

# **GUARDIANS OF THE GREEN: TRIBAL WISDOM, LEGAL PATHWAYS, AND FOREST CONSERVATION IN INDIA**

## **Abstract**

India is home to diverse and rich forest ecosystems, which are crucial for biodiversity conservation and climate regulation. For centuries, tribal communities have played a significant role in safeguarding these forests through their traditional practices, cultural traditions, and ecological wisdom. This chapter explores the synergy between tribal ecological wisdom and legal frameworks that govern forest conservation in India. Tribal communities possess a deep understanding of the natural world and have developed sustainable practices for conserving forests, water, soil, flora, and fauna. Their traditional knowledge systems are rooted in a spiritual relationship with nature, where elements like forests, rivers, animals, and mountains are considered sentient entities. The chapter highlights six tribal communities that have effectively conserved forests through their unique practices, such as sacred groves, rotational shifting cultivation, and community-based resource management. The chapter also examines the legal framework supporting tribal forest conservation, including the Forest Rights Act of 2006, the Panchayats (Extension to Scheduled Areas) Act of 1996, and the Biological Diversity Act of 2002. However, the implementation of these laws has been challenging due to bureaucratic resistance, lack of awareness among tribal communities, and conflicting mandates between conservation and tribal rights. The chapter concludes by recommending policy changes to integrate tribal conservation practices into mainstream forest and biodiversity policy. This includes institutional support for traditional conservation models, capacity-building for Gram Sabhas and forest-dwelling communities, and promoting eco-cultural tourism that is led and managed by tribal communities.

**Keywords:** Tribal Rights, Forest Conservation, Indigenous Knowledge, Sustainable Development, Biodiversity

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## I. INTRODUCTION

India is home to some of the most ecologically diverse forest ecosystems in the world, ranging from the tropical rainforests of the Western Ghats and North-East to the dry deciduous forests of Central India. These forests are not only vital for biodiversity conservation and climate regulation but also serve as critical life-support systems for millions of forest-dependent communities, especially the indigenous tribes<sup>1</sup>.

For centuries, tribal communities across India have played a pivotal role in safeguarding forests, not through externally imposed mandates, but through deeply embedded cultural, spiritual, and ecological traditions<sup>2</sup>. Their practices—rooted in sustainable livelihoods, sacred groves, conservation rituals, and community-based resource management—have contributed significantly to forest preservation long before the advent of formal environmental laws.

This chapter seeks to explore the synergy between tribal ecological wisdom and the legal frameworks that govern forest conservation in India. While statutory laws such as the Forest Rights Act, 2006 and the Panchayats (Extension to Scheduled Areas) Act, 1996 have attempted to recognize and protect tribal rights, there remains a critical need to fully integrate traditional conservation practices into mainstream environmental governance. By analyzing the best tribal forest conservation models across the country and evaluating the extent to which existing legal mechanisms support or hinder these practices, this chapter aims to present a cohesive understanding of how tribal traditions and law can together sustain India's forests in the face of growing ecological threats.

## II. INDIGENOUS ECOLOGICAL ETHOS: A DEEP-ROOTED CONSERVATION CULTURE

Indigenous communities worldwide possess, manage, and inhabit nearly 25% of the Earth's land surface. Amid escalating ecological degradation and associated climatic and economic shifts, these populations have experienced substantial disruptions in their traditional means of livelihood. Importantly, such changes extend beyond indigenous territories, influencing urban life as well. As a result, traditional ecological knowledge has gained renewed interest among policymakers, researchers, and environmental advocates for its potential role in addressing environmental crises<sup>3</sup>. Rooted in long-standing interactions with nature, this knowledge system regards the environment as sacred and humanity as an intrinsic component of the ecological whole. It encompasses sustainable practices for conserving natural resources like water, soil, flora, and fauna, ensuring their availability for future generations<sup>4</sup>.

While urban societies have embraced technology-driven lifestyles, many indigenous groups continue to live in harmony with nature. Their reverence for nature translates into traditional

<sup>1</sup> Report of the World Commission on Environment and Development: Our

CommonFuture, <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

<sup>2</sup> Gopal. S. Singh, Indigenous Knowledge and Conservation Practices in Tribal Society of Western Himalaya: A Case Study of Sangla Valley, *Studies of Tribes and Tribals*, Volume 2, Issue 1, 2004. P.S Ramakrishnan, Conserving the Sacred: From Species to Landscapes, Natural Resources, UNESCO, 32, pp. 11–19.

<sup>3</sup> S.K. Barik et al., **Sacred Groves of Meghalaya: A Biodiversity Heritage**, *ENVIS Bulletin: Himalayan Ecology* (1999), <https://gbpihedenviis.nic.in/PDFs/Publications/Meghalaya.pdf>.

<sup>4</sup> Ananya Mukherjee, **The Sacred Groves of Meghalaya: Indigenous Institutions for Conservation**, *Journal of Environmental Planning and Management*, Vol. 42, No. 2, 2018, at 223–236.

practices of conservation and ecological balance. According to the United Nations Permanent Forum on Indigenous Issues (UNPFII), indigenous peoples are those with ancestral ties to specific territories, unique sociocultural systems, and a commitment to preserving their distinct identity, languages, and knowledge traditions. Often forming non-dominant social sectors, these communities maintain a profound connection with natural ecosystems and seek to safeguard their cultural heritage<sup>5</sup>.

In India's northeastern state of Meghalaya, the Khasi people form the predominant indigenous group. Their cultural ethos places high importance on nature conservation, particularly through the maintenance of sacred groves. The concept of sacred groves stems from the Khasi religious tradition of nature worship, where elements essential to survival are deified. In Khasi belief, a community (Hima or Raid) is incomplete without a sacred grove, and vice versa. These groves serve as religious sites where rituals and sacrifices are performed to establish spiritual communion with the divine<sup>6</sup>. Traditional administrative structures—such as the Hima, led by local chiefs like the Syiems and Lyngdohs—sanctify lands for religious purposes.

The Khasi community also venerates natural entities like the sun, moon, rivers, and mountains. Rivers like Kenchiang and Kopili and peaks such as U Lum Sohpetbneng, Lum Shillong, and Lum Raiting are considered sacred. Notably, U Lum Sohpetbneng is revered as the site where a divine golden ladder once connected heaven and earth, marking the descent of the Khasis. The Khasi worldview perceives divinity in all aspects of nature, allowing prayer in any natural setting, although specific forest areas are dedicated to nature spirits<sup>7</sup>.

In these sacred forests, referred to as "Law Kyntang," human activity is highly restricted to protect biodiversity. They are believed to be inhabited by guardian spirits like U Ryngkew and U Basa, whose blessings are thought to ensure community prosperity. This tradition is shared among other matrilineal groups in Meghalaya, such as the Jaintia and Garo<sup>8</sup>. A 1999 study recorded 105 sacred groves across multiple districts including East Garo Hills, East Khasi Hills, and Ri Bhoi. The state forest department has estimated that approximately 1,000 kilometers of land are under sacred groves<sup>9</sup>.

In Khasi Hills, sacred groves are categorized into three types: Law Lyngdoh, under the stewardship of religious priests; Law Niam, associated with traditional religious practices; and groves overseen by village headmen who, along with local assemblies (Durbar), perform community rituals<sup>10</sup>. Historically, every Khasi village maintained a sacred grove, often indicated by monoliths commemorating ancestors. Additionally, forest types like Law Adong (reserved for non-commercial use) and Law Shnong (utilized for community resources) exist, reflecting the Khasi integration of ecology into everyday life. These

<sup>5</sup> Ruchi Badola, Subrat Sharma & Bibhab Kumar Talukdar, **Traditional Knowledge and Conservation of Sacred Groves in Meghalaya**, *Indian Forester*, Vol. 130, No. 3, 2004, at 367–375.

<sup>6</sup> A.K. Das, **Ecological Traditions of India: Meghalaya – The Sacred Groves**, in *IGNCA Publications on Cultural Ecology* (Indira Gandhi National Centre for the Arts, 2006), <https://ignca.gov.in>.

<sup>7</sup> T.C. Sarma, **The Khasi Religion: Belief System and Cosmology**, in *Religious Traditions of North East India* (N. N. Vasu ed., D.K. Printworld 2005).

<sup>8</sup> R. K. Rai, **Sacred Groves and Conservation of Biodiversity: A Case Study from Meghalaya**, *Indian Journal of Traditional Knowledge*, Vol. 5, No. 4, 2006, at 515–522.

<sup>9</sup> P.S. Ramakrishnan, **Traditional Forest Knowledge and Sustainable Forestry: A Northeast India Perspective**, *International Forestry Review*, Vol. 9, No. 4, 2007, at 768–777.

<sup>10</sup> Sanjay Upadhyay, **Forest Governance and Indigenous Rights in North East India**, *Environmental Law & Practice Review*, Vol. 11, 2010, at 89–110.

traditional forest governance systems are recognized under regional laws such as the United Khasi and Jaintia Hills Autonomous District (Management and Control of Forests) Act, 1958 and the Garo Hills Autonomous District (Management and Control of Forests) Act, 1961<sup>11</sup>.

The foundation of forest conservation among India's tribal communities is not shaped by legal compulsion but by an intrinsic ecological ethos—a worldview in which nature is not separate from human existence, but a sacred, living continuum. Tribal cosmologies across India recognize forests, rivers, animals, and mountains as sentient entities—often deified and revered. This spiritual relationship with nature forms the moral and cultural bedrock of tribal conservation practices<sup>12</sup>.

Central to this ethos is the concept of sacred groves—patches of forest preserved in the name of ancestral spirits, local deities, or earth goddesses. Found among communities like the Khasi and Jaintia tribes of Meghalaya, the Bhils of Rajasthan, and the Kodavas of Karnataka, these groves are governed by strict taboos. Cutting trees, hunting animals, or even plucking leaves within these areas is forbidden, not through enforcement by the state, but through collective belief systems that command deep respect<sup>13</sup>.

Tribal communities also follow totemic traditions, where clans identify with specific animals, plants, or natural elements believed to be their ancestral guardians. This identification often leads to the protection of the species associated with the clan, resulting in informal yet highly effective biodiversity preservation<sup>14</sup>.

Furthermore, taboo practices—such as abstaining from hunting during mating seasons or leaving parts of the forest untouched—are passed down orally through folklore, songs, and rituals. These unwritten laws function as ecological codes, finely tuned to seasonal cycles and local biodiversity.

Equally important is the intergenerational transfer of ecological knowledge. Elders serve as knowledge keepers, passing down forest lore, foraging skills, weather prediction techniques, and resource management wisdom to the younger generation through everyday life, stories, and rituals<sup>15</sup>. This system creates a living archive of environmental stewardship that evolves with the ecosystem it protects.

In essence, tribal conservation is not a project but a way of life, guided by respect, reciprocity, and restraint. Recognizing and integrating this deep-rooted ecological culture into contemporary conservation strategies is crucial, not only to protect forests but also to honor the knowledge systems that have sustained them for centuries.

<sup>11</sup> P. Singh & H.S. Singh, **Biodiversity and Conservation through Sacred Groves in Meghalaya**, *Biospectra*, Vol. 2, No. 1, 2007, at 65–71.

<sup>12</sup> Anup Das, Ramkrushna Idapuganti and Burhan U Choudhury, Natural Resource Conservation through Indigenous farming systems: Wisdom alive in North East India, *Indian Journal of Traditional Knowledge*, Volume 11 (3) July 2012, pp. 505–513.

<sup>13</sup> M.L Khan, Ashalata Devi Khumbongmayum and R.S Tripathi, The Sacred Groves and their Significance in Conserving Biodiversity: An Overview, *International Journal of Ecology and Environmental Sciences*, Volume 34, Issue 3, 2008, pp. 277–291.

<sup>14</sup> Chapter 4 - Status of degradation. I. Erosion and fertility decline, FAO, <http://www.fao.org/3/v4360e/V4360E05.htm>

<sup>15</sup> A. Choudhury, **Meghalaya's Sacred Groves: A Botanical Treasure Trove**, *Current Science*, Vol. 89, No. 1, 2005, at 25–29.

### III. BEST TRIBAL PRACTICES IN FOREST CONSERVATION: MODELS FROM THE GROUND

India's tribal communities have long been custodians of forest ecosystems, preserving biodiversity through traditional knowledge systems that are finely attuned to the rhythms of nature. These communities offer powerful models of conservation, not as a state-imposed responsibility but as a cultural and spiritual obligation. The following case studies illustrate diverse tribal practices across India that exemplify sustainable forest stewardship<sup>16</sup>.

#### 1. Sacred Groves of the Khasi and Jaintia Tribes (Meghalaya)

Among the Khasi and Jaintia tribes of Meghalaya in Northeast India, sacred groves—locally known as *Law Kyntang*—are forest patches imbued with spiritual significance and strictly protected through age-old religious customs and taboos. These groves are considered to be the sacred abodes of guardian spirits (*U Rynkew* and *U Basa*) as well as ancestral deities. The Khasi cosmology emphasizes the belief that these spirits ensure the well-being and prosperity of the community, and disturbing these sacred spaces is considered an act of sacrilege<sup>17</sup>.

As a result, activities such as hunting, tree-felling, grazing, and even collecting fallen twigs or leaves are strictly forbidden. Violators are believed to face supernatural punishments, including illness, misfortune, or death<sup>18</sup>. These belief systems are so deeply ingrained that enforcement does not require external monitoring or coercion, making these groves some of the most effectively conserved forest ecosystems in the region.

These sacred groves play a vital ecological role, functioning as reservoirs of biodiversity. They often preserve rare and endemic species of plants, animals, fungi, and microorganisms that may have disappeared from surrounding human-altered landscapes. Groves such as the Mawphlang Sacred Grove in East Khasi Hills are now recognized as biodiversity hotspots. The Mawphlang grove, in particular, spans about 78 hectares and showcases a pristine example of subtropical forest with rich canopy cover and a diversity of orchids, ferns, and medicinal plants<sup>19</sup>. Despite their small size, these groves create stable microclimatic conditions and maintain critical ecosystem services like water retention, pollination, and nutrient cycling.

Interestingly, the governance of these groves rests with traditional institutions such as the Lyngdoh (priest), Syiem (chief), and the Dorbar (village council). Their authority is respected and supported by customary laws passed orally from generation to generation. In

<sup>16</sup> R. K. Rai, **Sacred Groves and Conservation of Biodiversity: A Case Study from Meghalaya**, *Indian Journal of Traditional Knowledge*, Vol. 5, No. 4, 2006, at 515–522.

<sup>17</sup> Ministry of Environment & Forests, Government of India, **India's Fifth National Report to the Convention on Biological Diversity**, 2014, <https://www.cbd.int/doc/world/in/in-nr-05-en.pdf>.

<sup>18</sup> T. R. Shankar Raman, **Ecological Insights from Sacred Groves in Northeast India**, *Sanctuary Asia*, Vol. 34, No. 4, 2014, at 24–29.

<sup>19</sup> Ranjit Lal, **Sacred Groves: Where Forests are Temples**, *The Hindu*, Oct. 13, 2019, <https://www.thehindu.com/society/sacred-groves-where-forests-are-temples/article29670143.ece>.

many cases, the sacred groves are linked to the identity of the village itself, forming part of its heritage and oral history<sup>20</sup>.

Scholars and environmentalists have pointed out that sacred groves in Meghalaya illustrate an effective indigenous conservation mechanism. In some instances, these traditional models have outperformed legal mechanisms in ensuring sustainable management of forest resources. The intrinsic cultural, religious, and ecological values of these groves offer vital lessons for community-based conservation globally, particularly in light of increasing ecological degradation and biodiversity loss due to industrialization and deforestation.

Moreover, the ecological sanctity of these groves has been acknowledged by institutions such as the Botanical Survey of India, and several academic studies have proposed their inclusion under heritage site protection frameworks<sup>21</sup>.

## 2. The Dongria Kondh (Odisha): Guardians of Niyamgiri Hills

The **Dongria Kondh**, one of India's most iconic Indigenous tribes, reside in the **Niyamgiri Hills**, which stretch across the Rayagada and Kalahandi districts of **Odisha**. The hills are not merely a geographical feature for the Dongria; they form the core of their **cosmology, culture, and identity**. The community reveres the hills as the abode of their principal deity, **Niyam Raja**—a mountain god who is both protector and spiritual guide<sup>22</sup>. For the Dongria Kondh, their relationship with nature is sacred, reciprocal, and non-exploitative.

Their **subsistence practices** reflect an ethos of **ecological sustainability**. The community depends on **non-timber forest products (NTFP)** such as wild tubers, fruits, honey, medicinal herbs, and leaves for food, livelihood, and traditional medicine. They employ rotational shifting cultivation (*podu*) in a manner that allows the land time to regenerate, and they avoid exploitative extraction of forest resources.

The Dongria Kondh came to international attention when they **resisted a proposed bauxite mining project by Vedanta Resources Plc** in the early 2000s. The proposed mine on the Niyamgiri Hills threatened to destroy not only their sacred lands and forests but also the ecological balance of the region<sup>23</sup>. In a rare and landmark move, the **Supreme Court of India** ruled in 2013 that the **Gram Sabhas (village assemblies)** of the affected Dongria villages had the right to decide whether the mining project could go forward<sup>24</sup>. All twelve Gram Sabhas unanimously rejected the proposal, effectively halting the mining operation.

This decision was a **milestone in environmental and Indigenous jurisprudence**, affirming the provisions of the **Scheduled Tribes and Other Traditional Forest Dwellers**

<sup>20</sup> A. L. Syngai, **Sacred Groves in Meghalaya: An Interplay of Religion, Custom, and Ecology**, *Meghalaya Journal of Social Sciences*, Vol. 12, No. 2, 2017, at 18–29.

<sup>21</sup> J.B. Saleem, **Role of Traditional Institutions in Biodiversity Governance in Meghalaya**, *Indian Journal of Public Administration*, Vol. 62, No. 3, 2016, at 435–450.

<sup>22</sup> Aruna Chandrasekhar, **India's Supreme Court Gives a Historic Win to the Dongria Kondh**, *The Guardian* (Apr. 19, 2013), <https://www.theguardian.com/global-development/2013/apr/19/india-supreme-court-dongria-kondh>.

<sup>23</sup> *Orissa Mining Corporation Ltd. v. Ministry of Environment & Forests*, (2013) 6 SCC 476 (India).

<sup>24</sup> Felix Padel & Samarendra Das, **Out of This Earth: East India Adivasis and the Aluminium Cartel**, Orient Blackswan (2010).

**(Recognition of Forest Rights) Act, 2006**, commonly known as the **Forest Rights Act (FRA)**<sup>25</sup>. It underscored the legal recognition of **community forest rights**, sacred landscapes, and Indigenous governance.<sup>26</sup>

The Dongria Kondh's victory is not just a story of Indigenous resistance but also an example of **climate justice, local ecological knowledge, and rights-based conservation**<sup>27</sup>. It illustrates how Indigenous communities can be the most effective stewards of fragile ecosystems when their cultural and legal rights are respected<sup>28</sup>.

### 3. The Soligas (Karnataka): Coexistence with Wildlife in Tiger Reserves

The Soligas of the Biligiri Ranganatha Hills (BRT) Tiger Reserve in Karnataka present a unique model of coexistence with wildlife. Rather than being relocated in the name of conservation, they were granted community forest rights under the Forest Rights Act, 2006. The Soligas actively participate in forest management through indigenous fire control methods, habitat monitoring, and sustainable harvesting of NTFP like gooseberries and honey. Their intimate ecological knowledge contributes to tiger conservation while maintaining their cultural autonomy, proving that protected areas and people can thrive together.

### 4. The Baiga Tribe (Madhya Pradesh & Chhattisgarh): Low-impact Shifting Cultivation

The Baigas, recognized as a Particularly Vulnerable Tribal Group (PVTG), practice a form of low-impact shifting cultivation (*beware*) that respects forest cycles. Unlike commercial agriculture, their method uses minimal soil disturbance, avoids synthetic inputs, and allows for natural regeneration through crop rotation and long fallow periods<sup>29</sup>. Their agricultural plots are typically embedded within forest landscapes, creating biodiverse agroforestry systems that support wildlife, maintain soil fertility, and prevent erosion. This practice challenges the misconception that all shifting cultivation is environmentally harmful.

### 5. The Apatani (Arunachal Pradesh): Integrated Farming and Forest Conservation

In the Ziro Valley of Arunachal Pradesh, the Apatani tribe has developed an integrated farming system combining wet rice cultivation with fish farming in terraced fields. The surrounding forests are carefully managed through community rules that restrict logging and hunting. Their landscape is a mosaic of cultivated and forested zones, maintained through collective forest governance and indigenous engineering techniques like bamboo

<sup>25</sup> Sripad Dharmadhikary, **Sacred Mountains and Mining: The Case of Niyamgiri**, *India Together*, Aug. 2009, <https://indiatogether.org/niyamgiri>.

<sup>26</sup> Archana Mehendale, **Forest Rights Legislation in India: Addressing Discrimination and Upholding Customary Laws**, *Indian Journal of Human Rights and the Law*, Vol. 11, No. 1–2, 2014, at 65–82.

<sup>27</sup> Nandini Sundar, **The Rule of Law and the Rule of Property: Law Struggles and the Neo-liberal State in India**, *Social Anthropology*, Vol. 17, No. 4, 2009, at 468–482.

<sup>28</sup> Amita Baviskar, **The Politics of Being 'Indigenous': Indigenous Rights and Environmentalism in India**, in *Indigenous Experience Today* (Marisol de la Cadena & Orin Starn eds., Berg 2007).

<sup>29</sup> Vidyarthi L.P. and Rai Binay Kumar "The Tribal culture of India" (2000) Concept Publishing Company, New Delhi.

aqueducts. The Apatani model has gained international recognition for its sustainability, including inclusion in UNESCO's tentative World Heritage list.

## 6. The Bhils and Garasias (Rajasthan and Gujarat): Oran and Dev Van Systems

The Bhil and Garasia tribes have long conserved forest patches known as Orans or Dev Vans, considered sacred groves dedicated to local deities. These forests are protected by social norms and religious customs, often supported by village councils, and are maintained as biodiversity sanctuaries. These community-conserved areas support numerous plant and animal species, serve as water catchments, and provide NTFP—all without formal protection status. The Orans reflect an informal yet robust conservation model, where ecological preservation is deeply embedded in spiritual and social life. These ground-level practices showcase the plurality of tribal conservation systems in India—each uniquely adapted to local ecologies, yet united by a shared ethic of environmental respect. Recognizing and protecting these models within the legal framework is critical for ensuring both ecological and cultural sustainability.

## IV. LEGAL FRAMEWORK SUPPORTING TRIBAL FOREST CONSERVATION

While India's tribal communities have long upheld conservation through cultural practices and traditional norms, the legal recognition and support for these indigenous models of forest stewardship have evolved more recently. Over time, legislation has attempted to correct historical injustices and empower tribal communities as rightful custodians of forest lands. This section examines the key legal instruments that support or intersect with tribal forest conservation efforts, highlighting both progress and persistent gaps.

### 1. The Forest Rights Act, 2006

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, commonly known as the Forest Rights Act (FRA), is a landmark legislation aimed at recognizing the historical rights of forest-dwelling communities.

- **Recognition of Rights:** The Act provides for both Individual Forest Rights (IFRs)—for livelihood and habitation—and Community Forest Rights (CFRs), which include rights to protect, regenerate, conserve, or manage any community forest resource traditionally protected and conserved by the community<sup>30</sup>.
- **Empowerment of Gram Sabhas:** The FRA vests significant powers in Gram Sabhas (village assemblies), which can initiate claims, manage forests, and enforce conservation norms. This bottom-up governance model aligns closely with tribal self-governance traditions<sup>31</sup>.
- **Legitimizing Traditional Conservation:** By legally acknowledging CFRs, the Act validates long-standing tribal practices such as sacred groves, rotational harvesting,

<sup>30</sup> The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, No. 2 of 2007, INDIA CODE(2007), <https://indiacode.nic.in/bitstream/123456789/2086/1/A2007-2.pdf>.

<sup>31</sup> Ministry of Tribal Affairs, **Status Report on Implementation of the Forest Rights Act, 2006**, GOV'T OF INDIA (2021), <https://tribal.nic.in/FRA/data/StatusReportupto31122021.pdf>.



and community-based resource management. Communities like the Gond, Baiga, and Soliga have successfully secured CFR titles and now manage forests sustainably using traditional knowledge systems.

Despite its progressive provisions, implementation of the FRA has been inconsistent, often hindered by bureaucratic resistance, misinterpretation of provisions, and conflicts with conservation policies<sup>32</sup>.

## 2. The Biological Diversity Act, 2002

The Biological Diversity Act (BDA) was enacted to ensure the conservation of biological diversity, sustainable use of its components, and equitable sharing of benefits arising from traditional knowledge.

- **Biodiversity Management Committees (BMCs):** The Act mandates the formation of BMCs at local levels, often within Gram Panchayats, to document traditional ecological knowledge and maintain People's Biodiversity Registers (PBRs). This creates a legal mechanism for the recognition of tribal ecological knowledge.
- **Traditional Knowledge Protection:** Tribes that possess unique knowledge of medicinal plants, forest species, and agro-biodiversity stand to benefit from access and benefit-sharing (ABS) agreements. However, these provisions are underutilized due to lack of awareness and institutional support.

By legally recognizing traditional knowledge, the BDA complements the FRA and helps document the conservation role of tribal communities in India's biodiversity-rich forest regions<sup>33</sup>.

## 3. The Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)

The Panchayats (Extension to Scheduled Areas) Act, 1996 extends the provisions of local self-governance to tribal-dominated areas listed under the Fifth Schedule of the Indian Constitution.

- **Control Over Minor Forest Produce (MFP):** PESA empowers Gram Sabhas to manage and control the collection and sale of minor forest produce, a critical livelihood resource for tribal communities. This legal backing enables tribes to adopt sustainable harvesting and market access strategies<sup>34</sup>.

<sup>32</sup> *Wildlife First v. Ministry of Environment & Forests*, W.P. (C) No. 109/2008 (India), available at <https://indiankanoon.org/doc/84947247/> (discussing constitutional validity and implementation challenges of the FRA).

<sup>33</sup> Usha Ramanathan, *The Forest Rights Act and the Supreme Court: A Missed Opportunity*, *Economic & Political Weekly*, Vol. 48, No. 1, 2013, at 10–12.

<sup>34</sup> The Biological Diversity Act, No. 18 of 2003, INDIA CODE (2003), <https://indiacode.nic.in/handle/123456789/2024>.

- **Recognition of Customary Laws:** The Act emphasizes the legal status of traditional governance systems, rituals, and customary laws, allowing tribes to govern natural resources—including forests—based on local practices.

Despite its potential, implementation of PESA remains weak in many states due to inadequate rules, overlapping jurisdiction with forest departments, and limited administrative support.

#### 4. The Indian Forest Act, 1927 – A Need for Reform

Originally enacted during British rule, the **Indian Forest Act (IFA), 1927** sought to centralize control over forests for timber extraction and revenue generation. It classified forests into Reserved, Protected, and Village Forests—often ignoring the customary rights of forest dwellers.

- **Conflict with Tribal Practices:** The IFA criminalized many traditional tribal activities like shifting cultivation, grazing, and forest produce collection. Even today, its provisions often clash with the rights granted under FRA and PESA, leading to legal and operational conflicts<sup>35</sup>.
- **Need for Harmonization:** There is an urgent need to **reform the IFA** to reflect constitutional values of social justice and align with progressive laws like the FRA and PESA. Until such harmonization is achieved, the conflicting mandates between conservation and tribal rights will remain a barrier to equitable and effective forest governance<sup>36</sup>.

Together, these laws represent a **complex legal landscape**—partly empowering and partly restricting—when it comes to tribal forest conservation. The challenge lies not in drafting new laws but in **reconciling existing frameworks**<sup>37</sup>, removing contradictions, and enabling tribal communities to lead the conservation narrative with dignity and autonomy.

### V. CHALLENGES IN IMPLEMENTATION

Despite the progressive legal frameworks such as the Forest Rights Act (FRA) of 2006, the Panchayats (Extension to Scheduled Areas) Act (PESA) of 1996, and the Biological Diversity Act of 2002, the practical realization of tribal rights and conservation values remains fraught with challenges. One of the most persistent obstacles is the bureaucratic resistance to decentralizing control over forests. Forest departments, which historically held monopolistic authority over forest governance since colonial times, often resist recognizing community rights, especially under Community Forest Resource (CFR) provisions of the FRA. This reluctance is further exacerbated by a widespread lack of awareness among tribal communities regarding their legal entitlements. The complex procedures for filing claims,

<sup>35</sup> National Biodiversity Authority, **Guidelines on Access to Biological Resources and Associated Knowledge and Benefit Sharing Regulations**, GSR 827(E) (Nov. 21, 2014), [https://nbaindia.org/uploaded/pdf/Guidelines\\_English.pdf](https://nbaindia.org/uploaded/pdf/Guidelines_English.pdf).

<sup>36</sup> Ministry of Environment, Forest and Climate Change, **Operational Guidelines for Biodiversity Management Committees (BMCs)**, GOV'T OF INDIA (2013), <https://nbaindia.org/uploaded/pdf/BMC-Guidelines-English.pdf>.

<sup>37</sup> *Divya Pharmacy v. Union of India*, 2018 SCC OnLine Utt 1106 (India), <https://indiankanoon.org/doc/93231318/>

coupled with inadequate support from officials, result in low claim acceptance rates and a significant number of wrongful rejections, undermining the spirit of the law<sup>38</sup>.

Moreover, legal conflicts between conservation laws and tribal rights continue to impede the effective coexistence of environmental protection and human rights. For instance, the Wildlife Protection Act of 1972, which emphasizes the establishment of protected areas such as national parks and sanctuaries, often results in the displacement of indigenous communities, even in areas where rights have been recognized under the FRA. These legal contradictions reflect a broader ideological tension between state-centric "fortress conservation" approaches and community-based conservation rooted in cultural and ecological stewardship. The case of the eviction of forest dwellers from tiger reserves, despite their history of harmonious coexistence with wildlife, is a glaring example of this conflict.

Encroachment by extractive industries, particularly mining, further compounds these issues. Tribal communities across Odisha, Chhattisgarh, Jharkhand, and other mineral-rich regions face constant threats of displacement due to large-scale infrastructure projects. Even when the FRA mandates prior informed consent of Gram Sabhas for forest diversion, this requirement is frequently bypassed through misrepresentation, coercion, or administrative manipulation. The experience of the Dongria Kondh in resisting bauxite mining in the Niyamgiri Hills is an inspiring but rare exception; in many other cases, tribal voices go unheard. Additionally, the erosion of protective legal mechanisms through recent amendments, such as proposed changes to the Indian Forest Act, 1927, and relaxed forest clearance norms, pose serious threats to the security of tribal land and culture<sup>39</sup>. Weak enforcement, poor coordination among implementing agencies, and the non-notification of rules under PESA in several states only reinforce the existing implementation gap. Without genuine political will and institutional accountability, the vision of empowering forest communities remains aspirational<sup>40</sup>.

## VI. POLICY RECOMMENDATIONS AND WAY FORWARD

To ensure meaningful conservation and social justice, India must rethink its forest governance framework through the lens of indigenous ecological wisdom and participatory democracy. The first step is to integrate tribal conservation practices into mainstream forest and biodiversity policy. Sacred groves, rotational harvesting, community taboos on resource use, and oral ecological knowledge offer invaluable insights into sustainable ecosystem management. These practices must not be romanticized as folklore but institutionalized through inclusion in State Biodiversity Action Plans, forest working plans, and environmental impact assessments. Tribal ethno-ecological systems, including seasonal calendars, indicators of climatic change, and forest rituals, should be viewed as legitimate knowledge systems with ecological value equal to that of modern science.

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<sup>38</sup> Ministry of Tribal Affairs, **Report on Status of Implementation of the Forest Rights Act**, GOV'T OF INDIA (2021), <https://tribal.nic.in/FRA/data/StatusReportupto31122021.pdf>.

<sup>39</sup> Kalpavriksh, **Forest Governance in India: The Need for a Paradigm Shift**, ENVIRONMENTAL JUSTICE INITIATIVE (2019), <https://kalpavriksh.org/wp-content/uploads/2019/07/Forest-Governance-and-FRA-Booklet.pdf>.

<sup>40</sup> Comptroller and Auditor General of India (CAG), **Performance Audit of Environmental Clearance and Post Clearance Monitoring**, Report No. 39 of 2016, [https://cag.gov.in/uploads/download\\_audit\\_report/2016/Union\\_Performance\\_Environment\\_Clearance\\_MoEF\\_39\\_2016.pdf](https://cag.gov.in/uploads/download_audit_report/2016/Union_Performance_Environment_Clearance_MoEF_39_2016.pdf)

Institutional support for these traditional conservation models is essential. Governments and allied institutions must invest in documenting, preserving, and promoting indigenous practices through community-led biodiversity mapping, seed banks, herbal knowledge repositories, and locally rooted ecological research. Tribal Research Institutes and State Biodiversity Boards should be reoriented to act as facilitators of this process rather than as bureaucratic entities. Financial and logistical support for community forest enterprises—such as the sustainable harvesting of non-timber forest produce (NTFP), traditional medicine, or handicrafts—can help reinforce the economic viability of conservation without resorting to extractive practices.

The capacity of Gram Sabhas and forest-dwelling communities must be strengthened through sustained training programs in legal literacy, forest mapping, participatory micro-planning, and biodiversity monitoring. Equipping Gram Sabhas with technological tools such as GPS mapping, satellite imagery access, and mobile apps can enhance transparency and accountability in forest governance. Additionally, the formation of cross-community learning networks, where successful tribal conservation models are shared and replicated, can foster a culture of peer-led innovation and pride in traditional knowledge.

Legal empowerment must be a cornerstone of this transformation. Access to justice for tribal communities can be enhanced through legal aid centers, paralegal volunteers from within the community, and localized awareness campaigns in tribal dialects. Rights-based communication—through storytelling, community radio, folk music, and visual art—can also serve as powerful tools of education and mobilization. Such initiatives not only raise awareness of legal rights under FRA, PESA, and the Biodiversity Act but also revive and reinforce cultural identity.

Finally, promoting eco-cultural tourism rooted in tribal values offers a promising path for reconciling livelihood generation with environmental stewardship. Carefully regulated tourism, led and managed by tribal communities, can create sustainable income through guided forest walks, storytelling, traditional food and craft workshops, and homestays. Such models must prioritize cultural integrity and ecological sensitivity, ensuring that tourism does not commodify tribal heritage but rather becomes a platform for its dignified celebration. Government schemes and private partnerships should support capacity-building and market access for such community-owned ventures.

In conclusion, the future of India's forests hinges on its ability to value and uphold the wisdom of its first conservationists—its tribal communities. Moving beyond token inclusion toward structural reform and cultural recognition, India must craft a conservation policy that is not only ecologically effective but also socially equitable. The convergence of indigenous knowledge systems with robust legal frameworks offers not just a policy solution but a philosophical reimagining of what it means to live in harmony with nature.