

International Journal Research Publication Analysis

Page: 01-18

LAND REVENUE SYSTEMS, FOREST POLICIES, AND TRIBAL MARGINALIZATION: AN INTEGRATED HISTORICAL ANALYSIS OF BRITISH INDIA AN ENVIRONMENTAL HISTORY AND POLITICAL ECOLOGY PERSPECTIVE ON COLONIAL FOREST GOVERNANCE AND CONTEMPORARY TRIBAL RIGHTS IN INDIA

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Article Received: 30 June 2026

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Article Revised: 20 July 2026

Research scholar, Sunrise university Alwar Rajasthan.

Published on: 07 August 2026

DOI: <https://doi-doi.org/101555/ijrpa.5172>

ABSTRACT

Colonial rule in India fundamentally reorganized the relationship between land, forest, and community, converting customary systems of resource use into instruments of revenue extraction and state control. This paper offers an integrated historical analysis of how land revenue settlements—principally the Permanent Settlement, the Ryotwari and Mahalwari systems—intersected with successive forest legislation, notably the Indian Forest Acts of 1865, 1878, and 1927, to dispossess forest-dwelling and tribal communities of customary rights over land and forest produce. Drawing on environmental history and political ecology as complementary analytical frameworks, the study traces the transition from diverse, ecologically embedded modes of subsistence to the codified regime of "scientific forestry" associated with Dietrich Brandis and the Imperial Forest Department. It examines tribal resistance movements—the Chuar Rebellion, the Halba Revolt, the Paharia Resistance, and the Santhal Rebellion (Hul)—as expressions of environmental justice claims against the erosion of customary access. Particular attention is given to the criminalization of shifting cultivation (jhum) in Northeast India as a case of colonial ecological misreading. The paper argues that colonial forestry, while presented as a conservationist project, was primarily an apparatus of commercial timber extraction and administrative control whose ecological and social consequences persist in contemporary forest governance. A comparative analysis situates the postcolonial legal architecture—including the Forest Rights Act, 2006—against colonial precedents, showing both continuities and ruptures in the treatment of indigenous

ecological knowledge. The paper concludes with policy recommendations for community-centred, rights-based forest governance responsive to climate change and biodiversity imperatives. The analysis contributes to environmental history, political ecology, and sustainability scholarship by demonstrating that land revenue policy and forest policy cannot be studied in isolation, since their combined operation produced the structural marginalization of tribal communities that continues to shape forest politics in contemporary India.

KEYWORDS: Colonial forestry; land revenue systems; tribal marginalization; political ecology; scientific forestry; shifting cultivation; environmental justice; Forest Rights Act.

1. INTRODUCTION

The forests and uplands of colonial India were never merely physical spaces awaiting scientific management; they were lived landscapes embedded in customary tenure, ritual practice, and subsistence economies long before the East India Company began systematizing land revenue in the late eighteenth century. The imposition of the Permanent Settlement in Bengal in 1793, followed by the Ryotwari settlements in Madras and Bombay and the Mahalwari arrangements in the North-Western Provinces, converted land from a socially embedded resource into a fiscal asset whose value was measured primarily in terms of revenue yield. This reorganization did not stop at the boundary of cultivated fields; it extended into forested and hill tracts inhabited overwhelmingly by tribal and other forest-dependent communities, whose modes of livelihood—shifting cultivation, minor forest produce collection, pastoralism, and hunting-gathering—fit poorly within a revenue logic premised on settled, measurable agriculture.

The consolidation of state forestry from the 1860s onward, under officials such as Dietrich Brandis, added a second and reinforcing layer of dispossession. Where land revenue policy had already unsettled customary tenure, the Indian Forest Acts of 1865, 1878, and 1927 formally reclassified vast tracts as State Forests and Reserved Forests, criminalizing practices that tribal communities had followed for generations. The cumulative effect was what political ecologists have since termed "accumulation by dispossession" in an ecological register: a transfer of control over natural resources from customary users to the colonial state, legitimized by the discourse of scientific management and conservation.

This paper argues that land revenue systems and forest policies must be read together, not as parallel colonial projects but as mutually reinforcing instruments of territorial and fiscal

control whose combined effect was the structural marginalization of tribal communities. It situates this argument within environmental history and political ecology, disciplines that foreground the co-production of ecological and social change, and extends the analysis into the present by comparing colonial forest governance with the postcolonial legal regime inaugurated by the Forest Rights Act, 2006. In doing so, the paper contributes to ongoing debates on sustainability, biodiversity conservation, and community forest governance by showing that contemporary policy dilemmas—the tension between conservation and rights, between scientific and indigenous knowledge—have deep historical roots that continue to shape institutional practice.

2. Literature Review

2.1 Previous Studies

Scholarship on colonial forestry in India has developed along several intersecting strands. Foundational environmental histories by Gadgil and Guha (1992) and Guha (1989) established that the transition to state forestry represented a rupture in the ecological relationship between forest communities and their habitat, converting a diverse subsistence economy into a monocultural regime oriented toward railway sleepers, shipbuilding timber, and revenue. Grove (1995) situated Indian forestry within a broader history of colonial environmentalism, arguing that conservationist ideas were themselves products of imperial anxieties about desiccation and climate change rather than disinterested science. Sivaramakrishnan (1999) complicated the narrative of a monolithic colonial state by showing that forest administration in Bengal was shaped by negotiation, local ecological knowledge, and administrative improvisation, even as it remained fundamentally extractive. Skaria (1999) examined the moral and political vocabulary through which forest-dwelling communities in western India contested colonial classification, while Rangarajan (1996) traced the political economy of forest management in the Central Provinces, emphasizing the centrality of commercial timber interests.

Studies of tribal resistance—by scholars such as Singh (1966) on the Santhal insurrection and subsequent historians of the Chuar and Halba uprisings—have documented how forest and revenue policy provoked sustained collective action, though these movements have often been studied in isolation from one another rather than as a connected series of environmental justice claims. Recent scholarship on the Forest Rights Act, 2006, including work published in *Land Use Policy*, *Forest Policy and Economics*, and *World Development*, has examined the Act's uneven implementation, its interaction with the Compensatory Afforestation Fund,

and its implications for biodiversity conservation and climate mitigation. Bose et al. (2012) and Springate-Baginski et al. (2013) offer critical assessments of the Act's promise and limitations, while more recent work situates community forest rights within broader debates on nature-based climate solutions.

2.2 Research Gap

Despite this substantial body of work, few studies integrate land revenue history and forest policy history within a single analytical frame that also extends to contemporary governance. Environmental histories tend to treat forest legislation as the primary driver of dispossession, underplaying the foundational role of revenue settlements in destabilizing customary tenure prior to and alongside forest reservation. Conversely, agrarian histories of the Permanent Settlement and Ryotwari systems rarely engage with forest policy or tribal ecological practice in sustained detail. Studies of individual tribal revolts are seldom read comparatively as instances of a shared pattern of ecological dispossession across regions and periods. Finally, comparative analysis linking colonial forest governance directly to specific provisions of the Forest Rights Act, 2006, and to present-day debates on community forest governance and climate policy, remains underdeveloped in the literature.

2.3 Need for the Study

An integrated historical analysis that connects land revenue systems, forest legislation, and tribal resistance—and that extends this analysis into contemporary forest governance—is necessary for at least three reasons. First, it clarifies the structural, rather than incidental, character of tribal marginalization under colonial rule. Second, it provides historical grounding for evaluating whether postcolonial legal instruments such as the Forest Rights Act have addressed or merely reformulated colonial patterns of exclusion. Third, it contributes to sustainability scholarship by demonstrating the value of indigenous ecological knowledge systems for biodiversity conservation and climate resilience, an argument increasingly recognized in international policy discourse but still insufficiently historicized in the Indian context.

3. Research Objectives

This study pursues four objectives: (i) to analyze the interaction between colonial land revenue systems and forest policies in shaping the dispossession of tribal and forest-dependent communities in British India; (ii) to examine major tribal resistance movements—the Chuar Rebellion, the Halba Revolt, the Paharia Resistance, and the Santhal Rebellion—as

environmental justice responses to this dispossession; (iii) to critically evaluate the legacy of scientific forestry, associated with Dietrich Brandis, in terms of its ecological and social consequences; and (iv) to compare colonial forest governance with contemporary forest policy in India, with particular reference to the Forest Rights Act, 2006, and community forest governance.

4. Research Questions

The study addresses the following questions: (1) How did colonial land revenue systems and forest legislation combine to erode customary tribal rights over land and forest resources? (2) In what ways did tribal resistance movements articulate environmental justice claims against colonial resource policy? (3) To what extent did scientific forestry under Dietrich Brandis function as conservation, as resource control, or as both simultaneously? (4) What continuities and discontinuities exist between colonial forest governance and contemporary Indian forest policy, and what lessons does this history offer for sustainable and equitable forest governance today?

5. METHODOLOGY

This study adopts a qualitative, historical-comparative methodology grounded in environmental history and political ecology. It relies on secondary data drawn from published historical scholarship, colonial administrative records as discussed in the secondary literature, government reports (including those of the Ministry of Environment, Forest and Climate Change and the Forest Survey of India), and peer-reviewed journal articles published primarily between 2020 and 2025 alongside foundational earlier scholarship. The historical research component reconstructs the sequence of land revenue and forest legislation and situates tribal resistance movements within their administrative and ecological context. The qualitative analysis interprets these events through the conceptual lenses of political ecology—particularly the concepts of territorialization, accumulation by dispossession, and environmental justice—rather than treating them as discrete administrative episodes. The comparative approach juxtaposes colonial-era forest governance with the post-1988 Indian forest policy regime, culminating in the Forest Rights Act, 2006, in order to identify structural continuities and genuine departures. As a desk-based historical and policy analysis, the study does not involve primary archival fieldwork or human subjects; its contribution lies in synthesis, critical reinterpretation, and the construction of comparative frameworks rather than the generation of new empirical data.

6. Colonial Forest Policies and Their Objectives

The codification of colonial forest policy proceeded in three principal legislative moments. The Indian Forest Act of 1865 provided the first legal basis for the state to declare any land covered with trees as government forest, primarily to secure timber supplies—especially teak and sal—for railway expansion. The more comprehensive Indian Forest Act of 1878 introduced the categories of Reserved, Protected, and Village Forests, formalizing a hierarchy of state control in which Reserved Forests afforded the state near-exclusive rights and severely curtailed customary access. The Act of 1927, which consolidated and extended these provisions, remained the backbone of Indian forest law for decades after independence. Underlying these acts was a revenue and strategic logic: forests were valued as sources of timber for military, naval, and railway purposes, and as land whose reservation prevented the expansion of shifting cultivation into commercially valuable timber tracts.

The stated objective of these policies, particularly from the 1870s onward, was increasingly framed in the vocabulary of conservation and scientific management—a discourse that emphasized sustained-yield timber production, fire protection, and the prevention of soil erosion and desiccation. Yet the working plans developed by the Imperial Forest Department consistently prioritized commercially valuable species over floristic diversity, and the demarcation of Reserved Forests routinely disregarded pre-existing customary rights, which were, at best, converted into limited and revocable "concessions." The land revenue administration reinforced this process: settlement officers, tasked with maximizing assessable revenue, treated forest and fallow land used for shifting cultivation as "waste" pending reclamation, thereby denying its productive and ecological value within tribal subsistence systems. Table 1 summarizes the principal legislative milestones of colonial forest policy.

Table 1. Timeline of Major Colonial Forest Policies.

Year	Policy / Event	Principal Objective	Impact on Tribal Communities
1793	Permanent Settlement (Bengal)	Fix land revenue; create zamindari intermediaries	Undermined communal tenure; extended fiscal claims into forest fringes
1855	Santhal Rebellion (Hul)	Tribal uprising against revenue and moneylending	Precipitated creation of Santhal Parganas as a protective administrative unit
1865	Indian Forest Act	Assert state claim over tree-covered land for railway timber	First legal basis for large-scale exclusion from forest land

Year	Policy / Event	Principal Objective	Impact on Tribal Communities
1878	Indian Forest Act	Classify Reserved, Protected, Village Forests	Sharp curtailment of customary grazing, shifting cultivation, and produce collection
1894	Forest Policy Resolution	Prioritize agriculture over forestry where in conflict	Limited relief; commercial forestry interests still dominant
1927	Indian Forest Act (consolidated)	Codify offences, procedures, and revenue collection	Criminalization of customary forest use persisted into independent India
1930s	Extension of reservation to Northeast India	Regulate and restrict shifting cultivation (jhum)	Disruption of jhum cycles; loss of communal land management

Source: Compiled by the author from Guha (1989), Gadgil and Guha (1992), Rangarajan (1996), and Government of India legislative records.

7. Shifting Cultivation: Historical Development and Colonial Opposition

Shifting cultivation, known variously as jhum in Northeast India, podu in the Eastern Ghats, and by other regional names elsewhere, represents one of the oldest and most ecologically adaptive agricultural systems practiced by tribal communities across the Indian subcontinent. The system involves the rotational clearing of forest plots, cultivation for one to three years, and a fallow period—historically ranging from ten to twenty years—during which secondary forest regenerates and soil fertility is restored. Far from being an unplanned or wasteful practice, jhum cultivation historically operated within community-regulated land-use cycles that distributed plots according to customary norms and maintained landscape-level biodiversity through a mosaic of forest patches at different successional stages.

Colonial administrators, however, viewed shifting cultivation through a lens shaped by European silviculture and revenue logic, characterizing it as destructive, primitive, and inimical to the interests of scientific forestry. Forest officials argued that jhum caused deforestation, soil erosion, and the loss of valuable timber stands, and successive administrative measures sought to restrict or eliminate it, including the reservation of forest tracts previously used for rotational cultivation and the introduction of taungya-style plantation labor as an alternative. In Northeast India, colonial intervention in jhum cultivation was complicated by the relative administrative autonomy of hill areas and the strength of communal land tenure systems, but the broader trajectory—from the late nineteenth century into the twentieth—was one of increasing restriction, criminalization, and administrative pressure to convert shifting cultivators into settled peasants or plantation labor. This

opposition rested on a contested ecological premise: while unsustainably short fallow cycles can indeed cause degradation, colonial policy rarely distinguished between customary, long-fallow jhum and the shortened cycles that colonial land alienation itself helped to produce by restricting the total land available for rotation. In this sense, colonial forest policy generated the very ecological pressures it then cited to justify further restriction—a pattern political ecologists describe as a self-reinforcing cycle of degradation narrative and dispossession.

8. Tribal Resistance and Environmental Justice

Tribal resistance to colonial land and forest policy was neither sporadic nor merely reactive; it constituted a sustained, if geographically dispersed, assertion of what contemporary scholarship terms environmental justice—the claim that access to and control over natural resources should follow principles of equity and community entitlement rather than fiscal or commercial expediency. Four movements illustrate this pattern across different regions and periods.

The Chuar Rebellion (1798–1799), centred in the jungle mahals of present-day West Bengal and Odisha, arose from the imposition of the Permanent Settlement, which subjected forest-fringe communities to unfamiliar and often exorbitant revenue demands while eroding the authority of local chiefs who had traditionally mediated access to forest and land. The Halba Revolt in the Bastar region of the Central Provinces reflected similar grievances against the extension of revenue and forest administration into tracts previously governed by customary tribal authority, compounded by restrictions on shifting cultivation and forest produce collection. The Paharia Resistance in the Rajmahal Hills, sustained across the late eighteenth century, responded to the encroachment of settled agriculture and revenue demands onto hill tracts that the Paharia community had managed through extensive, low-intensity cultivation and forest use; British responses, including the eventual creation of the Damin-i-Koh policy, acknowledged—if only partially and for administrative convenience—the incompatibility of standard revenue assessment with hill ecology.

The Santhal Rebellion, or Hul, of 1855–1856 remains the most extensively documented of these movements. Santhal cultivators, who had migrated into the Rajmahal region under initial administrative encouragement, found themselves subjected to escalating revenue demands, exploitative moneylending, and encroachment by non-tribal landlords onto forest and agricultural land. The rebellion, led by the Murmu brothers, mobilized tens of thousands of Santhals in a coordinated uprising against zamindars, moneylenders, and colonial administration, and although militarily suppressed, it prompted the colonial state to create the

Santhal Parganas as a distinct administrative unit with modified land tenure protections—an early, if limited, colonial recognition that standard revenue and forest policy could not simply be superimposed on tribal ecological and social systems. Table 2 situates these movements comparatively in terms of their ecological and administrative triggers.

Table 2. Major Tribal Revolts and Their Ecological Causes.

Revolt	Period	Region	Ecological / Revenue Trigger	Outcome
Chuar Rebellion	1798–1799	Jungle Mahals, Bengal–Odisha border	Permanent Settlement revenue demands; erosion of chiefly authority over forest tracts	Military suppression; limited administrative concessions
Paharia Resistance	1770s–1780s	Rajmahal Hills	Extension of settled-agriculture revenue norms to hill/shifting cultivation zones	Damin-i-Koh policy; partial recognition of hill ecology
Halba Revolt	Early 19th century	Bastar, Central Provinces	Revenue and forest administration over customary tribal land; curbs on forest use	Suppressed; grievances recurred in later Bastar uprisings
Santhal Rebellion (Hul)	1855–1856	Rajmahal / Santhal Parganas	Exploitative revenue and moneylending; land alienation to non-tribal landlords	Creation of Santhal Parganas with modified tenure protections

Source: Compiled by the author based on Singh (1966), Guha (1989), and regional administrative histories.

Read together, these movements demonstrate a recurring structural pattern: the imposition of revenue and forest regimes designed for settled, plains agriculture onto ecologically and socially distinct tribal landscapes, followed by resistance, suppression, and partial, ad hoc administrative accommodation rather than fundamental policy revision. This pattern anticipates, in important respects, the contested and incomplete implementation of protective legislation in postcolonial India.

9. Dietrich Brandis and Scientific Forestry: Conservation or Colonial Resource Control?

Dietrich Brandis, appointed Inspector-General of Forests in 1864, is conventionally credited as the architect of scientific forestry in India, having introduced German silvicultural

methods, systematic working plans, and a professional forest service modelled on continental European practice. Brandis's intellectual contribution was genuine: he advocated sustained-yield management, opposed indiscriminate felling, and, notably, argued for the accommodation of customary rights within forest administration to a greater extent than many of his contemporaries and successors were willing to sustain in practice. His early reports acknowledged the ecological rationale of certain indigenous practices and cautioned against wholesale exclusion of forest communities.

Nevertheless, the institutional apparatus that scientific forestry produced diverged substantially from Brandis's more accommodating early vision. The working-plan system that his administration established prioritized the regeneration and extraction of commercially valuable timber species—teak, sal, and deodar chief among them—over the ecological diversity that had characterized forests under customary management. The classification of forests into Reserved and Protected categories, formalized in the 1878 Act that Brandis helped shape, created a legal architecture in which customary rights were reduced to enumerated, revocable concessions rather than inherent entitlements. Subsequent administrators, operating under revenue pressure and commercial demand—particularly for railway sleepers and shipbuilding timber—interpreted and applied Brandis's framework in increasingly restrictive ways, such that the discourse of scientific, sustainable management became, in practice, an instrument of commercial resource control and administrative territorialization.

This tension between Brandis's stated conservationist intent and the extractive institutional outcome of scientific forestry illustrates a central proposition of political ecology: that conservation discourse, however genuinely motivated at the level of individual actors, can function to legitimize resource control when embedded within a fiscally driven colonial state apparatus. Scientific forestry was, in this sense, simultaneously a genuine advance in silvicultural knowledge and an instrument of dispossession—a duality that later scholarship, including Guha (1989) and Sivaramakrishnan (1999), has emphasized as central to understanding the colonial forestry project rather than treating conservation and control as mutually exclusive characterizations.

10. Environmental Consequences of Colonial Forestry

The environmental consequences of colonial forestry were substantial and, in several respects, continue to shape the ecological character of Indian forests today. The prioritization of commercially valuable monocultures—particularly teak plantations in peninsular India and

sal-dominated management in eastern and central India—reduced floristic diversity relative to the mixed forests that had existed under customary management regimes. The restriction of shifting cultivation to progressively smaller and more fragmented tracts shortened fallow cycles below ecologically sustainable thresholds in many regions, producing exactly the soil degradation that colonial policy had cited as justification for restriction in the first place. The exclusion of customary fire management practices, which tribal communities had used to regenerate undergrowth and manage pest cycles, altered fire regimes in ways that some environmental historians link to subsequent vulnerability to uncontrolled forest fires. Commercial extraction for railway expansion alone is estimated by historians to have consumed enormous quantities of timber over the nineteenth century, placing sustained pressure on old-growth stands. Table 3 summarizes these consequences alongside their contemporary echoes.

Table 3. Colonial Policies and Environmental Impacts.

Colonial Policy	Immediate Environmental Impact	Long-Term / Contemporary Echo
Reservation of forests for timber extraction	Reduced floristic diversity; monoculture plantations	Continued dominance of commercial plantation forestry in some state forest management
Restriction of shifting cultivation	Shortened fallow cycles; localized soil degradation	Persistent policy ambivalence toward jhum in Northeast India
Suppression of customary fire management	Altered fire regimes and undergrowth composition	Recurrent large-scale forest fires in parts of central and Himalayan India
Railway and commercial timber extraction	Depletion of old-growth teak, sal, and deodar stands	Reduced availability of mature timber; conservation focus on remaining old-growth patches
Exclusion from customary grazing and produce collection	Loss of community-based resource monitoring	Weak baseline for community-led conservation prior to Joint Forest Management

Source: Compiled by the author based on Guha (1989), Grove (1995), Rangarajan (1996), and Forest Survey of India reports.

11. Indigenous Ecological Knowledge and Sustainable Forest Governance

Indigenous ecological knowledge systems developed by tribal communities across India encompass detailed understanding of species phenology, soil classification, water conservation, and landscape-level fire and fallow management, accumulated and transmitted

through generations of direct ecological engagement. Such knowledge is inherently place-specific and adaptive, calibrated to local biodiversity and climatic variability in ways that generalized, centrally administered forestry regimes often struggle to replicate. Contemporary sustainability scholarship, including work associated with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and recent Intergovernmental Panel on Climate Change assessments, increasingly recognizes the contribution of indigenous and local knowledge to biodiversity conservation and climate adaptation, a recognition that stands in sharp contrast to the dismissive characterization such knowledge received under colonial administration.

The devaluation of indigenous ecological knowledge under colonial forestry was not incidental but structural: the working-plan system institutionalized a hierarchy in which formally trained forest officers possessed exclusive authority over management decisions, while customary practitioners were recast as sources of encroachment and offence rather than as holders of relevant ecological expertise. Restoring a more balanced relationship between formal scientific forestry and indigenous knowledge systems requires institutional mechanisms that grant genuine decision-making authority to forest-dependent communities rather than merely consultative or advisory roles. Table 4 offers a comparative summary of colonial forestry and indigenous forest management along several dimensions relevant to sustainability.

Table 4. Comparison of Colonial Forestry vs Indigenous Forest Management.

Dimension	Colonial Scientific Forestry	Indigenous Forest Management
Primary objective	Revenue generation; commercial timber yield	Subsistence, ecological balance, and cultural continuity
Knowledge basis	Centralized silvicultural science; working plans	Place-based, orally transmitted ecological knowledge
Land-use pattern	Reserved monoculture plantations	Rotational, mosaic land use (e.g., shifting cultivation)
Decision-making authority	Forest department officials	Village councils and customary institutions
Response to disturbance	Fire suppression; exclusion policies	Controlled burning; fallow rotation; adaptive harvesting
Relationship to biodiversity	Prioritizes commercially valuable species	Maintains landscape-level species and habitat diversity

Source: Compiled by the author, synthesizing Gadgil and Guha (1992), Sivaramakrishnan (1999), and recent community forestry literature.

12. Comparative Analysis: Colonial Forest Governance vs Contemporary Forest Policies

The postcolonial trajectory of Indian forest policy displays both significant continuity with, and meaningful departure from, colonial precedent. The National Forest Policy of 1988 marked a symbolic shift by explicitly prioritizing ecological stability and the needs of local communities over commercial revenue, reversing the stated priorities of the 1894 and 1952 forest policy resolutions. The Joint Forest Management program, initiated in the early 1990s, introduced participatory arrangements between forest departments and village-level committees, representing a partial institutional acknowledgment of the value of community involvement—though critics note that ultimate decision-making and benefit-sharing authority frequently remained with the forest bureaucracy, echoing the concessionary, rather than rights-based, character of colonial-era customary access.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006—commonly known as the Forest Rights Act—represents the most substantial legal departure from colonial precedent, explicitly recognizing individual and community forest rights, including rights over minor forest produce and community forest resource management, and framing the historical exclusion of forest dwellers as a "historical injustice" to be remedied. In this respect, the Act inverts the colonial legal presumption that customary use required state permission, establishing instead a presumption of pre-existing right subject to verification. However, implementation research published in the 2020s consistently documents substantial gaps between statutory entitlement and effective enjoyment of rights: community forest resource rights have been recognized over only a fraction of the eligible forest area in most states, claims are frequently rejected without adequate reason recording, and the interaction between the Act and other statutes—including compensatory afforestation programs and infrastructure clearance procedures—has in some instances reproduced colonial-style exclusion under a rights-based legal veneer.

Contemporary forest governance also confronts pressures largely absent, or differently configured, in the colonial period: anthropogenic climate change, biodiversity loss at unprecedented rates, and international commitments under frameworks associated with the Convention on Biological Diversity and national Nationally Determined Contributions. These pressures create both risk and opportunity. The risk lies in the possibility that climate

mitigation instruments—particularly large-scale afforestation and carbon-offset plantation programs—could replicate the colonial pattern of prioritizing rapid, monoculture tree cover over community rights and ecological diversity. The opportunity lies in the growing international and domestic recognition that secure community tenure and indigenous ecological knowledge are associated with better biodiversity and carbon outcomes than centrally imposed plantation regimes, a recognition that, if translated into robust implementation of the Forest Rights Act and genuine community forest governance, could mark a substantive break from the colonial pattern analyzed in this paper.

13. Policy Recommendations

Building on the historical analysis presented above, this paper offers the following policy recommendations, summarized in Table 5: strengthening the timely and transparent processing of Forest Rights Act claims, particularly community forest resource rights; integrating indigenous ecological knowledge formally into forest working plans and biodiversity conservation strategies; reforming compensatory afforestation and carbon-offset programs to require free, prior, and informed consent from affected communities; establishing independent grievance redressal mechanisms for rejected or delayed claims; and investing in long-term, community-led ecological monitoring that complements, rather than substitutes for, forest department data collection.

Table 5. Policy Recommendations.

Area	Recommendation	Rationale
Legal implementation	Expedite and audit pending Forest Rights Act claims, especially community forest resource rights	Large gap between statutory entitlement and ground-level recognition persists
Knowledge integration	Incorporate indigenous ecological knowledge into forest working plans	Enhances biodiversity outcomes and management legitimacy
Climate policy	Require free, prior, and informed consent for afforestation and offset projects on forest land	Prevents recurrence of colonial-style plantation imposition
Grievance mechanisms	Create independent bodies to review rejected or delayed claims	Addresses procedural opacity inherited from colonial-era forest offence procedures
Monitoring and research	Support community-led ecological monitoring alongside official Forest Survey of India data	Improves data reliability and strengthens community stewardship

Source: Author's own synthesis based on the historical and comparative analysis presented in this paper.

14. Future Research Directions

Future research could usefully extend this analysis in several directions. Comparative regional studies examining the differential implementation of the Forest Rights Act across states with varying colonial forest histories would clarify how historical institutional legacies shape contemporary outcomes. Longitudinal ecological studies quantifying biodiversity and carbon outcomes under community forest resource management, relative to conventional forest department management, would strengthen the empirical basis for policy reform. Further archival research into the local administrative correspondence surrounding the Chuar, Halba, and Paharia movements—drawing on regional-language sources not yet fully integrated into English-language historiography—would deepen understanding of how these revolts were locally organized and remembered. Finally, research on the interaction between climate finance mechanisms and tribal land rights, an area of rapidly growing policy relevance, would help ensure that emerging carbon and biodiversity markets do not reproduce historical patterns of dispossession under a new institutional guise.

15. CONCLUSION

This paper has argued that colonial land revenue systems and forest policies operated as mutually reinforcing instruments of dispossession, jointly restructuring tribal access to land and forest resources across British India. The Chuar, Halba, Paharia, and Santhal movements, together with sustained resistance to the restriction of shifting cultivation in Northeast India, reveal a consistent pattern of environmental justice claims against a colonial state that framed extraction and control in the language of revenue efficiency and, later, scientific conservation. Dietrich Brandis's scientific forestry embodied a genuine, if ultimately constrained, conservationist intent that was substantially overridden by the commercial and administrative imperatives of the colonial state. The environmental consequences of this history—reduced biodiversity, disrupted fallow cycles, altered fire regimes—continue to shape Indian forest landscapes. The Forest Rights Act, 2006, represents a meaningful, if incompletely realized, legal departure from colonial precedent, and its effective implementation, informed by indigenous ecological knowledge and insulated from the pressures of a new generation of climate and carbon-market interventions, offers the clearest available path toward forest governance that is genuinely both sustainable and just.

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