Historically, the Lushai Hills were enveloped in dense, verdant forests, forming the habitat of the Mizo people. The rugged terrain significantly shaped the settlement patterns, confining habitation predominantly to the hilly areas.

Climate and Rainfall Patterns

Mizoram's climate is heavily influenced by the southwest monsoon, shaping its distinctive seasonal patterns. The hottest months are May, June, and July, with temperatures between 25°C and 35°C. The arrival of the monsoon significantly cools the region, with temperatures continuing to decline into the latter half of the year. Autumn temperatures range from 18°C to 25°C, while winter brings a milder chill, with temperatures varying between 11°C and 23°C. Despite a brief chilly period from December to February, the summer and rainy seasons dominate the region, leaving only a few months for winter and spring. (Pachuau, 2013, p. 42)

The state receives an average annual rainfall of approximately 250 cm, with the southern and western regions experiencing higher precipitation levels. The rainy season typically begins in May, peaks between July and

August, and tapers off by mid-October. December and January are the driest months, offering a respite from the otherwise rain-soaked landscape. (Pachuau, 2013, p. 42)

Vegetation Types and Biodiversity

Mizoram's varied topography and favourable climatic conditions foster a rich and diverse vegetation cover. The region is home to three major forest types: Tropical Wet Evergreen Forest, Tropical Semi-Evergreen Forest, and Mountain Sub-Tropical Forests, each supporting a variety of economically valuable plant species (Pachuau, 1994, p. 24).

Colonial administrators, geographers, and botanists have extensively documented the region's biodiversity. In A Botanical Tour in the South Lushai Hills (1899), A.T. Gage catalogued 317 plant species, while Cecil E.C. Fischer recorded over 1,300 plant species. This remarkable floral diversity underscores Mizoram's ecological richness, offering significant scope for conservation and sustainable resource utilization.

TRADITIONAL FOREST USE IN PRE-COLONIAL MIZORAM

Chieftainship and Forest Governance

During the pre-colonial period, forest governance in Mizoram was intrinsically tied to the institution of chieftainship. Each village operated as an autonomous unit, headed by a chief who wielded absolute authority. The chief's role extended beyond mere governance; he acted as the protector of his subjects, defending them against rival tribal incursions, leading raids, and identifying suitable locations for habitation and cultivation.

As the village head and owner of all forest land, the chief was regarded as the ultimate authority in resource management and dispute resolution. He, along with a council of elders (Upas) of his choosing, undertook various administrative responsibilities, such as resolving disputes, allocating land for shifting cultivation (jhum), and collecting taxes (Dubey, 1978, p. 100). The chief's position as the custodian of resources entitled him to collect taxes and rents, and he also enjoyed specific privileges derived from these resources.

Households within the village contributed to the chief's revenue through various forms of taxation, including:

- **Fathang**: A share of the harvest, typically one to three baskets of paddy from *jhum* cultivation.
- **Sachhiah**: A portion of every animal hunted (meat tax).
- **Khuaichhiah**: A levy on honey collected from bee hives.
- **Chichiah**: A share of salt obtained from salt wells or springs, collected only with the chief's prior permission.
- **Fish tax**: A tax on fish harvested from water bodies within the village's jurisdiction.

This system of chieftainship not only regulated resource use and ensured equitable distribution but also reinforced the socio-political hierarchy within the community. The integration of governance and resource management under the chief's authority played a crucial role in maintaining order and sustainability in Mizoram's traditional societies.

Spiritual and Cultural Relationships with Forests

The spiritual and cultural worldview of early Mizo society deeply intertwined with their relationship to forests, shaping both their reverence and practical engagement with nature. F.K. Lehman, in *The Structure of Chin Society*, highlighted the profound spiritual significance of forests among tribes in the Chin Hills, a belief system mirrored by the Mizos. Forests, or *ram*, were seen as more than village resources; they were realms inhabited by spirits that governed wild game and natural phenomena. Entering the forest required meticulous caution, including the use of specific euphemisms and rituals, to avoid offending these spirits (Lehman, 1980, p. 173).

This spiritual framework extended to agricultural practices. For instance, the presence of a hollow trunk tree at a site earmarked for cultivation would lead to its immediate abandonment, reflecting fears of spiritual discontent. N.E. Parry, in *The Lakher* (1976), documented similar taboos, such as avoiding trees like *Careya arborea* (wild guava) due to its association with trapping souls and *Pithecolobium angulatum* (wild tamarind), which was avoided for firewood as it was believed to cause poultry illnesses. Hollow stumps filled with water were considered demonic, capable of causing ailments unless the water was drained and offerings were made to placate the spirits (Parry, 1976, p. 78).

The Mizo cosmology recognized spirits inhabiting various natural elements: *Tui-huai* resided in water bodies, while *Ram-huai* dwelled in forests and land (Shakespear, 1975, p. 65). Forests, considered the abodes of these spirits, were treated with deference and caution. (Lorrain, 2012, p. 74). Humans, seen as vulnerable to their influence, often attributed misfortunes to spirit displeasure. To mitigate this, sacrifices were conducted, and certain sacred forests were deliberately left undisturbed.

This belief system placed forests at the core of existence, fostering a deep respect for nature and promoting sustainable resource management. The shared customs and collective fears not only reinforced social cohesion but also inadvertently preserved biodiversity and ecological balance (Singh, 1996, p. 18).

Practices of Shifting Cultivation (Jhum)

The Mizo people have practised *jhumming*/shifting cultivation, since early times, deeply embedding it within their cultural and economic systems. This traditional agricultural method involved clearing forests, burning vegetation to create ash manure, and cultivating the land for a few years before shifting to a new location.

The process began with land selection *(Ramtuk rel)*, typically carried out in January or February. This task required specialized knowledge to assess soil quality, fertility, and topographical suitability. Skilled individuals known as *Ramhuals* were entrusted with identifying suitable plots based on factors such as forest density, sunlight availability, and soil acidity (Parry, 1976, p. 77). While thick forests were often preferred for their nutrient-rich soil and higher yields, bamboo forests, being easier to clear, were favoured when shorter cropping intervals were necessary.

The selection and allocation of plots followed a hierarchical order. Chiefs had the first choice of land, followed by *Ramhuals* and *Zalen* (privileged individuals) before common families received their allocations. Once assigned, the forest was cleared during the early months of the year, and burning occurred in March or April. This was followed by light ploughing and the sowing of diverse crops, including maize, paddy, and vegetables. Additional crops like tobacco and cotton were cultivated for household use. Weeding was performed periodically to ensure optimal growth. The harvest season celebrated through the vibrant *Pawl Kut* festival, was a time of communal joy, marked by feasting and festivities that strengthened social bonds (Parry, 1976, p. 77).

This cyclical agricultural system not only sustained the Mizo communities but also reflected their intimate understanding of their environment. While labour-intensive, *jhum* cultivation represented a sustainable and adaptive practice tailored to the region's hilly terrain and forested landscapes.

Hunting as an Economic and Cultural Practice

In pre-colonial Mizo society, forests served as vital hunting grounds, fulfilling both economic needs and cultural aspirations. Hunting was not merely a subsistence activity but also a pathway to social and spiritual recognition (Lewin, 1978, p. 138). Skilled hunters commanded profound respect within the community, and traditional beliefs held that the killing of large animals secured entry to *Pialral* (paradise) (Parry, 1988, p. 33). reflecting the spiritual dimension of the practice.

Hunting provided essential sustenance while also reinforcing the forest's role as a cultural arena. Strict customs and regulations governed the activity. Hunters were required to pay *Sachhiah* (meat tax) to the chief for every kill, emphasizing the central authority of the chieftainship. Group hunts adhered to specific rules for dividing the catch, with particular portions of the animal traditionally allocated to family members. Penalties were imposed for infractions, such as stealing animals from traps (Parry, 1988, p. 33), reflecting the community's emphasis on fairness and respect for resources.

This intertwined relationship between forests and the Mizo people was deeply symbiotic. Forests were not only economic lifelines but also cultural cornerstones, shaping the spiritual and social identity of the community (Parry, 1988, p. 33). Rooted in customary practices and traditional knowledge systems, hunting exemplified the balanced coexistence between the Mizo and their environment.

COLONIAL FOREST POLICIES AND THEIR IMPACTS

Introduction of British Governance and Resource Control in Mizoram

The advent of the British colonial administration heralded a transformative era in forest governance in Mizoram, paralleling broader changes across India. By the 19th century, British officials began to view forests as both lucrative assets and obstacles to their economic ambitions (Saravanan, 2018, p. 3)

From the 1830s, reports underscored the burgeoning forest-product trade, with southern India becoming a focal point. By the mid-19th century, commercial contractors played pivotal roles in integrating forests into the colonial economy, connecting rural landscapes with urban markets and administrative hubs. The establishment of tea and coffee plantations in the early 1800s (Tucker, 2012), alongside the extensive exploitation of high-demand timber such as sandalwood and teak, accelerated resource depletion across the Western and Eastern Ghats (Saravanan, 2018, p. 6).

These developments signified a marked shift in the perception and management of forests under British rule, prioritizing commercial interests over traditional resource use. This pattern set the stage for the commodification and systematic exploitation of forest resources in Mizoram, profoundly altering the region's socio-economic and ecological landscapes.

Crown Land Ordinance and the Evolution of Indian Forest Acts

The 1840 Crown Land (Encroachment) Ordinance marked a pivotal shift in forest governance, transferring ownership of forests and wastelands to the Crown. This policy catalyzed large-scale deforestation to meet the demands of shipbuilding and railway expansion, while simultaneously converting forest lands for agricultural use (Saravanan, 2018, p. 6). Recognizing the unsustainable pace of exploitation, colonial administrators began promoting forest regeneration, particularly of commercially valuable species like teak. The establishment of the Nilanbur teak plantation in 1844 symbolized the onset of systematic forest management in India.

The creation of the Imperial Forest Department in 1864 and the subsequent enactment of the Indian Forest Act of 1865 institutionalized government control over forests, asserting a monopoly on timber and other resources (Perera, 2009, p. 195). The Indian Forest Act of 1878 further curtailed customary rights, transforming traditional community access to conditional privileges granted by the government (Perera, 2009, p. 195). Later, the Indian Forest Act of 1927 consolidated these laws, categorizing forests into *reserved*, *protected*, and *village* forests, with varying degrees of community access (Perera, 2009, p. 195). While *village forests* offered limited concessions for livelihood needs, ultimate authority remained with the state, ensuring strict governmental control over forest resources (Pathak, 1994, p. 208).

In the Lushai Hills, this transformation disrupted communal forest management traditions, replacing them with state dominance (Guha, 1994, p. 208). The British instituted a dual governance system, ruling indirectly through existing chiefs while appointing new ones to serve administrative purposes (Spear, 1997, pp. 32–33). Chiefs retained jurisdiction over local affairs but were stripped of their autonomy in resource management and major decision-making (Foreign Department, External Affairs, 1890). Their roles were reduced to maintaining order, collecting revenue, and supplying labour, effectively subordinating them to the colonial administration (Foreign Department, External Affairs, 1890).

Policies articulated in the 1895 administrative rules and Major Shakespeare's 1897–98 report emphasized minimal interference in day-to-day village governance (Foreign Department, External Affairs, 1890), yet subtly co-opted the chiefs to uphold British interests. This arrangement allowed the colonial administration to manage the region cost-effectively while asserting control over its natural resources (Foreign Department, External Affairs, 1890), setting a precedent for centralized forest governance that persisted post-independence (Parry, 1992, p.3).

Legislative Frameworks and Forest Categorization in Mizoram

The British colonial administration introduced a series of legislative measures to regulate the governance of the Lushai Hills (now Mizoram) and to manage interactions with the native populations. The *Scheduled Districts Act of 1874*, which came into effect in 1898 (Government of India, 1898), provided the framework for administration in the region until 1919. This act aimed to control the region by designating it as a "scheduled district," which allowed the British to exert greater control over the local population and restrict their access to external influence.

The *Government of India Act of 1919* further categorized the Lushai Hills as a "backward tract" (McCall, n.d., p. 238), which signified that the region was considered underdeveloped and required special administrative attention. Later, the *Government of India Act of 1935* designated the area as an "Excluded Area" (Reid, 1978, p. 66) effectively cutting off its integration into the broader administrative framework of British India. The *Bengal Eastern Frontier Regulation of 1873* played a crucial role by enforcing the Inner Line Permit System (Chaube, 1999, pp. 14, 15, 23), which restricted the movement of outsiders into the Lushai Hills. Initially, this was intended to protect British settlements and plantations located near the foothills from the indigenous tribes, but it also served to limit external encroachment into the region.

In addition to these acts, the British extended provisions from the *Indian Penal Code of 1860* and *Section 144 of the Criminal Procedure Code* to the Lushai Hills, further reinforcing colonial authority (Sangkima, 1992, pp. 103–104). These laws provided a degree of protection against commercialization and external intrusion into the region but also allowed the colonial government to assert control over land and resources.

The British forest policy, which categorized forests into *'reserved,' 'protected,'* and *'unclassed'* areas, significantly altered the traditional systems of forest management. The focus was primarily on commercial exploitation, with *'reserved'* forests placed under strict state control for timber and other commercial resources, while *'protected'* forests allowed limited use for local communities. The *'unclassed'* forests were areas with less regulation, but still under the influence of the state (Singh, 1996, p. 38). As infrastructure such as roads and railways expanded, the British prioritized the exploitation of accessible forests located near transport routes, expanding this activity as their reach into the region grew. These changes disrupted the traditional methods of forest management and ownership, replacing them with structures that primarily served imperial economic interests.

Commercial Exploitation and Forest Conservation Initiatives

In the early colonial period, the British economic interests in the Lushai Hills (now Mizoram) were primarily focused on maintaining public order rather than exploiting forest resources. The region's dense tropical evergreen forests were not as commercially valuable or accessible as those in the plains and foothills of Assam. However, timber from navigable routes and unclassed forests still contributed to revenue, although this was on a smaller scale compared to other regions of British India (Singh, 1996, p. 38).

The administration of forests was not initially the responsibility of a dedicated forest department. Instead, it was overseen by the district administration, with shared border operations managed by the Cachar Forest Division (Government of Assam, 1895). Commercial timber extraction focused on riverbank areas, with the government holding a monopoly over the trade of forest products but without efforts to replenish the forests.

In 1877, the British established the only formal forest reserve in the region (McCall, 1980, p. 193), the *Inner Line Reserve*, a 509-square-mile area along the Cachar border. This reserve was intended to prevent jhumming (shifting cultivation) from damaging crops in the plains of Cachar (McCall, 1980, p. 193). In 1904, the Lushai

Hills was brought under formal forest management with a notification from the Chief Commissioner of Assam, placing it under the superintendent's authority, supervised by the conservator of forests. The *Inner Line Reserve* was transferred to the Lushai Hills, and the region was divided into blocks for management under the Divisional Forest Officer (DFO). Timber felling was regulated, and trade permits were issued in consultation with the Lushai Hills superintendent. Royalties were collected and shared among the regions involved.

In the 1930s, the British introduced an experimental policy that allowed unrestricted timber cutting near navigable rivers or house sites, with royalties collected by the Bengal Forest Department. Reserved forests, including those near rivers, roads, and towns, were also established by executive order. Riverine reserves extended one mile along navigable rivers, restricting paddy cultivation but allowing bamboo plantations. Roadside reserves, 150 feet wide on either side of government roads, were meant to prevent landslides and preserve trees, with villages responsible for their upkeep (Singh, 1996, p. 40). Tree felling within towns required the superintendent's permission and was regulated to ensure safety and proper resource management.

Despite these regulations, the extraction of timber was often poorly supervised (McCall, 1980, p. 194). Large-scale unsupervised timber extractions were driven by traders, with inadequate afforestation efforts and infrastructure (McCall, 1980, p. 194). A.G. McCall, an observer of the time, noted that extensive *jhumming* practices contributed to deforestation and hindered forest regeneration. The British aimed to control specific forest areas while easing restrictions elsewhere, creating a balance between state control and the needs of the forest department, while also reducing administrative burdens. However, they strongly opposed opening the *Inner Line Reserve* to general jhumming, fearing it would accelerate deforestation and damage the crops in the plains of Cachar. The reserve was seen as an important buffer against environmental degradation (McCall, 1980, p. 196). The forest governance system in the Lushai Hills was region-specific, with detailed rules governing the extraction and export of timber. In *Unclassed* and *Unreserved Forests*, where produce was not exported, extraction for personal use was royalty-free, but sale required the superintendent's authorization (McCall, 1980, p. 198).

Approaches to Shifting Cultivation

The British considered shifting cultivation *(jhumming)*, as primitive and economically unviable (Singh, 1996, p. 50). They associated it with the destruction of valuable timber, but recognizing the difficulty of implementing a better alternative and the region's limited economic returns, they allowed it under strict restrictions. Jhumming was permitted in bamboo-dominated areas within forest reserves but restricted in riverine, roadside, and town reserves to protect timber resources (McCall, 1980, p. 200). Chiefs had control over other cultivable areas, and jhumming was confined to designated territories (McCall, 1980, p. 203). By the later colonial period, population pressure on jhumming land increased. In 1941, the Council of Chiefs requested more freedom for cultivation, including access to forest areas near roads and riverine reserves for cotton farming (MSA, Govt of Mizoram, 1941–1942). The British maintained a balance, allowing jhumming to continue as long as it did not threaten the timber trade (Singh, 1996, p. 51).

The British introduced alternative forms of agriculture, such as wet rice cultivation in Champhai Valley (1898), North Vanlaiphai (1904), and Tuisenhar (1925) (Singh, 1996, p. 52). However, these initiatives faced environmental challenges, as the valleys with running streams were limited. The success of these efforts was also hindered by rugged terrain, poor market access, and inadequate transport. Despite these trials, the British did not succeed in replacing shifting cultivation with modern agriculture in the region. Experiments in silk rearing and crop cultivation (e.g., cardamom, coriander, sesame) were also tried but remained limited in scope. Consequently, shifting cultivation continued as the dominant agricultural practice in the region.

Resistance and Demands for Resource Revenue by Chiefs

The forest management system in the Lushai Hills under British rule was inadequate and underdeveloped, with limited administrative oversight and poor planning. By 1947-48, there were still no proper working plans in place for the region's forests, nor were there any significant efforts in afforestation, fire protection, or forest surveys (MSA, Govt of Mizoram, 1947–1948). Basic data on forest economics, botany, and commercial tables were also absent. Local participation in forest management efforts was hampered by educational barriers, as few locals were able to qualify or pass the necessary training courses (MSA, Govt of Mizoram, 1916). For example, in 1931, the local forest department had only a Deputy Ranger and seven Forest Guards (MSA, Govt of Mizoram, 1931), and by 1948-49, Aizawl's workforce consisted of just one Forester and five Forest Guards (MSA, Govt of Mizoram, 1949).

The excessive control of forest resources by the British led to growing dissatisfaction among the indigenous chiefs. In 1941, a conference was convened with several chiefs from the region, where they voiced their grievances about the lack of financial benefit from the timber trade. They argued that the government's monopoly on forest resources, particularly timber, left them with no incentive to preserve the forests or manage shifting cultivation (jhumming). (MSA, Govt of Mizoram 1941–1942)

The chiefs were particularly concerned about the lack of compensation for the resources extracted from their lands. As the custodians of the land and its resources, they felt entitled to a share of the revenue generated from the timber trade. They argued that the economic burden of preserving forests and controlling jhumming cultivation fell on them, but without a financial stake in the trade, they had little motivation to enforce the British-imposed restrictions or support conservation efforts.

This resistance reflected broader frustrations with British policies that failed to recognize the local chiefs' role in resource management and their economic interests. The chiefs' demands marked the beginning of a push for greater autonomy over the management of forests and the revenues they generated, highlighting the growing tension between the colonial administration and the native governance structures in the Lushai Hills.

POST-INDEPENDENCE FOREST GOVERNANCE

Continuation of Colonial Practices

The forest policies implemented during colonial India continued to influence post-independence governance, as evidenced by the National Forest Policy of 1952. This policy enhanced the state's exclusive right to manage, protect, and utilize forests, much like the colonial forest policies that were driven by imperial interests. The post-independence forest policy sought to meet the demands of the commercial industry by granting industries access to forest resources. However, tribal communities were often excluded from utilizing these forests, despite their historical dependence on them. Over the years, large tracts of forests have been cleared for agriculture, hydroelectric projects, and other commercial development activities. From 1950 to 1980, an estimated 150,000 hectares of forest were diverted annually for such purposes (Saigal, Arora, & Rizvi, 2002, p. 198).

The Mizoram Forest Act 1955

The Mizoram Forest Act, of 1959 outlines a comprehensive framework for forest management and conservation in the state of Mizoram. The act underscores the dual objective of resource utilization and protection, recognizing forests' ecological, economic, and cultural importance. Its preamble (Government of Mizoram, 1955, p. 1) establishes the necessity for conservation while defining terms such as *'reserved forest'* and *'forest produce'* (Government of Mizoram, 1955, p. 1-3) to provide clarity in interpretation and management. Governance structures (Government of Mizoram, 1955, p. 3-7) delineate the roles of state and local councils, with the introduction of *'Government Forest Officers'* to enforce the act, reflecting a balance between centralized authority and community participation.

The act includes significant protective measures, with detailed provisions for creating Reserved Forests (Government of Mizoram, 1955, Section 11, p. 9) and Village Forests (Government of Mizoram, 1955, Section 12, p. 15). It enforces stringent penalties for illegal activities such as trespassing and illegal logging (Government of Mizoram, 1955, Section 24, p. 15) while ensuring accountability through compensation mechanisms (Government of Mizoram, 1955, p. 31). It also addresses shifting cultivation (jhum) (Government of Mizoram, 1955, p. 28-30), regulating its practice to balance agricultural needs with forest conservation goals. Revenue and licensing provisions (Government of Mizoram, 1955, p. 20-25) further detail the collection of royalties and permits for forest produce, emphasizing the act's role in supporting administrative and conservation efforts.

Community involvement is a central theme of the act, with provisions for village forests ensuring access to resources for subsistence under sustainable practices (Government of Mizoram, 1955, Section 14, p. 18). However, the regulation of customary rights (Government of Mizoram, 1955, p. 16-20) under state supervision marks a departure from traditional autonomy, highlighting the tension between preserving indigenous practices and enforcing state-centric governance. Legal mechanisms for dispute resolution and appeals (Government of Mizoram, 1955, p. 20-40) underscore the act's emphasis on transparency and robust enforcement. Academically, the act serves as a critical lens to examine the transition from customary to codified forest governance, the integration of colonial legacies, and the challenges of aligning traditional livelihoods with contemporary conservation priorities.

Integration of Forest Conservation Legislation with Mizoram Forest Management

Forest management in Mizoram operates within the broader framework of India's national forest conservation legislation. The Forest (Conservation) Act, 1980, its accompanying Forest Conservation Rules, 2003, the Forest (Conservation) Amendment Rules, 2004, and the Forest (Conservation) Amendment Act, 2023, form the foundation of legal and administrative processes governing forest use in the state. These legislative instruments, adapted and implemented by the Mizoram Forest Department, address the unique ecological, cultural, and socio-economic dynamics of the region.

Forest (Conservation) Act, 1980: Safeguarding Mizoram's Forests

The Forest (Conservation) Act, of 1980, provides the principal legal framework for forest conservation in Mizoram, emphasizing the importance of ecological preservation amidst the state's extensive forest cover. The act prohibits the diversion of forest land for non-forest purposes without prior approval from the Central Government, ensuring that any proposed use aligns with national priorities (Government of India, Ministry of Environment & Forest, 2004, p. 1-2). Mizoram, with its heavy dependence on shifting cultivation (jhum) and traditional land-use practices, benefits from the act's balance between conservation and developmental needs. The establishment of an Advisory Committee under the act ensures a thorough evaluation of forest land proposals, particularly in a region where customary and community-driven land practices often intersect with state governance (Government of India, Ministry of Environment & Forest, p. 2). The act's penalties for violations provide a deterrent against illegal deforestation, which is crucial for maintaining Mizoram's

biodiversity-rich forest ecosystems (Government of India, Ministry of Environment & Forest, p. 1-2). Furthermore, the act underscores the need for compensatory afforestation, which is especially relevant for mitigating the ecological impacts of land-use changes in the hilly terrain of Mizoram.

Forest Conservation Rules, 2003: Structuring Forest Governance in Mizoram

The Forest Conservation Rules, 2003, introduced procedural clarity and institutional mechanisms to implement the 1980 act. These rules formalized processes for submitting and reviewing proposals for forest land diversion, critical for Mizoram, where community forest land intersects with government-controlled areas.

Mizoram's forest governance benefits from the establishment of the Advisory Committee, which includes multidisciplinary expertise to evaluate environmental, cultural, and socio-economic impacts (Government of India, Ministry of Environment & Forest, p. 4). For instance, site inspections and detailed assessments mandated by the rules ensure that local biodiversity and indigenous practices are considered before approval. The procedural timelines help address the bureaucratic challenges in processing forest land proposals (Government of India, Ministry of Environment & Forest, p. 6-7), a crucial aspect of Mizoram's development projects involving roads, hydroelectric plants, and community infrastructure.

Forest Conservation Amendment Rules, 2004: Decentralization for Regional Governance

The Forest Conservation Amendment Rules, 2004, refined the processes outlined in the 2003 rules by decentralizing decision-making through the establishment of Regional Empowered Committees (Government of India, Ministry of Environment & Forest, p. 18-19). This development is particularly significant for Mizoram, given its remote location and dependence on regional governance for efficient project approvals.

The Regional Empowered Committees, chaired by the Regional Principal Chief Conservator of Forests, evaluate projects involving up to 40 hectares of forest land (Government of India, Ministry of Environment & Forest, p. 20). This decentralization accelerates approvals for smaller, community-centric projects such as village roads and minor irrigation schemes. The amendments also emphasize accountability, ensuring that delays in processing proposals are addressed promptly, which is vital for the state's time-sensitive development needs.

State Initiatives within the National Framework

Mizoram's forest governance is intricately linked to India's broader forest legislation, which includes the 2003 and 2004 rules designed to address local needs while meeting national conservation objectives. These rules provide a structured framework that facilitates decentralization and ensures that local governance structures can participate meaningfully in forest management.

However, effective implementation of these initiatives in Mizoram hinges on several critical factors: the development of clear operational guidelines, robust monitoring systems, and capacity-building programs for both local authorities and communities. Participatory governance models, which integrate traditional ecological knowledge and practices, are essential in ensuring that forest management aligns with the aspirations of local communities while fulfilling national conservation and climate goals.

This evolving legislative framework reflects a dynamic balance between conserving Mizoram's rich biodiversity and supporting the state's developmental objectives. The progress made offers valuable lessons for policymakers and scholars, providing insights into how forest governance can effectively address both conservation needs and socio-economic development in environmentally sensitive regions.

Policies to Reduce Dependence on Jhum Cultivation

In recent years, the Mizoram government has actively sought to address the dual challenges of forest conservation and economic development, particularly by tackling the widespread practice of shifting cultivation, or jhum. One of the key policies introduced to address these issues is the New Land Use Policy (NLUP), which was first launched in the 1980s and later revamped in the 2000s. The NLUP aimed to reduce the state's reliance on jhum by promoting more sustainable agricultural practices, including permanent agriculture, agroforestry, and alternative livelihoods. The policy offered financial and technical support to farmers transitioning away from jhum cultivation, incentivizing them to adopt more sustainable farming practices.

Despite its positive intentions, the implementation of the NLUP faced several challenges. Infrastructure limitations, such as poor transportation networks and inadequate market access for alternative crops, hindered its success. Additionally, many communities remained deeply attached to traditional jhumming practices, making it difficult to fully transition to permanent agriculture. Resistance to change and a lack of awareness about the long-term benefits of alternative livelihoods further slowed progress.

Nevertheless, the NLUP remains a key component of the state's strategy to balance environmental conservation with rural development. By promoting more sustainable land use practices, it aims to reduce deforestation and degradation of forest resources while improving the livelihoods of farmers in Mizoram. With more focused attention on overcoming implementation barriers, the NLUP could help transform agricultural practices in the state, aligning with both conservation goals and economic development priorities.

Major Initiatives on Community-Centric Conservation Strategies in Recent Years

Mizoram's forest management strategies in recent years have evolved to combine state-driven efforts with community-centric models. These initiatives address pressing environmental issues such as deforestation, biodiversity loss, and socio-economic challenges, aligning with global conservation and climate change mitigation trends. Among the key strategies are the Mizoram Biodiversity Conservation and Forest Enrichment Project (MBCFEP) and Joint Forest Management (JFM), both of which emphasize community participation in forest governance.

a) Mizoram Biodiversity Conservation and Forest Enrichment Project (MBCFEP):

Launched with the dual aims of conserving biodiversity and promoting sustainable forest management, the MBCFEP is a state-driven initiative that emphasizes community engagement. The project supports practices such as afforestation, agroforestry, and the sustainable harvesting of non-timber forest products (NTFPs). These activities not only aid in restoring degraded forests but also foster community ownership and stewardship by actively involving local people in decision-making and implementation.

The project's eco-restoration efforts focus on addressing forest degradation through plantation drives and enhancing habitats for endangered species. Additionally, MBCFEP integrates income-generating activities through the value-added processing of NTFPs like medicinal plants, honey, and bamboo products, thus creating economic opportunities for local communities.

Despite these positive intentions, the initiative faces challenges such as insufficient capacity-building, limited market access for NTFPs, and disputes over land use rights. These issues hinder the broader success and sustainability of the project, highlighting the need for more comprehensive support systems and effective conflict resolution strategies.

b) Joint Forest Management (JFM):

JFM has proven effective in integrating local ecological knowledge with scientific forest management. For instance, controlled grazing, regulated harvesting, and fire prevention practices have led to improved forest regeneration in several areas. By involving local communities directly in forest management, JFM fosters a sense of ownership and accountability.

However, Inconsistent funding, lack of training for committee members, and overlapping authority between local councils and forest officials undermine the program's impact. To maximize the potential of JFM, it is essential to address these issues through better funding mechanisms, capacity-building programs, and clear delineation of authority.

CHALLENGES TO SUSTAINABLE FOREST MANAGEMENT IN MIZORAM

Sustainable forest management in Mizoram encounters significant obstacles despite the ongoing policy interventions and the global emphasis on conservation. These challenges, including conflicts surrounding land tenure, the over-exploitation of resources, the influence of global climate frameworks, and gaps in policy implementation, impede efforts to achieve a harmonious balance between environmental conservation and the socio-economic needs of local communities.

Land Tenure and Resource Access: The traditional land tenure system in Mizoram, deeply rooted in customary practices, often clashes with state-driven forest conservation policies. The informal nature of these land ownership systems complicates the enforcement of statutory conservation laws and equitable resource distribution. While communities have historically managed land and forests collectively according to customary laws, these frameworks are not always acknowledged within the formal legal structure (Gadgil & Guha, 1992.). This discrepancy leads to disputes over resource control and ownership, creating significant barriers to the effective implementation of forest management initiatives.

Unsustainable Practices: Mizoram's forests are under increasing pressure due to the unsustainable exploitation of timber, firewood, and non-timber forest products (NTFPs). Despite policies such as the New Land Use Policy (NLUP) aimed at reducing dependence on shifting cultivation (jhum), the lack of viable alternative livelihoods forces many communities to persist with environmentally detrimental practices. Jhum cultivation, although culturally significant, contributes to forest degradation when practised without sufficient fallow periods, which are being increasingly compressed due to population growth (Ramstein et al., 2019.). Moreover, the commercialization of timber and bamboo has intensified deforestation, further compounded by Mizoram's proximity to international borders, which has made it a hotspot for illegal logging and timber trade. Weak enforcement mechanisms and limited resources for forest patrols have hindered the effective regulation of these activities.

Climate Change and Global Conservation Frameworks: International frameworks such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation) have imposed additional pressures on Mizoram's Forest management systems. While these frameworks prioritize carbon sequestration and biodiversity conservation, they often overlook the socio-economic needs of local communities. REDD+ projects, for instance, focus on reducing deforestation emissions without sufficiently addressing the subsistence needs of forest-dependent populations (Phelps et al., 2012.). The global push for forest conservation has, at times, resulted in restrictions on traditional practices, creating tensions between national conservation priorities and local livelihood strategies. Furthermore, climate change impacts, including erratic

rainfall patterns and rising temperatures, have exacerbated the vulnerability of rural communities by affecting forest health and agricultural productivity.

Policy Implementation Gaps: A significant challenge in Mizoram is the gap between policy formulation and its implementation. Initiatives like the NLUP and Joint Forest Management (JFM) often fall short of their potential due to bureaucratic inefficiencies and limited grassroots engagement. Communities often face difficulties in accessing government support for afforestation and sustainable livelihood programs. The lack of adequate training in forest conservation techniques, coupled with limited awareness of policy objectives, further undermines the successful implementation of these programs. Addressing these gaps is crucial for ensuring that forest management policies effectively balance conservation needs with the socio-economic realities of local populations.

RECOMMENDATIONS FOR BALANCING CONSERVATION AND ECONOMIC NEEDS IN MIZORAM

Mizoram's forests are vital not only for the region's ecological health but also as the primary source of livelihood for a majority of its rural population. Consequently, balancing conservation goals with the economic needs of local communities demands a collaborative, adaptive approach. Below are key recommendations for fostering sustainable forest management in the region:

1. Strengthen Community Participation: A pivotal step towards balancing conservation and livelihood needs is empowering local communities in forest governance. Traditional knowledge, practices, and norms have historically guided forest resource management in Mizoram. However, recent state-driven policies have often marginalized these native practices in favour of more formal conservation strategies. A more inclusive model, recognizing the role of local communities as active decision-makers, can significantly enhance stewardship and promote sustainable resource utilization. Ensuring that communities are not passive stakeholders but central to decision-making processes will make policies more effective and socially equitable, fostering a deeper sense of ownership over forest resources.

2. Promote Sustainable Livelihoods: Forest-dependent activities such as shifting cultivation (jhum) have long been integral to Mizoram's economy. However, to reduce the ecological impact, the state must invest in promoting alternative livelihoods, such as eco-tourism, sustainable agroforestry, and value-added processing of non-timber forest products (NTFPs). These alternatives not only offer income-generating opportunities but also preserve the integrity of forest ecosystems. Eco-tourism, for example, presents a significant opportunity to create local employment and generate income while contributing to forest conservation. Agroforestry, which incorporates trees into agricultural practices, provides a way to diversify production without damaging the environment. Additionally, promoting the processing of NTFPs such as bamboo and medicinal plants can offer more sustainable economic alternatives while reducing the pressure on forests. Implementing these alternatives requires coordinated efforts among government agencies, local communities, and non-governmental organizations (NGOs) to provide training, financial support, and technical expertise tailored to the region's specific needs.

3. Enhance Institutional Capacity: To effectively implement sustainable forest management strategies, it is crucial to enhance the institutional capacity of both government bodies and local organizations. The Forest Department, local village councils, and community-based organizations must be adequately trained and resourced to execute these strategies. This includes training communities in sustainable practices such as agroforestry, organic farming, and sustainable NTFP harvesting. Additionally, local institutions should be equipped with the tools and resources necessary to monitor forest health, track resource use, and enforce conservation laws. Providing adequate funding and personnel for the Forest Department will ensure that policies are implemented effectively and sustainably over the long term.

4. Integrate Traditional Knowledge: Mizoram's communities possess valuable traditional ecological knowledge (TEK) related to sustainable land use, forest management, and biodiversity conservation. This knowledge, which has been developed over centuries, includes an intimate understanding of local ecosystems, plant and animal species, weather patterns, and soil conditions. By integrating TEK with modern scientific approaches, forest management strategies can be enhanced. This not only ensures that policies are scientifically sound but also culturally appropriate, fostering trust between local communities and forest authorities. Blending traditional and modern knowledge can create adaptive and resilient forest management systems that are better suited to Mizoram's unique ecological and social conditions. One such example is the promotion of community-led agroforestry practices, where traditional farming knowledge is combined with modern techniques to improve land productivity while maintaining ecological balance.

5. Align with Global Conservation Frameworks: Global environmental initiatives, such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation) and the Convention on Biological Diversity, have played a significant role in shaping forest governance worldwide. While these frameworks provide valuable resources and incentives for conservation, they must be adapted to local contexts to ensure they support the communities that rely on forests for their livelihoods. It is crucial to align global conservation goals with local needs, ensuring that policies do not marginalize forest-dependent communities. For example, while REDD+ focuses on carbon sequestration and forest preservation, it often overlooks the socio-economic impacts

on local populations. Therefore, global initiatives in Mizoram should include provisions for community benefits, such as financial compensation, capacity-building programs, and the promotion of alternative livelihoods. Adapting global frameworks to local realities will not only mitigate negative impacts on communities but also foster greater participation in conservation efforts, leading to more equitable outcomes that address both environmental and socio-economic goals.

Conclusion

The forests of Mizoram are not only vital to the region's biodiversity but are also deeply woven into the socio-economic fabric of the state. For the local communities, these forests provide essential resources such as food, fuel, and income, making them central to daily life. However, this dependence on forest resources necessitates a delicate balance between ecological preservation and economic growth. Achieving this balance requires policies that both safeguard the environment and support the livelihoods of forest-dependent populations.
Mizoram's path toward a sustainable future hinge on adopting inclusive and adaptive policies that address local needs while aligning with global conservation frameworks. To achieve this, the state must prioritize community participation, promote sustainable livelihoods, enhance institutional capacity, and integrate traditional knowledge into forest management practices. By fostering collaboration between local communities, government agencies, and global conservation initiatives, Mizoram can ensure the long-term health of its forests while securing the well-being and prosperity of its people. Through this balanced approach, the region can achieve an integrated model of conservation and development that benefits both the environment and its communities.

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