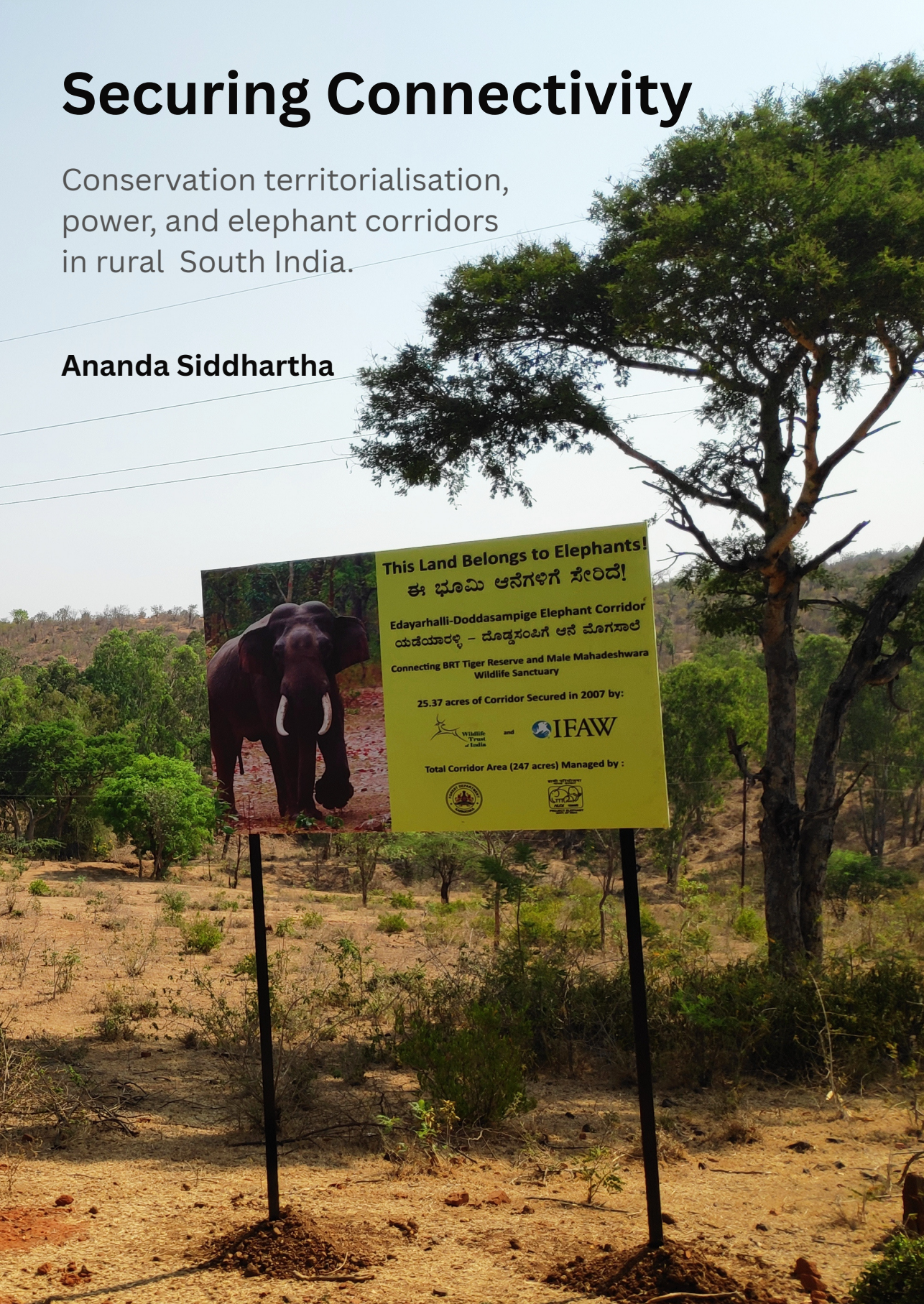
Securing Connectivity

Conservation territorialisation, power, and elephant corridors in rural South India.

Ananda Siddhartha



Propositions

1. Addressing habitat fragmentation through connectivity obscures the systemic drivers of biodiversity loss (this thesis)
2. The prioritisation of connectivity for elephants drives dispossession (this thesis)
3. Greater cross-disciplinary interaction among PhD candidates, especially external students without a cohort, is essential for enhancing doctoral learning.
4. The silences and refusals excluded from data collection are as analytically significant as what is recorded
5. The pressure to produce publishable data can incentivise extractive forms of fieldwork that undermine long-term relationships with research participants
6. COVID-19 exposed the fragility of labour in modern capitalist economies
7. Growing political authoritarianism increases the need for critical research

Propositions belonging to the thesis, entitled

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Ananda Siddhartha

Wageningen, 24 August 2026

Securing Connectivity

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Securing Connectivity

Conservation territorialisation, power, and elephant corridors in rural South India

Ananda Siddhartha

Thesis

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to be defended in public
on Monday 24 August 2026
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List of abbreviations and acronyms

ANCF	Asian Nature Conservation Foundation
BNHS	Bombay Natural History Society
BRT	Biligiri Rangaswamy Temple
CAS	Conservation Agrarian Squeeze
CBD	Convention on Biological Diversity
CCSG	Connectivity Conservation Specialist Group
CEC	Central Empowered Committee
CFR	Community Forest Resource
CMS	Convention of Migratory Species
COP	Conference of Parties
CSD	Campaign for Survival and Dignity
CTH	Critical Tiger Habitat
DFO	Divisional Forest Officer
DLC	District Level Committees
EDC	Eco-Development Committee
EPA	Environment Protection Act
ESZ	Eco-Sensitive Zones
FCA	Forest Conservation Act
FRA	Forest Rights Act
FRC	Forest Rights Committee
GBF	Global Biodiversity Framework
GIZ	German Cooperation Deutsche Zusammenarbeit
IBCA	International Big Cat Alliance
IFA	Indian Forest Act
IFAW	International Fund for Animal Welfare
IUCN	International Union for Conservation of Nature
IUCN-NL	International Union for Conservation of Nature – National Committee of the Netherlands

JFM	Joint Forest Management
JFMC	Joint Forest Management Committees
KFD	Karnataka Forest Department
KfW	Kreditanstalt für Wiederaufbau
KMGBF	Kunming-Montreal Global Biodiversity Framework
LARR	Land Acquisition, Rehabilitation and Resettlement Act
LPG	Liquefied Petroleum Gas
MoEF	Ministry of Environment and Forests
MoEFCC	Ministry of Environment, Forest and Climate Change
MoTA	Ministry of Tribal Affairs
NBR	Nilgiris Biosphere Reserve
NCF	Nature Conservation Foundation
NGO	Non-Governmental Organisation
NP	National Park
NTCA	National Tiger Conservation Authority
OECM	Other Effective Area-Based Conservation Measures
PA	Protected Area
PESA	Panchayats (Extension to the Scheduled Areas)
PIL	Public Interest Litigation
RF	Reserved Forest
RTC	Record of Tenancy Rights and Cultivation
SDLC	Sub-Divisional Level Committees
SEZ	Special Economic Zone
SLMC	State Level Monitoring Committee
TCFA	Transfrontier Conservation Areas
TNFA	Tamil Nadu Forest Act
TNPPFA	Tamil Nadu Preservation of Private Forests Act
TR	Tiger Reserve
TTCPA	Tamil Nadu Town and Country Planning Act

USFWS	US Fish and Wildlife Service
WII	Wildlife Institute of India
WLPA	Wild Life Protection Act
WLS	Wildlife Sanctuary
WTI	Wildlife Trust of India
WWF	World Wide Fund for Nature

Summary

This thesis examines the making and governance of elephant corridors in southern India as a lens through which to understand how contemporary conservation territorializes rural landscapes and agrarian livelihoods, while consolidating state power. The growing momentum to secure elephant corridors has been strongly influenced by two editions of the report *Right of Passage*: E*lephant Corridors of India* (Menon et al. 2005, 2017), the latter of identifies 101 elephant corridors requiring protection to facilitate elephant movement. Despite methodological critiques, the report has intensified efforts to legally secure corridor lands, many of which overlap with agricultural fields and villages. While conservation biology frames corridors as technical solutions to habitat fragmentation, this thesis argues they are socio-political projects. Despite their problematic deployment as a flagship species, elephants mobilise funding, galvanise public sentiment, and consolidate institutional alliances, thereby reinforcing conservation authority. Set against post-liberalisation agrarian distress – marked by declining public investment, indebtedness, land commodification, and environmental uncertainty – the thesis shows how corridor-making intersects with rural precarity. I introduce the concept of the Conservation Agrarian Squeeze (CAS) to describe how agrarian decline and conservation expansion converge, placing dual pressures on farmers near protected areas. The study asks how corridors reconfigure territory and what this reveals about territorialisation and state power. Drawing on political ecology and agrarian political economy, corridors are analysed as techniques of spatial ordering that extend regulatory control beyond protected areas through mapping, law, and expert knowledge. While often reproducing exclusionary logics, corridors also open contested spaces for negotiation, including through the Forest Rights Act (2006). Elephant corridors thus emerge as key arenas where territory, knowledge, capital, and authority are assembled and contested in contemporary India.

CHAPTER 1: Introduction



Figure 1.1: Situating the selected cases in South India (produced in Google Earth)

1.1 Problem statement

A bright yellow board bearing the image of a full-grown tusker declared, “This Land Belongs to Elephants!” The sign stood on a 25-acre parcel of land that had once been cultivated by 17 families. Acquired in 2003 by the conservation organisation Wildlife Trust of India (WTI), the land was transferred in 2007 to the Karnataka Forest Department through a memorandum of understanding and subsequently incorporated into the Biligiri Rangaswamy Temple (BRT) Wildlife Sanctuary (WLS) and Tiger Reserve (TR). Identified by WTI as crucial for strengthening the Edeyarhalli-Doddasampige elephant corridor, this land connects BRT to the neighbouring Malai Mahadeshwara WLS, both in Karnataka, South India. Although the amount of land was miniscule, it nevertheless served to incrementally expand the area under the state conservation apparatus.

It was while I was engaging with this landscape that the everyday enforcement of this expanded conservation space became visible to me. As I stood on the Kollegal-Hasanur Ghat road that passes through the corridor, photographing the sign and the surrounding landscape, a forest

guard stopped and asked what I was doing. After I explained that I was studying elephant corridors, we spoke briefly about the land and who it had been acquired from, before he rode off, warning me not to linger on this stretch of road since elephants and other wildlife regularly passed through it. When I turned back to the board, I noticed the cluster of logos on it: alongside that of WTI were those of the International Fund for Animal Welfare (IFAW), the Karnataka Forest Department, and the centrally sponsored Project Elephant. Getting back onto my motorbike, I rode along the two-kilometre stretch of road passing through the corridor and counted seventeen other boards echoing similar warnings, urging passers-by to proceed with caution. These signs also bore multiple logos, including those of the Nature Conservation Foundation (NCF), the US Fish and Wildlife Service (USFWS), International Union for Conservation of Nature (IUCN), German Cooperation Deutsche Zusammenarbeit (GIZ), and Kreditanstalt für Wiederaufbau (KfW), highlighting the layered institutional presence in this small stretch of land.

This brief encounter helped crystallise the questions that had brought me to BRT in the first place. My visit in 2019 was to understand whether it could serve as a site for my research, prompted by my reading of a report titled *Right of Passage: Elephant Corridors of India*, published by WTI that identified 101 elephant corridors across the country that it said needed to be secured. What I encountered on the ground convinced me that this was a compelling site for my research. At the same time, it became clear that the acquisition of these parcels of land was only a small element of a much larger, globally networked assemblage of actors who were using diverse strategies to highlight the need to secure elephant corridors in India.

The logos on the boards lining the road along one of the corridors abutting BRT were not incidental, but symptomatic of a far wider mobilisation of resources, actors, and public attention. Internationally, King Charles and Queen Camilla have hosted high profile fundraising events raising millions of pounds while organisations such as World Land Trust and IUCN-NL have also channelled considerable funds towards securing corridors. In India, WTI launched a major awareness campaign in Delhi in 2017, attended by the Minister for Environment, Forest and Climate Change and by Bollywood actor Dia Mirza, WTI's brand ambassador. These efforts have also extended into the realm of arts and culture; at the Kochi-Muziris Biennale[1], WTI inaugurated an initiative celebrating the elephant, India's National Heritage Animal, while foregrounding its need for a #RightofPassage. Faced with this dense

[1] an international exhibition of contemporary art held in the city of Kochi in the state of Kerala, India

assemblage of information, advocacy around elephant corridors and activity on the ground, I began to question what analytical space my own research could occupy within what felt like an already vast and formidable conservation terrain.

It was this sense of saturation, combined with the absence of sustained critical engagement, that shaped the direction of this study. Even as efforts to secure land for elephant corridors gathered pace on the ground, there had been remarkably little in-depth research examining how processes of conservation territorialisation were unfolding. Motivated by this gap, and by my broader interest in how conservation interventions extend beyond Protected Area (PA) boundaries, I decided to undertake a grounded empirical study to trace how corridor-making is negotiated, implemented, and experienced within rural and agrarian landscapes.

From the perspective of conservation biology, the case for securing connectivity through wildlife corridors appears compelling. Corridors are promoted as solutions to habitat fragmentation, linking PAs to prevent them from becoming isolated "islands," to maintain ecological connectivity, to enable genetic exchange, and to support wide-ranging species such as elephants across seasons and especially in the context of a changing climate. They are also framed as tools to reduce human-wildlife conflict by ensuring elephants and other wildlife do not need to pass through settled landscapes, while simultaneously strengthening PA networks and aligning national conservation efforts with global biodiversity frameworks.

Within this ecological logic of connectivity, conservation planning often turns to a single focal species. Connectivity conservation plans are frequently designed around large-bodied, wide-ranging mammals due to their extensive spatial requirements (Brennan et al. 2020, Epps et al. 2011). The Asian elephant (*Elephas maximus*) is often invoked to exemplify this approach with reported home ranges – shaped by the availability of food, water and shelter – ranging from 250 to 1,000 km^2 and, in some cases, extending beyond 4,300 km^2 in fragmented landscapes (Sukumar 2006, Datye and Bhagwat 1995). Yet outliers complicate this narrative. Some studies report elephant ranges as small as 30 km^2, in which only a small percentage of the landscape consists of natural vegetation, with much of it instead being dominated by plantations and including pockets of semi-urban settlements (Thekaekara 2019), raising questions about the necessity for corridors in such a context.

Yet the prominence of elephants and corridors cannot be understood through ecological reasoning alone. Beyond their biological rationale, corridors, along with elephants as flagship species, function as powerful political symbols that mobilise public support, attract funding,

and consolidate institutional alliances for conservation. The flagship species approach, however, is also widely criticised for privileging charismatic, visually appealing animals (Smith et al. 2012, Macdonald et al. 2015), while ignoring deeper socio-economic drivers of extinction. By foregrounding selective success stories through "win-win" and "sustainability" narratives, conservation communication often obscures systemic political failures and ongoing biodiversity loss, reinforcing the status quo rather than advancing transformative solutions (Armoudian and Poulsen 2023).

A similar dynamic applies to corridors themselves. As Green and Sandbrook (2021) point out, corridors are not merely technical ecological interventions but are also social, political, and institutional constructs shaped by power relations, values, and competing objectives. Despite these contested dimensions, corridor-based conservation continues to enjoy near-universal endorsement within the conservation community. Alongside this, the Asian elephant is routinely deployed as a flagship species to galvanise popular and financial backing for corridor initiatives (Jepson and Barua 2015), reinforced through celebrity advocacy (Abidin et al. 2020), art and charity events (Barua 2014), fundraising appeals (IFAW n.d.), and grants from international conservation organisations focused on land acquisition (IUCN-NL 2020).

In India, the awareness about the need to secure elephant corridors in India increased in the early 2000s, following the publication of a report titled *Right of Passage: Elephant Corridors of India* (Menon et al. 2005). Jointly published by WTI and the Asian Nature Conservation Foundation (ANCF), the report emerged out of a collaboration involving state forest departments, Project Elephant and individual researchers. Based on preliminary ground truthing, the report identified 88 elephant corridors as being in active use by elephants and recommended that state governments formally notify these areas as elephant corridors, moving from symbolic endorsement to legal protection. In 2017, an updated version of the report revised the number of corridors needing to be secured to 101, outlining four models to do so: the private purchase model, the government securement model, the public initiative model, and the community securement model (Menon et al. 2017). Each corridor in the report was profiled, outlining its name, ecological priority, conservation feasibility, and other ecological attributes, alongside human dimensions such as threats from linear infrastructure, dependence by nearby villages on resources within the corridor, and an associated conservation plan. For corridors that included or bordered villages and agricultural land, conservation plans proposed restricting access and dependence on activities such as fuelwood collection and livestock grazing, and in some cases, recommended the acquisition of agricultural land and the relocation of families.

Both editions of the Right of Passage reports have, however been subject to sharp ecological critique. Puyravaud et al. (2024) argue that the reports are an insufficient and weak reference document for guiding elephant corridor conservation in India. They contend, first, that the report amounts largely to a compilation of expert opinion with limited coordination, supplemented by only a small number of corridors validated through movement data and dung counts. Second, they maintain that the absence of methodological transparency undermines its credibility as a rigorous scientific study. Third, although the second edition expanded the list to 101 corridors, it did not meaningfully clarify or strengthen its methodology, nor did it incorporate significant advances in landscape ecology and corridor identification techniques developed between 2000 and 2017. Fourth, the omission of key sites, most notably the Sigur corridor in Tamil Nadu, which had been recognised by the state judiciary in 2011, further calls its comprehensiveness into question. This exclusion contributed to prolonged contestation over the corridor's protection until the Supreme Court upheld the Tamil Nadu High Court's ruling and the state administration's safeguards. Given these methodological shortcomings and what they view as an outdated understanding of connectivity, Puyravaud et al. argue that corridors identified in the report require independent verification, and that ecologically important areas should not be denied protection simply because they are not listed in the document.

Despite these limitations, the report continues to be widely cited across public platforms and in the media, amplifying pressure to secure the corridors identified. Given that nearly two-thirds of the 101 identified corridors are reported to be affected by agricultural activities (Menon et al. 2017), this raises critical questions about the expansion of conservation interventions into rural and agrarian landscapes, and the accompanying processes of conservation territorialisation through which land for corridors is being secured.

These questions become particularly important when situated within the broader transformations of India's rural-agrarian context over the last few decades. Since economic liberalisation of the early 1990s, agrarian livelihoods have been reshaped by a combination of unfavourable state policies, market volatility, rising input costs, declining public investment, and increasing exposure to environmental uncertainties such as droughts and climate variability (Sainath 1996, Posani 2009, Vasavi 2009). These processes have contributed to agrarian distress, widening social differentiation, and the fragmentation of livelihoods, with many rural households increasingly dependent on multiple, insecure income sources or exiting agriculture altogether in search of "post-agrarian" futures (Akram-Lodhi and Kay 2010, Hall et al. 2011). At the same time, state withdrawal from agrarian support has accelerated the financialization

and commodification of land, often forcing small and marginal farmers to sell or lease their holdings, a process described as "dispossession by neglect" (Vijayabaskar and Menon 2018). Together, these transformations have fundamentally reshaped rural landscapes, creating contexts of heightened vulnerability within which new land-use claims, including those arising from conservation and connectivity initiatives, are now increasingly being asserted.

Within these already fragile agrarian landscapes, the imposition of connectivity in India is also being felt in regions shaped by ecotourism. Wildlife corridors are being seen not only as vital for species movement but also as integral to the growth of ecotourism (Bollig 2024). In this context, ecotourism does not simply coexist with corridor-making but can actively facilitate the expansion and normalization of connectivity conservation, embedding it within broader political-economic processes that commodify landscapes and wildlife movement while obscuring their social costs. Therefore, rather than being treated as an impediment, ecotourism it is actively promoted.

These developments point to a broader pattern in which the imposition of connectivity is inseparable from the processes of territorialisation and the exercise of power over landscapes and human populations, a defining feature of biodiversity conservation worldwide. As landscapes are reconfigured to secure the survival of particular species, domestic conservation "successes" are often projected internationally, functioning as outward expressions of power. While state authority is central to these processes, non-governmental conservation actors also reshape local human-nonhuman relations in ways that enable or reinforce state control over land, as interventions such as PAs and corridors consolidate state power.

Against this backdrop, corridors which are frequently presented as pragmatic instruments to reduce human-elephant conflict, do little to unsettle entrenched nature–society binaries, even as the global discourse of human-wildlife coexistence gains traction. Rather than reworking the underlying territorial logic that separates and hierarchises spaces of "nature" and "human use," corridors frequently extend it. In this sense, they represent not a departure from earlier forms of forest governance but another reconfiguration within a longer trajectory of territorial state-making.

This continuity becomes clearer when situated within the broader trajectory of forest governance in India. From the colonial Indian Forest Acts, which rendered forests legible and governable through mapping, classification, enclosure, and legal codification, to the Wild Life Protection Act of 1972, which intensified exclusionary control and culminated in mass

evictions in 2002. Conservation policy has thus unfolded not as linear reform, but through successive reworkings of territory, authority, and subjecthood.

Viewed through this lens, corridors similarly function within, rather than beyond, entrenched conservation logics. While couched in the language of coexistence and conflict mitigation, they often reinforce spatial distinctions between zones of ecological priority and regulated human presence, subtly reproducing the binaries they claim to transcend. Coexistence, in practice, becomes mediated through regulatory oversight, land-use restrictions, and the extension of conservation authority into inhabited landscapes. Thus, instead of dissolving the nature-society divide, corridor-making may constitute another moment in the ongoing reconstitution of territory, authority, and subjecthood that has long characterised forest governance in India.

1.2 Research questions

Given the above problem statement, this dissertation asks the following main and sub-questions: How do conservation actors in India use elephant corridors to reconfigure rural and agrarian landscapes, and what does this reveal about contemporary processes of conservation territorialisation and power?

1. How are elephant corridors secured on the ground, and in what ways do state agencies and non-governmental conservation organisations use conservation connectivity to consolidate authority domestically and project influence internationally?
2. How is corridor-making experienced, negotiated, and contested by local populations, especially in agrarian and ecotourism-dominated landscapes already shaped by livelihood precarity, land commodification, and agrarian distress?
3. How do scientific claims, flagship species narratives, and documents such as Right of Passage operate to mobilise public support and state authority?
4. How do contemporary wildlife connectivity initiatives in India reproduce or reshape conservation territorialisation, and how might rights-based frameworks such as the Forest Rights Act enable counter-territorialisation and more democratic forms of conservation governance?

1.3 Theoretical engagements

In this thesis, I examine the multiple dimensions of elephant corridors, tracing how they are secured, governed, and contested across diverse rural and agrarian contexts in southern India. I analyse not only the material processes through which land is acquired, notified, or regulated in the name of ecological connectivity, but also the broader institutional, legal, and discursive terrains within which these processes unfold. In particular, I explore how conservation NGOs and state actors mobilise corridors and related interventions to consolidate authority, extend regulatory control into agrarian landscapes, and project power both domestically and internationally. Corridors, I argue, are not merely ecological infrastructures but also socio-political projects that reorganise space, reshape livelihoods, and reconfigure relations between people, land, and the state.

To make sense of these dynamics, I draw on several interrelated theoretical strands that together enable a multi-scalar and historically grounded analysis of corridor-making. First, to situate corridor-making within broader political-economic transformations, I draw on land grab and green grabbing scholarship, which conceptualises environmental appropriation as a form of territorialisation through which land and resources are alienated for ecological ends (Benjaminsen and Bryceson 2012, Corson and MacDonald 2012, Milne et al 2023). Such processes frequently dispossess people, undermine local sovereignty, and sustain accumulation under environmental justifications. These dynamics do not unfold in isolation. State-imposed restrictions on rural livelihoods – through access controls, zonation, grazing bans, and other regulatory mechanisms – can intensify precarity, rendering land "grabbable" and populations "relocatable" (Brockington and Duffy 2010, Cernea 2005, Weldemichel 2022). In agrarian contexts marked by declining public investment, indebtedness, and land financialization, what has been described as "dispossession by neglect" further blurs the boundary between voluntary and coerced land transfers (Vijayabaskar and Menon 2018, Lima and Kmoch 2021). When farmland is subsequently incorporated into state-run conservation regimes, corridor-making becomes embedded within wider agrarian transformations.

It is at this intersection that I introduce the concept of the Conservation Agrarian Squeeze (CAS) in chapter 2 to capture the convergence of agrarian distress and conservation expansion. Building on and engaging with related ideas such as green grabbing (Fairhead et al. 2012), induced volition (Milgroom and Spierenburg 2008), rendering surplus (Li 2010), and expulsion (Sassen 2014), CAS describes how farmers living near PAs experience simultaneous and

mutually reinforcing pressures. On the one hand, they confront declining agrarian viability due to policy neglect, market volatility, and climatic uncertainty; on the other, they face intensifying conservation regulation and land prioritisation for connectivity. Corridors thus emerge as sites where environmental governance and agrarian neglect intersect, amplifying vulnerability while revaluing land for ecological purposes.

Second, I engage with scholarship on territorialisation to understand how corridors operate as techniques of spatial ordering that reorganise access, authority, and land use beyond PA boundaries. Foundational work on "internal territorialisation" demonstrated how states seek to regulate populations and control resources by fixing boundaries, codifying rights, and producing legible territories (Vandergeest and Peluso 1995, Vandergeest 1996). Critical conservation scholars have extended this framework to show how conservation asserts control through jurisdictions, zoning, mapping, law, and bureaucratic authority (Rasmussen and Lund 2018). While the state is central to these processes, non-state actors – including conservation NGOs and scientific experts – also exercise territorialising power, often working through state institutions to extend and consolidate control (Peluso 2005, Corson 2011, Lund and Rachman 2018). The growing prominence of wildlife corridors within global conservation policy and professional discourse (Worboys et al. 2010, Hilty et al. 2020) underscores the intensification of such strategies.

The rapid global expansion of connectivity conservation has also been advanced by epistemic communities – networks of knowledge-based experts who shape policy agendas by defining problems, identifying state interests, and proposing solutions for collective action (Haas 1992). Here, control over knowledge becomes a central form of power. Scientific claims about habitat fragmentation, genetic exchange, and species survival consolidate particular landscapes as indispensable for connectivity. What has been described as "epistemic territorialisation" (Brandon 2025) captures how such knowledge claims stabilise landscapes into bounded, governable units and produce hegemonic spheres of influence. Through simplified yet powerful corridor narratives, diverse actors are mobilised around the imperative of linking PAs, enabling what Bluwstein and Lund (2018) term "double territorialisation": the simultaneous ordering of land and imagination. In this process, conservation claims often become more resilient than counter-claims grounded in agriculture or ecotourism.

The thesis also engages with literature on ecotourism and neoliberal conservation, which frames markets as mechanisms capable of resolving ecological crises (Duffy 2006, Büscher

2012). Ecotourism has long been promoted as a means of generating revenue for conservation while delivering development benefits and alternative livelihoods (Igoe and Brockington 2007, Honey 2008, Stronza et al. 2019). In some contexts, wildlife corridors are seen as integral components of thriving ecotourism landscapes (Bollig, 2024). Yet, as I show in chapter 3, the discursive authority of ecological connectivity can at times outweigh ecotourism's counterclaims, recasting tourism itself as an impediment to movement and habitat integrity. The relationship between corridors and ecotourism therefore reveals tensions within market-based conservation and complicates narratives of win-win outcomes.

Taken together, the spatial expansion of conservation through corridors reflects a broader conservation regime in which regulatory control is extended incrementally across diverse land tenures. This expansion often occurs not through sudden displacement but through step-by-step restrictions, scientific legitimation, and alliances between state and non-state actors. Over time, landscapes become increasingly shaped by a conservation logic that reorganises governance tools, institutional frameworks, and everyday practices. In this sense, corridors are central to the evolving political ecology of the state. States are not monolithic entities (Krasnai Kovács 2025); rather, their authority is assembled through flexible and sometimes contradictory practices across domestic and international arenas (Meehan & Molden 2015, Massé 2022). In India, corridors for charismatic species such as elephants and tigers enable the monitoring and regulation of densely inhabited rural landscapes while simultaneously serving as symbols of environmental stewardship in diplomatic and global biodiversity forums. As I demonstrate in chapter 4, corridors thus connect inward and outward projections of power, sitting at the convergence of territorial control, ecological governance, and statecraft.

Against this backdrop, I take a step back to situate connectivity conservation within the longer history of conservation territorialisation in India. As PAs are increasingly viewed as insufficient to sustain wide-ranging species such as elephants and tigers, conservation actors have promoted wildlife corridors across rural landscapes. While such interventions are framed as ecological necessities, they also function as spatial strategies that extend conservation governance into inhabited areas (Anderson and Jenkins 2006; Hilty et al. 2020; Scott 1998; Corson 2011; Rasmussen and Lund 2018). Building on scholarship on territorialisation (Peluso and Vandergeest 2001), I examine in chapter 5 whether expansionary conservation can be challenged through counter-territorialisation. I do so by revisiting the political struggles that led to the enactment of the Forest Rights Act (FRA), which emerged from sustained mobilisation against exclusionary forest governance (Kumar and Kerr 2012; Sarin 2014). By

recognising community forest rights and vesting authority in Gram Sabhas to manage and protect forests and biodiversity (Springate-Baginski et al. 2013), the FRA opens institutional possibilities for counter-territorialisation, enabling forest-dwelling communities to contest and reshape emerging conservation landscapes.

Taken together, these theoretical strands position elephant corridors not as neutral conservation tools but as dense socio-political formations through which territory, knowledge, capital, and authority are reworked. By bringing territorialisation, epistemic power, agrarian political economy, green grabbing, neoliberal conservation, and transformative alternatives into conversation, this thesis advances an analysis of connectivity conservation as simultaneously ecological infrastructure, a project advanced by conservation actors, and as sites of struggle. It shows how corridors bring together wider tensions between conservation and livelihoods, expertise and local knowledge, accumulation and justice, while also creating opportunities to reimagining governance. In doing so, the thesis contributes to the political ecology of conservation and critical agrarian studies by foregrounding corridors as key arenas in which contemporary forms of environmental governance are constructed, contested, and potentially reconfigured.

Building on this synthesis, the chapters develop a broader theoretical argument about wildlife corridors as sites where multiple processes of environmental governance converge. By examining corridor-making through the lenses of agrarian political economy, territorialisation, and epistemic power, the thesis moves beyond treating corridors as purely ecological interventions. Instead, it shows how connectivity conservation operates simultaneously through material land transformations, knowledge production, and institutional arrangements that extend conservation authority across inhabited landscapes. Concepts such as the Conservation Agrarian Squeeze reveal how conservation expansion intersects with agrarian distress, while the analysis of epistemic communities and corridor science demonstrates how knowledge practices frame landscapes as indispensable for connectivity. When these dynamics are placed alongside the historical trajectory of forest governance and the institutional possibilities opened by the Forest Rights Act, corridors emerge not simply as infrastructures for wildlife movement but as socio-political formations through which territory, authority, and legitimacy are negotiated. Theoretically, this synthesis is important because it bridges political ecology, critical agrarian studies, and conservation governance scholarship, offering a multi-scalar framework for understanding connectivity conservation as both a project of territorialisation and a site where counter-territorial possibilities may arise.

1.4 Methodological engagements

This thesis draws on empirical findings from twelve months of qualitative research conducted between December 2021 and December 2022. The research was conducted across two landscapes in South India, around the BRT Wildlife Sanctuary in Karnataka and in the Sigur plateau in Tamil Nadu (Fig 1.1). Both sites have emerged, in distinct ways, as important spaces in debates over elephant corridors and connectivity conservation, making them well-suited to examine how these interventions unfold in practice. Before turning to a detailed description of each site, I first outline the methodological approach that guided data collection across these landscapes.

To investigate the making and governance of elephant corridors in India, I employed ethnographic methods to examine the making and governance of elephant corridors in India, focusing on how connectivity conservation is negotiated, implemented, and experienced in rural and agrarian contexts. Ethnography was chosen to move beyond policy texts and maps, and to attend instead to the everyday practices, encounters, and power relations through which corridors are produced on the ground (Mosse 2004, Li 2007). By foregrounding situated perspectives of farmers, labourers, conservation actors, activists, and others, this methodology enables a grounded analysis of conservation as a social, political, and material process rather than a purely technical intervention (West et al. 2006, Robbins 2012). Ethnographic methods are particularly well suited to tracing the frictions, ambiguities, and contestations that emerge as corridor-making unfolds across agrarian and ecotourism landscapes, where global conservation logics intersect with local histories, livelihoods, and claims to land (Neumann 2005, Peluso and Lund 2011). To capture these dynamics, I employed several complementary ethnographic methods which I elaborate on below.

1.5 Methods

> Excerpt from a diary entry a day before fieldwork began: *Tomorrow I finally leave for the 'field'. What a relief! After more than a year and a half of delays brought on by the pandemic, this phase of the PhD that remained uncertain for so long is finally happening. I will finally be able to travel to the villages adjoining the corridor and begin speaking with people whose lives and landscapes form the heart of this research. The long wait after postponed plans, travel restrictions, and constant uncertainty makes this moment feel both exciting and slightly unreal. As I packed my*

bag, I am reminded of how much the world has changed since I enrolled for the PhD. Along with my notebooks, recorder, and other fieldwork essentials, I make sure to pack a mask as well, now part of the "new normal."

Excerpt from a diary entry after day 2: *I have not been able to have conversations with people that have lasted for more than a few minutes. Most have been brief and hesitant, ending almost as quickly as they began. I feel a certain distance. While it is most probably because I am a stranger in this landscape, I'm wondering how much of a role approaching people with half my face covered is adding to this. The masks I had made sure not to forget while packing seem be to creating an invisible barrier between me and those I had come to speak with. The only time I found myself drawn into a longer conversation was during a break at a small tea stall along the road. After asking for a cup of tea and removing my mask, the interaction felt noticeably different. I ended up chatting with the owner and a couple of others who were sitting at the stall. What began as casual small talk gradually moved into conversations about the area and encounters with the forest department…I don't think I'm going to wear the mask from tomorrow, despite what people are advising me to do.*

These two excerpts from my fieldwork diary highlight the initial challenges I encountered at the beginning of the data collection process. They capture the early moments of navigating the field, building familiarity, and negotiating access. In what follows, I outline the methods I employed to collect data and explain how these approaches emerged in response to the conditions and relationships encountered during fieldwork.

1.5.1 Semi-structured interviews

Semi-structured interviews formed the primary method of data collection, enabling an in-depth understanding of both the contexts within which elephant corridors were being secured and the everyday processes through which these interventions were planned, negotiated, and implemented. As a qualitative method, semi-structured interviewing is particularly well suited to exploring complex social phenomena, as it balances comparability across interviews with openness to participants' own framings and meanings (Kvale and Brinkmann 2009, Rubin and Rubin 2012, Bernard 2018). It allows researchers to work with a flexible interview guide while probing unexpected themes as they arise, thereby supporting iterative and inductive forms of

inquiry (Bryman 2016). In total, 115 interviews were conducted across the two study landscapes. All interviews were conducted by me in Kannada, Tamil or English.

Interview guides were tailored to specific respondent groups and local contexts, allowing questions to be framed in ways that were meaningful and appropriate to each landscape. Questions were organised around a set of core thematic areas such as land tenure, livelihoods, agriculture related, corridor and conservation related, and experiences of human-elephant interaction, which were iteratively refined and adapted in response to ongoing field engagement and emerging insights, consistent with inductive and reflexive ethnographic practice (O'Reilly 2012).

Interviews were conducted with a wide range of actors that differed slightly in each landscape. In BRT, interviews were conducted with: farmers and agricultural labourers, officials from the forest, agriculture, and revenue departments, representatives of conservation organisations, independent researchers, panchayat members, and *adivasis* (indigenous communities). In the Sigur Plateau, interviews were conducted with: farmers and agricultural labourers, representatives of conservation organisations, independent researchers, panchayat members, adivasis, owners of tourism establishments and their employees, safari jeep drivers, and individuals associated with judicial proceedings related to the elephant corridor in the Sigur plateau. Attempts were made to interview representatives from the forest and revenue departments. However, they declined to participate, often citing the ongoing judicial proceedings as the reason for not engaging. Engaging with such a diverse set of respondents enabled the triangulation of perspectives and information across institutional, occupational, and social positions, a key strength of qualitative research (Patton 2015). These insights were further cross-checked and corroborated with data from other sources to enhance or question the credibility of the findings. This helped capture how corridor-making was understood, contested, and experienced differently across scales and social locations.

Prior to each interview, verbal informed consent was obtained from all participants, with the purpose of the research clearly explained, in line with established ethical principles in qualitative research (Israel and Hay 2006). Approximately half of the interviews were audio-recorded with participants' consent, while field notes were taken for all interviews to document key themes and observations. Verbatim quotes were written down during the interview.

Across both landscapes, a shared challenge was the limited availability to engage with people involved in agriculture. Farmers and agricultural labourers were typically occupied for most of

the day, leaving two main windows for interaction: early mornings before leaving for work and evenings after they returned. During the day, I was occasionally able to spend time with farmers or labourers who could spare some time. While mornings and evenings were therefore largely reserved for interviews with farmers, daytime hours were used to meet actors from other target groups, and to gather data through other methods outlined below. In addition, due to factors beyond my control, interlocutors were predominantly male. This was often because when approached, women tended to respond saying they did not know anything, asked me to speak to their husbands or a nearby male, or were not comfortable speaking. These encounters highlighted the gendered dimensions of field access and knowledge production, and underscored the potential value of working with a local field assistant, particularly a woman, to facilitate more inclusive engagement.

1.5.2 Informal conversations

Informal conversations were also used in this research which complemented the semi-structured interviews by allowing insights to emerge through everyday interactions in the field (DeWalt and DeWalt 2011). Such conversations took place during casual encounters along roads and in villages, in farms, in or near identified corridors, and tourism sites. Their informality helped reduce the hierarchical dynamics that can accompany formal interviews, enabling participants to speak more openly about sensitive issues such as land loss, conflict with wildlife, relations with forest officials, and perceptions of conservation interventions. Informal conversations also allowed the research to capture spontaneous reflections, contradictions, humour, and silences that are often missed in structured research settings, providing a richer understanding of how elephant corridors were discussed and made sense of in everyday life.

Details from these interactions were recorded in field notes shortly afterwards. Although not treated as formal interview data, they played a significant interpretive role by deepening my contextual understanding of the social, political, and affective dimensions of corridors, conservation, and agrarian livelihoods. These conversations clarified ambiguities, revealed local idioms and assumptions, and helped situate formal interview material within broader social relations and lived experience, thereby grounding the analysis in the rhythms of everyday life.

1.5.3 Observation

After conducting interviews early in the morning, I would often spend time moving through villages within the landscapes, observing agricultural life and the everyday ways in which people navigated and interacted with conservation spaces. This form of participant observation enabled attention not only to what people said about corridors and conservation, but also to what they did in practice (Bernard 2018). This included paying attention to routine practices such as farming, grazing, and resource collection, as well as more episodic encounters with representatives of the forest department, the most visible and immediate manifestation of the state in these areas. Observing these interactions revealed the subtle negotiations, hesitations, and accommodations that structured everyday engagements with conservation governance.

These periods of observation allowed me to situate interview narratives within their lived contexts, often helping to clarify ambiguities or minor questions that had emerged during conversations. At the same time, being present in these spaces generated new questions and lines of inquiry. Casual remarks overheard in fields or the arrival of forest officials would prompt reflections that were subsequently taken back into interviews and informal conversations. This created an iterative process between observation and dialogue, in which each method informed and refined the other.

Information gathered through this method was recorded in field notes soon after leaving the site of observation, distinguishing descriptive accounts from analytic reflections. Although these observations were not treated as discrete "data points," they were integral to the interpretive process, enabling a layered understanding of how conservation policy, state presence, and agrarian livelihoods were negotiated in everyday life.

1.5.4 Document analysis

Document analysis was a valuable tool in this research to trace how elephant corridors were conceptualised, justified, and operationalised across different institutional and spatial scales. Central among the documents analysed was the *Right of Passage* report, alongside a wide range of other materials directly focused on elephant corridors as well as documents that more broadly highlighted the multiple ways in which landscapes were being territorialised for conservation. These included policy documents, conservation reports, management plans of the PA, maps, legal judgments, media coverage, as well as campaign materials which were examined to understand how scientific claims, legal categories, and conservation priorities

were produced and circulated. These documents helped situate on-the-ground practices within wider governance frameworks, revealing how corridors were framed as technical, ecological solutions while often obscuring their social and political implications. Analysing documents alongside interviews and observations also made it possible to identify gaps, contradictions, and silences between official narratives and lived experiences in corridor landscapes, thereby strengthening the interpretive depth of the ethnographic analysis.

One instance in which this method helped me cross-verify information obtained through interviews, although verification was not its original aim, occurred during a visit to the Divisional Forest Officer's (DFO) office during fieldwork around BRT. My aim was to collect background information and perspectives on the three corridors, along with any details on land purchases in two of them, through interviews and any available documentation. While there, I was handed a number of files which contained information on the release of land from what is now the sanctuary, information related to its history etc. One of these files contained information on the two corridors[2], among which was a document listing the names of landowners whose property had been acquired. This proved invaluable. In my initial round of interviews aimed at identifying affected landowners, three individuals had said that their land had been acquired for the corridor, a claim I accepted at face value and on the basis of which I conducted more detailed interviews with them. However, none of their names appeared among the seventeen listed in the official document obtained from the DFO's office. When I returned to these three individuals with the list, two of them said the land belonged to a relative, and the third said the land was actually his but was registered in another person's name. This discrepancy highlighted the importance of triangulation across methods, demonstrating how combining interviews with document analysis enabled the verification, and, in this case, correction of information gathered in the field.

1.5.5 Data analysis

Interviews were transcribed both during and after the period of fieldwork, allowing analysis to unfold in parallel with data collection. The process of listening back to recordings and carefully rereading transcripts served as a crucial stage of familiarisation, enabling immersion in the texture, tone, and nuance of participants' accounts (Braun and Clarke 2006). This repeated engagement with the material not only refreshed my memory of specific conversations and

[2] The Chamarajanagar-Talamalai corridor at Muddahalli and the Edayarhalli-Doddasampige corridor

contexts but also allowed patterns, contradictions, and emerging themes to become more visible over time.

In conjunction with interview data, I systematically reviewed and analysed documentary material collected during fieldwork, including policy documents, government notifications, non-governmental organisation (NGO) reports, and media coverage. Bringing these sources into conversation with interview transcripts facilitated a process of triangulation, strengthening the interpretive depth and credibility of the analysis (Bowen 2009). Through this iterative engagement with multiple forms of data, I developed an analytical "map" of the field where I traced relationships between actors, institutions, claims, and events, which subsequently informed the development of key arguments across the thesis.

For Chapter 3 in particular, this process involved an extensive review of material associated with the judicial proceedings surrounding the corridor, including court orders, affidavits, and related legal submissions. It also required revisiting past ecological and conservation studies on landscape connectivity in the region. Reading these materials alongside interview narratives enabled an examination of how scientific knowledge, legal reasoning, and local experience intersected and at times diverged in shaping the corridor's institutionalisation. Together, these layered forms of analysis moved the research beyond descriptive accounts toward a more integrated understanding of how conservation, law, and landscape were co-produced through documentation, discourse, and practice.

1.5.6 Multi-sited research

This research adopted a multi-sited ethnographic approach across two distinct yet interconnected landscapes: around BRT in Karnataka, and within the Sigur plateau in Tamil Nadu. Following corridors, policies, actors, and narratives across these sites made it possible to examine how connectivity conservation was articulated and enacted in different socio-ecological and institutional contexts, while remaining part of a broader national and conservation agenda. BRT offered insights into corridor-making at the edges of a wildlife sanctuary shaped by adivasi presence, agrarian livelihoods, and NGO-led land acquisition process. In the Sigur plateau, many of the underlying dynamics were similar; the distinguishing features were the tourism economies, the filing of a Public Interest Litigation (PIL) followed by a prolonged legal contestation over the formal notification of the corridor, and the absence of land acquisition. Although this research does not undertake a direct comparison between the

two sites – such a comparison may be explored in future work – my experiences at BRT, particularly within its agrarian context, and my interactions with farmers and their encounters with the conservation apparatus, provided a foundation for understanding challenges in the agrarian sector, farmers' engagements with state conservation institutions, and prevailing tenurial regimes. The presence of similar underlying dynamics made it easier to examine how conservation logics operate across different landscapes, and how they are negotiated, resisted, and institutionalised in uneven ways shaped by local histories, livelihood structures, and configurations of state and non-state power. As suggested by this approach, and as the thesis will show, the corridor is the ostensible object of this research, but it also opens onto a much wider set of processes, actors, and relations that extend far beyond the corridor itself.

The two sites that have been the focus of this research are the Biligiri Rangaswamy Temple Wildlife Sanctuary and the Sigur plateau which I will now provide an overview of. Each site also included slightly different ways of identifying interviewees, described below.

1.6 Selected cases

1.6.1 Biligiri Rangaswamy Temple Wildlife Sanctuary

BRT forms part of a larger network of PAs spanning the south Indian states of Karnataka, Tamil Nadu, and Kerala, and is embedded within the wider Nilgiri Biosphere landscape. Characterised by a mosaic of dry and moist deciduous forests, scrub, and grasslands, BRT is considered to function not only as an individual PA but also as a vital connective node linking several neighbouring wildlife habitats, including the Malai Mahadeshwara Wildlife Sanctuary, also in Karnataka and the Sathyamangalam Tiger Reserve in Tamil Nadu. The Right of Passage report identified three elephant corridors that enable movement across this wider landscape: along the eastern boundary the Edayarhalli-Doddasampige corridor, which connects BRT to the Malai Mahadeshwara Wildlife Sanctuary, and along its southwestern boundary the Chamarajanagar-Talamalai corridors at Muddahalli and Punjur, both connecting BRT to the Sathyamangalam Tiger Reserve (Figure 2.1 in chapter 2). All three corridors pass through rural and agrarian spaces and have roads passing through them. The agrarian context of the region is characterised by small and marginal rain-fed agriculture with households cultivating a mix of cereals, millets, and vegetables. While most agricultural land is held under full title deeds, several hundred farmers possess only conditional titles, placing them at a disadvantage (discussed further in Chapter 2). Within this setting, efforts to strengthen connectivity through

corridors has increasingly brought agricultural land and everyday rural practices under new forms of regulation, surveillance, and land-use control, as conservation actors seek to secure connectivity beyond PA boundaries. As a result, BRT offers a particularly revealing site to examine how corridor-making, especially through the acquisition of agricultural land, reconfigures rural landscapes, reshapes agrarian livelihoods, and extends conservation governance through processes of territorialisation.

To examine these processes, I employed a combination of purposive, snowball, and random sampling, conducting interviews with farmers whose land had been acquired for the Chamarajanagar-Talamalai corridor at Muddahalli. Purposive sampling enabled the deliberate selection of participants who were directly affected by land acquisition and therefore most closely positioned to speak to the corridor's material and social impacts (Patton 2015). Snowball sampling was particularly useful in identifying additional respondents through local networks of kinship and acquaintance, especially in contexts where trust and familiarity shaped access to participants (Noy 2008). Finally, incorporating elements of random sampling helped broaden the range of perspectives beyond those most visibly involved in corridor negotiations, reducing the risk of over-representing particular narratives and strengthening the diversity of viewpoints included in the study. Together, these strategies enhanced the depth and breadth of the data, while allowing flexibility in responding to field realities.

Similarly, I also sought to interview farmers whose land was acquired for the Edayarhalli-Doddasampige corridor; however, because this land was acquired in 2003, nearly two decades before fieldwork for this study, locating these families proved problematic. Beyond households directly affected by the land acquisition, I interviewed farmers from villages immediately adjoining the corridor, as well as from the wider landscape near the PA boundary, to understand the agrarian context, their interactions with the state conservation apparatus, the effects of conservation restrictions on their lives, and the challenges posed by wildlife incursions into agricultural fields.

1.6.2 Sigur plateau

The Sigur Plateau, also part of the Nilgiri Biosphere Reserve, is widely regarded as a critical ecological landscape linking the Western and Eastern Ghats, two globally recognised biodiversity hotspots. As one of the most significant wildlife connectivity zones in southern India, the plateau is understood to facilitate elephant movement between the Nilgiri North

Forest Division, Mudumalai Tiger Reserve, Sathyamangalam Tiger Reserve, and Bandipur National Park. In addition to several ecological studies examining elephant connectivity across this landscape, the Right of Passage report identified four specific corridors within the plateau.

The plateau is comprised of a patchwork of reserved forests and revenue lands, the latter encompassing human settlements, agricultural lands, ecotourism facilities, Tamil Nadu Electricity Board holdings, tea and coffee estates, privately owned forests, and forested tracts managed by the Revenue Department. Agrarian livelihoods in the region are shaped by small and marginal farming, largely rain-fed cultivation, and increasing livelihood diversification, often in response to declining agricultural viability and frequent wildlife incursions. Over the last two decades, ecotourism emerged as a dominant land-use and economic strategy on the plateau, with resorts, and homestays positioning themselves as conservation-friendly, while simultaneously benefiting from the proximity to the Mudumalai WLS and TR.

What distinguished this case from the efforts to secure corridors around BRT was the pivotal role of legal intervention in securing connectivity within a landscape where tourism was explicitly framed as an impediment to ecological movement. Rather than relying on the acquisition of land, agricultural or otherwise, connectivity was pursued through judicial and administrative processes. In this context too, the prioritisation of connectivity does not operate in isolation but is deeply entangled with tourism-driven land-use change and new forms of restrictions. As a result, the Sigur Plateau offered a revealing site to examine how connectivity conservation, ecotourism, and agrarian transformation intersect to reshape rural landscapes and extend conservation territorialisation beyond formal PA boundaries. A Public Interest Litigation (PIL) triggered the involvement of the courts, different arms of the state, conservation NGOs and individual researchers, compelling them to decide whether, and in what ways connectivity should be protected within a complex and contested landscape. This process ultimately led to ecological connectivity being prioritised over the expansion and operation of ecotourism, resulting in orders for the closure of 38 ecotourism resorts within a single, officially notified corridor. In doing so, it reshaped land-use governance without direct land acquisition and had cascading impacts on the livelihoods of many who depended directly or indirectly on these enterprises.

Even though this case was widely portrayed as a conflict between ecotourism and corridor conservation, its impacts extended well beyond a single group of actors unlike in BRT where farmers were the primary actors directly affected. I therefore chose to engage not only with

resort owners, but also with farmers, safari jeep drivers, and others whose livelihoods were directly or indirectly affected, as it became clear that the corridor notification impacted everyday life across the region. As in BRT, where particular methods were used to identify key actors and reflect a diversity of experiences, I adopted a similar approach here. I combined purposive and snowball sampling, especially to access resort owners, with elements of random sampling to ensure coverage across a majority of villages in the landscape. Access to one village, however, was not possible, as travel was restricted to local residents or required personal connections, limiting the ability to conduct interviews there. In addition, I also interviewed representatives of conservation NGOs, individual researchers and actors involved in the judicial process.

A key challenge that I faced during fieldwork for this phase of the research was the anger or immediate defensiveness that surfaced whenever the corridor was mentioned. Among interlocutors whose livelihoods were embedded within the corridor, this reaction was rooted in the material impacts that the notification had on their lives, and it was most pronounced in interviews with resort owners. Attempts to discuss the corridor with the forest department were met with outright refusal. Similarly, efforts to understand land tenure in the landscape by approaching the village accountant for maps or records were rebuffed, with the response, "How can government documents be shared with a layperson?" When I approached a member of the three-member inquiry committee appointed by the Supreme Court, I was told that the committee's work was still ongoing and that it would therefore be inappropriate to comment on the matter at that stage.

1.7 Positionality

Thinking ahead to fieldwork, I often reflected on what it would mean to enter rural conservation landscapes for a sustained period of time as someone who had spent most of his life in urban settings, shaped by particular class locations and forms of cultural capital. I knew that I would not be able to simply "fit in" through surface-level adjustments in dress or demeanour. Fieldwork soon made this clear. From the first day of interviews to the last, it was clear to me that I remained an outsider, regardless of how I dressed, spoke, or carried myself. What shifted over time was not my position, but people's familiarity with me. Repeated encounters softened interactions, but they did not erase difference. Even when I tried to blend in through how I

dressed, my Kannada[3], and the accent with which I spoke it, immediately marked me as different. These markers, subtle and overt, continually reminded me that fieldwork was less about becoming an insider and more about negotiating distance, difference, and trust over time.

Entering a landscape as an outsider also carried the risk of misidentification if one's purpose was not clearly articulated. I use two examples to illustrate this. During my initial visit to BRT, when I was exploring whether it could serve as a potential research site, I spent time walking through villages around the corridors, speaking informally with residents, and familiarising myself with the landscape. On the third day, while stopping for tea at a small shop, the shopkeeper asked me suspiciously what I was doing in the villages. When I explained my research, he visibly relaxed and told me that rumours had been circulating that I was a child kidnapper, and that some villagers were planning to confront me. Hearing this was unsettling but also a relief, as I was aware of media reports from other parts of south India where individuals suspected of child kidnapping had been beaten up. This episode underscored how quickly unfamiliar bodies can become sites of fear and speculation.

A different, though related, challenge emerged during the early stages of my research on the Sigur plateau. When I approached people and explained my research, many reacted angrily, assuming that I was supportive of the corridor. Several walked away before I could clarify my position. This made it clear that the corridor had become a deeply polarising issue. In response, I later modified my approach. I initially introduced my work as being focused on agriculture, and once a degree of rapport had been established, I explained that I was also studying corridors, the ongoing judicial case, and the impacts on people's lives, and asked whether they were still comfortable continuing the conversation. If they were, I continued. If not, I stopped and thanked them for their time. This adjustment was not a strategy of concealment, but an effort to allow conversations to unfold in ways that acknowledged existing tensions and respected participants' willingness to engage.

From the beginning of the fieldwork phase, I was acutely aware of the extractive nature of research, particularly in the contexts I was conducting my research which was marked by conflict, vulnerability, and unequal power relations. As a PhD researcher, I occupied an uneasy position, seeking to learn from people's experiences while knowing that I could not offer immediate solutions or materially alter the conditions shaping their lives. This tension, between the demands of academic research and the ethical weight of asking people to share time, stories,

[3] The language spoken in the state

and often distress, remained a persistent and uncomfortable presence throughout the fieldwork and continues to do so. Rather than resolving this discomfort, I came to see it as an important reminder of the responsibilities and limits of research, and of the need to approach both representation and analysis with care, reflexivity, and humility.

1.8 Thesis outline

In this thesis I examine the making and governing of elephant corridors in southern India, asking how efforts to secure ecological connectivity reshape rural landscapes, agrarian livelihoods, and relations between people and the state. While corridors are widely framed as technical solutions to habitat fragmentation and as essential tools for species conservation, I approach them as socio-political projects that extend conservation beyond PA boundaries and into lived-in agrarian spaces.

Chapter 2, the first of four empirical chapters, focuses on the landscape around BRT, where three corridors linking the sanctuary to two adjoining PAs were identified, and land for two of them was acquired in the name of strengthening connectivity. In one corridor where acquisition occurred relatively recently, farmers whose lands were taken were already grappling with multiple agrarian challenges, including state neglect of agriculture, rising indebtedness, and increasingly uncertain weather patterns. Land-use restrictions around the PA, coupled with inadequate compensation for wildlife-related crop losses, further intensified livelihood pressures and pushed farmers to diversify their income sources. In this chapter, drawing on conservation and agrarian scholarship and engaging with concepts such as land grabs, induced volition, rendering surplus, and expulsion, I propose the concept of the 'Conservation Agrarian Squeeze' (CAS) to make sense of the dual pressures acting on farmers.

In Chapter 3, drawing on an empirical case from the Sigur Plateau in Tamil Nadu, I show how wildlife corridors have emerged as a key mechanism of territorial expansion, legitimised through their role in maintaining connectivity between fragmented habitats. Focusing on the unusual case where a corridor was imposed on a landscape with an established ecotourism economy and prioritised over it, I trace the outcomes of a protracted legal battle initiated through a Public Interest Litigation seeking to protect elephant movement obstructed by resorts and encroachments. An outcome of this judicial process was the state formally notifying the corridor and ordering the closure and demolition of 38 ecotourism resorts. This not only had an immediate impact on these establishments but also triggered a chain of effects on the lives

and livelihoods of people living within the landscape, and further exacerbated contestations between the Forest Department and other actors. Here, I argue that the discursive power of the corridor as an ecological concept was mobilised to territorialise the landscape, marking a decisive shift in governance in which a conservation logic increasingly reshaped its political geography. These findings have important implications for political ecology's understanding of the evolving role of conservation in India and beyond.

In Chapter 4, co-authored with Bram Büscher, we step back to examine the political ecology of the state, focusing on how conservation is used to extend and project power both domestically and internationally. The chapter centres on the under-researched Indian state, analysing how it exercises and projects authority internally and externally through the framing and governance of biodiversity. Over time, the Indian State has developed a complex, contradictory and unique conservation profile that sheds new light on the relations between the state, power and conservation. We argue that conservation connectivity, or corridors, are becoming central in this profile, as they connect outward and inward forms of projecting power. Internally, corridors can function as state-controlled arteries that traverse densely populated rural areas, enabling greater monitoring of peasant populations. Externally, they are vital for the conservation of high-profile charismatic species such as tigers and elephants, which play an important role in India's diplomatic engagements.

In Chapter 5, co-authored with Aditi Vajpeyi, we examine the emergence of connectivity conservation in India, particularly wildlife corridors for elephants and tigers, as a contemporary form of conservation territorialisation. As PAs are increasingly seen as insufficient for sustaining these wide-ranging megafaunas, conservation efforts have expanded into rural and agrarian landscapes through corridor initiatives. While often framed as ecological necessities, we show that corridors also function as spatial strategies of governance that regulate land use and livelihoods beyond PA boundaries. Situating these developments within the longer history of forest governance in India, the chapter explores whether expansionary conservation can be challenged through counter-territorialisation. It does so by revisiting the political struggles that led to the Forest Rights Act (FRA), arguing that by recognising rights and vesting authority in Gram Sabhas, the Act creates institutional possibilities for communities to contest and reshape emerging conservation landscapes.

In Chapter 6, the concluding chapter, I draw the thesis together by reflecting on the arguments developed across the empirical chapters and revisiting the central question of how connectivity

conservation reshapes rural life and governance beyond PAs. I synthesise the conceptual and empirical insights generated through the cases, highlighting what they collectively reveal about the territorialisation of conservation, the reconfiguration of agrarian livelihoods, and the uneven distribution of costs and benefits in corridor landscapes. At the same time, I argue that the rapid rise of connectivity conservation demands far greater scholarly attention. In particular, there is a pressing need for research that examines its social, political, and economic consequences for those who live within, cultivate, or otherwise depend upon landscapes newly designated as critical for ecological movement. As conservation increasingly shifts from bounded PAs to expansive, rural and agrarian spaces, understanding how these initiatives affect rights, land tenure, labour, and everyday life becomes crucial. I conclude by calling for more grounded, interdisciplinary research that centres the experiences of people whose homes and livelihoods are rendered central to conservation objectives, yet who often remain peripheral in conservation decision-making.

CHAPTER 2: Capturing land for elephant corridors in South India through the Conservation Agrarian Squeeze[4]

2.1 Introduction

There is a global push to extend conservation frontiers. Drawing from E.O. Wilson's (2016) 'half earth' idea and broader 'nature needs half' networks that call for half the earth to be designated into Protected Areas (PAs), the recent CBD COP 15 agreed to conserve 30 percent of land and seas by 2030, commonly referred to as '30×30'. In India, the rapid growth of PAs from 65 in 1970 to over 1,100 in 2025[5] highlights the continued focus on area-based conservation. Despite this increase, PAs cover 5.28% of the Indian land area and increasing this coverage is extremely challenging (Krishnamurthy 2023). This makes India's aim to achieve the 30×30 target near impossible, except through so-called 'Other Effective Area-Based Conservation Measures' (OECMs) or areas other than PAs, that provide long-term in-situ biodiversity conservation. A document published by the Ministry of Environment Forest and Climate Change on the criteria and guidelines for identifying OECMs in India states that "OECMs present an opportunity to expand India's network of conserved areas, operating cooperatively with protected areas" (MoEFCC 2022 p. 5). It also emphasizes that they should effectively safeguard "areas of importance for ecological connectivity or that are important to complete a conservation network within a landscape or seascape" (ibid. p. 15) Although not yet implemented, increasing pressure to incorporate various land types around formal PAs is likely in the coming years, particularly if the land is deemed crucial for elephants or tigers.

Beyond meeting international targets, various approaches have been proposed in India to expand conservation beyond PA boundaries, often into surrounding agrarian landscapes. For example, the 'Tiger Habitat Expansion Model' suggested that farmers near PAs leave land uncultivated, gaining more from tourism than farming while benefiting themselves, tourists, and tiger (*Panthera tigris*) habitats (Karanth and Karanth 2012). In the state of Karnataka, where this study is based, the forest department proposed private conservancies in 2018, allowing private landholdings of at least 100 acres adjoining a PA to be set aside for conservation and wildlife connectivity[6]. Though unimplemented, these proposals underscore

[4] Published in *Environmental Management*
[5] https://wiienvis.nic.in/Database/Protected_Area_854.aspx (accessed on 04/03/2024)
[6] Karnataka Private Conservancies Rules 2018

efforts to expand conservation into agrarian landscapes through eco-tourism, effectively "rendering land touristifiable" (Pandya et al. 2022). Prior to these proposals, regulations were introduced governing land around PAs through two mechanisms: Eco-Sensitive Zones (ESZs) and buffer areas for tiger reserves. Introduced in the 1990s, ESZs regulate activities within a specified distance of a PA boundary. However, restrictions introduced can have negative effects on agrarian landscapes, as I will discuss in the following sections.

Acquiring agricultural land for elephant corridors is another approach to expanding conservation areas and improving connectivity between PAs. Said to be "an essential conservation accessory" (Worboys et al. 2016 p. 6), corridors are 'secured'[7] through this method (Menon et al. 2005, 2017). The Asian elephant (*Elephas maximus*) is used as a flagship species to mobilise public and financial support for corridors (Barua et al. 2010; Jepson and Barua 2015) and are supported through celebrity advocacy (Abidin et al. 2020), art and charity events (Barua 2013), fundraising appeals (IFAW n.d.) and grants from international conservation organisations focused on land acquisition (IUCN-NL 2021).

These acquisitions do not occur in isolation, but within an agrarian context transformed by India's economic liberalization since the early 1990s. Unfavorable policies, coupled with climate uncertainties, have slowed the agricultural economy, deepening livelihood and food insecurity for many who rely on farming (Posani 2009, Vasavi 2009, Kamra 2022). Consequently, rural livelihoods have become increasingly reliant on fragmented and insecure sources (Akram-Lodhi and Kay 2010), leaving many to abandon agriculture in pursuit of "post-agrarian futures" (Hall et al. 2011). State neglect of this sector has also led to the financialization of agrarian land, compelling farmers to sell, resulting in "dispossession by neglect" (Vijayabaskar and Menon 2018). While scholars have highlighted the influence and role of conservation in exacerbating agrarian differentiation and change through (eco)tourism, infrastructural development and payment for ecosystem services (Dressler 2011, Dressler et al. 2013, Pandya et al. 2022), I develop the idea of a 'Conservation Agrarian Squeeze' (CAS) to explore how conservation interventions and restrictions work in conjunction with dynamics in agrarian landscapes to compel farmers to sell their land for conservation.

[7] I use inverted commas for "secure" to underscore the unequal power dynamics and coercive tools involved in land acquisition and dispossession.

Using the acquisition of land for three identified elephant corridors[8] connecting the Biligiri Rangaswamy Temple (BRT) Tiger Reserve in Karnataka, South India, to adjoining PAs as an empirical case, this chapter demonstrates how the CAS is manifested. What follows is a discussion on land and green grabs, regimes of dispossession, restrictions and the role of neglect in dispossession. After defining the CAS and building on concepts similar to the squeeze, I empirically identify five factors that contribute to and enable the acquisition of land for elephant corridors. I conclude by revisiting how the increasing interest to expand conservation spaces could result in many more examples of the CAS.

2.2 Situating the Conservation Agrarian Squeeze

Globally and in India, scholarly research on land acquisition for various purposes and its associated dispossession has been increasing. Since 2006, there has been growing academic focus on the 'global land grab' (Borras et al. 2012, Hall 2013, Wolford et al. 2013) and its subset, known as green grabbing (Fairhead et al. 2012). Scholars have highlighted how the latter has contributed to the dispossession of people from their land and resources, undermined local sovereignty, and leveraged 'green' credentials for otherwise declining forms of capital accumulation (Benjaminsen and Bryceson 2012, Corson and MacDonald 2012).

In India, the 1990s saw a shift from state-managed capitalism, where land was acquired for public-sector projects, to neoliberalism, where land was taken for private corporations and Special Economic Zones (SEZ) (Levien 2018). Using 'development' as a justification for dispossession, Levien refers to "regimes of dispossession", where the political apparatus was used to coercively acquire land for specific economic purposes and class interests (2018 p. 17). Kabra and Das (2022) utilise Levien's regimes of dispossession to critically analyse how the continued push for inviolate areas for the tiger has been used to dispossess for conservation. While both Levien, and Kabra and Das highlight the role of the state in dispossession, NGOs are also essential actors within these regimes (Bathija and Sylvander 2023).

In India, the acquisition of land for conservation by NGOs, which is not widely practiced, is aided by the imposition of conservation restrictions on rural livelihoods by the state, thus increasing dependence on wage labour (Brockington and Duffy 2010). Restricting access, zonation exercises around PAs regulating land use, and banning customary grazing and

[8] Edeyarahalli – Doddasampige, Chamrajanagar – Talamalai at Muddahalli, and Chamrajanagar – Talamalai at Punjur corridors in Menon et al. 2017

resource collection increase the precarity of those living near PAs (Cernea 2005, DeFries et al. 2007, Hall et al. 2011). Over time, increasing restrictions can make land 'grabbable' and people 'relocatable' (Weldemichel 2022), leading to conservation dispossessions in agrarian landscapes.

Scholars have also highlighted that neglect can facilitate dispossession (Bastos Lima and Kmoch 2021), as seen in state underinvestment in agriculture and the financialization of land (Vijayabaskar and Menon 2018). Through the twin processes of neglecting agriculture and liberalising land markets in these landscapes, farmers are effectively coerced to sell their land due to the state favoring non-agricultural modes of accumulation, leading to what Vijayabaskar and Menon term 'dispossession by neglect'. Policy shifts in agriculture and agrarian dynamics can blur the line between coercive and voluntary land sales, especially when conservation actors acquire land, and land use shifts from agriculture to state-owned conservation areas.

It is here that I introduce the conservation agrarian squeeze, where I conceptualise it as the convergence of factors and forces arising out of conservation and the agrarian that impinge upon and alter people's livelihoods and support systems due to immense pressures. This idea relates to and builds on four existing and related terms – the grab, induced volition, rendering surplus and expulsion – which I briefly engage with below.

The word grab has been associated with terms such as land and green grabbing since it was first used by GRAIN, a civil society organisation, following foreign land acquisitions in Latin America in 2008 (Goetz 2021). A land grab can be defined as the unfair appropriation of land that "occur under conditions of highly asymmetric power relations, access to information, and distribution of benefits and costs" (Margulis 2013 p. 16). Similarly, a green grab "does not always involve the wholesale alienation of land from existing claimants," but involves "the restructuring of rules and authority over the access, use and management of resources, in related labour relations, and in human-ecological relationships, that may have profoundly alienating effects" (Fairhead et al. 2012 p. 239). As I will show, the squeeze exhibits features of both land and green grabs. However, land acquisition is a process facilitated by a combination of factors and forces within conservation and agrarian landscapes that enable the process.

Discursively reframing dispossession as voluntary does not account for the conditions created to bring about the acceptance to relocate, i.e. inducing volition (Milgroom and Spierenburg 2008, Bathija and Sylvander 2023). According to Milgroom and Spierenburg, induced volition

occurs when restrictions on livelihood strategies imposed by park regulations coupled with increased wildlife presence, pressures some communities into 'accepting' resettlement. In India, such volition has and continues to be assembled by the hegemony and authority of the state to create inviolate areas for tiger conservation (Kabra and Das 2022). In this case, non-state conservation actors induce volition to acquire land, aided by state-imposed restrictions on livelihood strategies within and around BRT, such as the establishment of an ESZ, buffer areas, and limitations on access. Hence, the squeeze, as I conceptualise it includes inducement to sell land but is aided by a number of other factors. While Milgroom and Spierenburg do briefly touch upon the effect of wildlife on agriculture, other dynamics in agrarian landscapes that also contribute to dispossession and the squeeze are not factored in.

The third concept that has similarities with the squeeze is that of rendering populations as surplus (Li 2010). Dispossession in Southeast Asia has been the result of largescale enclosures for agricultural expansion, conservation, extractive industries, and the gradual dispossession of farmers through mounting debt, referred to as 'intimate exclusions' (Howson 2017). Here, rendering populations as surplus is framed in specific reference to capital accumulation and its requirements in specific locations. What differentiates the squeeze is the multiplicity of factors, which I will elaborate on below, in conservation and agrarian landscapes, including debt as Li points out, that enables dispossession. Furthermore, largescale agricultural expansion is not a feature in this landscape. Instead, there exist multiple overlapping forces that squeeze small and marginal farmers.

Finally, the term expulsion mirrors Levien's (2018) 'regimes of dispossession'. As Sassen notes (2014 p. 1), expulsion "takes us beyond the more familiar idea of growing inequality as a way of capturing the pathologies of today's global capitalism" and "brings to the fore the fact that forms of knowledge and intelligence we respect and admire are often at the origin of long transaction chains that can end in simple expulsions." Levien similarly highlights how different types of knowledge intersect with political and economic forces to dispossess peasants from their land. Sassen on the other hand highlights how advanced political economies, with complex financial instruments, land acquisition, and resource extraction, can result in elementary brutalities and expulsion. While this complexity cannot be pinned to an obvious center or oppressor, there are sites where it all comes together. It is here that the squeeze builds on expulsion. In addition to forms of knowledge, complexities and the combination of economic forces coming together leading to expulsion, a conservation logic is also present. The

extension of the conservation paradigm governs agrarian landscapes indirectly through the imposition of rules and restrictions, but also directly through the capture of agricultural land for elephant corridors.

In summary, I have highlighted how coercion often plays a key role in setting aside land for development, conservation, or other purposes, particularly in relation to the concepts of grab and induced volition. The concept of rendering surplus, though closely linked to the idea of the squeeze, primarily emphasize large-scale agricultural expansion and capital accumulation as drivers of dispossession. In the case of expulsion, what is missing from the analysis of knowledge systems and economic forces is the role of the conservation logic in expanding protected spaces into surrounding landscapes.

2.3 Methods

To understand how agricultural land is acquired for elephant corridors and the broader context in which this occurs, empirical data were collected in the buffer and ESZ around BRT from December 2021 to July 2022. Qualitative data were collected through a combination of 50 semi-structured and structured interviews with small and marginal farmers, including those whose land was acquired for a corridor, agricultural labourers, representatives of the forest department, department of agriculture, revenue department and *panchayat*[9] members. Observations also contributed to the data collected. Secondary data were collected through an analysis of reports and documents from the forest department and conservation organizations.

The interviews covered a broad range of topics. On conservation, information was gathered on prior and current interactions with BRT and the forest department, including how restrictions over time have impacted livelihoods and support systems. Additionally, views on elephant corridors and land acquisition for them, as well as changes in the landscape following land acquisitions, were also explored. On agrarian dynamics, historical changes in cropping patters, support by the state, issues facing farmers, including those by the forest department and wildlife, market dynamics etc were discussed. Finally, interviewees were also asked about their perspectives on the future of conservation and agriculture in the landscape. Verbal informed consent was sought from all interviewees prior to interactions and their anonymity was guaranteed.

[9] Village council

This study faced two methodological limitations: first, achieving a gender balance among respondents was not possible due to my positionality as an urban male (albeit from Karnataka), and the challenges of engaging openly with women because of existing gender dynamics. Second was the inability to locate and speak to families whose land was acquired for the Edeyarahalli – Doddasampige corridor in 2003 since data for this research were collected almost two decades later.

Before presenting the empirical data, I will briefly outline the categories of PAs in India, explain how elephant corridors fit in, and describe BRT to provide context for Indian conservation efforts and the study area.

2.4 Conservation in India

2.4.1 Protected areas and elephant corridors

India has four categories of terrestrial PAs under the Wild Life Protection Act (WLPA), 1972 – national parks, wildlife sanctuaries, conservation reserves and community reserves, which prioritise area-based conservation. Tiger reserves were added in 1973 as an additional designation to national parks and wildlife sanctuaries in response to a task force report that urged the government to create 'safe havens' for the tiger. These reserves are conferred the highest status of protection and are required to be inviolate. Consequently, since the early 1970s, forest dwellers have been relocated to the fringes of PAs by the forest department. Additionally, access to forest resources has been restricted not only for forest dwellers but also for those in surrounding landscapes who depended on them.

Alongside the growing number of PAs in the country, there has been growing attention to connectivity, in line with global efforts to prevent them from becoming isolated 'islands' amid the threat of fragmentation. In India, this effort began in the 1980s with the mapping of elephant corridors in various locations across the country (Sukumar 1985; Johnsingh et al. 1990; Johnsingh and Williams 1999) shaping the early discourse on connectivity and corridor integrity. A few decades later, a report identifying 88 corridors across the sub-continent was published (Menon et al. 2005). Since then, their significance has been highlighted by the national level Report of the Elephant Task Force (Rangarajan et al. 2010), and the number of corridors has risen to 101 in 2017 (Menon et al. 2017) and 150 in 2023 (Project Elephant Division, MoEF&CC, Government of India 2023). These corridors have been 'secured' through various means, including land acquisition, which I will elaborate on. However, these

acquisitions have not occurred in isolation; they have unfolded within an agrarian context shaped by multiple dynamics that, as I argue, have influenced these processes. I will explore these aspects in the following sections.

2.5 Biligiri Rangaswamy Temple Tiger Reserve

BRT is located in the Western Ghats in South India with an area of 575 km^2 (Figure 2.1). The Malai Mahadeshwara wildlife sanctuary is located to its east while the Sathyamangalam Tiger Reserve in the neighbouring state of Tamil Nadu borders the south. Towards the north and west are agricultural lands and towns. Among the wildlife found within the PA are tigers, elephants and sloth bears. Roughly 20,000 Soligas[10] live within and around the PA (Rai et al., 2021). In 1974, when BRT was declared a wildlife sanctuary, the Soligas were sedentarised and resettled to villages on the periphery of the PA, including into an area that has been identified as an elephant corridor. Roughly 100,00 people live in 100 villages surrounding the sanctuary (BRT Tiger Management Plan p. 15, 67).

The agrarian landscape around BRT is dominated by small and marginal rainfed farms that grow a combination of cereals, millets and vegetables. The introduction of ginger, vetiver, chia seeds, maize and other crops and their associated capital along with a burgeoning real estate market has led to changes in agricultural practices and livelihoods, which will be detailed below.

[10] A Scheduled Tribe

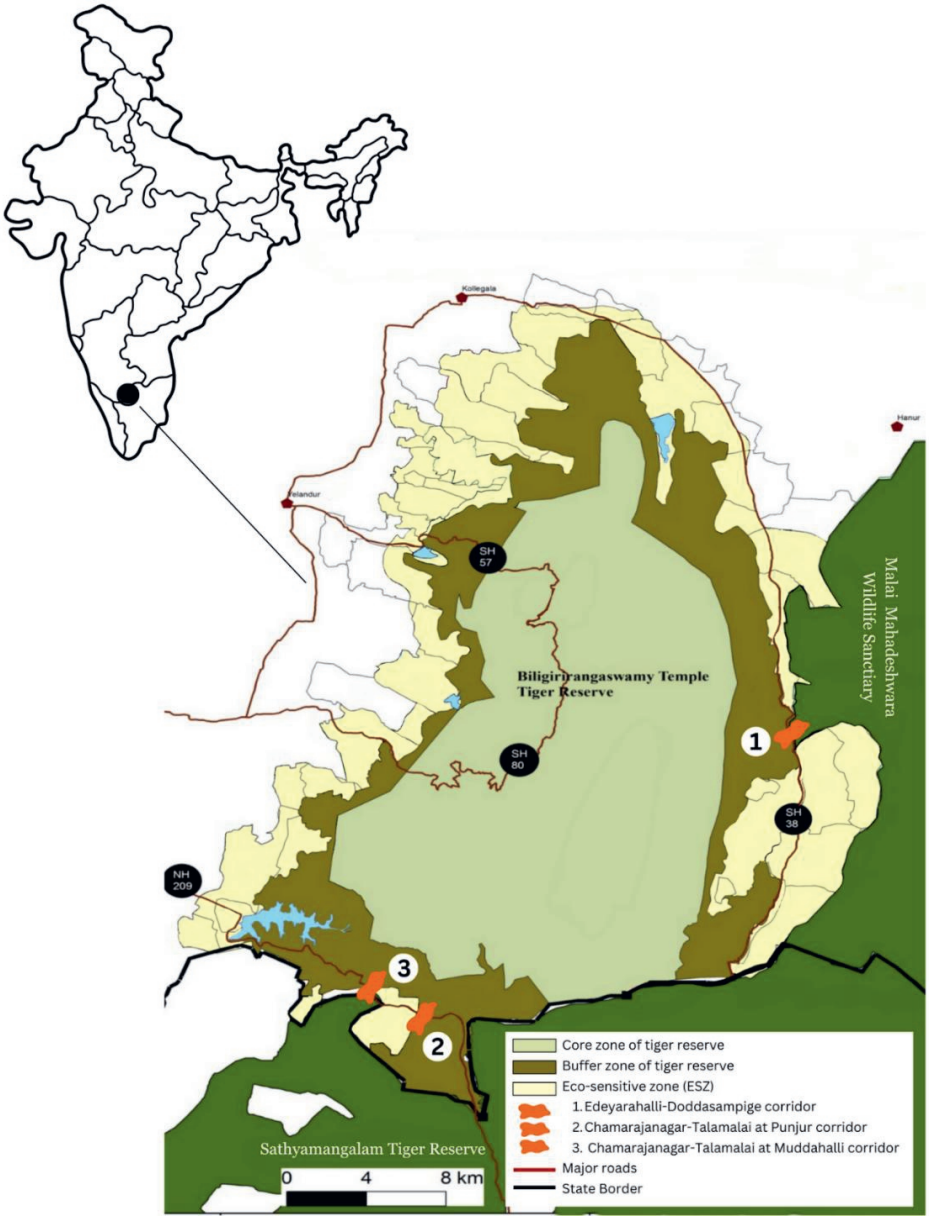


Figure 2.1: Map of Biligiri Rangaswamy Temple Tiger Reserve with the core, buffer, ESZ and location of the elephant corridors. This map is based on the ESZ notification of the reserve published in 2019.

2.6 The multiple pressures on farmers

This research identifies five key overlapping factors and forces—three related to conservation and two to agrarian dynamics—that collectively contribute to the formation of the squeeze. They are 1) restrictions on access to PAs, 2) restrictions on land use outside PAs, 3) uncertain land tenure and changes in legislation, 4) insufficient or no compensation in the case of crop depredation, and 5) changing cropping patterns and volatile markets. Together, they squeeze farmers and enable the acquisition of land for elephant corridors.

2.6.1 Restrictions on access to PAs

Since BRT was designated as a wildlife sanctuary in 1974 and later declared a tiger reserve in 2011, the forest department has steadily increased restrictions on neighbouring communities' access to resources within the PA. The collection of uncultivated greens, tubers, gooseberry, and other produce for domestic consumption and to market locally has been restricted. Grazing of livestock and gathering firewood has also been banned or heavily regulated, posing a challenge for those who rely on the forests. To reduce dependence on firewood, the forest department encouraged the switch to Liquefied Petroleum Gas (LPG), increasing both market reliance and household expenses.

Grazing restrictions in BRT have limited pasture for native cattle, with most of the surrounding land under cultivation, and fodder costs being prohibitive. While the forest department views grazing as a threat, it recognises the gradual decline in cattle populations due to both a change in agrarian dynamics and conservation-related restrictions. A forest department official, reflecting on its conservation benefits, said:

> Half the population of cattle will decrease in the next ten years. None of the new generation is interested to graze cattle and go into the forest. After this generation [dies], the cattle population will come down. None of the new generation also wants to work in agriculture or do coolie work. They are going to Mysore and Bangalore. Who will be left here to do agriculture?

This reflects the forest department's recognition that shifts within the agrarian landscape could ultimately support conservation efforts.

2.6.2 Restrictions on land use outside PAs

The delineation of land beyond BRT as a buffer area for the tiger reserve and an ESZ extends the influence of conservation beyond its borders. According to the WLPA, a tiger reserve must be divided into core and buffer areas, the former kept inviolate for tiger conservation, while the latter ensures its integrity and promotes human-wildlife coexistence. The buffer area, a multiple land-use area including agricultural and revenue lands, involves various state departments. Its management focuses on mainstreaming wildlife conservation outside national parks and facilitating safe wildlife dispersal into restored ecological sinks (Shukla 2012).

The tiger conservation plan for BRT (2014-15 to 2023-24) acknowledges agriculture as the primary livelihood and production sector in the buffer area and advocates for "eco-agriculture" to balance food production and wildlife conservation, though specifics are lacking. It also calls for economic incentives to safeguard wildlife concerns without detailing their nature of implementation. One objective is to "mainstream wildlife concerns" in production sectors by ensuring safeguards and gaining local support through "reciprocal commitments" (p. 268) such as curbing illicit grazing, reducing firewood collection, and participation in fire protection and anti-poaching efforts," (Compendium of Guidelines & Circulars Issued by Director (project tiger)). However, it remains unclear whether mainstreaming wildlife concerns would translate into restrictions, how it would be enforced, and who would be affected.

An ESZ serves as another mechanism to impose restrictions on surrounding landscapes. In 2011, the Ministry of Environment, Forest and Climate Change of India (MoEFCC) published guidelines to establish ESZs around wildlife sanctuaries and national parks to act as shock absorbers and transition zones with varying levels of protection from areas of high protection to areas involving lesser protection (MoEFCC 2011). These zones would be of a regulatory nature rather than prohibitive unless required. In 2019, an ESZ notification for BRT was published which included activities categorized as prohibited, regulated and promoted within 0.5 km and 6 km from the boundary (figure 2.1), affecting 49 villages (MoEFCC 2019). Restrictions included tree felling, digging borewells, and ambiguously worded text about agriculture and horticulture being "permitted as per the applicable laws for use of locals." The ambiguity around applicable laws "use of locals" remains unclear, while the ban on new borewells forces reliance on rain-fed agriculture amid increasingly unpredictable weather.

A third form of conservation governance is the eco-development zone, encompassing villages within five kilometres of the PA boundary. Its objectives include restricting grazing, promoting

afforestation on farmlands, and promote LPG cylinders and renewable energy to reduce forest dependence.

These three mechanisms of delineating areas as conservation spaces have prioritised restrictions over mutual benefit for wildlife and humans, redefining access, resource rights, and livelihoods in the long-term.

2.6.3 Uncertain land tenure and changes in legislation

In Karnataka, most agricultural landholders have secure tenure, but uncertainty persists for certain categories of land (Azim Premji University 2014). For example, in the area surrounding BRT, land tenure insecurity affects Soligas and other marginalised communities who were granted land by the state beginning in the late 1950s[11]. These forested lands, now known locally as *saguvalli patta*, were released for settlement. The uncertainty arises from conditional title deeds, with many owners lacking the essential Record of Tenancy Rights and Cultivation (RTC) or receiving a shared RTC for multiple families. Without such a document, selling this land is virtually impossible.

Owning *saguvalli patta* land presents several challenges: it can only be inherited, must be used for agriculture, and cannot be sold to people from outside the panchayat (pers. comm. panchayat and forest department officials). Most farmers seeking additional land within the panchayat opt to lease it, as it is a more cost-effective alternative to the high expense of purchasing land. Second, farmers without an RTC are ineligible to secure bank loans. Third, ESZ rules combined with conditional land tenure prevent farmers from digging new borewells for irrigation. Finally, farmers who face crop depredation are ineligible to apply for compensation in the absence of RTCs; more on this in the next section.

The consequences of these rules, both written and unwritten, have significantly impacted farmers. For instance, these farmers who are unable to sell land even if they wish to, cannot use land sales to repay outstanding loans, unlike revenue land holders who have benefitted from recent amendment to the Karnataka Land Reforms Act[12]. Without access to bank loans, farmers rely on high-interest informal credit, often leading to crippling debt[13]. Additionally,

[11] An example is 600 acres granted to Harijans (now Dalits) and Lambanis by the agriculture and forest departments of the former Mysore state.
[12] The 2020 amendment allows non-agriculturists to acquire agricultural land, a right previously restricted.
[13] Extensive data on informal debt sources was unavailable during the study.

they must seek the forest department's approval to dig borewells, a requirement not applicable to revenue landowners. Interviewees highlighted their applications facing long delays outright rejection, giving the forest department significant influence over agricultural practices and indirectly forcing irrigation-dependent farmers to abandon farming or relocate.

2.6.4 Compensation for crop depredation

To protect their crops from elephants and wild pigs, farmers near BRT's boundary often stay in their fields overnight around the harvest period. While some have installed makeshift solar fences, those without much capital have to stand guard themselves. Poorly maintained or absent elephant-proof trenches and solar fences allow easy access to farms.

To counter negative attitudes arising from crop depredation, the Karnataka Forest Department (KFD) is supposed to provide monetary compensation to farmers for crop losses from all wild animals. However, this system has several flaws. First, only damage by elephants is eligible, even though wild pigs cause far more destruction. The KFD states that farmers can claim compensation for crop damage by wild animals under the WLPA, yet only losses from elephants (a schedule I species) are compensated, excluding wild pigs (a schedule III species) despite both qualifying. Forest department officials who were asked about this said they were following orders passed down by their superiors.

Another issue is that the compensation process is complex, time-consuming, and corrupt, with farmers often needing to bribe officials for loss assessment. Those without RTCs are ineligible, and even approved claims face delays in receiving compensation.

Lastly, the compensation provided is significantly lower than the actual value of the crop lost. A 2016 government circular by the MoEF&CC recommends that compensation should be 60% of the estimated crop damage, the justification being that "If the compensation is close to 100% of the crop value there will be no incentive for the farmer to protect his crops" (MoEF&CC 2016 p. 17). As a result, many farmers refrain from applying, finding the payout insufficient.

These four issues underscore the challenges farmers face in protecting their crops and applying for compensation. The resulting economic hardship compounds existing agricultural difficulties, which will be discussed in the next section. Repeated crop depredation often forces farmers to abandon cultivation and seek alternative sources of income.

2.6.5 Cropping patterns and volatile markets

Cropping patterns around the corridors have witnessed significant changes in recent decades. Previously reliant on rainfed farming, crops cultivated included millets, pulses, traditional varieties of maize and some vegetables. In the 1970s, hybrid maize provided to Tibetan refugees by the Mysore Resettlement and Development Agency as an income generating crop were adopted by farmers due to its ability to grow under rainfed conditions and on relatively poor soils. Today, maize dominates both rainfed and irrigated farming, and has become part of the contemporary food regime, integrated into the industrial grain–oilseed–livestock complex (Jakobsen 2020), with much of the yield being converted into poultry and cattle feed. However, low profit margins, unpredictable rainfall, fluctuating market prices and wildlife depredation pose ongoing challenges.

The introduction of borewells enabled a shift from single-season to year-round farming, crop diversification, and increased fertiliser and pesticide use, while also altering tenurial regimes. Ginger, for example, was introduced to the western side of BRT in the early 2000s by farmers from Kerala who started leasing land in Karnataka. This movement of capitalist ginger farmers was a result of multiple crises in agriculture in the district of Wayanad and other parts of Kerala in the early 1990s (Münster 2015).

Ginger cultivation predominantly operates on leased land with rents varying by irrigation source and soil quality. The focus on maximising yield leads to heavy fertilisers and pesticide use, significantly impacting the region's ecology (Punarchith 2014). Considered a high-risk crop, ginger farming is often described as a ‘gamble’ (Münster 2015) and akin to participating in the lottery as mentioned by many interviewees with price crashes and disease outbreaks causing major losses. As one farmer[14] put it, “I got the timing of my harvest wrong so I burned my hands and my land,” referring to financial losses and soil degradation from excessive chemical use.

The hope of winning the agricultural lottery has driven many farmers in Karnataka to cultivate ginger on their own or leased land, often resulting in heavy losses and mounting debt. This gamble extends to other crops as well, with farmers relying on high-interest informal loans, sometimes reaching up to 10% per month. Unpredictable rainfall, wildlife depredation, and minimal state support further exacerbate their vulnerability. For many, daily wage labour is not

[14] Interviewed on 29/04/2022

a choice but a necessity to cover household and farming expenses, and for debt repayments. Those trapped in a vicious cycle often end up selling their land—revenue landholders typically to real estate speculators or those seeking to build farmhouses, while those with *saguvalli patta* land may sell to conservation actors, as seen in this case.

Many among the younger generation are leaving farming, with some taking up agricultural labour or produce transport, while other migrate to cities or towns to work in construction, garment industries, or in the gig economy. This has resulted in the "geriatrification" and "greying" of agriculture (Rigg et al. 2012; Mohanty and Lenka 2023), as the younger generation opts out due to declining farming incomes, limited access to immediate cash, hardship, and aspirations for a better life. Parents prioritise education to secure their children's futures, as one farmer[15] put it, "We do not want our children to struggle the way we have. We are doing all we can to educate them so they have a better future." Similarly, a 22-year-old[16] who had dropped out of school said:

> there is no security in farming and no daily income. At least by doing coolie work or working in the garment sector there is a steady income. Many of my friends are working as food delivery riders in Bangalore and Mysore. They are making good money and are able to send some back for their parents.

As discussed, these five factors and forces exert various pressures on farmers, often pushing them to sell their land. The next section will explore how agricultural land is being acquired for elephant corridors, enabled by this squeeze.

2.7 The elephant corridors

2.7.1 The Muddahalli corridor

One of the three elephant corridors around BRT identified by the Wildlife Trust of India (WTI) (Menon et al. 2005, 2017) is the Chamarajanagar – Talamalai corridor at Muddahalli that connects it to the Sathyamangalam tiger reserve in Tamil Nadu via a strip of land that is 1.5 km long and 0.5 km wide. To the north and the south of the corridor are the villages of Dodda Muddahalli and Goremadu Doddi respectively. Dodda Muddahalli is predominantly inhabited by Lambani and Madiga scheduled caste communities while Goremadu Doddi is populated by

[15] Interviewed on 10/05/2022
[16] Interviewed on 10/05/2022

Soligas. An interstate highway runs through the corridor, primarily used by vehicles transporting agricultural produce to markets in Tamil Nadu. Signboards along this highway have been put in place which let people know 'Elephants have right of way' (figure 2.2).



Figure 2.2: Boards such as these are erected in identified corridors

The intention to acquire land for this corridor was proposed in 2005 (Menon et al. 2005), this despite it being *saguvalli patta* land. Support from the forest department ensured that there were no obstacles regarding the transfer of ownership. The acquisition process began in 2017 when WTI submitted a concept note[17] to the Karnataka Forest Department, highlighting the need to secure it to prevent the loss of connectivity for tigers and elephants. The note highlights specific agricultural lands in the two villages, particularly those owned by certain families, that obstructs animal movement. To address this, the acquisition of 31.74 acres was proposed, 10 acres of which belonged to the Muddahalli Joint Farming Cooperative Society to the north of the corridor, and 21.74 acres of s*aguvalli patta* land belonging to 6 Soliga and Lambani families along the southern boundary (table 2.1).

[17] Accessed at the office of the Deputy Conservator of Forests in Chamarajanagar

Owner and community/caste	Land tenure	Extent of land identified (in acres)	Extent of land sold (in acres)	Priority phase
Farmer 1 (Soliga)	*Saguvalli patta*	3.25	3.25	Phase 1
Farmer 2 (Soliga)	*Saguvalli patta*	3.25	3.25	
Farmer 3 (Lambani)	*Saguvalli patta*	3.12	3.12	
Farmer 4 (Dalit)	*Saguvalli patta*	3.03	3.03	
Farmer 5 (Lambani)	*Saguvalli patta*	5.7	4	
Farmer 6 (Lingayat)	*Saguvalli patta*	6.64	0	
Muddahalli Joint Farming Cooperative Society	Forest leased land	10	0 (at the time of fieldwork)	Phase 2

Table 2.1: Details of the land acquired for the Chamarajanagar – Talamalai at Muddahalli corridor

The acquisition process commenced with support from the forest department. In correspondence accessed[18], the Principle Chief Conservator of Forests of Karnataka instructed the Deputy Conservator of Forests and Director of BRT saying "…the Wildlife Trust of India may be provided with all the support for securing the corridor in favour of the Department." The concept note proposed a two-phase acquisition process. Phase one, deemed critical for corridor's success, involved acquiring land or offering a land-for-land deal, though farmers claimed only monetary compensation was provided. Phase two, involving 10 acres was considered "desirable but not mandatory". Once secured, the corridor was expected to ensure unhindered connectivity between the two tiger reserves.

The four-year land acquisition plan started with trust building efforts through dialogue and what the note calls "entry point activities". Beginning in 2017, these efforts included a health camp as part of WTI's Mudahalli Elephant Link project's community support activities[19]. Additional social engagement programs to earn the community's trust included renovating a childcare centre, distributing fuel-efficient stoves and solar lanterns to reduce depending on firewood, and holding sensitisation sessions for schools, local communities, and the forest department. Pasture development was planned; however, no progress had been made at the

[18] Accessed at the office of the DCF in Chamarajanagar
[19] https://www.wti.org.in/news/mudahalli-elephant-link-health-camp-organised-for-corridor-dependent-villages/ (accessed on 04/10/2021)

time of data collection. Once trust was established, discussions and negotiations on land acquisition began.

Of the six families whose lands were identified for acquisition, five were interviewed while the sixth could not be contacted. One, from the locally dominant Lambani community, sold only part of his land, unwilling to part with it entirely. Two now rely entirely on daily wage labour, while another combines daily wages with work as a land leasing agent. A fifth, with a government job is not financially dependent on the land. Despite varying financial situations, all the families expressed regret over selling their land. One farmer said[20]:

> Selling the land helped us clear our debt, buy a few additional items for our house and help with our children's education. But the compensation we got had to be split among five siblings so we each got very little. We could not even think of buying other land with that amount of money because it is so expensive. By owning the land, at least we could grow some of our food. Now we depend on the market for everything

Other landowners shared similar stories of remorse for whom their land was more than just an asset.

Although the process of acquisition was labelled as voluntary, interviews with the families suggest otherwise[21]. The two Soliga families were told by a WTI representative that their land was actually forest land and needed to be *returned* to avoid further wildlife depredation and doing so would benefit them and neighbouring farmers. While the entry point activities aimed to manufacture consent, this messaging fostered a sense that the land was never rightfully theirs. A farmer[22] said indignantly

> First they said they that the forest [referring to BRT] was for the tiger. Now they are saying this land is for the elephant. There has been no change after they bought the land. Elephants are still destroying crops.

Land acquisition for the corridor has sparked fear and anger among neighbouring farmers. A farmer[23] noted the increasing power of the forest department and WTI, fearing more land takeovers for conservation. "In the future, more and more land can be bought. Where will we

[20] Interviewed on 14/05/2022
[21] For another corridor where land was acquired, WTI note that they "persuaded 30 people to voluntarily relocate". Bathija and Sylvander (2023) argue that framing dispossession as voluntary legitimises it as an acceptable conservation strategy.
[22] Interviewed on 09/05/2022
[23] Interviewed on 10/05/2022

farmers go?" he questioned. Another, whose family received a government grant in the 1950s, has been worried about losing his land due to conditional title deeds. He said, "We were told that if we stopped cultivating our land, it would be taken away. This is why we make sure to plough it every year even though we do not grow any crops so that it gives the forest department the feeling that something is being grown." The lack of tenurial security is a source of fear stemming from the land earlier being under the possession of the forest department, a concern not shared by those with clear title deeds.

2.7.2 The Edeyarahalli corridor

The second corridor, the Edeyarahalli–Doddasampige corridor, links the BRT Tiger Reserve to the Malai Madeshwara Wildlife Sanctuary in Karnataka via a strip of land measuring 0.5 km in length and 2 km in width (Menon et al. 2017). In 2003, with support comparable to that received for the Muddahalli corridor, the Wildlife Trust of India (WTI) purchased 25.5 acres of *saguvalli patta* land from 17 farmers to expand the corridor. This land was later transferred to the Karnataka Forest Department in 2009 through a Memorandum of Understanding[24]. A board on the land acquired declares 'This land belongs to elephants!' (figure 2.3). As noted, I could not locate or speak to the original land owners.

[24] Though the acquisition preceded Menon et al. (2005), the process of identifying and securing corridors began in 2001, first mentioned by Sukumar (1985).



Figure 2.3: Land acquired by WTI that was subsequently transferred to the forest department

North of this corridor, roughly 400 acres were released by the forest department in the 1980s for agriculture and settlements. While most landowners received title deeds, some with land adjoining the corridor have not been issued RTCs. A forest official[25] interviewed confirmed plans to acquire at least 50 additional acres for the corridor. Notably, the same official acknowledged agrarian shifts and youth moving away from farming, suggesting awareness of changes that could facilitate further expansion.

2.7.3 The Punjur corridor

The Chamarajanagar–Talamalai corridor at Punjur is the third, linking the BRT Tiger Reserve in Karnataka to the Sathyamangalam Tiger Reserve in Tamil Nadu via a strip of land 3.6–4.05 km long and 0.04–0.1 km wide (Menon et al. 2017). First identified in the mid-1980s (Sukumar 1985), the land remined forested until 1990-91, when it became a resettlement site for 250 Soliga households relocated by the forest department from 6 villages within BRT. Each

[25] interviewed on 21/01/2022

household was reportedly allotted two acres of land for cultivation, though interviewees noted smaller allocations. The three resulting settlements – Srinivasapura colony, Muneeshwara colony and Hosapodu – are mapped as village enclosures within the PA and are said to "severely hindered the movement of elephants and other wild animals," (Menon et al. 2017 p. 620). Although it has been labelled as a "lost corridor" (KETF 2012), WTI maintains that securing 126 acres from 86 families is a priority, with additional land from Muneeshwara Colony to follow after community consultations (2017 p. 621).

In 2019, some residents of Muneeshwara colony were asked to relocate by the forest department near Nanjangud, roughly 60 km away with promises of land and access to jobs in nearby factories. However, they resisted, saying that had already been displaced once, would be far away from their gods in BRT, and raised concerns about their health and dependence on markets. Despite their reluctance, a forest department official[26] stated "The Punjur corridor is not that easy. A lot of settlements are there. Once this corridor [the Chamarajanagar – Talamalai at Muddahalli] is done we will take up that one." The 2023 MoEFCC report *Elephant Corridors of India 2023* also supports securing land for this corridor.

The corridors described above are three of 101 or more that are slated to be secured in India. While land acquisition is one approach, other interventions such as zonation exercises and the imposition of rules suggest further instances of the conservation agrarian squeeze.

2.8 Discussion and conclusion

The critical conservation literature underscores how the area-based fortress conservation model has displaced communities, forcibly excluding those dependent on these environments for their livelihoods to prioritize wildlife preservation (Brockington 2002). This approach used in PAs is part of a powerful narrative that has used discursive technologies – recurring narratives, imagery, and practices – that legitimize certain knowledge, actors, and actions while marginalizing others (Marijnen and Verweijen 2016). These established dominant narratives seem indisputable, shaping interventions as though they reflect absolute reality (West, 2006). A 'light' version of these discourses is slowly extending beyond PAs, as landscape-level conservation and connectivity have gained prominence, leading to a conservation-driven governance approach that imposes increasing restrictions beyond PA boundaries. Here, incremental changes introduced, including the gradual loss of access to resources make land

[26] Interviewed on 26/04/2022

'grabbable' (Benjaminsen and Bryceson 2012, Weldemichel 2021) with hegemonic processes preceding eventual dispossession. While these lands may not be taken over directly for conservation in the short term, they are increasingly governed by its logic.

It is here that this paper contributes to the existing literature by exploring how, even beyond PAs, discursive technologies – specifically land acquisition for elephant corridors – along with conservation restrictions and gradual agrarian shifts, collectively drive dispossession and marginalize certain actors. Around BRT and other Indian landscapes, crisis narratives emphasizing the need for connectivity for megafauna are expanding conservation spaces through corridors. In this case, landowners were convinced that their land needed to be *returned* to the forest department and doing so would help mitigate human-wildlife conflict, although this has made no difference in the case of the latter. While the existing literature referenced in the introduction explores various processes and actors driving a squeeze, this chapter specifically examines how conservation interventions and agrarian dynamics converge to reshape livelihoods and support systems.

The acquisition of land for elephant corridors exemplifies the expansion of conservation spaces beyond PAs and into neighbouring agrarian landscapes. Using the concept of the CAS, I have highlighted five factors and forces that drive the enclosure of land identified for connectivity, facilitated by distress in agrarian landscapes. These are the restrictions on access to PAs, restrictions on land use outside PAs, uncertain land tenure and changes in legislation, compensation for crop depredation, and cropping patterns and volatile markets. Although farmers experience each of these challenges individually, they are interconnected and centre around access, land tenure, and finance. The intersection of conservation efforts and agrarian dynamics also raises critical questions about land use, history and power. The factors and forces listed here, while not exhaustive, are those that emerged from the empirical material and can be highly contextual and historical. In addition, while those impacted in this case were primarily tribals, people from varied backgrounds could also be affected. An interesting aspect of this case is also the nexus between state and non-state actors, facilitated by these five 'technologies of rule', which creates conditions for consolidating 'territorialization for conservation', as highlighted by Kabra and Das (2022).

Conceptually, the CAS draws on four related terms – the grab, induced volition, rendering surplus, and expulsion – while also differentiating itself from them in the following ways. While comparable to land and green grabs, and induced volition, the CAS is distinguished by

the fact that land enclosure is driven by a combination of factors in conservation and agrarian landscapes that facilitate the grab. Similarly, rendering populations as surplus has been used with specific reference to largescale agricultural expansion and capital accumulation that leads to dispossession. The CAS, however, highlights a variety of factors and forces while focusing on smaller-scale land deals. This does not imply that the CAS is inapplicable to larger-scale land deals. Finally, the CAS is most similar to the concept of expulsion in terms of knowledge forms, complexities, and the convergence of economic forces that lead to it. What is missing is the conservation logic that governs these landscapes, both within and along the periphery of such PAs.

The CAS should be viewed within the larger framework of the increasing conservation emphasis on improving connectivity between PAs and extending conservation frontiers through the approaches discussed in the introduction. With a specific type of territoriality for conservation gaining in popularity, the CAS has the potential to travel to other contexts in the global south, particularly in areas with a farm-forest frontier. Calls to set aside more land for biodiversity conservation would likely put increasing pressure on agrarian livelihoods resulting in more examples of the squeeze, while discounting questions of livelihoods, food security, and food sovereignty. With precise figures on those displaced from within PAs itself unreliable (Lasgorceix and Kothari, 2009), quantifying those impacted by the squeeze would be next to impossible. The lack of evidence about the negative social impacts of conservation is no longer the challenge. The real challenge lies in reimagining conservation to be more just, equitable and inclusive.

CHAPTER 3: Imposing connectivity: Privileging an elephant corridor over ecotourism in the Sigur Plateau, South India[27]

3.1 Introduction

As you exit through the southern gate of Mudumalai National Park (NP) and Tiger Reserve (TR), you are almost immediately met by jeep drivers lining the narrow single carriageway, loudly calling out "safari, safari" to attract visitors. Their vehicles, parked on both sides of the road, are adorned with stickers bearing phrases such as 'nature safari' and 'tiger trail,' designed to capture the attention of passers-by. Venturing beyond this lively scene, you enter Masinagudi, a vibrant village described on the Tamil Nadu state tourism website as "an experience no wildlife enthusiast should ever miss" [28], a reference to its strategic location near Mudumalai. Driving on towards Bokkapuram, a neighboring village renowned for its cluster of resorts that have contributed to the area's fame, the road winds through a stretch of land characterized by grassy patches and short savannah trees, identified as one of the four corridors in the plateau. After the village of Thottalingi, you come across a property marked by crumbling gateposts and rusting gates now reclaimed by vegetation, alongside abandoned buildings missing door and window frames – a poignant reminder of a once-thriving establishment. This is just one of 38 resorts in the Sigur plateau in the South Indian state of Tamil Nadu that was ordered to be closed down in a landmark judgement passed by the Madras High court in 2011 and later upheld by the Supreme Court of India in 2020.

This protracted legal battle began in 2008 when an advocate, 'Elephant' G. Rajendran, filed a Public Interest Litigation (PIL)[29], urging the courts to direct the government to safeguard elephant movement that was being impeded by the proliferation of resorts and encroachments. Early studies mapping elephant movements and home ranges in the landscape identified several smaller, distinct corridors within the plateau. However, as I will show below, the PIL set in motion a series of processes in which the smaller individual corridors were ultimately expanded into a single large one that was officially notified. These interventions to protect elephant movement resulted in the intentional closure of numerous ecotourism establishments situated

[27] Published in *Political Geography*
[28] https://www.tamilnadutourism.tn.gov.in/destinations/masinagudi
[29] In Defence of Environment and Animals v. Chief Conservator of Forests and Ors., WP 10098/2008

within the designated corridor, despite ecotourism and conservation being mutually supportive logics. This reconfiguration of the landscape through the closure of resorts had significant impacts on the lives and livelihoods of hundreds of people who depended on tourism-related activities either directly or indirectly.

Conservation interventions impinging on people's lives and livelihoods are not a recent phenomenon. Landscapes in what are today's protected areas (PAs) have long been reconfigured and governed through the imposition of specific visions and administrative logics. Far from being "unspoiled benchmarks", PAs have been established on lands with deep histories of habitation and use by local communities (Neumann 1998). Induced and forced relocations, along with the curtailment of resource use and access, have remained defining features of PAs, often leading to significant disruptions to lives and livelihoods (Torri 2011, Lasgorceix and Kothari 2009). This reflects a broader pattern of conservation policies that have marginalised indigenous and local communities in the name of protection. While such ideas and governance models have historically been imposed within PA boundaries, this logic is increasingly extending into surrounding landscapes through various zonation exercises including buffer areas and eco-sensitive zones. Rather than displacement, a complex set of regulations are slowly introduced to control land use and curtail activities deemed harmful to wildlife, often without considering the effects these restrictions would have on people in these landscapes.

This process of governing human populations for the benefit of wildlife can be seen as a form of territorialisation, where various actors seek to regulate human populations, their livelihoods, and practices by redefining conservation boundaries (Vandergeest and Peluso 1995, Vandergeest 1996, Corson 2011, Bluwstein and Lund 2018, Rasmussen and Lund 2018). More recently, this process has also been expanded beyond PA boundaries to include tracts of land deemed important for connectivity through corridors (Bluwstein and Lund 2018). Building on this literature, I demonstrate how the discursive power of the ecological idea of the corridor lent the state and the judiciary significant power to reconfigure the landscape. In doing so, it triggered a chain of effects that extended beyond the immediate impact on these establishments. It led to the reconfiguration of the landscape's political geography, further affecting the lives and livelihoods of its people who were already experiencing growing restrictions and interventions stemming from a long history of conservation measures.

Given the centrality of corridors in this case, it is important to note that there have been long running debates on what a corridor is, how it is defined, and what methods or tools are used to study connectivity (for overviews, see Bennett 2003, Anderson and Jenkins 2006)[30]. The IUCN's Connectivity Conservation Specialist Group (CCSG) adopts a perspective on connectivity that goes beyond structural links between habitat patches, defining it instead as the "ability of plants or animals to move freely through a landscape, seascape, or freshwater environment". Although the legal proceedings defined a corridor as a narrow strip of habitat that allows a target species to move between two larger habitat areas, this paper will not engage with the broader debate over how corridors should be defined.

The chapter first engages with the literature on territorialisation and its control strategies, then examines the discursive power of the corridor and its unfolding through double territorialisation. It then turns to ecotourism's role in conservation expansion and shows how the corridor's imposition undermined it. The ecological arguments in favour of the corridor were legitimised by epistemic communities ensuring that its realization was a foregone conclusion. I illustrate this through the case of the Sigur elephant corridor, beginning with its description, followed by an overview of the judicial process that reconfigured and rearticulated the landscape. I then examine the impact this has had on the tourism sector and beyond, and the reactions to the judicial process from various actors. Following this, I reflect on how and why the elephant corridor disrupted win-win narratives and undermined spaces of capital accumulation. Central in this reflection is the idea that corridors act as a mechanism to territorialise landscapes beyond PAs through the spread of a conservation logic. The conclusion theorises this conservation logic that underlies both incremental and sudden shifts that complicate tenurial regimes and people's livelihood prospects.

This chapter is based on empirical data collected between July and November 2022 in and around six villages in the Sigur plateau – Masinagudi, Bokkapuram, Kurumbarpallam, Mavinhalla, Vazhaithottam and Chemmanatham. Interviews were carried out with owners of seven tourism establishments within and outside the notified corridor. 40 interviews were also conducted with people directly employed by tourism and those who indirectly benefitted from it, including *adivasis* (indigenous communities), jeep drivers, and shopkeepers. Five additional interviews were conducted with key informants and those associated with the judicial process

[30] Similarly, in India, the legal definition of "forest" has evolved, with the 1996 Godavarman judgment affirming its dictionary definition, a view that is still widely cited. A detailed discussion of this debate lies beyond this paper's scope.

in July and August 2024. Prior to interviews, verbal informed consent was sought from all respondents. In addition to the interviews, this chapter is informed by the analysis of legal documents associated with the judicial proceedings, government documents, scientific and other publications on the corridor(s), and media reports. Due to the contested nature of the issue and the ongoing judicial process, representatives of the Forest Department, Revenue Department and other arms of the state declined to speak when approached saying the matter was sub judice.

3.2 When conservation territorialisation meets ecotourism

The expansion of conservation into surrounding landscapes occurs through the process of territorialisation, wherein mechanisms of resource control such as jurisdictions, authorities, rights, and spatial representations, are strategically deployed to assert and maintain control over these areas (Rasmussen and Lund 2018). Early work emphasised how modern states employed territorial strategies, referred to as 'internal territorialisation', to regulate people's activities and restrict their access to and use of local resources within national boundaries (Vandergeest and Peluso 1995). In the same vein, territorialisation has been described as a "process by which states attempt to control people and their actions by drawing boundaries around a geographic space" (Vandergeest 1996: 159). Since then, scholars have explored how non-state actors and organisations not only possess and exercise territorialising power themselves but also often leverage the state as a means to extend their control (Neumann 1997, Peluso 2005, Corson 2011, Lund and Rachman 2018).

The process of territorialisation often involves specific strategies aimed at securing control, such as regulating access, enforcing boundaries, and delineating spatial domains. Corson (2011) identifies three key components of this process: mapping boundaries, establishing and enforcing new rights, and determining acceptable resource uses. Similarly, Rasmussen and Lund (2018) highlight four governmental techniques of establishing territorial control and claiming space: political authority, boundaries and maps, law and bureaucracy, and enforcement. All of the above reflect dynamics characteristic of the neoliberal era of environmental and wildlife conservation, where territorialisation often serves the interests of private actors and facilitates various forms of capital accumulation.

The creation of wildlife corridors can be seen as a form of territorialization, a strategy of resource control (Vandergeest & Peluso, 1995), wherein particular areas are classified to

facilitate the regulation of both people and resources (Sack, 1986), thereby generating new configurations of power. Although questions remain about whether this simplified approach genuinely enhances connectivity, corridors continue to be regarded as essential components of contemporary large-scale landscape conservation efforts (Goldman 2009). Their growing prominence in contemporary professional and policy conservation discourse further reflects this trend (Worboys et al. 2010, Hilty et al. 2020).

Elephants have been positioned as a conduit for connectivity (Barua 2014), helping to amplify the discursive power of corridors as they unfold across landscapes, both figuratively and literally (Green and Sandbrook 2021). This is characteristic of what Bluwstein and Lund (2018: 453) term as "double territorialisation – of landscape and of mind." It creates durable spatial orders which include mapping and boundary making where certain features are made more legible while others are edited out, and "power relations are written on the land" (Peluso and Lund 2011: 673). The simplified corridor thinking, Bluwstein and Lund point out, not only possesses the discursive power to rally diverse groups around the idea of linking PAs, it can also result in claims for conservation that are resilient against counter-claims to the same land for non-conservation purposes (Bluwstein and Lund 2018), including from ecotourism as I will highlight.

Emerging in the late 1970s, ecotourism was promoted as a way to generate revenue for conservation and sustainable development, centred on experiencing 'wilderness' in supposedly pristine, people-free landscapes (West and Carrier 2004, Sharpley 2006, Stronza et al. 2019). Ecotourism has come to be seen as a primary source of financial support for PAs, justifying nature conservation by leveraging its market value through tourism (Duffy 2006, Honey 2008, Hall 2016). This neoliberal approach to conservation has been described as "the paradoxical idea that capitalist markets are the answer to their own ecological contradictions," (Büscher 2012: 29). This logic promises to channel new resources to biodiversity efforts, especially in poorer regions with limited state capacity, while enhancing democracy, protecting rural communities, securing property rights, and supporting conservation-based businesses (Igoe and Brockington 2007). As a result, ecotourism comes to embody the ideal of protecting wildlife while promoting local development, enabling one, as Grandia (2007: 480) aptly puts it, to "eat one's conservation cake and get a development dessert too."

This model has extended beyond PA boundaries as well by aligning with the shift from a PA centric approach to one focused on landscapes. In Africa, for example, this has manifested

through Transfrontier Conservation Areas (TCFAs) and African Heartlands proposed by the Peace Parks Foundation and the African Wildlife Foundation respectively. Both initiatives aim at fostering international cooperation, encouraging political integration and economic development through cross-border tourism, and improving wildlife connectivity between ecosystems (Noe 2015). There is a clear trend here. Instead of acknowledging and addressing the failure of earlier win-win interventions, *even* more wins were layered on to sustain legitimacy (Büscher 2013), thus aligning with neoliberal conservation's shift beyond win-win solutions to a world of "win-win-win-win-win-win-win" or win[7] narratives (Igoe and Brockington 2007). This mode of thought has faced sustained critique from political ecologists, who have challenged both the commodification of landscapes through market-based mechanisms and the purported benefits of ecotourism for PAs and local communities (McAfee 1999, West & Carrier 2004, Igoe and Croucher 2007). However, despite these critiques and the major vulnerabilities exposed by the COVID-19 crisis in relying on tourism income (Stone et al. 2021), ecotourism continues to be promoted by national governments and other actors, including in India where this study is based.

Despite being considered as a vital component of the thriving ecotourism sector in some contexts (Bollig 2024), why then is ecotourism viewed as an obstacle to corridors in others? As discussed earlier, corridors possess increasing discursive power. This is rooted in ecological arguments advanced in their favour: they facilitate dispersal, enable genetic exchange to prevent isolation, are deemed crucial in the face of climate change, and also considered important in reducing human-wildlife conflict. The persistent emphasis on extinction risks associated with the lack of connectivity in the corridor literature further amplifies the urgency to secure them, presenting corridors as a near silver-bullet solution.

These ideas gain further legitimacy through 'epistemic communities', networks of knowledge-based experts who articulate complex cause-and-effect relationships, help states identify their interests, shape issues for collective debate, propose specific policies, and identify key points for negotiation (Haas 1992). In this context, the ability to control knowledge and information constitutes a crucial aspect of power. This contributes to 'epistemic territorialization', where "knowledge claims organize and consolidate geographic, epistemic, and virtual communities into territories within a controlled space and bounded system" (Brandon 2025: 300). This method of governing and controlling resources, Brandon argues, constructs a hegemonic sphere of influence. The ecological idea of the corridor is one such idea that exerts dominant influence, helping to shape agendas and guide how actors think and operate within a particular space.

In the following sections, I will demonstrate how the reliance on the ecological idea of the corridor facilitated the closure of ecotourism establishments, which was brought to the forefront through the filing of a PIL. This resulted in repercussions that extended beyond the immediate impact on these establishments. Before delving into this, I will first provide an overview of the legal case and the judicial proceedings.

3.3 Situating the Sigur Plateau, its ecotourism and corridors

The Sigur plateau in Tamil Nadu is a part of the larger Nilgiris Biosphere Reserve (NBR) which spans over 5,520 km². The NBR comprises of a network of PAs managed by the forest departments of Tamil Nadu, Karnataka, and Kerala, alongside settlements and areas of human use. Bounded by the Nilgiris hills to the south, the Moyar River to the north, reserved forests and estates to the west, and the Sigur Reserve Forests to the east, the plateau connects to the Sathyamangalam Tiger Reserve through the Moyar Valley. Conservationists maintain that the geography of the plateau, with a gorge on one side and the hills on the other, restricts the movement of elephants and other wildlife in an east-west direction and vice versa. The plateau itself is a patchwork of reserved forests and revenue lands, the latter of which includes human settlements, agricultural areas, tourism resort properties, Tamil Nadu Electricity Board land, tea and coffee estates, privately owned forests, and forested areas managed by the Revenue Department.

Multiple laws regulating land use in the area were cited during the judicial proceedings to identify properties that violated their provisions. They are: the Tamil Nadu Forest Act (TNFA) of 1882, the Tamil Nadu Preservation of Private Forests Act (TNPPFA) of 1949, the Tamil Nadu Town and Country Planning Act (TTCPA) of 1971, and the Forest Conservation Act (FCA) of 1980. Throughout the hearings and rulings, particular emphasis was placed on violations of the TNPPFA, an act that empowers the Forest Department to regulate land use on private lands designated as forests, without affecting land ownership. The law also prohibits the use of land for non-forest activities, and any sale requires prior approval from the district-level committee. Although this act has no relation to elephant corridors, the judiciary used certain provisions in it to declare most resorts in the notified corridor as illegal.

Although the legal case was the earliest to trigger a series of interventions on the ground for elephant movement, multiple studies and publications over the past five decades had identified and mapped multiple corridors passing between the various settlements in the landscape (Desai

1991, Baskaran and Desai 1996, Davidar et al 2012, Sivaganesan and Sukumar 2000, Ramkumar et al 2002, Menon et al 2005, 2017). As early as the 1980s, there was a proposal to expand the neighbouring Mudumalai Wildlife Sanctuary[31] by 250 square kilometres to include parts of the adjoining Singara, Sigur, and Anaikatti Reserve Forests (Rodgers and Panwar 1988: 219). The aim was to create a migratory corridor for elephants to move towards the Eastern Ghats and the Biligiri Rangaswamy Temple Wildlife Sanctuary in Karnataka. However, this proposal did not translate into changes on the ground. More recently, it has been argued that connectivity through a corridor network rather than individual corridors in the landscape must be prioritised (Puyravaud et al. 2017). Despite these differences in approach, the similarities lie in the intention to impose the ecological idea of the corridor. As the following sections will show, the main actors driving the conservation territorialisation through corridors include the Tamil Nadu Forest Department, non-state conservation actors and experts, and the judiciary.

The Sigur plateau is one in which land was rendered 'touristifiable', not by locals establishing tourist ventures themselves but as a result of their absence (Pandya et al. 2022) and the gradual entry of the tourism industry. The Badagas, a community that settled in various parts of the Nilgiris, owned land on the plateau. However, due to crop damage caused by elephants and other wild animals, many were unable to continue cultivating their land. As a result, starting from the late 1970s, a significant number of Badagas sold their lands, some of which were acquired by individuals who now operate tourist establishments. Until the late 1990s, only a few resorts and lodges existed, but their numbers rose sharply, from 9 to over 100 by some estimates[32]. Early concerns by conservationists and a research and advocacy organization focused on tourism and development highlighted the sector's environmental impact—pollution, groundwater depletion, and increasing urbanisation—as well as its effects on wildlife due to unpermitted night safaris, hunting, and trekking (EQUATIONS 2004, Puyravaud & Davidar 2013). As tourist infrastructure expanded, apprehension about its impact on elephants and their movement through the landscape deepened.

[31] Which itself had been expanded from 62 sqkm when it was formed in 1940 to the current area of 321 sqkm

[32] The exact number is not known since some homestays were not registered with the local administration

3.4 Judicial activism and the elephant corridor[33]

In 2006, prompted by a directive from the central government to notify and take appropriate measures to safeguard elephant corridors, the Tamil Nadu government appointed a committee to investigate the matter. To this end, the Principal Chief Conservator of Forests and the Chief Wildlife Warden of the state proposed the acquisition of private lands in the Sigur landscape, adjoining the Mudumalai WLS & TR (Shaji 2021). In the following two years, the Tamil Nadu Forest Department expanded the required land acquisition from just over 200 acres to more than 500 acres.

In 2008, in response to the proliferation of resorts and encroachments in the landscape, an advocate, 'Elephant' G. Rajendran, filed a PIL urging the courts to instruct the government to protect elephant movement. This case was combined with other cases pertaining to the landscape, including one about the lack of implementation of the Forest Right Act (FRA)[34] of 2006 in the Mudumalai Wildlife Sanctuary and Tiger Reserve. In the beginning of 2009, an interim direction was passed by the state high court to the District Collector of Nilgiris to file a report on steps taken to remove encroachers[35] from lands within the elephant corridor. During this period, a map depicting an elephant corridor was discussed by District Forest Officers (DFO) of the region and conservationists. An ecologist interviewed who was involved in the process noted that while conservationists favoured designating smaller corridors between settlements, the DFOs insisted on a larger corridor to protect it from future threats. This, despite the former pointing out the size outlined in earlier studies and acknowledging that securing a larger area might pose challenges for both the state and central governments. After accepting the reasoning for a single larger corridor, a map was presented to the court during hearings. However, this was opposed by resort and private land owners. This prompted the court to

[33] Unless otherwise specified, information presented in this section was sourced from the following court documents: (a) In Defence of Environment and Animals v. Chief Conservator of Forests and Ors., WP 10098/2008; (b) Report of the expert committee formed in pursuance of the direction of the hon'ble high court in W.P.no.10098/2008, 2762 & 2839 of 2009; (c) In the Supreme court of India civil appellate jurisdiction civil appeal nos.3438-3439 of 2020 (Arising out of S.L.P. (C) Nos.17313-17314 of 2011) (d) Before the honourable Segur plateau elephant corridor enquiry committee constituted by the honourable Supreme Court of India civil appellate Nos. 3438-3439 of 2020 (Arising out of S.L.P. (C) Nos. 17313-17314 of 2011. Case no. 144/2021

[34] An act which grants *adivasis* the right to live in and use the forest for various customary purposes, provided they claim and are awarded these rights.

[35] While the court did not explicitly define who encroachers were, it is understood as those who encroached on land belonging to the Revenue or Forest Departments

constitute an expert committee tasked with identifying the elephant corridor and submitting a report after reviewing past studies.

During a two-day visit to the area in 2009, the expert committee, consisting of five Forest Department officials, interviewed various experts (researchers and scientists), former Forest Department officials, local conservation organisations and representatives of local tribal groups. Ironically, many of the experts interviewed were not only the authors of the very studies on corridors in the region that the expert committee relied on but also played a pivotal role in deciding the size of the elephant corridor described earlier. As their individual statements to the expert committee unsurprisingly endorsed the corridors, these were incorporated into the final report. This report was compiled by an individual on deputation from the Wildlife Trust of India (WTI) to the Tamil Nadu Forest Department. It is worth noting that WTI also published two compilations on the elephant corridors of India (Menon et al. 2005, 2017), four corridors of which are situated in this landscape.

The expert committee's report was submitted to the court five days after the visit and included a corridor significantly larger than the individual corridors previously identified between existing settlements in earlier studies. The final map depicted one that was 1 km wide and 22 km long, covering an area of 7,000 acres made up of revenue lands, private land holdings and reserved forests (figure 3.1). The court raised concerns about the significant expansion of the corridor area when the map was presented. The experts explained that the corridor boundaries were based on elephant movement data, showing that elephants could move freely through the area if unimpeded. According to an interviewee who was a part of the judicial process, this reasoning was enough to convince the judges, who proceeded to instruct the state government to choose between the map prepared by the expert committee and the four smaller corridors identified by Menon et al. (2005). The former was chosen and notified in 2010, and all 642 objections received against it were rejected (Pandian 2020). All occupants, were to be evicted from about 1,500 acres owned by over 270 people, with holdings ranging from 0.005 to 115 acres, except scheduled tribes and other traditional forest dwellers protected under the FRA (Thekaekara 2018). The order passed underscored the ecological power of the corridor while also revealing how its size had been significantly expanded based on data that was nearly 15 years old.

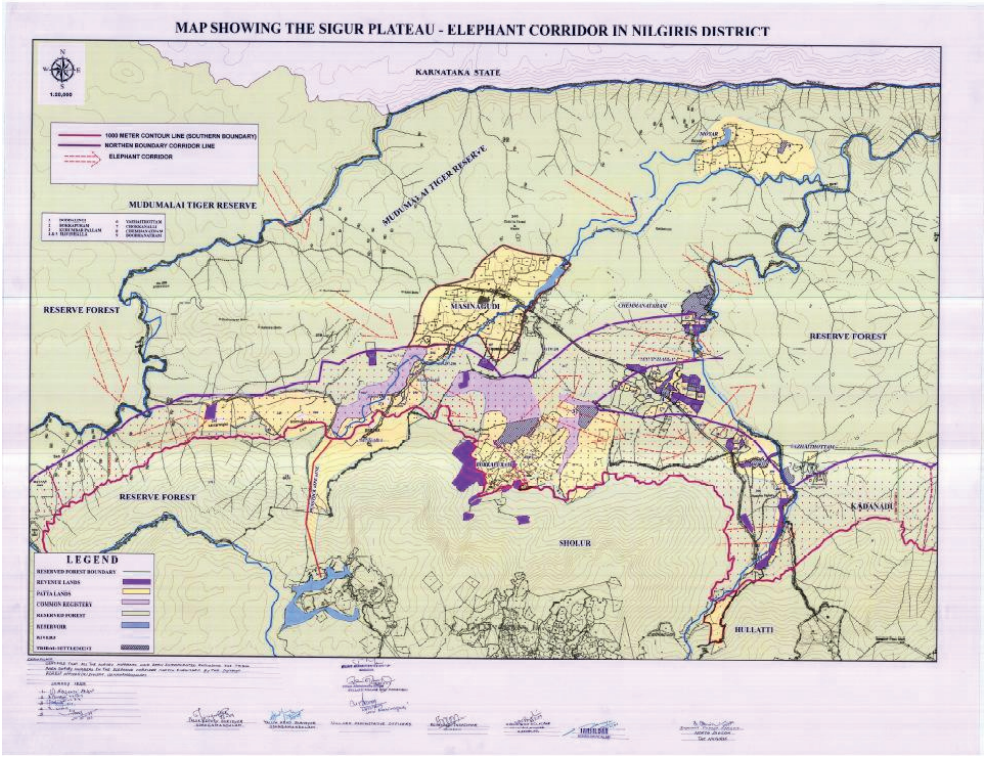


Figure 3.1: Official map of the notified corridor in the Sigur Plateau which depicts the outer boundaries (purple line on top and pink line on the bottom) as well as the reserved forests and Mudumalai Tiger Reserve in green, revenue land in purple, and private lands in yellow.

In 2010, the High Court's order was challenged in the Supreme Court by the Hospitality Association of Mudumalai and several other local landowners, leading to its temporary stay. After public hearings, objections, writ petitions, and accusations by the hospitality association that an "artificial corridor" had been created, countered by the courts' assertion that the resorts lacked the necessary permissions, the High Court issued its final order in 2011. This order directed resort and other private landowners to vacate and surrender their land to the District Collector within three months. Tribals and other forest dwellers were exempt from this under the provisions of the FRA. If evicted, they were to receive compensation or alternative accommodation in accordance with the act's stipulations. However, in 2017, roughly 60 huts in Vazhaithottam belonging to the Jenu Kurumbar and Irula tribal communities were demolished by the then District Collector, disregarding the very act that was supposed to protect their rights. The justification provided was that the huts were on encroached government land,

that had also been notified as an elephant corridor, and therefore the land had to be reclaimed (Arasu 2017).

With appeals in this case pending, in 2018, following reports of large-scale construction in the elephant corridor, the Supreme Court instructed the District Collector to submit a report on developments in the landscape. A report listing 39 resorts with 309 buildings, 390 houses, 9 estates/plantations, 77 cultivation fields and other public infrastructure was filed. The District Collector stated that all 39 resorts were operating illegally; 27 had obtained approvals solely for residential purposes, while 12 had no approvals at all. A number of the properties were also adjudged not to have taken the requisite permission during the initial acquisition of land, and to have contravened rules on the extent of built-up property allowed. Following a process where approval documents for their functioning were sought, 38 resorts were shut down and the buildings sealed, with only one having the necessary documentation. In addition, the Forest Department instructed the resorts to remove the electric fences along their boundaries to allow the free movement of elephants. It was noted that electric fences combined with land use change severally restricted the movement of elephants and caused an increase in incidents of human-elephant conflict. Wildlife activists concurred with the court's decision regarding the necessity to demolish the buildings. A noted wildlife biologist added “All the resorts and buildings in the Sigur corridor should be demolished soon in the wake of the Supreme Court order. If those buildings are not demolished, they will create further problems as they can turn hideouts for poachers and anti-social elements” (Premkumar and Thomas 2020).

During this time, several other residents and resort owners whose properties were included in the expanded notified corridor impleaded themselves in the case. They argued that their land lay outside the scientifically recognized elephant corridors, referring to publications by Menon et al (2005, 2007) and others, and that an excessively large area was designated. The resort owners also added that their establishments were environmentally compatible, provided employment to people from the local community and helped tourists be close to nature and sensitive towards animals and the environment, characteristic of the win-win narrative. Following additional arguments about the scientific accuracy of the map by the expert committee compared with those by scientific publications among others, the Supreme Court appointed a 3-member enquiry committee to verify the accuracy of the objections raised. In passing the judgement, the then Chief Justice of India said the “elephant is a gentleman” and “is big and powerful, but fragile” (Vaidyanathan 2020) adding that “…the will of men must give way to elephants” (Pandian 2020). The committee initially consisted of a former judge of

the Madras High Court and two wildlife conservationists, one of whom was a consultant to the World Wide Fund for Nature (WWF) and an author of one of the publications on corridors in the plateau, and the other a former member of the National Board for Wildlife. Following the passing of one committee member in 2020, a conservation social scientist was appointed as their replacement.

The mandate of this committee was to listen to the individual objections of the appellants, establish their veracity by inspecting properties, and pass orders by adjudging whether those who raised objections were violating provisions of the TNFA, the TNPPFA, the FCA and the TTCPA. The hearings, site visits and the process involved in listening to objections and adjudicating their veracity was described by a member of the enquiry committee as a "pandora's box" due to the number of laws involved and the complexity in applying them to each individual case.

In 2023, the enquiry committee published a report after going through various objections raised. It concluded that for many of those who contested the judgements, including tourism establishments, private habitations and agricultural lands, the earlier orders would hold. It noted that most were illegal under relevant laws or were encroaching on forest land, while other objections lay beyond the committee's jurisdiction or purview. It also refrained from issuing eviction orders, stating this was beyond its mandate. The committee acknowledged the government's right to act against violators but expressed openness to rehabilitating long-term occupants. The report stated that those households categorised as being below the poverty line could be engaged in conservation activities, anti-poaching operations and, ironically, eco-tourism, despite a large number of tourist establishments being closed down.

In August 2024, officers from two *panchayats* [village council] issued demolition notices to 35 resorts, labelling them as unauthorized constructions (Chaitanya 2024). These buildings, reportedly built in violation of the TTCPA were ordered to be demolished within 15 days as a part of 'Operation Sigur'. In response, a few resort owners filed a writ petition in the High Court contesting the demolition orders and arguing that the inquiry committee had exceeded its authority. Following interim relief granted by the Madras High Court, in September 2025, it ruled that while the demolition of illegal constructions did "not require interference…the direction to hand over the possession of the property to the Government alone cannot be sustained in the eye of law."[36] It added that landowners using their purchased land for

[36] https://indiankanoon.org/doc/174408282/

agriculture were permitted to keep it, as long as they managed it in an eco-friendly way that does not disturb elephants or include artificial barriers such as electric or solar fences.

3.5 The fallout of the legal case

Catalysed by the need to protect the elephant corridor, the summary of the judicial proceedings above illustrates that the ecotourism establishments' violation of the TNPPF guidelines led to a clear and straightforward judgment by the courts. That the high court passed this judgement, which was upheld by the Supreme Court, is consistent with Indian courts instructing authorities across all levels to comply with environmental laws (Shrotria 2012, Divan & Rosencranz 2022). The courts' disregard for the tourism sector's win-win rhetoric, evident in interviews, masked other disputes about the corridor, namely questions about the scientific credibility of the designated corridor area and contentions over the nuances in the legality of land use.

The main contention of resort owners and private land owners was that publications by Ajay Desai and Menon et al. (see Desai 1991, Menon et al. 2005, 2017) had identified smaller corridors in the region, whereas the government and judiciary had, in their view, arbitrarily expanded the corridor boundaries. A person who has been fighting for the rights of the landowners in the area remarked angrily:[37] "Scientific publications have identified small corridors in the area. Why then has a corridor covering thousands of acres been notified?" This frustration is heightened by the fact that the High Court–appointed expert committee's report itself defined a corridor as a relatively narrow strip of habitat, contradicting what ultimately unfolded on the ground.

The owner of a resort whose establishment was shut down added: "We are on *patta* [revenue] land, not forest land as people have been made to believe. We have been paying our taxes and paid to take the necessary permissions. How can we be illegal? Now they are turning around and saying we took permissions from the wrong people. Why did they wait 30 years to point this out?" [38] Another resort owner added, "It is all because of these environmentalists who don't live here and WWF that have a twisted logic. They think we don't care for the wildlife, not realising that our business runs on it."[39] Reflecting on the often-used criticism of tourism in the area being unregulated, the owner of a resort added, "Tourism here was a winner for the

[37] Interviewed on 12/09/2022
[38] Interviewed on 23/07/2022
[39] Interviewed on 08/08/2022

government from all angles. They did not regulate it. If they truly wanted to bring about change, they should have come out with a tourism policy and regulations, not close everything down."

Members of both court-appointed committees acknowledged the absence of a proper tourism policy or zonation in the area but agreed that tourism should not be pursued blindly based solely on its perceived benefits to conservation and livelihoods. A member of the Supreme Court-appointed expert committee noted that many tourism establishments were closed for violating land use regulations. The member stated, "Nobody is arguing that they are not contributing to conservation. But they have violated the rules so they are guilty."[40] Furthermore, the cost at which tourism was being carried out was concerning to the member who pointed out that the elephants were bearing the brunt of this model. A wildlife conservationist said: "The elephant is the biggest loser in all of this."[41] While a middle ground may have been the ideal scenario, the number of violations by tourism establishments in terms of land use were too many, according to another conservationist.

Although the tourism establishments and other property owners were penalized for violating laws, an interviewee involved in the judicial process pointed out that the administration and government agencies were equally responsible. "They [the resorts] should have been informed of the various permissions necessary by the panchayat. The panchayat and the revenue department need to be pulled up since they are also stakeholders in this entire thing."[42] The individual also expressed concerns about the lack of transparency in preparing the corridor map and possible collusion between the Revenue Department and some tourist establishments.

Recommendations from the expert committee on tourism and residential properties must now be implemented by the Revenue and Forest Department, though the expert committee member expects further appeals from aggrieved parties, potentially prolonging land use disputes. Consequently, this issue is unlikely to reach a resolution, at least in the short term since "there is so much to do and undo" said the member, while adding:

> Irrespective of whether you are in the corridor or not, you are still governed by the [TNPPF] act. A lot of people think that, because they are in the identified corridor, they have to adhere by these rules. That's not the case. The corridor is very much part of the landscape which is under the purview of the [TNPPF] act. Even if you are outside the

[40] Interviewed on 30/07/2024
[41] Interviewed on 09/08/2022
[42] Interviewed on 02/08/2024

corridor, you still have to comply. The hearings were only meant for people in the corridor.

Only time will tell if the administration will apply this approach across the entire plateau and beyond, imposing similar penalties on violators. However, extending it to the broader Nilgiris landscape would impact thousands of people. Reflecting on the process of the enquiry committee, the member said: "Our only worry is that, if the government doesn't act on it, it is a complete negation of this exercise."

The imposition of the ecological idea of the corridor was key in prioritizing conservation over ecotourism. However, as I will demonstrate in the next section, the closure of the resorts triggered a chain of effects that extended beyond the immediate impact on these establishments.

3.6 The cascading impact of tourism establishment closures

The growth of resorts and homestays and their subsequent closure following the court ruling changed the dynamics of employment in the region. In the 1990s and early 2000s, as resorts multiplied, many small farmers shifted from agriculture to working in the tourism sector. A farmer who made the switch said: "Earlier we had to struggle day and night to protect our crops from wildlife. When elephants or wild pigs came, whatever we were growing was affected. Working in the resorts, we were at least guaranteed a stable income and did not have to stay up at night."[43] The employment benefitted women as well, some of whom are still employed in resorts that have been allowed to stay open. "I have worked now in the same place for fifteen years. With the fixed timings, I am able to earn a livelihood and take care of my family. I don't have to do agricultural work, which many women are forced to do", said a lady from Bokkapuram.

Following the court ruling, the closure of resorts compelled many of the affected to search for other jobs. Many now make the daily 60 km commute to Ooty, a town in the upper plateau, to work in agriculture or construction. Reflecting on the hardship that he and others from Thottalingi now face, an Adivasi and a former employee at a resort said, "At least 40 people from this village were employed in resorts that were closed. We all do daily wage labour now. Traveling every day is not easy but we have to do it. We have no other choice. There is no work here. Even the work that we do is not guaranteed."[44] The campaigner for the rights of the

[43] Interviewed on 01/10/2022
[44] Interviewed on 14/10/2022

landowners emphasized the large number of people who have been let go from their jobs at the resorts. “Approximately 400-500 people here were employed in some way by the resorts. Most of them were let go after the court orders. What are they supposed to do in this situation?” Many among the younger generation have moved to nearby cities such as Coimbatore and Bangalore in search of work. Reflecting on the declining job opportunities and the increasing number of people migrating out of the area, he lamented: “If this continues, very few people will remain here.”

While tourism establishments provided direct employment benefits to people, others benefitted in indirect ways. Some livestock herders in the landscape, especially those who reared goats, often sold meat directly to resorts. “We benefitted from having the resorts here because we could sell our goats directly to them, especially when we needed some money urgently. Now we are reliant only on traders from outside,”[45] said a farmer who owns livestock to supplement his income. Jeep owners and drivers, who derived a large part of their income from tourists, also say they have been financially hit. “When the number of resorts grew, I leased my land and bought a jeep. It was good then because I made a lot of money taking tourists for safaris. I was able to put my son and daughter through college. But after the case, my income dropped a lot and I have returned to farming,” said a former jeep driver who still owns a jeep and occasionally takes people on safari. Although jeep safaris continue to operate, drivers report a sharp decline in tourists staying locally owing to the closure of many establishments, making them increasingly reliant on visitors passing through *en route* to Ooty.

Contestations surrounding the elephant corridor have exacerbated many pre-existing conflicts in the area between residents of the landscape and the forest department, stemming from various conservation regulations and interventions that in the process have expanded the conservation logic and mode of governance into surrounding landscapes. Increasing restrictions have been placed on livestock herders over the past two decades stemming from concerns about overgrazing, one of the early noted threats to corridors (Silori and Mishra 2001). Second, restrictions have also been placed on the use of jeeps for safaris in the plateau, arising out of concerns about illegal night safaris and the harassment of wildlife, which in 2022 led to another round of protests[46]. Third, in 2007, Mudumalai and sections of the Masinagudi panchayats were declared as a Critical Tiger Habitat (CTH) under the Wild Life (Protection)

[45] Interviewed on 17/10/2022

[46] https://www.newindianexpress.com/states/tamil-nadu/2022/Aug/30/masinagudi-residents-oppose-curbs-on-safari-2492812.html (accessed on 30/12/2022)

Amendment Act (WLPA) of 2006 which also led to widespread resistance (Karthik and Menon 2016). Finally, the dual notifications of the buffer area of the Mudumalai Tiger Reserve and its eco-sensitive zone (ESZ), which regulate land use in the notified area, both of which encompasses the Sigur plateau and all the villages within and outside the notified elephant corridor has led to protests in Masinagudi as well as the neighbouring *taluks*[47] of Gudalur and Pandalur. Residents and business owners in the landscape feared that the notification would threaten their livelihoods[48].

Over time, increasing conservation restrictions, recently heightened by the notification of the elephant corridor, have significantly affected people's lives and livelihoods, sparking a variety of responses ranging from legal challenges and protests to the migration of people from the landscape. These restrictions, both incremental and sudden, have gradually come to limit and dominate people's lives and complicate tenurial regimes. Those who remain engaged in agriculture or who returned to it after the closure of resorts continue to face familiar challenges of precarity inherent in the agrarian sector, compounded by additional pressures from conservation. Around the Biligiri Rangaswamy Temple Wildlife Sanctuary, Siddhartha (2025) describes how shifts in the agrarian landscape combined with conservation restrictions left farmers with little choice but to sell their land to facilitate the strengthening of an elephant corridor. While a similar outcome may be inconceivable in the short to medium term, one wonders how the landscape will evolve given the various pressures.

3.7 Reactions to the case and beyond

Responses to different stages of the judicial process and its real-world implications have been mixed, involving a range of actors including conservationists, members of the judiciary, and state representatives. In a column in a leading newspaper, a journalist stated that the high court judgement in 2010 will "remain a milestone in environmental jurisprudence in India."[49] Going one step further, a member of the Supreme Court appointed expert committee added that the ruling would set a precedent for similar future cases. This is particularly significant given that corridors lack legal protection under any specific legislation. Instead, ESZs, a provision under the under the Environment Protection Act (EPA) of 1986 have been used, alongside proposals

[47] An administrative sub-division of a district
[48] https://www.thehindu.com/news/cities/Coimbatore/masinagudi-residents-plan-protest-against-forest-department-over-enforcement-of-sc-verdict-on-eco-sensitive-zone/article65821572.ece
[49] https://frontline.thehindu.com/environment/the-elephant-in-the-room/article5389669.ece

to apply relevant sections of the Wildlife Protection Act of 1972, and the Biodiversity Act of 2002. The notification of an ESZ in 2012 around the Bandipur Tiger Reserve, across the Moyar gorge from Sigur, enabled the state to cancel the permission given to homestays[50], and to order their closure as well as the demolition of illegal constructions in the elephant corridor where a similar legal battle ensued with a tourism establishment.[51] A consequence of this was that it halted speculative land pricing. "In a sense, connectivity that was important ecologically on both sides of the Moyar gorge, was upheld in completely different ways", said a conservationist who was critical of the developments in the Sigur case.

In 2020, following what was widely considered a landmark judgement in which the Supreme Court upheld the 2011 Madras High Court order notifying the Sigur elephant corridor, a lawyer representing an environmental organisation in the Nilgiris said:

> "The State and Central governments have been consistently in favour of declaring the corridor for the last 12 years. The verdict of the Supreme Court reinforces the faith of conservationists in the judiciary and proves yet again that the courts in India are custodians of forests and wildlife. In line with this judgment, a comprehensive legislation should be enacted to secure all the elephant corridors across the country."[52]

The following year, the then Chief Justice of India echoed this sentiment when he emphasized that it was the state's responsibility to safeguard "keystone species" like elephants, which are immensely important to the environment.[53] These statements clearly underscore the importance accorded to corridors in protecting elephants and the environment, while also highlighting the role of the conservation state and the judiciary in this process.

There have, however, been others who have been more critical about how this process has unfolded. That corridors do not have "legal teeth", as one conservationist emphasised, meant that their translation as an ecological idea into legal terms have added an interpretive layer. The conservationist contended that this was problematic since different groups of people have different views on what enables a corridor, what threatens it and what undermines it. Regardless

[50] https://www.thehindu.com/news/national/karnataka/bandipur-licences-of-3-homestays-revoked/article31739572.ece
[51] https://indianexpress.com/article/cities/bangalore/bandipur-tiger-reserve-esz-illegal-cottages-8936878/
[52] https://www.thehindu.com/news/national/tamil-nadu/protecting-pachyderm-pathways/article32885452.ece
[53] https://www.thehindu.com/news/national/conservationist-joins-sc-panel-on-elephant-corridor-case/article33678554.ece

of the differences however, “it was clear [that] the court liked the idea [of a corridor] and it was conservationists and the forest department seizing the opportunity and ramrodding it and getting as much area included in the corridor as possible. That part is pretty arbitrary and I think the reason is because the demarcation came first and the rationalization followed.”[54]. He also added that there was no set process to demarcate and set aside land for a corridor, especially if evictions were to be considered.

The use of science during early stages, especially during the mapping exercise, was also a bone of contention between different actors. A conservationist who supported the idea of the corridor said: “Without basic science, it would have been very difficult to win the case.”[55] However, others more critical of the process maintained that science was employed in a very selective manner. “There are things invoked in science which are openly ambiguous. My problem is the way in which it has been largely leveraged. Partly, I think, pushing the idea of corridors is extending the historical impulse, the annexationist impulse of the Forest Department to try and add more space,” said a conservationist, adding that “the legal intervention weaponised an ecological idea” which also ensured that political intervention was not possible to stop the process.

Frustrated at the manner in which the process unfolded and the way it affected people on the ground, a conservationist suggested that if the government was serious about protecting the corridor, it could have extended the Mudumalai WLS under the WLPA, which had clearly defined steps to do so. However, this would mean a transfer of ownership of land from individuals and entities to the forest department, which was not considered an ideal model since it would impinge on people’s livelihoods and food security, and would therefore be unjust. Enabling elephant movement, he added, would not require a change in ownership but just needed the absence of physical obstructions and access.

The impact of conservation policy on marginalized communities is extensively documented in India (Kabra 2009, Lasgorceix and Kothari 2009, Rai et al. 2019). Yet, as one conservationist noted, in this case those in power found themselves on the receiving end. “Conservation has not had the courage to stand up to people who had social capital, access to their networks of power. In this case, there was some truth to the fact that there were a lot of people whose ownership and use rights were in question, just like it had been for generations for *adivasis*.”

[54] Interviewed on 10/08/2024
[55] Interviewed on 13/08/2024

Others, including those within the conservation community said that the whole case could have been handled in a more delicate manner. An ecologist familiar with the landscape said "You cannot demarcate a corridor with arbitrary lines. It is a piecemeal approach."[56] One of the editors of the Right of Passage document (Menon et al. 2005, 2017), which noted the existence of four smaller corridors, said: "No conservation is possible through just exercising bureaucratic or judicial powers and antagonising the local communities."[57] Such a statement would suggest that there might exist a certain amount of reflexivity in terms of how conservation works. Unfortunately, there continue to be many examples of communities living in and near forests being dispossessed by the conservation apparatus.

In April 2024, a year after the enquiry committee appointed by the Supreme Court published its report, the Tamil Nadu government constituted an Elephant Corridor Committee comprised of officers from the state Forest Department, scientific experts and conservation organisations to reassess elephant corridors in the state. After consultations, the committee released a draft report in which it identified 42 elephant corridors[58], up from earlier publications that identified between 18 and 25 (Sivaganesan and Sukumar 2000, Menon et al. 2017, Project Elephant, MoEFCC 2023). While some conservationists welcomed the report as a crucial first step and a sign of the state's commitment to protecting corridors, others warned that further work was needed before officially notifying them. "Nobody has tried to map out elephant use over various seasons. Why can't we do that? If you are this serious about it, give it two years and collect the data necessary," said a conservationist who noted that the data should be shared with nearby communities to enable a collective decision.

These diverse responses underscore the complexity that arises when a corridor is imposed on a landscape, impacting a wide range of people. While the issue was primarily framed as a conflict between ecotourism and conservation, its repercussions extended much further.

3.8 Reflection and conclusion

The case of the Sigur corridor presented in this chapter shows that, contrary to the existing literature portraying ecotourism and conservation, and more recently wildlife corridors as mutually supportive logics (Rathore 2008, Van Gruisen and Chundawat 2020, Bollig 2024),

[56] https://timesofindia.indiatimes.com/city/chennai/govt-has-taken-a-piecemeal-approach-on-elephant-corridor/articleshow/102933823.cms
[57] https://www.downtoearth.org.in/coverage/whose-corridor-is-it-38297
[58] https://www.forests.tn.gov.in/tn-forest-dept-publications (accessed on 30/4/2024)

conservation may also undermine ecotourism. The discursive power of the corridor, rooted in its ecological justification and legitimised by epistemic communities, granted the state and the judiciary significant power. Aided in part by tenurial ambiguity, this provided the necessary impetus to territorialise the landscape and transform its political geography. The idea proved so influential that debates over the corridor's scale, from smaller, individual corridors to its significant expansion into a single large one, were debated and ultimately accepted, reflecting similar scaling processes seen elsewhere, such as in the case of the rhino (Bersaglio and Enns 2024), albeit on a different scale for now.

Knowledge about the effects of the closure of tourism establishments on the lives and livelihoods of local residents has largely remained confined to the immediate area and has not really spread beyond the Nilgiris landscape. Details of these ramifications were also not mentioned in the various judicial reports, with only the steps to curtail the use of resources from the corridor area finding mention. Ironically, the Supreme Court-appointed enquiry committee suggested that individuals classified as Below the Poverty Line and having resided in the area for an extended period could be involved in ecotourism, anti-poaching, and other conservation activities. As demonstrated, the intensity of conflicts arising from conservation efforts has fluctuated over time, peaking most recently with the notification of the corridor. However, the steady increase in restrictions and its consequent territorialisation has continuously affected local livelihoods in some form. Although the developments in this corridor differ significantly from the abrupt eviction of indigenous communities for a wildlife corridor in Uganda (Colchester 1994), they share commonalities, particularly in the intent to restrict human use in biodiversity-rich regions.

The application of the TNPPFA did not result in land being usurped, nor did it alter its legal status or ownership, and the proposed acquisition ultimately did not take place. Instead, this act was used to regulate land use, and the ESZ norms will serve the same purpose once implemented. In doing so, a few acceptable uses of land will continue to be allowed. With increasing restrictions, agriculture not being financially viable in the long term, crop depredation leading to losses and the younger generation moving away from the sector, one wonders how long it would take before a large number of agricultural holdings are left fallow, making land grabbable (Weldemichel 2022) and allowing the conservation frontier to expand. Furthermore, although accumulation through ecotourism has been halted in the notified corridor, it is possible that there could be a delay or even obscurity in the commodification of land or resources in and around the corridor, through offsetting schemes for example, which

allows states, conservationists and other actors to demarcate areas for conservation and for the 'common good' (Kelly 2011). The introduction of these, if they materialise, will likely create new win-win narratives while continuing to fail forward (Fletcher 2023).

The spatial expansion of conservation through corridors reflects a broader trend driven by a conservation, wherein a consistent discourse and series of interventions gradually dominate other land uses. This occurs not through outright enclosures or displacement, but through the extension of power and regulatory control over land under various tenurial regimes. A step-by-step process is followed here, where incremental restrictions are placed and regulations added that govern land, people and resources. This conservation-driven territoriality establishes new institutional frameworks, incorporating diverse governance tools such as conservation-focused regulations, scientific legitimacy to support these efforts, and the endorsement of both state and non-state actors. This slow but decisive turn, whereby landscapes are increasingly dominated by a conservation logic, shifts the place of conservation in society more broadly. In India and beyond, this could lead to increasing contestations and perhaps more examples of the expansion of the conservation frontier and the accompanying territorialisation. This not only challenges prevailing narratives that associate conservation with market-based approaches but also contributes to the broader political ecology literature by demonstrating how conservation logic becomes dominant in practice.

CHAPTER 4: Projecting Power and Catalysing Control: Conservation, Corridors and the Political Ecology of the State in India[59]

4.1 Introduction

An effective conservation regime, or some form of conservation concern, seems like a rite of passage for countries to modernize and develop. This encompasses the rise of elite actors – who often like to engage in conservation activities, including hunting – but also how states use conservation to showcase their ability to 'properly' manage their given 'socio-ecological estate'. This is expressed, for example, in how states take pride in their flagship animals and use them in specific ways. China has used pandas and panda diplomacy as a public diplomacy strategy, employing them as a political tool to gain international favour and engage global partners in shaping its image (Hartig 2013, Buckingham et al. 2013). South Africa has used wildlife conservation, especially in relation to large charismatic African species like the rhino, lion and elephant, to gain acceptance by the international community in the post-Apartheid period (Death, 2010). In 2023, Indian Prime Minister Narendra Modi launched the International Big Cat Alliance (IBCA) to position the country as a leader in big cat conservation and bring range countries together on a common platform.

In all three examples, the use of conservation discourses around charismatic or flagship species helps to project a particular image and type of power to the world. The nonhuman charisma associated with flagship species is often "subject to anthropogenic manipulation" (Lorimer 2007: 915) since they "serve as symbols and rallying points to stimulate conservation awareness and action" (Leader-Williams and Dublin, 2000: 60). But the uses of conservation by the state are not restricted to species. Von Hardenberg (2017) coined the term 'nature state' to show how states have historically been central to conserving nature as one way to – sometimes quite boldly – shape the territories they govern, control populations, enhance productivity, extract rent, or consolidate power.

Von Hardenberg stressed this point in response to conservation literature that regularly downplays, and sometimes even neglects the state. The focus is often on big conservation

[59] Co-authored with Bram Büscher. Accepted for publication at *Annals of the American Association of Geographers*

NGOs, rich individuals or other influential actors like scientists as *the* central players in promoting and implementing conservation actions or areas.[60] The state, in this view, is a conservation tool malleable to being lobbied, prodded, supported and influenced by numerous other actors to stimulate or catalyse it into action (Corson 2011). Lunstrum, for example, argues that wealthy commercial actors play a crucial role in what she calls the 'vitalisation' of the state's efforts to militarise conservation (Lunstrum 2018). Here, 'vitalisation' involves strengthening state control over territory and resources, enabling biopolitical interventions where protecting wildlife justifies taking poachers' lives, and reinforcing the state's own significance through these interventions, facilitated by economic-state relations. While the state has agency in this account, the prime locus for conservation action is with non-governmental actors.

Von Hardenberg's larger point, however, was that the state's role is not merely (re)shaped by others but that it actively shapes conservation itself. The relation between these two dynamics, however, has rarely been made explicit. Literature on the role of the state in, for example, building transfrontier parks (Büscher and Dietz, 2005) perpetuating violence (Ramutsindela et al, 2022) or the 'green state' more generally (Death, 2016), focus more on state capacities and its effects. Other literature promoting a more general *political ecology of the state* raises attention to how the 'more-than-human nature of statecraft' works through diverse 'state forms and powers' (Meehan and Molden, 2015: 438), including forms of 'police power' that seek to "exert control over socio-ecological relations in a less explicitly spatialised or territorialised way" than is often the case with protected areas (Massé, 2022: 8). Hence, this literature emphasises that 'the state' is not a coherent and monolithic entity (Krasnai Kovacs, 2025) and that its 'statecraft' is moulded in responses to particular ecological concerns that include 'internal' domestic and 'external' international engagements in flexible ways (Meehan and Molden, 2015).

Our paper builds on and significantly extends this literature in three ways. First, we add a deeper historical element by showing how this dialectical role of the state – of being prodded and enabled by other actors and how it employs conservation for its own ends – can develop over time. Second, we identify a concrete mechanism, that of conservation corridors, in how the state extends its power not just geographically but also socially (Massé, 2022). And finally,

[60] This is not to deny that certain actors, such as private reserves in South Africa, try to minimize state involvement to gain greater freedom over practices like genetic engineering, militarization, and real estate development. (Thakholi and Büscher, 2024; Koot et al, 2024).

we show concretely how both internal, domestic and external international actions are critical in how the state uses conservation to further extend and project its power.

We do so by focusing on the case of India. As a global South 'giant', India has been asserting itself on the world stage over the last decades, while simultaneously taking on an active developmentalist role in directing its economic and social development (Kumar, 2024). Conservation is important to these broader dynamics, and although a recent book by Sen (2021) claims to cover these dynamics, it does not deal with the role of the state in-depth. Our paper thus provides an important contribution to the emerging literature on the political ecology of the state by examining four key historical developments in how the Indian state has strategically engaged conservation since the 1970s, how internal and external dimensions of this engagement relate to each other, and how the state extends its power both geographically and socially through conservation corridors.

The structure of the chapter broadly follows the four key developments we identify from the 1970s onwards: 1) laying the groundwork around conservation-state relations; 2) the intensification and internal imposition of state conservation power; 3) the geographical and social spread of conservation power; and 4) the external projection of power through conservation These developments are not strictly chronological, though they are presented this way for analytical clarity. We start by tracing the trajectory from independence through the enactment of the Wild Life Protection Act (WLPA) in 1972 and the launch of Project Tiger the following year, highlighting how these developments have enabled the state to establish and progressively expand its control over protected areas (PAs), which have grown substantially in number. We next show how the state leveraged conservation as a means of internal power through the intensification of the conservation apparatus. This is followed by a spread of conservation efforts beyond PAs, emphasizing a landscape-level approach where connectivity through corridors serves to extend control over adjacent areas and between PAs. These three phases have enabled the fourth where the state uses this success to boast its reputation and power globally while using this international legitimacy to more deeply impose power over human and non-human life internally.

In and through these developments, our key intervention is not just that the state uses conservation dialectically to extend its control internally while at the same time positioning itself as a global force. We argue, more specifically, that conservation corridors are key in these dialectics, as they concretely connect already-entangled outward and inward forms of

projecting power. As we will show, building conservation corridors can become an important way to monitor peasant populations, as corridors become state-controlled arteries that cut through heavily populated rural landscapes in the most populous country on earth. At the same time, corridors are particularly important for high-profile species like the tiger and elephant, which play a crucial role in Indian diplomacy. Conservation corridors, in a material way, thus become key to how conservation and power converge in the political ecology of the Indian state.

4.2 Laying the groundwork: conservation post-independence

The years between Indian independence in 1947 and the early 1970s were characterised by the state prioritising economic growth and development. India's first Prime Minister, Jawaharlal Nehru, emphasised heavy industry, modern technology, active state involvement in production to drive self-sufficiency, industrialization, poverty alleviation and defence (Singh 2012, Panagariya 2024). Although an ardent nature lover, keen naturalist (Lewis 2003b) and initiator of the Indian Board for Wildlife in 1952, Nehru's tenure saw no significant environmental or wildlife conservation achievements.

It was in the late 1960s and early 1970s that state involvement in conservation significantly increased. Much of this was due to active prodding by non-governmental organisations (NGOs), who played a decisive role in the years leading up to the enactment of India's Wild Life Protection Act (WLPA) of 1972 and the state's subsequent conservation policies and interventions. The Bombay Natural History Society (BNHS), founded in 1883 by British and Indian naturalists grew into a leading conservation and research organization in Asia after independence, and played an instrumental role in India's environmental agenda, including the establishment of national parks, the Indian chapter of the then World Wildlife Fund (WWF), and the WLPA (Lewis 2003b). While NGOs played key advocacy roles, the outside conservation models they promoted were only gradually adapted to India, enabling their intensification, expansion, and state-led internal imposition.

The WLPA introduced a new biopolitical approach to governing wildlife, humans and landscapes, significantly expanding the state's role in conservation. It aimed to halt wildlife decline by creating PAs modelled on the Western fortress conservation, effectively creating isolated conservation 'islands' focused on *in situ* protection within fixed boundaries, while overlooking the rights of forest-dwelling communities. India's growing emphasis on PAs mirrored wider global anxieties over environmental degradation in the 1960s and 1970s, which

fuelled a significant increase in terrestrial reserves (Watson et al. 2014). The WLPA enabled the establishment of national parks, wildlife sanctuaries, conservation reserves and community reserves, with the first two categories remaining under the management of state forest departments.

The act placed wildlife protection under the forest department, a colonial institution with a history of usurping community forests and prioritizing timber revenue over local stewardship. It reinforced a narrow, enforcement-driven 'fortress' conservation model that assumes wildlife must be protected through human exclusion and state coercion (Madhusudan and Sinha 2025). The number of PAs subsequently surged from 83 in 1970 to 1,134 in 2025[61], increasingly restricting local populations and pressuring them to relocate. Importantly, however, unlike in some other parts of the world, Indian PAs are comparatively small, averaging not even 300 km^2 (Karanth and De Fries 2010)[62].

Also in the 1960s and '70s, escalating global concern over India's shrinking tiger numbers prompted various conservation measures. At the 1969 IUCN General Assembly in Delhi, the Indian forester K.S. Sankhala's assessment led to calls for a moratorium on tiger killings. In response, the Indian Board for Wildlife urged states to ban hunting for five years, but scepticism remained among the international community (Tiger Task force, 2005). In 1972, WWF trustee Guy Mountfort met Prime Minister Indira Gandhi and urged her to take steps to conserve the tiger. In response, she established a Tiger Task Force, which submitted its report in August 1972, laying the groundwork for India's tiger conservation program, 'Project Tiger'. The task force recorded just 1,827 tigers, a sharp decline from the estimated 40,000 at the start of the century (Panwar 1982). It recommended the creation of 'safe havens' across diverse ecosystems to ensure their long-term protection. Project Tiger was officially launched on April 1, 1973, with nine tiger reserves, a number since grown to 58. This and other conservation initiatives were both ecological and nationalist (Rangarajan 2009). Conservation projects, particularly around Project Tiger with its powerful 'feline icon' and anti-imperialist rhetoric, reflected India's effort to assert a unique identity amid dominant geopolitical military blocs, with Indira Gandhi, and later leaders, viewing natural heritage as key to fostering assertive patriotism (Rangarajan 2017).

[61] https://wiienvis.nic.in/Database/Protected_Area_854.aspx (Accessed on 14/06/2025)
[62] This average size corresponds to India's 590 PAs. Updated PA information has since been removed from the Wildlife Institute of India's website, which previously published these details.

Tiger reserves function as a management category rather than land use category, serving as an additional designation to national parks and wildlife sanctuaries. By law, each such reserve must have a core area where human habitation and resource extraction are prohibited, surrounded by a buffer zone which is a multi-use area where conservation takes priority over other land uses. India's wildlife policy, emphasizing strict conservation with minimal human interference, has long relied on village relocations within PAs, particularly in tiger reserves (Shahabuddin et al. 2007). From 1973-1980, over $10 million was spent by central and state governments, roughly 6,000 people were relocated from core areas, and the tiger population was said to have increased to 3,015. Such was the euphoria around these developments that the then director of Project Tiger, H.S. Panwar called it an "unqualified success" in an article titled 'What to do when you've succeeded: Project Tiger ten years later' (Panwar 1982). He concluded, "…the creation of several "islands" of ecological health will not constitute a complete environmental program for India. Such isolated pockets would certainly decline in the long run due to outside pressures. Instead, there must be a network of conservation units surrounded by buffer zones and possibly connected by eco-corridors," (ibid: 337). This was perhaps the first formal acknowledgement of the need for connectivity by a state official.

Several years later, the Wildlife Institute of India's mandate to assess and expand the protected area network culminated in a report that focussed on increasing the number of PAs and ensuring their representation across biogeographic zones (Rodgers and Panwar 1988). Although connectivity and corridors were mentioned, these references were limited to landscapes where prior research had been conducted, such as the area around Mudumalai Wildlife Sanctuary in the state of Tamil Nadu. Other suggestions included the establishment of new PAs that would provide connectivity rather than establishing standalone corridors. As we highlight below, alongside efforts to increase the number of PAs is the greater emphasis on landscape-level conservation and strengthening ecological connectivity through corridors. Designating corridors outside PAs extends state authority over these lands, not necessarily through the transfer of ownership, but by imposing restrictions on their use.

Since the 1980s, the Indian state has continued upgrading protected areas, turning reserve forests into wildlife sanctuaries, sanctuaries into national parks, and granting national parks and sanctuaries additional designation as tiger reserves. This shifting legal classification of forests has introduced new regulations and reinforced a regime of dispossession (Kodiveri 2024). Clearly, then, the Indian state – central and regional – took a much firmer role in conservation, increasingly extending their focus beyond PA boundaries to encompass larger

landscapes. Though introduced globally in the 1930s, landscape ecology entered Indian literature only in the 1990s, following calls for a 'landscape approach' to conservation (Daniels 1994). Since then, the state has promoted conservation across large, multi-use landscapes with mixed success, including UNESCO-recognised biosphere reserves from the late 1980s and elephant reserves following the launch of Project Elephant in 1992.

4.3 The intensification and internal imposition of power

Between the early 1970s and 2025, the number of notified PAs rose sharply from 83 to 1,134 (table 4.1). This rapid expansion highlighted the state's power, particularly through the displacement of human populations. Although precise figures are unavailable, conservative estimates suggest that roughly 100,000 people were displaced or relocated from national parks and wildlife sanctuaries between the 1970s and 2008 following the introduction of the WLPA (Lasgorceix and Kothari 2009). Another estimate published by the government noted that in the 50 years before 2007, 600,000 forest dwellers were displaced[63]. Regardless, by the late 1970s, displacement evidently became the "*sine qua non* of wildlife preservation"; it was often the preferred initial response and an ideal that foresters strived for (Rangarajan 2009: 306).

[63] https://www.indiaspend.com/forest-rights/the-hidden-cost-of-indias-tiger-reserves-loss-of-tribal-rights-907471

Year	National Park	National Park Area (sq.km.)	Wildlife Sanctuary	Wildlife Sanctuary Area (sq.km.)	Community Reserve	Community Reserve Area (sq.km.)	Conservation Reserve	Conservation Reserve Area (sq.km.)	No. of Protected Areas	Total Area of Protected Areas
1970	5	2,403.24	59	10,738.27	-	-	19	336.94	83	13,478.45
1980	24	9,859.88	160	51,387.56	-	-	19	336.94	203	61,584.38
1990	68	34,581.65	412	98,948.14	-	-	28	633.91	508	1,34,163.70
2000	87	40,215.17	478	1,13,285.02	-	-	29	655.66	594	1,54,155.85
2002	87	40,215.17	483	1,13,931.40	-	-	29	655.66	599	1,54,802.23
2004	93	40,701.30	492	1,15,040.78	-	-	29	655.66	614	1,56,397.74
2006	95	40,904.23	494	1,15,078.78	-	-	33	698.53	622	1,56,681.54
2008	98	41,953.80	502	1,17,375.05	4	20.69	48	1,454.54	652	1,60,804.08
2010	101	42,780.68	510	1,18,124.08	7	50.89	49	1,459.49	667	1,62,415.14
2012	102	42,781.58	523	1,19,360.13	11	104.92	60	1,790.62	696	1,64,037.25
2014	103	42,997.92	539	1,23,511.93	48	141.02	67	2,187.50	757	1,68,838.37
2016	103	42,997.92	551	1,24,458.15	74	329.44	75	2,435.79	803	1,70,221.30
2018	104	43,746.68	552	1,24,617.15	147	862.59	89	4,121.33	892	1,73,347.75
2020	104	43,746.68	562	1,25,759.65	216	1,370.20	94	4,275.67	976	1,75,152.20
2022	106	44,402.94	570	1,26,904.08	220	1,455.15	107	5,290.82	1003	1,78,052.99
2023	106	44,402.94	573	1,27,197.55	220	1,455.15	123	5,585.05	1022	1,78,640.69
Feb 2025	106	44,402.94	574	1,27,241.24	309	8,464.13	145	7,054.60	1134	1,87,162.91

Table 4.1: The increase of protected areas in India between 1970 and 2025.

In PAs, particularly in tiger reserves, people living within and close to their boundaries are often viewed as threats to the tiger, India's national animal. In the name of conservation and the tiger, state-led programs have depoliticised control over both human and tiger lives and have enforced their separation. This conservation-induced dispossession, characteristic of the fortress conservation model, has increasingly been framed as "voluntary resettlement," normalising and obscuring the political nature of this process (Bathija and Sylvander 2023). This shift in framing relocation as 'voluntary' helps reduce criticism, but overlooks the circumstances under which such relocation actually takes place (Schmidt-Soltau and Brockington 2007). At a panel discussion[64] held in Bangalore in 2025, an official of the Karnataka Forest Department said "The biggest difference in relocations we see now, it is in the word we use itself. Now…we *call* (emphasis added) it voluntary rehabilitation…it is completely voluntary." This statement suggests that merely changing the terminology is sufficient to legitimize and sustain the practice of relocations in the name of conservation.

Even before the WLPA provided legal backing for such relocations, the exclusionary model of conservation found support from 'Brahminical conservation', "a mode of environmentalism wherein caste Hindus determine conservation and environmental protection ideas without

[64] Attended by the first author

considering the indigenous centrality of forests" (Meshram and Rawat 2023: 11). The late Indian scholar and activist Abhay Xaxa noted that, under Brahminical conservation, forests are viewed as "pure" and pristine, needing protection from those castes considered "polluted" (Anand 2019). This thinking resulted in the state's continued focus on displacement from PAs and has highlighted caste and class dynamics, with dominant castes receiving most benefits, while marginalised groups, especially Adivasis, suffering the greatest impact (Kabra 2019). While more can be said about issues of caste and the perspectives of *savarna* (privileged caste) groups concerning the environment, nature and conservation, this is beyond the scope of the paper (see Sharma 2018, Sharma 2024, Kodiveri 2024, Vaidya 2025).

Beyond caste, class and gender dynamics, the processes surrounding conservation displacement also heavily influence future livelihoods, with access to opportunities and the ability to cope with risks distributed unevenly (Kabra and Mahalwal 2014). More recently, state-deployed conservation surveillance technologies are reinforcing broader surveillance regimes that monitor and control marginalized communities in and around PAs through intersecting markers of caste, gender, and religion (Simlai 2022). These technologies, Simlai notes, have the potential to deepen existing caste-based inequalities within specific contexts. Ultimately, it is clear that future forest law must seriously engage with these questions to promote inclusion instead of division (Kodiveri 2024).

The authority to forcibly relocate people in the name of a greater public good, legally known as 'eminent domain', is a defining power of states (Schmidt-Soltau and Brockington 2007). In newly independent India, this extended to forest areas. Compensation laws were often unenforced, leading to forest land being taken without consulting forest-dwelling communities, except in 'Scheduled Areas', where the 1927 Indian Forest Act recognized self-governance (Kodiveri 2024). Despite a progressive law like the Forest Rights Act (FRA), the state's conservation apparatus continues to deny rights to forest dwellers and pursues voluntary relocation framed as win-win for tigers and tribals. This "dispossession for conservation regime assembles volition through a complex interplay of its hegemony and authority with the unfulfilled development aspirations of India's forest dwellers" (Kabra and Das, 2022: 44).

Relocations, however, are only one mechanism through which the state intensified its internal imposition of power onto traditional forest dwellers. Forest departments have increasingly restricted access to forest resources and banned customary practises, adversely affecting these communities, even in PAs where community forest rights have been formally recognised under

the FRA (Rai et al. 2019). As Rai et al. and others note, such blanket restrictions have also harmed the ecology and wildlife of many PAs, overlooking the fact that these landscapes have long been shaped and sustained through human resource use (Lewis 2003a, Rangarajan and Shahabuddin 2006).

Despite the negative consequences of such relocations on human populations, the state has persisted up to the present moment. In June 2024, the National Tiger Conservation Authority (NTCA) issued a notification identifying 64,801 families across 591 villages, instructing state authorities to prioritize their relocation from core areas of tiger reserves and implement time-bound action plans[65]. Activists responded by stating that this order was in complete violation of the WLPA, the FRA, the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (LARR), and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act. Despite this, forest dwellers continue to be evicted.

4.3.1 Restricting scientific research

The state has expanded its control over forests not only through relocations and restrictions on forest-dependent communities but also by limiting access to NGOs and (independent) researchers, confining their activities within tightly controlled frameworks or severely hindering their work without recourse. Despite the official state rhetoric supporting research, it is treated as undesirable and often subject to individual forest officials' discretion (Madhusudan et al. 2006). Concerned about this trend becoming increasingly common, a group of scientists and researchers asserted that "scientific inquiry is being throttled in a field where it is perhaps most urgently needed," (idem: 1016). In Panna Tiger Reserve for example, the Forest Department revoked research permissions for those vocal about Panna's decline, citing 'tourist disturbance' (Runacres 2022).

Resistance by the state to independent scientific research often arises from forest departments considering research findings or observations as a source of embarrassment (Simlai and Sandbrook 2024). Madhusudan and colleagues lament that while much of what we know has been due to "unfettered access" to natural areas, in the current context, "scientists are sometimes seen in the bureaucracy as finger-pointing busybodies with vested agendas and dishonourable motives, with no commitment to collaboration or collective action," (2006:

[65] https://www.thehindu.com/news/national/ntca-letter-to-expedite-forest-relocation-from-tiger-zones-draws-activist-ire/article68614425.ece (accessed on 8/9/2024)

1017). In addition, they note that scientific research in wildlife reserves needs to be "the exclusive province of a handful of governmental research institutions," (2006: 1018). As a result, the authors contend that the WLPA is the primary obstacle to scientific research and needs to be amended. However, the 2022 amendment to the Act has further complicated scientific research on scheduled species by introducing a permission process that has caused delays and denials[66]. Applications for research on Schedule I and II species that were earlier approved by the State Wildlife Board and Research Advisory Committee are now handled by the union government, further centralising its power.

In addition to restricting access to PAs for research, the state has also withdrawn publicly available information on the PARIVESH (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single-window Hub) portal, which was set up in 2018 and intended to ensure transparency in environmental, forest, and wildlife clearances (Madhusudan and Sinha 2025). Furthermore, the data behind India's celebrated tiger population doubling since 2010 has remained inaccessible to independent scientists, raising concerns that its interpretation may be more political than scientific (Gopalaswamy et al. 2022). A call for increased transparency in an editorial in *Nature* has fallen on deaf ears (Open data could save more tigers, 2019).

So far, this chapter has shown how the state has continued in its quest to create inviolate PAs along with placing restrictions on researchers and NGOs accessing them. The following section will demonstrate the increasing permeation of conservation into surrounding landscapes and its consequences in terms of state power.

4.4 The geographical and social spread of conservation

Since the 1990s, the notification and expansion of national parks and wildlife sanctuaries in India have slowed markedly, even as the number of and area under conservation and community reserves, two categories introduced in the 2002 WLPA amendment, have increased dramatically (see table 1). Conservation reserves can be notified on government owned land near or linking PAs, while community reserves can only be established on land volunteered by communities, excluding areas already protected under the WLPA. Any land use change in community reserves requires approval from the reserve's management committee, primarily

[66] https://www.deccanherald.com/india/karnataka/wildlife-studies-stuck-as-tweaked-act-mandates-centre-s-nod-3580021 (Accessed on 18/07/2025)

made up of local members with one representative from the forest department, thereby increasing the latter's power over such land. Once notified, these reserves extend conservation onto varied land tenures, often under the veneer of participation, while linking existing PAs. They can later be upgraded to sanctuaries or national parks, increasing wildlife protection and further restricting human use.

Another way conservation efforts are extended beyond PA boundaries is through Eco-Sensitive Zones (ESZ), a zonation strategy introduced under the Environment Protection Act (1986) that acts as a "shock absorber" and a buffer area around PAs. Guidelines issued in 2011 for ESZs specified that such zones could be designated in areas identified as wildlife corridors. More recently, India's 'need' to extend its conservation and restoration efforts to meet the 30×30 goal has brought increased attention to 'Other Effective Area-Based Conservation Measures' (OECMs), introduced at the 2010 Convention on Biological Diversity.[67] Among others, this strategy will allow conservation spaces to extend beyond protected area boundaries as well as strengthen ecological connectivity. As Vinod Mathur, the former chairperson of the National Biodiversity Authority of India, said: "getting an inch of land for conservation is quite a complex process, making it very challenging to designate new protected areas in the category of a national park or a wildlife sanctuary." [68] OECMs would serve as a way to overcome this issue, with corridors being designated under this category, reinforcing the ongoing emphasis on place-based conservation.

In sum, the state has steadily expanded conservation areas, initially through national parks and wildlife sanctuaries since the 1970s, and more recently through conservation and community reserves. However, the focus on area-based conservation raised concerns about the impact of isolated PAs on species, resulting in a growing call to ensure connectivity. In India, corridors have been central to connectivity efforts. It is here that we pick up on corridors as one state-led initiatives that exemplify the workings of what Von Hardenberg (2017) termed the nature state.

The global push for connectivity between wildlife habitats arose from the need to prevent PAs from becoming islands amid increasing ecosystem fragmentation and degradation. The concept of connectivity gained traction globally following the publication of MacArthur and Wilson's (1967) book on island biogeography. This prompted research on fragmentation which gave rise

[67] https://hacfornatureandpeople.org/hac-member-progress/india-other-effective-area-based-conservation-measures-oecms/ (Accessed on 10/06/2025)

[68] https://www.downtoearth.org.in/wildlife-biodiversity/-oecms-are-a-win-win-for-conservation-and-community--87946 (Accessed on 09/03/2025)

to additional theories and concepts including that of 'metapopulations'. The establishment of landscape ecology in the early 1980s provided conservation biologists with a landscape-wide perspective beyond a focus on specific species or 'hotspots' (Crooks and Sanjayan 2006). Key concepts like corridor, patch, matrix and mosaic, have been fundamental to connectivity conservation, and continue to be widely used in legal, scientific and other contexts[69]. Although ideas about fragmentation and connectivity originating in the West have gradually taken root in India, corridors have attracted most attention – especially structural ones linked to charismatic species like the tiger and the Asian elephant.

Until the mid-2000s, research on connectivity in India primarily examined specific corridors or landscapes across different regions of the country (Sukumar 1985; Johnsingh et al. 1990; Johnsingh and Williams 1999). Since then, four country wide reports on corridors, three for elephants and one for tigers, have been published by state and non-state actors. In 2005, in a report titled *Right of Passage: Elephant Corridors of India*, 88 elephant corridors across the subcontinent were identified (Menon et al. 2005). This pan-Indian exercise was borne out of a collaboration between researchers, forest officials, Project Elephant, and the Asian Nature Conservation Foundation. Despite critiques (Thekkaekara 2019; Puyravaud et al. 2024), the 2005 report and the updated version (Menon et al. 2017) have been used extensively in the public discourse on elephant corridors. Following Corson (2011), this shows how a conservation organisation can drive change while enabling the state to extend control over small land parcels across the country.

In the domain of wildlife conservation, NGOs have been instrumental in helping law enforcement (Nurse 2013), agenda setting (Shibaike 2022), financing land protection through loans and funding (Fovargue et al. 2022), among others. They also assumed responsibility designating land for corridors in various parts of the world (Bennett and Mulongoy 2006; Irwin 2010; Locke 2010; Menon et al. 2020). As a result, while there is much literature that has been devoted to understanding the role of NGOs in wildlife conservation (Larsen and Brockington 2018), their role in facilitating control over land and people outside PAs using charismatic species like the tiger and elephant, has not been explored.

[69] As the focus of this article is on corridors, other concepts and the debates over its definitions, structure, and function (see Anderson and Jenkins 2006, Worboys et al. 2010) are not considered.

The 2005 report identifying 88 elephant corridors[70] appears to have legitimized efforts to 'secure' land outside PAs. This approach was endorsed by the Elephant Task Force (Rangarajan et al. 2010), a committee established by the then Ministry of Environment and Forests. Composed primarily of academics, including the lead author of the *Right of Passage* report, the task force was charged with assessing long-term elephant conservation in India. It identified habitat loss and increasing human-elephant conflict, not extinction, as primary concerns, advocating for a holistic "Elephant Landscapes" approach beyond PAs. Among its recommendations were that all corridors listed in the *Right of Passage* be notified, granted legal protection under various laws, and governed by clear land use policies to prevent further fragmentation. The task force also suggested prioritising corridors that supported the movement of multiple mega-species, like tigers and rhinos, and jointly securing them with the NTCA. However, these recommendations were not formalized into policy (Banerjee 2020).

Since the publication of the Right of Passage report in 2005, several listed corridors have been 'secured' through various approaches, including the private purchase model, which was used to acquire land to strengthen corridors in Kerala and Karnataka (Menon et al. 2017, Menon et al. 2020). With funding from international conservation organisations and administrative backing from the state forest departments, land was acquired, transferred to the department through a memorandum of understanding, and incorporated into existing PAs. In correspondence accessed by the first author between two officials of the Karnataka forest department, a senior officer instructed his subordinate that "...the Wildlife Trust of India may be provided with all the support for securing the corridor in favour of the Department." This reflects both state endorsement for the organisation's efforts and the organisation's role in facilitating the expansion of state territorial control, even if over relatively small areas.

Beyond the state's administrative and facilitative role in the transfer of land in the case described above, our research shows that the state employs several mechanisms to *socially* control rural populations by restricting land use around PAs, including in identified corridors. It does so primarily through buffer areas of tiger reserves and ESZs. While both measures prohibit extractive and commercial activities within distances specific to each PA, the first author observed the stricter enforcement of ESZ regulations in relation to agriculture. One of these is the regulation and strict monitoring of digging borewells and open wells. While farmers with complete title deeds around the Biligiri Rangaswamy Temple Wildlife Sanctuary and

[70] The updated version published in 2017 lists 101 elephant corridors

Tiger Reserve in Karnataka were largely unaffected, those with conditional titles experienced significant constraints. Farmers with such conditional titles and with land within or near identified elephant corridors were required to obtain forest department approval to dig borewells, with many applications either rejected or left pending for nearly a year. These restrictions, combined with other state-imposed conditions and broader agrarian pressures beyond PA boundaries, left farmers with little option but to sell their land to support the strengthening of an elephant corridor (Siddhartha 2025).

In another instance, the judiciary was petitioned to protect an elephant corridor in the state of Tamil Nadu. Independent researchers and conservation NGOs along with the Tamil Nadu state forest department were instrumental in consolidating four smaller individual corridors into one large, judicially notified corridor measuring 1 km wide and 22 km long and spanning 7,000 acres of revenue lands, private land holdings and reserved forests. This notification led to the closure of 38 ecotourism establishments which were seen to impede elephant movement. Its *social-economic* effects, however, extended far beyond these closures. Although this case did not involve the transfer of land to the forest department, it affected the livelihoods of people who were employed in the establishments and were already experiencing growing restrictions and interventions stemming from a long history of conservation interventions in the landscape. The ruling was hailed as a "milestone in environmental jurisprudence in India"[71] while a member of the Supreme Court appointed expert committee noted it would set a precedent for similar future cases. Once again, a ruling shaped partly by non-state actors contributed to reinforcing state control over a landscape considered vital for elephant connectivity, with significant consequences for rural communities (Siddhartha, in press).

Following the increased attention given to ('securing') elephant corridors, the NTCA and the Wildlife Institute of India (WII), a (self-described) 'autonomous' educational and scientific institution of the government of India, published a report identifying 32 tiger corridors in four landscapes across the country (Qureshi et al. 2014). It was the first report to map tiger corridors (figure 4.1) and intended as a guide for policymakers to align tiger conservation with national development objectives. The preface emphasised that delineating inviolate core areas in tiger reserves and implementing incentivised voluntary relocation programs were essential for safeguarding tiger populations, biodiversity, and ecosystem services. However, to "safeguard these investments" and ensure the tiger's long-term survival, maintaining connectivity between

[71] https://frontline.thehindu.com/environment/the-elephant-in-the-room/article5389669.ece (Accessed on 2/06/2025)

key populations was essential, as corridors enabled genetic exchange and reduced extinction risks from both environmental and human-made factors.[72] As a former head of the NTCA put it, forest corridors "are like umbilical cords, without which biodiversity will perish."[73]

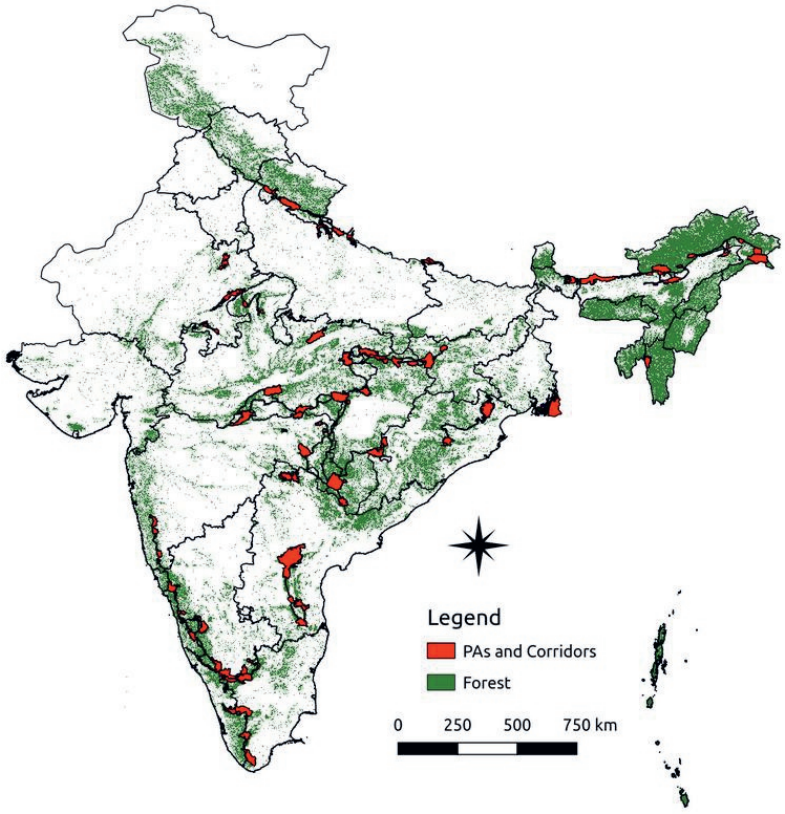


Figure 4.1: Map produced by the National Tiger Conservation Authority highlighting PAs and tiger corridors in India.

The report is said to offer an initial map of "minimal requirement" corridors linking tiger source populations across the country. Within the 32 corridors are a staggering 2,860 villages, 648,566 households and a population of 2,842,716 according to the 2011 census[74]. Most critiques, however, ignored the large human populations within the corridors and focused on the

[72] This aligned with the 'three C's' framework outlined by Soulé and Noss (1998), focused on 'cores, corridors, and carnivores'.
[73] https://www.livemint.com/Politics/B3KHli9nAI9qHUH0MyXk7N/When-the-last-of-Indias-forest-corridors-vanish-so-will-th.html (Accessed on 1/7/2025)
[74] The data is incomplete, missing information for 465 households, and some entries lack census years for certain villages.

methodology, which restricts the number of tiger corridors to just 32 based on the "least-cost pathways" method. This, one wildlife biologist contends, "is not a small administrative clarification" but "a profound retreat that risks turning tiger conservation into a hollow exercise of counting animals inside shrinking islands of forest while ignoring the wider landscapes that make their survival possible" (Shaikh 2025). Instead, the author champions an alternate method called 'Circuitscape' that identifies 192 corridors across 10 central Indian states, connecting 30 tiger reserves and 150 protected areas. These scientific debates can have tangible consequences for local populations. Expanding the number of corridors from 32 to 192 could multiply the number of people whose livelihoods would be affected even with minimal restrictions.

Other attempts at maintaining connectivity move beyond corridors, such as through the creation of 'conservation reserves'. In July 2025, a government order declaring the Kumurambheem Conservation Reserve in the area connecting Kawal Tiger Reserve in Telangana to Tadoba–Andhari Tiger Reserve in Maharashtra was met with protests by a tribal rights organisation. The order covering 1,492 km^2, was identified as a 'tiger corridor area' rather than a tiger corridor, and would potentially affect the 339 tribal villages within it[75]. While its notification would expand the conservation area and potentially improve connectivity, it would also allow the state to later upgrade it to a wildlife sanctuary or national park, further consolidating control of the state conservation apparatus.

More recently, the Ministry of Environment, Forest and Climate Change (MoEFCC) has been finalizing the "Tigers Outside Tiger Reserves" project to monitor tiger populations beyond reserves, curb poaching, address conflicts, engage communities, and enhance habitats (Ghanekar 2025). Although connectivity has not been explicitly mentioned, its implementation could potentially impact a far greater number of people than the process of securing corridors, which itself are very high as highlighted above. How this will impact the people living in these areas and their livelihoods remains to be seen.

Prior to and since WII's publication on tiger corridors, several conservation organisations and researchers emphasised the need to protect these corridors, particularly within the central Indian landscape (Dutta et al. 2016; Neelakantan, De Fries and Krishnamurthy 2019; Schoen

[75] https://telanganatoday.com/tribals-led-by-tudum-dedba-protest-against-go-49-over-new-tiger-corridor-in-asifabad (accessed on 7-7-2025)

et al. 2022, WTI n.d[76]; Andheria 2018[77], WWF[78]). This increased attention, it could be argued, has 'prepared' the ground for the gradual prioritisation of tigers over other land uses and, potentially, for the expanding presence and control of the state in these landscapes.

Although their conservation importance is widely acknowledged and calls for their protection are increasing, corridors still lack dedicated legal backing in India, in contrast to formally constituted PAs governed under the WLPA. The only explicit nod towards connectivity lies in the 2006 WLPA amendment which requires tiger conservation plans to promote ecologically compatible land use not only within tiger reserves but also in areas connecting one PA or tiger reserve to another. However, it stops short of granting legal protection to them. To date, corridors have only been referenced or indirectly protected under a variety of other laws related to the environment, wildlife, biodiversity, and forest dwellers' rights (Srivastava and Tyagi 2016). Beyond these measures, others have suggested a 'triage of means' to protect them, allowing funding from sectors including corporate social responsibility funds to be directed toward biodiversity conservation (Mondal et al 2016).

The most recent amendment to the WLPA in 2022 did not incorporate provisions to protect corridors, despite recommendations from non-state actors. One recommendation stated[79]:

> "The elephant corridors being included in the amended act was indeed a recommendation of the committee and we ourselves had pushed a lot for it and that is something for the ministry to answer more than me [about why corridors were not included in the amendment]. I hope there will be another amendment when we can get it back in. It is a good amendment overall but the Wildlife Trust of India had even formally given six or seven more suggestions and the key one was this, that this must really form a part because so many committees of the ministry said that this should be done but I am sorry to say that it was dropped at the last minute."

The following year, contributing to the growing number of corridor assessments, the MoEFCC released its own report identifying 150 corridors and emphasised that this represented the

[76] https://www.wti.org.in/projects/central-india-tiger-corridor-project/ (Accessed on 10/03/2024)
[77] https://www.wildlifeconservationtrust.org/tiger-connectivity-strengthening-and-protecting-wildlife-corridors/ (Accessed on 10/06/2025)
[78] https://www.wwfindia.org/about_wwf/critical_regions/central_india_landscape/about_central_india_landscape/ (Accessed on 10/06/2025)
[79] in a webinar organised by the Indian Institute of Forest Management in 2023

minimum number of elephant corridors across the country (Project Elephant Division, MoEFCC, Government of India 2023).

Alongside the various physical strategies used to protect connectivity for tigers and elephants and increase state power, these areas are also subjected to intensified surveillance – a practise already common in corridors outside India (Dhendup et al. 2024). Surveillance here not only refers to technologies used by the state, but also to so-called 'softer' surveillance put in place by conservation NGOs. One example is 'green corridor champions', local community-based organisations partnering with WTI who are "the eyes, ears and voice of corridors" (Menon et al. 2017: 4). They are responsible for monitoring and mobilising local communities, cultivating a sense of pride and ownership over elephant corridors, and coordinating with local self-governments as well as state and central authorities to secure and oversee the status of these corridors. Such efforts broaden the spatial authority of the state conservation apparatus, and have already raised serious concerns, particularly around privacy and the potential for intimidation (Simlai and Sandbrook 2021).

Although efforts to 'secure' corridors are still in their infancy and being operationalised, the significant resources and knowledge already dedicated to them reflect their importance. This section has demonstrated that the state has continued to devote tremendous resources and attention towards wildlife conservation in general and there has been a growing interest in landscape level conservation and more recently in connectivity. This has resulted in a dramatic increase in the number of PAs, an increase in tiger and elephant numbers and many other achievements. These successes do not just increase state power domestically, but also form the basis for how the Indian state projects power to the outside world.

4.5 Projecting power to the world

In 2023, on the 50th anniversary of Project Tiger, India's flagship conservation initiative, Mr. Modi tweeted that its success was "a matter of pride for not only India but the entire world" (Figure 4.2). At an event to mark the occasion, he highlighted that despite India covering only 2.4% of the world's land area, it contributed 8% to global biodiversity. He added that India also has the world's largest tiger range, the largest Asiatic elephant range with nearly 30,000 elephants, and the largest population of single-horned rhinos, numbering around 3,000.

Furthermore, he noted that India is the only country in the world with Asiatic lions, whose population, along with that of leopards, has increased.[80]



Figure 4.2: The Prime Minister's tweet on the 50th anniversary of Project Tiger.

A few years earlier, India proudly announced to the world that its tiger population had doubled, four years ahead of the 2022 deadline set at a 2010 summit where leaders from tiger range countries and conservationists formed the *Global Tiger Recovery Program*. The obsession with boosting tiger numbers is reflected in the significant financial, technical, and human resources devoted to the effort every four years. In 2018, the fourth All India Tiger Estimation survey was recognized by the Guinness Book of World Records as the largest camera trap wildlife survey in history. Approximately 75% of the global population of tigers now lives in India, a success that Jhala et al. (2025: 505) attributed to "the linked scientific policies backed by governments' commitments and people's participation". This not only reinforced India's global standing ahead of the launch of the International Big Cat Alliance in 2023, but also lent

[80] https://www.pmindia.gov.in/en/news_updates/pm-inaugurates-program-commemoration-of-50-years-of-project-tiger-in-mysuru-karnataka/ (Accessed on 15/05/2025)

legitimacy to the ongoing intensification of conservation efforts within the country. All this fits within a broader context of India asserting its position on the global stage as well as Mr. Modi's personal vision of being a "*Vishwa Guru"* (world leader).

In 2022, Mr. Modi also released 20 cheetahs brought in from Namibia and South Africa into Kuno National Park in Madhya Pradesh, proudly declared as the "world's first inter-continental large wild carnivore translocation project."[81] In response to ongoing criticism aimed at the cheetah reintroduction, six authors affiliated with the NTCA, Project Tiger, and the National Zoological Park published a rebuttal titled 'Beyond rhetoric: debunking myths and misinformation on India's Project Cheetah' (Muliya et al. 2025). In it, the authors claimed the criticisms were "often rooted in ideological biases, oversimplified extrapolations, and sensationalized narratives," (ibid. 1). Currently, the Indian state is actively negotiating with the governments of Namibia, South Africa, and Botswana for additional cheetah translocations to enhance the genetic diversity of the initial group.

Within India, a landscape-scale expansion strategy for the cheetah is underway, extending beyond Kuno's core zone to include adjacent PAs (Qureshi et al., 2024). In addition, other reintroduction sites in the neighbouring states of Gujarat and Madhya Pradesh are being readied for upcoming cheetah releases. Muliya et al. (2025: 8) conclude saying, "As the nodal agency, the National Tiger Conservation Authority remains firmly committed to this visionary initiative, ensuring that the majestic cheetah reclaims its ancestral landscapes. This initiative exemplifies India's enduring legacy of harmonizing ecological restoration with developmental progress, setting a global benchmark for conservation stewardship." The impact this landscape strategy will have on human populations is not mentioned.

During the 50th anniversary celebrations of Project Tiger in April 2023, Mr. Modi also launched the International Big Cat Alliance (IBCA), headquartered in India. The IBCA aims to protect big cats and their habitats, with India being home to five of the world's seven big cat species. A press release by the Indian government noted that "This will be a demonstrative step in leadership position on big cat agenda, to bring range countries and others on a common platform."[82] Emphasizing that "Wildlife protection is not a one-country issue but a universal one", Mr. Modi underscored the importance of the alliance to streamline resource mobilization

[81] https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1860055 (Accessed on 15/05/2025)
[82] https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2010122 (Accessed on 15/05/2025)

and implement a global big cat conservation agenda. He also added that "Together we will save these species from extinction, and create a safe and healthy ecosystem."[83] This posturing is in addition to the environment minister's confidence in setting aside 30% of India's land for conservation by 2030 to meet target three of the Global Biodiversity Framework[84], with Mr. Modi noting that India is also the first G20 nation to meet its Paris Agreement green energy commitments ahead of schedule[85].

India indeed appears close to achieving several international biodiversity conservation targets. With the current emphasis on securing connectivity, the country is potentially on track to achieving Goal A of the Kunming-Montreal Global Biodiversity Framework, which seeks to maintain, enhance, or restore ecosystem integrity, connectivity, and resilience, and substantially increase natural ecosystems by 2050. In 2020, India hosted the 13th Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP13). This convention was the first to be inaugurated by a host-country head of government, with Mr. Modi highlighting India's deep-rooted commitment to wildlife and habitat conservation. Important resolutions and decisions were adopted to tackle global conservation challenges and threats facing migratory species. The Asian Elephant, along with nine other migratory species, were added to CMS appendices, with its inclusion in Appendix I granting it the highest protection level. Among the resolutions and decisions taken was the adoption of the Gandhinagar Declaration urging the integration and prioritization of migratory species and 'ecological connectivity' in the new framework. The first ever report on the status of migratory species released the prior year revealed that most CMS-listed species are declining, despite some successes. The executive secretary called this "a real wakeup call" and emphasized the need for a flagship report to better understand on-ground realities and guide future conservation efforts[86]. The flagship report released in 2024 offered little innovation, largely reiterating ideas around expanding the global network of protected and conserved areas, especially those critical to migratory species, in alignment with global targets (UNEP-WCMC, 2024).

[83] https://www.pmindia.gov.in/en/news_updates/pm-inaugurates-program-commemoration-of-50-years-of-project-tiger-in-mysuru-karnataka/ (Accessed on 13/05/2025)
[84] https://www.hindustantimes.com/india-news/can-comfortably-achieve-target-of-30x30-by-2030-101672565922327.html (Accessed on 10/05/2025)
[85] https://blog.mygov.in/editorial/indias-green-leap-transitioning-to-clean-energy-for-a-sustainable-future/ (Accessed on 29/05/2025)
[86] https://www.unep.org/news-and-stories/press-release/cms-cop13-concludes-india-major-new-actions-migratory-species (Accessed on 01-06-2025)

Such messaging at the global level makes it unlikely that the intensification of conservation efforts and their expansion into human-dominated landscapes will slow down. During the 50th anniversary celebrations of Project Tiger, Mr. Modi was encouraged by the tiger census numbers but emphasised that "this trend also places an added responsibility of doing *even more* to protect the tigers as well as other animals. This is what our culture teaches us too," (figure 4.3, emphasis added). Rising tiger and wildlife numbers legitimise the intensification and expansion of conservation efforts, successes that are then projected externally, reinforcing the cycle. In addition, while state power has undeniably accomplished notable milestones in wildlife conservation, conservation organisations have also, often subtly yet significantly, facilitated the expansion of this power.



Figure 4.3: A tweet from the Prime Minister highlighting that increasing tiger numbers carry an added responsibility to intensify conservation and protection measures.

The Indian state has used the tiger and the elephant to project power onto the global stage by showcasing its success in boosting its population. With it, however, they have ramped up

pressure for corridor connectivity, with already clear and further expected pressures on and surveilling of rural populations.

4.6 Conclusion

This chapter contributes to literature on the political ecology of the state by arguing that the Indian state imposes and projects power through conservation internally and externally, with conservation corridors, serving as a key link between the two. This dialectic works in two ways. First, securing corridors can become an important way to monitor and manage peasant populations, as corridors become state-controlled arteries that intersect with populous rural areas. Second, corridors are particularly important for high-profile charismatic species like the tiger and elephant, which play a crucial role in Indian diplomacy and its global projecting of power in line with India's and Mr. Modi's ambitions. Through this dual function of corridors, it is also clear that 'internal' and 'external' are not rigidly divided, but connected in complex and material ways (Cf. Meehan and Molden, 2015).

To develop and empirically illustrate this argument, we started by showing that the Indian state's use of conservation to project power externally is rooted in its internal, domestic imposition particularly since the 1970s following the enactment of the WLPA and the launch of Project Tiger, which used this charismatic species as a tool to impose power over landscapes and people. These two interventions demonstrate the state's sovereign power through its intensification and expanding control over territory, its authority to grant or withhold permission for other actors to operate, and its role within broader social structures and relations of power. Important for the credibility of outward projection is a strong internal foundation, which can be found in the state-led conservation regime centered on area-based conservation that gradually developed between 1970 and 2000. More recently, the slowdown in the declaration of additional national parks and wildlife sanctuaries resulted in a shift to designating conservation and community reserves to further expand conservation. The isolation of these areas subsequently prompted growing demands to ensure connectivity between PAs.

In its effort to continue asserting power and success both externally and internally, the state's focus on wildlife connectivity serves to intensify conservation efforts and capitalise on growing wildlife populations, thereby further strengthening this dynamic and the power of the nature state (Von Hardenberg, 2017). In addition to the spread of conservation, its intensification—through upgrading PAs to stricter categories and reintroducing species like the cheetah—has

allowed the state to showcase its conservation prowess and project this image externally. As we showed, this strategy has been done time and again through the celebrated rise in tiger numbers which play a crucial role in Indian diplomacy and global engagement. Despite this external posturing, however, the state struggles to balance nature conservation, forest community rights, and industrial and infrastructural expansion into wildlife habitats. There is increasing frustration about the manner in which state-driven conservation is being practiced. However, as demonstrated, the state has consistently prioritized its own interests, persisting in the creation of inviolate spaces, mapping connectivity zones, and boosting wildlife populations, driven by a biopolitical rationale that continues to value non-human lives over human ones.

Although the process of setting aside land for corridors is still in its early stages, the few instances where it has already occurred reveal several issues important to the emerging literature on the political ecology of the state. First, corridors can supplement existing ways by which the state monitors and socially surveilles peasant populations. Second, it extends the reach and power of the conservation apparatus in landscapes beyond PA boundaries by reinforcing the prioritisation of these landscapes for charismatic species like tigers and elephants over the needs and rights of local communities, thereby delegitimising their presence. The ecological strength of the argument to ensure connectivity highlights the addition to the conservation logic of enclosure where de-peopled landscapes are connected to one-another through landscapes that are peopled, which in the future could also be de-peopled. Identifying and mapping corridors important for the movement of tigers and elephants thus becomes the first step and latest strategy in enabling this act of potential enclosure. Only recently have existing tools – such as designating conservation or community reserves in connectivity areas — started to be applied. All these developments warrant further research into the political ecology of the state to understand how the state extends its governance and surveillance over rural populations, intensifies conservation efforts in and beyond these landscapes, and leverages wildlife numbers to assert its power domestically and externally in the process.

CHAPTER 5: Territorialising connectivity: wildlife corridors and the Forest Rights in India[87]

5.1 Introduction

In India, wildlife corridors have increasingly been identified and institutionalised as a key strategy for sustaining populations of wide-ranging megafauna such as elephants and tigers (Rangarajan et al. 2010, Qureshi et al. 2014). This shift reflects a broader turn in conservation policy and practice over the past two decades toward securing connectivity across landscapes, particularly as protected areas are increasingly seen as insufficient for maintaining viable populations of species that require large and connected habitats (Anderson and Jankins 2006, Hilty et al. 2020). As a result, connectivity conservation has gained prominence, with corridors extending beyond protected area boundaries and traversing rural, agrarian, and multi-use landscapes. While these corridors are typically framed as scientific and ecological necessities grounded in landscape ecology and conservation biology, their implementation also raises important questions about how conservation reshapes land use, governance, and social relations in inhabited landscapes.

Scholarship in political ecology has highlighted how conservation interventions frequently function as spatial strategies of governance that reorganise access to land, resources, and authority (Vandergeest and Peluso 1995, Corson 2011, Rasmussen and Lund 2018). From this perspective, connectivity conservation can be understood as a contemporary form of conservation territorialisation, through which states and conservation actors delineate and regulate space in ways that extend control over landscapes and populations. In India, efforts to secure corridors for elephants and tigers have increasingly brought agrarian and forested landscapes under the ambit of conservation governance, often through a combination of scientific expertise, policy instruments, legal mandates, and collaborations between state agencies and conservation organisations. Such processes are not merely technical responses to ecological fragmentation but are also embedded within broader projects of state authority and environmental governance.

Situating connectivity conservation within India's longer history of forest governance reveals important continuities with earlier processes of conservation territorialisation. Colonial and

[87] Co-authored with Aditi Vajpeyi

postcolonial forest laws consolidated state control over forests and restricted the customary rights and practices of forest-dependent communities, often in the name of scientific management and conservation (Guha 1989, Sivaramakrishnan 1999). These processes generated enduring tensions between conservation objectives and the livelihoods and rights of forest-dwelling populations. Contemporary corridor initiatives risk reproducing similar dynamics by extending conservation regulation into inhabited landscapes where rural populations already face multiple pressures, including agrarian distress, land commodification, and wildlife-related conflicts. In this sense, connectivity may represent not a departure from fortress conservation but a reconfiguration of it, operating through a new modality of territorialisation across dispersed and networked landscapes. Against this backdrop, an important question emerges: whether and how expansionary conservation can be challenged or reconfigured through forms of counter-territorialisation that recognise local rights and authority. Addressing this question is critical for understanding how conservation governance can move beyond exclusionary models and accommodate more just and democratic forms of human-wildlife coexistence in inhabited landscapes.

This paper explores this possibility by revisiting the political history that led to the enactment of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, also known as the Forest Rights Act (FRA), in 2006. The FRA emerged from decades of resistance, collective mobilisation, and political struggle by forest-dwelling communities and social movements against the exclusionary effects of forest governance (Kumar and Kerr 2012, Sarin 2014). Framed explicitly as a corrective to "historical injustice," the Act recognises individual and community forest rights and vests decision-making authority in Gram Sabhas (village assemblies) to protect, manage, and conserve community forest resources, biodiversity, wildlife, and water bodies, as well as to regulate activities that adversely affect forests and wildlife. In doing so, the FRA seeks not only to redress past injustices but also to transform the institutional architecture of forest governance. In this paper, we argue that the Act has the potential to function as a strategy of counter-territorialisation, challenging ongoing processes of conservation territorialisation while opening possibilities for more democratic and decolonised approaches to conservation governance.

This paper connects literatures that are often treated separately by showing how connectivity conservation functions as a contemporary form of conservation territorialisation. It contributes to the political ecology of conservation, particularly the literature examining

governance at the landscape level in rural and agrarian spaces. By building on the work on territorialisation and highlighting how conservation expands through technocratic practices such as mapping and ecological expertise, it also brings a critical political perspective to the largely ecological literature on connectivity conservation. This perspective situates wildlife corridors within the longer history of forest governance in India. Finally, by examining the Forest Rights Act as a potential mechanism of counter-territorialisation, the argument contributes to debates on rights-based conservation by demonstrating how legal frameworks can enable forest-dwelling communities to contest and reshape both old and emerging forms of conservation governance.

The analysis draws on primary data and insights from grey literature on current and proposed approaches to expanding areas for wildlife conservation. The primary data consist of two components. The first comprises material collected by the first author between December 2021 and November 2022 around two protected areas in southern India – the Biligiri Rangaswamy Temple Wildlife Sanctuary and Tiger Reserve, and the Sigur plateau adjoining Mudumalai Wildlife Sanctuary and Tiger Reserve. The second component was gathered by the second author between 2023 and 2025 as part of their ongoing research in central India, particularly in the state of Madhya Pradesh, a hotspot of conservation expansion. The grey literature analysed includes state laws and reports on wildlife conservation, publications by governmental and non-governmental conservation actors on elephant and tiger corridors, and relevant newspaper articles.

In what follows, we first discuss the concept of territorialisation – what it entails and how it has evolved over time. We then examine how it operates in conservation, particularly in relation to landscape-level initiatives and corridors. Finally, we consider how resistance and counter-territorialisation, including through legal redress, can challenge hegemonic conservation approaches. We highlight how the FRA is both a mechanism of corrective justice addressing past dispossession and a framework through which communities may contest ongoing processes of conservation territorialisation, including connectivity conservation.

5.2 Territorialisation, conservation expansion, and counter-territorial responses

This paper approaches conservation through the lens of territorialisation, understood as a political process through which states and other actors produce space as governable territory. Territorialisation entails rendering landscapes legible through mapping, classification, enumeration, and legal codification (Scott 1998, Sivaramakrishnan 1999). From this perspective, contemporary connectivity conservation can be seen as a new modality of territorialisation, in which emerging forms of enclosure and spatial control are legitimised through powerful science–policy discourses (Fairhead et al. 2012). Connectivity conservation itself forms part of a broader scientific narrative in which corridors have come to be promoted as a key strategy for biodiversity conservation, aimed at "applying nature's design" to fragmented landscapes (Anderson and Jenkins 2006).

Central to these processes is the role of scientific knowledge in making landscapes governable. In the context of connectivity conservation, practices such as corridor mapping, species movement modelling, and landscape-scale prioritisation render complex socio-ecological systems into spatially defined conservation priorities (Hilty et al. 2020). These techniques transform heterogeneous landscapes into legible conservation spaces, allowing states and conservation organisations to justify interventions and reorganise land use beyond the boundaries of protected areas. While often presented as objective ecological assessments, these knowledge practices also carry normative implications, shaping where corridors are designated, which land uses are deemed compatible with conservation, and which activities are framed as threats to ecological connectivity. Connectivity science therefore does not simply describe ecological processes but actively participates in the territorialisation of conservation, influencing how landscapes are understood, governed, and regulated (Corson 2011, Rasmussen & Lund 2018).

These discursive and scientific dynamics ultimately translate into concrete territorial outcomes. Wildlife corridors are often promoted as solutions to habitat fragmentation because they are assumed to restore ecological connectivity. Yet simplified corridor thinking does not necessarily result in improved connectivity in practice (Goldman, 2009). Despite this, the concept retains considerable discursive power, mobilising diverse actors around the idea of linking protected areas (Bluwstein & Lund, 2018). This influence partly stems from the interpretive flexibility of connectivity as a boundary object, allowing it to unite different

perspectives while blending scientific description with prescriptions for conservation action (Wyborn 2015).

These dynamics ultimately translate into concrete territorial outcomes. Territorialisation involves enclosure, both material and legal, through which land is reclassified, customary practices are subordinated to statutory law, and regulatory regimes are imposed. It produces institutional hegemony by consolidating decision-making within bureaucratic apparatuses while marginalising alternative systems of governance (Peluso and Vandergeest 2001). In forest contexts, this has historically meant converting lived landscapes into what the authors term as "political forests", spaces where state authority supersedes customary tenure and where forests were recast as political ecological entities, produced through colonial discourses, the institutionalisation of scientific forestry and territorial governance.

In their original formulation, Peluso and Vandergeest outline three overlapping historical "moments" in the making of political forests: territorial colonialism; the postcolonial period, marked by the expansion of "forestry for development" programmes; and a third phase characterised by violent wars, insurgencies, and counter-insurgency operations. During the first two phases, state forestry departments served as the principal agents demarcating and claiming forest territories and species. The third phase, however, expanded this apparatus to include national and international military forces, alongside civilian rural development programmes, mobilised in support of counter-insurgency efforts. Across these three moments, political forestry was shaped by timber extraction, the assertion of territorial sovereignty, and efforts to control resistant people and landscapes.

Building on this genealogy, Vandergeest and Peluso (2015) identify a fourth, contemporary moment in which the governance of forests increasingly involves a wider range of actors, including conservation organisations, international agencies, and market-based initiatives. In this phase, conservation organisations frequently focus on endangered or charismatic species, echoing earlier species-centred approaches. Yet, these efforts continue to rely on territorial strategies as conservation spaces are delineated across existing political forests and even private lands. Territorial demarcation remains a key management tool, evident in the designation of conservation corridors across private or community landscapes, and in the establishment of new nature reserves. What distinguishes this phase is the expansion of conservation objectives What distinguishes this phase is the expansion of conservation

objectives, particularly biodiversity conservation and the protection of endangered species, alongside the diversification of actors involved in governing forest landscapes.

Similar dynamics have been observed in other regions where landscape-scale conservation and corridor initiatives have expanded across inhabited landscapes. In Tanzania, both Bluwstein (2018) and Green (2021) examine how territorial approaches to conservation have expanded through landscape-level initiatives and wildlife corridors. Bluwstein traces the shift from colonial "fortress" conservation to neoliberal, landscape-based models that appear participatory and market-driven, arguing that they reconfigure rather than replace earlier forms of territorial control. Through a biopolitical ecology lens, he shows how contemporary conservation extends governance across landscapes by incorporating communities into market-based systems that regulate mobility, livelihoods, and ecological processes, generating new forms of inclusion, surveillance, and control. In this sense, territorialisation operates not only through spatial regulation but also through the shaping of subjectivities and conservation imaginaries (Bluwstein and Lund 2018). Similarly, Green demonstrates that corridors are not neutral scientific instruments but socially and politically negotiated assemblages, sustained across national to village scales by diffuse power, planning practices, market logics, and conservation imaginaries.

The expansion of conservation territorialisation across such landscapes has also generated diverse forms of contestation. Communities living within these conservation spaces often respond to expanding territorial claims in ways that range from organised political resistance to everyday forms of negotiation and refusal. In Tanzania, opposition to Wildlife Management Areas (WMAs) and wildlife corridors has included both organised contestation and everyday acts of resistance (Benjaminsen et al., 2013). Cavanagh and Benjaminsen (2015) describe the emergence of "guerrilla agriculture," the illicit cultivation of crops within spaces zoned exclusively for wildlife, as a form of material and political resistance to exclusionary conservation. Such practices align with what Holmes (2007) describes as symbolic resistance, in which the persistence of prohibited activities serves as a deliberate assertion of presence and claims to rights. Taken together, these examples illustrate that conservation landscapes are not simply imposed from above but are continually negotiated, contested, and reshaped by those whose lives and livelihoods they affect.

Such forms of contestation can also evolve into broader strategies of counter-territorialisation (Holmes 2014). Counter-territorialisation may take formal routes – including protests, legal

challenges, and alliances between Indigenous communities and NGOs – or quieter, everyday practices that gradually unsettle state territorial claims (Lestrelin 2011). As Lestrelin argues, counter-territorialisation is not merely about defying rules but about devising ways to transcend and rework state power. Counter-mapping represents one such strategy. In Karnataka's Biligiri Rangaswamy Temple Tiger Reserve (BRT), a counter-map was made to challenge efforts to create inviolate protected areas and relocate communities by foregrounding *Soliga*[88] cultural sites and their deep ecological relationships with the landscape, thereby advancing an alternative vision of forests grounded in Indigenous stewardship (Rai and Madegowda 2018).

Efforts to challenge or reconfigure conservation territorialisation have also taken institutional and legal forms. In India, one such institutional response is the FRA which explicitly acknowledges in its preamble the "historical injustice" faced by forest-dwelling Scheduled Tribes and other traditional forest dwellers in the making of India's forest estate. The Act represents an attempt at legal redress, understood as institutional measures aimed at recognising past injustices and providing mechanisms to repair their continuing social, political, and material effects (Barkan 2000, De Greiff 2006). In the context of environmental governance, redress is often framed not merely as compensation but as the restoration of rights, recognition of marginalised communities, and restructuring of decision-making processes (Schlosberg 2007). The FRA seeks to advance such redress by recognising a range of individual and collective rights over forest land and resources, elaborated on in the sections below. Crucially, the Act vests authority in Gram Sabhas to initiate claims and participate in forest governance, thereby attempting to reconfigure decision-making power in favour of forest-dwelling communities (Springate-Baginski et al. 2013). In doing so, the FRA can also be situated within broader debates on rights-based environmental governance, which emphasise democratic decision-making, community stewardship, and Indigenous autonomy over *jal* (water), *jangal* (forest), and *jameen* (land). The provision of legal redressal through the act enables communities to challenge wrongful eviction, contest administrative decisions, and assert recognised rights through institutional channels. In this sense, the FRA can be understood not only as a mechanism of corrective justice but also as a potential institutional framework through which communities may contest ongoing processes of conservation territorialisation, including those associated with contemporary connectivity conservation.

[88] An indigenous community

5.3 The evolving colonial and post-colonial territorial state

Grounded in a Eurocentric nature-society binary and a logic of territorialisation, the colonial regime of land and resource governance classified and consolidated forests and resource landscapes as property of the colonial state through cartographic practices. The creation of the Forest Department in 1864 and the passage of the Indian Forest Act (IFA) of 1865 marked the first institutional and legal steps through which the colonial state asserted hegemonic control over land and resources. These measures disrupted customary systems of governance and rendered the people inhabiting these landscapes as criminals and encroachers.

Forests were formally demarcated into reserved forests (under complete state control), protected forests (under partial state control), and village forests (nominally assigned to local management). This framework was consolidated and strengthened through the revised versions of the Indian Forest Acts of 1878 and 1927[89], which further institutionalised the colonial state's authority to manage and extract revenue from timber and other forest produce. In doing so, it recast longstanding community practices as regulated privileges or criminal offences, subject to penalties, fines, and imprisonment, thereby entrenching the territorial and juridical power of the colonial state over forest landscapes. This legislation criminalised community forest use, casting long-standing landscape relations and resource dependence as "disturbances," "encroachments," and "pressures" against a supposedly 'natural' order grounded in Eurocentric scientific thought. Enforced through coercive and often violent means, this regime systematically denied rights, dignity, and justice to Adivasi and other forest-dependent communities with historical ties to these landscapes.

By 1950-51, approximately 71.8 million hectares, nearly a quarter of India's total land area, had been claimed as legal forest (FSI 2003). After independence, the Indian government enacted the WLPA in 1972, which further consolidated the authority of the state and the forest bureaucracy over forest and wildlife governance. It did so by demarcating forest areas into protected area (PA) categories such as national parks and wildlife sanctuaries. These PAs operated under regimes of prohibition and permits.

Although the law formally required the settlement of community rights prior to the PA notification, these provisions were rarely implemented in any meaningful way. Under the WLPA, rights could technically continue within a sanctuary after consultation with the Chief

[89] This version is still in force today

Wildlife Warden, allowing people to reside in the area and use resources according to rights determined and approved by officials. In contrast, once a national park was officially notified, all rights of use had to be settled, compensated, and extinguished. In practice, therefore, these were less rights than privileges or concessions granted by the state, if they were recognised at all, which was uncommon.

The WLPA, together with the launch of Project Tiger in 1973, established the legal and administrative architecture for the expansion of protected areas and tiger reserves – the former as statutory categories and the latter as an administrative designation. These measures institutionalised a fortress conservation paradigm and reconfigured extensive forested and common landscapes into national parks and wildlife sanctuaries. Through boundary demarcation, zoning, legal notification, and intensified regulatory oversight, they advanced new forms of territorialisation while reinforcing particular power-laden and discursive framings of conservation.

Initially conceived as a six-year programme running from April 1973 to March 1979, Project Tiger aimed "to ensure the maintenance of a viable population of the tiger in India and to preserve, for all times, such areas as part of our national heritage for the benefit, education and enjoyment of future generations." The programme began with the notification of nine tiger reserves in 1973, marking a decisive shift in the trajectory and discourse of conservation governance in the country, with the tiger as its emblem. Six of these reserves were created by embedding them within already protected reserve forests, on the premise that such forests would provide sufficient space for tigers to roam. The reserves averaged about 15,000 sq km in size and included "a sanctum sanctorum of at least 300 sq km" (Narain et al. 2005). Between 1973 and 2026, the number of tiger reserves increased from an initial 9 to 58. Over the same period, the number of national parks grew from 5 to 106, and wildlife sanctuaries from 59 to 574[90]. Together, these protected areas expanded from 13,142 sq km to 171,644 sq km, highlighting the significant territorial expansion under the state's conservation apparatus.

In 1976, the 42nd Amendment to the Constitution significantly reshaped forest governance in India by moving forests from the State List to the Concurrent List, thereby granting both the central and state governments the authority to legislate on the subject. This introduced legal restrictions to an already flawed landscape where the demarcation of forest land was often faulty, inconsistent, and incomplete. Although the passing of the Forest (Conservation) Act

[90] Source: https://wiienvis.nic.in/Database/Protected_Area_854.aspx. (Accessed on 14/06/2025)

(FCA) in 1980 was intended to safeguard forests from large-scale diversion and deforestation, in practice it produced contradictory outcomes. While it introduced stringent controls over forest land use, it also facilitated the diversion of extensive forest areas for mining and large-scale infrastructure projects. Scholars have shown how the FCA enabled significant forest loss in the name of national development, while forest-dwelling communities lost both access to their lands and the possibility of compensation due to the absence of formal titles and a historically flawed process of rights settlement, which frequently recorded them as "encroachers" in official records (Sundar 2011).

Many settlements, often inhabited by Indigenous communities, had originally been established by the forest bureaucracy on forest land to provide labour for forestry operations. These settlements, designated as "forest villages" and typically located in remote areas along demarcated forest boundaries, were kept outside the jurisdiction of civil administration. As a result, residents were unable to access basic public services because of the legal moratorium imposed by the FCA restricted administrative intervention in these areas (Shah 2005, Kumar and Kant 2005). Together, these legal and institutional arrangements deepened the marginalisation of forest-dependent communities, pushing many into conditions of land insecurity, poverty, malnutrition, and chronic precarity.

Eventually, these policy shifts strengthened central oversight and eventually led to the establishment of the then Ministry of Environment and Forests (MoEF) in 1985 and the subject of forest and wildlife were taken out of the Ministry of Agriculture and transferred to the MoEF. The diversion of forest land now fell under the purview of the central government, which, in the name of "nation-building," increasingly reallocated forest areas in the name of 'developmental', and later 'public interests.' With the adoption of a neoliberal economic regime, this trajectory intensified, as forest and resource-rich landscapes were consolidated, territorialized and repurposed for infrastructure, industry, energy, and even conservation initiatives, often through state–corporate alliances (Dreze 2005). Official records show that between 1980 and 2005, approximately 11 thousand projects had been cleared involving the diversion of around 9.88 lakh hectares (ha) of forest land. Large-scale forest diversion, displacement of forest dwellers, denial of tenure rights, criminalisation of customary practices, and episodes of state-backed violence severely undermined livelihoods and territorial security. These cumulative pressures mobilized widespread resistance movements among Adivasis and other rural forest-dependent communities across the country, who began

demanding for their socio-economic rights and questioning the exclusionary premise of forest policies (Sharma,1989; Kumar and Kerr 2012).

5.4 Forest dwelling communities and the limits of constitutional protection

As the conservation state was expanding its territorial control over forests and land, there were a number of developments in relation to forest dwelling communities. Following India's independence in 1947, Adivasi communities were formally acknowledged within the constitutional framework and accorded specific safeguards. However, the Government of India does not officially recognise any group as "Indigenous peoples" in the sense used by the United Nations, maintaining instead that all Indians are indigenous. Instead, the Constitution identifies certain communities under the administrative category of "Scheduled Tribes" (STs), based on defined criteria. Although STs are not strictly coterminous with the socially and historically recognised terms "Adivasi" (meaning original inhabitants) or "tribal," they are widely understood to include most Indigenous peoples in the Indian context, reflecting forms of indigenousness that are distinct from regional identities and explicitly recognised in constitutional and legal provisions (Bijoy et al. 2010). India is home to the world's largest Indigenous population; according to the 2011 Census, Adivasis numbered approximately 104 million, constituting 8.6 per cent of the country's population. When the United Nations adopted the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) in 2007, affirming the rights of Indigenous peoples to maintain and strengthen their institutions, cultures, and traditions, India supported the declaration but has continued to refrain from formally adopting the term "Indigenous Peoples" in its domestic legal and policy frameworks.

The Constitution guarantees equality before the law and provides safeguards such as educational and political representation, as well as protections for cultural and linguistic rights. However, it did not initially recognise substantive rights over land and forests for Adivasi communities. When the Constitution came into force in 1950, two key provisions – the Fifth and Sixth Schedules – were introduced to establish special governance frameworks for certain "Scheduled Areas" in mainland India and "tribal areas" in parts of the Northeast. The Fifth Schedule, applicable across ten states, grants significant discretionary powers to state Governors, provides for the establishment of Tribes Advisory Councils, and seeks to prevent land alienation while promoting tribal welfare. The Sixth Schedule, by contrast,

applies to designated areas in select Northeastern states and establishes Autonomous District Councils with legislative authority over land, forests, inheritance, and related matters, thereby granting a greater degree of regional autonomy.

Despite these constitutional protections, scholars have consistently argued that land dispossession remains the most significant driver of Adivasi marginalisation across India. For decades, the legal framework lacked an effective statutory mechanism to secure collective rights over common lands and forest resources. As a result, expropriation occurred through multiple channels, including forest laws and large-scale development projects that displaced communities. The state's power of compulsory acquisition, along with its authority to reallocate common property, has been exercised disproportionately against Adivasi populations, leading to repeated displacement, loss of livelihoods, and the erosion of territorial homelands (Bijoy et al. 2010).

These structural issues are particularly evident in the governance of protected areas. The 2005 Tiger Task Force Report highlights the widespread failure to settle rights within India's protected areas, noting that a survey found only 40 per cent of national parks and 8 per cent of the 209 wildlife sanctuaries that responded had completed the mandated legal procedures. The report further observes that across large tracts of forest, people's rights have never been formally recorded, and there are no reliable records of the number of families who have lived—and continue to live—in these areas. In practice, residents of protected areas have frequently been treated as outsiders or illegal users of their own lands, reflecting a conservation regime that has often operated through forms of dispossession and exclusion (Narain et al. 2005).

The National Forest Policy of 1988 was widely presented as a shift from earlier forest policies that prioritised commercial timber extraction. It signalled a move toward conservation and community participation, articulating the national objective of bringing at least one-third of India's land area under forest or tree cover. The policy also emphasised involving local communities in forest protection and management, acknowledged concerns over forest encroachment, and recognised the importance of safeguarding people's access to forest produce.

In the 1990s, amid growing unrest among forest dwellers, the state introduced reforms intended to operationalise this participatory vision, most notably the Joint Forest Management (JFM) programme. Initiated through guidelines issued by the Union Ministry of

Environment and Forests, JFM established village-level Joint Forest Management Committees (JFMCs) formed in the presence of forest officials, with the local forest guard typically serving as secretary and joint account holder. These committees entered into agreements drafted by the forest department, under which villagers undertook forest protection activities specified by the department in exchange for a share of revenues from timber and minor forest produce. In practice, however, financial control and decision-making authority remained firmly with the forest bureaucracy.

JFM was largely implemented in areas classified as degraded forests and did not extend to protected areas, where Eco-Development Committees (EDCs) were instead created with the aim of reducing local dependence on forests. Although both JFMCs and EDCs were promoted as participatory and decentralised mechanisms, their functioning largely reproduced existing bureaucratic hierarchies and remained grounded in a territorialised model of forest governance. The forest department retained authority over planning, implementation, and resource allocation, while communities were positioned primarily as providers of conservation labour. Villagers had limited mechanisms to demand accountability, and externally funded afforestation programmes often channelled financial flows through these committees while weakening existing community institutions (CSD 2010; Nayak 2008). In some cases, the benefits of improved forest productivity were captured by state agencies, and scholars argue that international aid further enabled the forest bureaucracy to expand its territorial reach (Springate-Baginski and Blaikie 2007). Crucially, the JFM programme provided no statutory recognition of community rights over forests.

5.5 Evictions, resistance, and the making of the Forest Rights Act

The year 1996 marked a significant moment in the governance of Scheduled Tribes and forest regions in India, reflecting a formal attempt to devolve powers to local institutions. Although the Constitution had earlier directed the state to organise village panchayats as units of self-government, the Panchayats (Extension to the Scheduled Areas) Act (PESA) extended these provisions to Fifth Schedule Areas. PESA sought to vest Adivasi communities with authority over local governance, including the management of land, minor forest produce, and water bodies, while empowering Gram Sabhas (village assemblies) as key decision-making bodies responsible for resource management, dispute resolution, and the protection of customary laws and cultural practices. Despite its transformative intent, however, the implementation of PESA has remained limited due to bureaucratic resistance, weak political commitment to

decentralisation, overlapping legal frameworks, and entrenched economic interests (Sisodia 2021).

In the same year, a judicial intervention dramatically reshaped forest governance in India. In 1995, T. N. Godavarman Thirumulpad[91] filed a public interest litigation before the Supreme Court seeking to curb illegal timber extraction in the Nilgiris. What began as a case addressing deforestation soon evolved into an expansive judicial process that redefined the meaning of "forest." In its 1996 order, the Supreme Court broadened the definition of forest land to include not only areas officially recorded as forest but also any land that met the "dictionary meaning" of a forest, regardless of ownership. This interpretation brought vast areas of community-managed forests, sacred groves, and customary lands under the ambit of stringent forest laws, particularly the FCA. As a result, millions of hectares of customary and common-access landscapes came under intensified state control, and communities historically dependent on them faced heightened restrictions. The case also established an ongoing regime of judicial monitoring, which in practice reinforced top-down regulatory control and frequently recast forest dwellers as "encroachers," thereby legitimising evictions, policing, and the erosion of customary territorial claims.

A further development occurred in 2002 with amendments to the WLPA, which introduced two new categories of protected areas: Conservation Reserves and Community Reserves. These were framed as a move away from strictly exclusionary conservation toward participatory approaches and were envisaged to function as buffer zones or corridors between national parks and wildlife sanctuaries. Conservation Reserves apply to state-owned lands managed through committees, while Community Reserves pertain to private or community lands overseen by local management bodies. Despite this apparent shift, both categories retained a top-down, state-centric territorial logic. They did not recognise community stewardship as an autonomous authority or transfer substantive decision-making powers to local institutions. Rather than marking a departure from fortress conservation, these mechanisms extended the state's project of territorialisation by combining exclusionary and collaborative forms of conservation governance.

Within this "long history of the use of the armed might of the state to arbitrarily evict Adivasis and the rural poor from their habitat" (Campaign for Survival and Dignity 2003), 2002 marked a critical turning point. On 3 May 2002, the Ministry of Environment and

[91] a member of the princely Nilambur Kovilakam family in the Malabar region of Kerala

Forests (MoEF) issued a directive ordering the summary eviction of all forest "encroachments" deemed ineligible for regularisation, to be completed in a time-bound manner by 30 September 2002. The order cited estimates that approximately 1.25 million hectares of forest land were under encroachment and triggered an unprecedented nationwide eviction drive. Between May 2002 and March 2004, evictions reportedly affected more than 152,400 hectares and nearly 300,000 forest dwellers. Parliamentary records later indicated that 1.343 million hectares of forest land, covering both pre and post-1980 occupations, had been classified as encroached, of which only 366,000 hectares of eligible pre-1980 occupation had been regularised. Here, 1980 emerged again as a decisive legal threshold: the enactment of the FCA became the cut-off date for determining the legitimacy of occupation. By requiring central approval for the diversion of forest land for non-forest purposes, the FCA significantly expanded central authority, and its interpretation extended the scope of "non-forest use" to include cultivation, habitation, and other bona fide livelihood activities of forest-dependent communities. Although guidelines issued in 1990 sought to regularise pre-1980 occupations, their implementation remained limited, and the widespread categorisation of forest dwellers as "encroachers" persisted.

The eviction directive was communicated through a letter from the MoEF to state Chief Secretaries, which invoked concerns about forest encroachment raised in the ongoing *Godavarman* case. Referring to a Supreme Court order dated 23 November 2001 that restrained the regularisation of encroachments without prior approval, the letter instructed states to prepare time-bound programmes for the summary eviction of all occupations deemed ineligible under the 1990 guidelines. Crucially, however, the Court had not explicitly ordered blanket evictions. As activists and legal scholars later argued, the communication created the impression that such evictions had been judicially mandated, representing what the Campaign for Survival and Dignity (CSD) described as a "subtle bureaucratic juxtaposition" (Campaign for Survival and Dignity 2003). In response, the CSD, a national coalition of more than 150 tribal and forest-dweller organisations across ten states, organised a public hearing in 2004 documenting the brutality and scale of the eviction campaign. Testimonies described coercive enforcement across states: elephants were used to clear Adivasi settlements in Maharashtra and Assam, State Reserve Police units were deployed elsewhere, and in states such as Gujarat and Madhya Pradesh forest officials burned homes and cultivated fields to enforce evictions.

To oversee the process, the government established a Central Empowered Committee (CEC) composed largely of conservationists, with no representation from tribal institutions or forest-dwelling communities. However, sustained protests and nationwide mobilisation. particularly led by organisations such as the CSD, eventually forced a policy reversal. In 2004, the MoEF withdrew the eviction directives and began supporting the recognition of tribal land rights. In an affidavit submitted on 21 July 2004, the Ministry acknowledged that the 1990 regularisation guidelines had not been effectively implemented and conceded that the rights of forest dwellers had been systematically violated. It further recognised the existence of a "historical injustice" resulting from the state's failure to acknowledge and secure the traditional rights of tribal communities, an injustice that, it stated, "must be finally rectified." By December 2004, the Ministry ordered a temporary halt to evictions, and in May 2005 clarified that 25 October 1980, the date associated with the enactment of the FCA, would serve as the cut-off for determining eligibility, with occupations after this date deemed liable for eviction.

Between 2002 and 2004, even as successive guidelines and official communications were issued, violent evictions of forest dwellers continued across the country. In response, forest-dependent communities and tribal organisations mobilised through protests, public hearings, campaigns, and sustained advocacy, gradually coalescing into a nationwide movement demanding the recognition of forest rights and the democratisation of forest governance. This mobilisation coincided with the 2004 national elections, which brought the United Progressive Alliance to power. By mid-January 2005, the Prime Minister's Office directed that a Forest Rights Bill be drafted. Amid this growing political momentum, the MoEF issued guidelines for recognising forest dwellers' claims, including individual cultivation, customary access to minor forest produce, and the rights of shifting cultivators and pre-agricultural communities. However, these guidelines placed forest officials, rather than tribal welfare authorities, in key implementation roles, effectively allowing the forest department to determine eligibility and retain institutional control (Bijoy 2023). The MoEF subsequently drafted its own Forest Rights (Recognition and Vesting) Bill, 2005 to counter the version prepared by the Ministry of Tribal Affairs (MoTA). At the same time, segments of the forest bureaucracy and influential conservation groups lobbied through media and policy networks to prevent the bill from being introduced in Parliament (Bindra 2005; Kumar 2012). Reflecting these concerns, an environmental published an article titled "*Tribal Bill is Death Warrant for Tigers, Forests*" arguing against the passage of the Act.

Despite these contestations, the Forest Rights Bill was introduced in Parliament on 13 December 2005 and referred to a Joint Parliamentary Committee later that month. After deliberation, Parliament passed the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act on 26 December 2006. Prior to its passage, a significant institutional shift occurred: the subject of forest rights was transferred from the MoEF to the MoTA through an amendment to the Government of India (Allocation of Business) Rules in 2006, designating MoTA as the nodal ministry responsible for implementation. The Act came into force on 31 December 2007 and was operationalised through rules notified in January 2008, which were subsequently amended in September 2012.

The enactment of the FRA represented a watershed moment in India's forest governance framework. It challenged the entrenched institutional dominance of the forest bureaucracy that had persisted through both colonial and postcolonial regimes, marking a significant rupture in the historical trajectory of state control over forests. Unlike earlier reforms driven primarily by state-led administrative restructuring, the FRA emerged from sustained political mobilisation and resistance by forest-dwelling communities against dispossession and exclusion. Both its origins and its provisions are therefore widely regarded as transformative (Kumar and Kerr 2012), embodying what Sarin (2014) describes as the potential to reshape people-nature relationships that had been deeply disrupted since the colonial era.

Following the passage of the FRA, several petitions were filed challenging the Act. The most influential was a 2008 petition submitted by a group of wildlife conservation organisations, which argued that recognising the land and other rights of forest dwellers would undermine wildlife conservation and lead to the destruction of India's forests. The constitutional challenge reflected a broader alignment with exclusionary conservation practices embedded in the earlier forest law regime and sought to delegitimise the FRA (Kodiveri 2018). As Bathija and Sylvander (2023) demonstrate, conservation NGOs also deployed discursive strategies that helped legitimise such exclusionary approaches.

5.6 Redressal and rights: the transformative premise of the FRA

The premise of redress that underpins the FRA is embedded in its opening framing and resonates throughout the spirit and text of the law. The act explicitly acknowledges that "historical injustices" were inflicted upon forest-dwelling Scheduled Tribes and other traditional forest dwellers through the territorialisation practices of colonial and postcolonial

forest governance. Its stated purpose is to rectify these injustices. The preamble recognises that the rights of these communities over their ancestral lands and habitats were inadequately acknowledged both during the colonial consolidation of state forests and in the post-independence period, resulting in their systematic marginalisation despite their integral role in sustaining forest ecosystems.

In articulating its objectives, the FRA challenges the nature-society binary embedded in colonial conservation models, which historically criminalised forest-dependent communities while simultaneously portraying them as essential to the survival of forest ecosystems. The act advances a rights-based framework widely regarded as unprecedented in scope and ambition. It affirms the pre-existing rights of forest dwellers to access, use, protect, conserve, and manage forest resources within their customary territories. In this sense, the FRA carries the potential to fundamentally decolonise, democratise, and transform forest governance in India. Unlike earlier efforts at decentralisation or administrative devolution (Sundar 2001), the FRA emerged from sustained resistance and political reform, seeking to democratise resource governance through the recognition and protection of rights, the restructuring of institutional authority and accountability, and the rejection of exclusionary territorialisation logics.

Historically, colonial and postcolonial territorialisation projects demarcated and mapped vast landscapes as state forests, restricting and grading community access and rights over them. In the process, extensive public lands, commons, and customary territories were absorbed into the administrative control of forest and wildlife bureaucracies under the categories of forest land and conservation areas, alienating communities from their territories and identities. By 2005, when the Forest Rights Bill was under discussion, India had a recorded forest area of 769,626 sq km (FSI 2005) and a protected area network comprising 90 national parks and 501 wildlife sanctuaries, covering 1,56,934 sq km, about 22 per cent of the forest area and 5 per cent of the country's land area. Of these, 28 were designated tiger reserves, spanning 37,761 sq km across 17 states, accounting for roughly 5.6 per cent of recorded forest area and more than 1 per cent of India's geographical area.

In contrast to these territorially bounded conservation regimes, the FRA adopts a far more expansive legal scope, applying to "land of any description falling within any forest area." Its ambit includes all categories of forest land – unclassed and undemarcated forests, existing or deemed forests, protected forests, wildlife sanctuaries, national parks, tiger reserves, and even

so-called “wastelands.” With the exception of hunting, the act recognises a wide spectrum of individual and community rights and establishes safeguards for their protection.

Recognising that forest-dwelling communities suffered historical injustices due to forest laws established during both colonial and post-independence periods, an acknowledgement also made by the MoEF prior to its formulation, the FRA explicitly seeks to redress these injustices. It does so by shifting authority away from historically centralised forest bureaucracies toward democratic village assemblies, or Gram Sabhas. Through the recognition and vesting of historical forest rights, the act places decision-making power over the governance, management, and conservation of land and resources directly in the hands of forest-dependent communities and their traditional institutions.

Under the law, a Gram Sabha is defined as a village assembly comprising all adult residents, including in areas without formal panchayat structures where traditional village institutions exist. Designed to ensure the participation of women, Scheduled Tribes, and other marginalised groups, the Gram Sabha functions as an inclusive, locally rooted forum for collective decision-making. In this sense, the FRA extends earlier efforts toward decentralisation, such as those envisaged under constitutional provisions and PESA, by formally recognising habitation-level institutions and entrusting them with authority over local resource governance.

The act establishes a polycentric institutional framework. At the village level, the Gram Sabha is supported by a Forest Rights Committee (FRC) that undertakes operational responsibilities. At higher levels, Sub-Divisional Level Committees (SDLCs) and District Level Committees (DLCs) – comprising officials from forest, revenue, and tribal departments along with elected representatives – review and approve or reject claims, while a State Level Monitoring Committee (SLMC) oversees implementation. Although these bodies provide a multilayered governance structure, they operate within existing power asymmetries, which has contributed to uneven implementation of the act.

Substantively, Section 3(1) of the FRA recognises thirteen categories of forest rights across all forest lands, securing individual, community, or combined tenure for forest-dwelling Scheduled Tribes and other traditional forest dwellers. These rights are inalienable and non-transferable but inheritable. They include rights to hold and cultivate forest land for habitation or livelihood, ownership and use of minor forest produce, and community rights over grazing, fishing, and seasonal resource access for pastoralist and nomadic communities.

The act also recognises rights over disputed lands and traditional habitats, allows for the conversion of forest villages into revenue villages, and provides for in situ rehabilitation. A central provision is the right of communities to protect, regenerate, conserve, and manage community forest resources traditionally under their stewardship. In addition, the FRA provides safeguards against unlawful eviction and allows limited diversion, up to four hectares, of forest land for essential village infrastructure, subject to specified conditions.

These provisions reflect the long history of resistance by forest dwellers to exclusionary conservation regimes. Pastoral and nomadic communities, among the most vulnerable groups affected by forest policies, illustrate this dynamic. For instance, the notification of Rajaji National Park in 1983 under the WLPA led to the territorialisation of the Shivalik landscape, which had long served as winter pasture for the Van Gujjars, a semi-nomadic pastoral community of buffalo herders. Labelled ecological threats, around 1,300 families were displaced from their customary lands despite sustained resistance. Their seasonal movements across forests and alpine pastures are based on traditional ecological knowledge and long-standing systems of resource management (Gooch 2009). The FRA has opened a pathway for communities such as the Van Gujjars to assert their rights to these seasonal landscapes and livelihoods, challenging earlier conservation narratives that framed pastoralism as environmentally destructive and instead recognising it as compatible with, and potentially supportive of, sustainable ecosystem management.

The transformative potential of the FRA became evident in a landmark case involving the Dongria Kondh, an Indigenous community in Odisha. In 2005, plans by Vedanta to mine bauxite in the sacred Niyamgiri Hills were challenged through public interest litigations in the Odisha High Court, invoking stewardship claims rooted in the community's spiritual relationship with the land. Although the petitions were dismissed by the High Court and the Supreme Court, the passage of the FRA in 2006 created a new legal basis for recognising such claims. A 2009 notification further clarified that the consent of the Gram Sabha was required for the diversion of forest land. Drawing on these provisions, the case returned to the courts, culminating in a landmark 2013 Supreme Court ruling affirming the authority of Gram Sabhas to decide whether the mining project would violate the Dongria Kondh's religious and cultural rights. The Gram Sabhas unanimously rejected the proposal, leading to the cancellation of the mining project (Kodiveri 2024).

5.7 Possibilities for counter territorialization through the FRA

As stated in its Preamble, the FRA establishes "a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land," thereby creating a formal process for recognising and securing these rights. The Gram Sabha is designated as the primary authority to initiate this process: it receives, consolidates, and verifies claims to determine the nature and extent of individual and community forest rights within its jurisdiction and prepares maps delineating the boundaries of each recommended claim. Through this process, communities reclaim decision-making authority and articulate the landscape as a lived homeland shaped by social, cultural, and ecological relationships. Across India, many Gram Sabhas have mapped their customary territories using local knowledge to identify biodiversity-rich areas, cultural and spiritual sites, forest produce zones, rivers, sacred groves, burial grounds, and grazing lands.

The Act ensures that claims recommended by the Gram Sabha are not arbitrarily modified or rejected by higher-level committees. If a claim requires further examination, it must be returned to the Gram Sabha for reconsideration rather than altered or dismissed. It also guarantees claimants the opportunity to present supporting evidence and requires forest and revenue officials to participate in field verification. If they fail to attend and later raise objections, the Gram Sabha's verification and decision are treated as final.

The FRA further recognises Gram Sabhas as the principal governing authority over forests. They are responsible for identifying and managing their Community Forest Resource (CFR) areas – defined in Section 3(1)(i) as forest land within the traditional or customary boundaries of a village, or seasonal use landscapes in the case of pastoral communities. Under Section 5(d), Gram Sabhas are empowered to protect, regenerate, conserve, manage, and regulate access to these resources. This authority extends to lands held under both individual rights – inalienable, non-transferable but inheritable – and community rights, including areas located within state-designated conservation territories.

More broadly, the FRA represents a significant departure from colonial and state-led models of exclusionary or "fortress" conservation, advancing instead a democratic vision of forest governance. Rather than confining conservation to fixed protected areas or zoning regimes rooted in territorialisation, the Act centres tenure security, culture, livelihoods, and community stewardship within forest governance. It links recognised rights with responsibilities for the sustainable use of forests, conservation of biodiversity, and

maintenance of ecological balance, thereby strengthening conservation while securing livelihoods and food security. In this sense, forest-dwelling communities are positioned not as threats to conservation but as central actors in sustaining forest ecosystems. As Sarin (2014) notes, the Act has the potential to restore plural ecological governance grounded in multifunctional land uses and indigenous biodiversity knowledge.

In 2009, a year after the FRA came into effect, the MoEF acknowledged that the act could assign rights to protect around 40 million hectares of community forest resources to village-level democratic institutions, while also noting that 275-300 million people depend on forests for their livelihoods. These 40 million hectares represent a conservative estimate of the area that could be formally recognised as CFR lands, over which communities are legally empowered to govern, manage, and conserve forests. By recognising community rights over biodiversity, as well as associated intellectual property and traditional knowledge, the Act also creates space for indigenous knowledge systems to shape conservation practice.

Crucially, the scope of the FRA extends beyond formally recognised CFR areas. Section 5 empowers Gram Sabhas and rights holders to safeguard forests, wildlife, biodiversity, and adjoining ecological features such as catchments and water sources, including areas outside recognised CFR boundaries. Through this provision, communities gain authority to regulate access to forest resources and prevent activities harmful to their landscapes or cultural heritage. The Act therefore recognises communities not merely as participants in conservation but as custodians and decision-makers, envisioning landscapes as dynamic, lived spaces where conservation emerges through relationships between humans, nonhumans, and their shared environments.

5.8 Territorialisation through connectivity conservation

Beginning in the mid-2000s, wildlife connectivity in India has increasingly been mapped and institutionalised at a national scale, producing new spatial categories through which landscapes are being reorganised and governed. Four nationwide reports, three on elephants and one on tigers, have been central to this process. Two editions of *Right of Passage: Elephant Corridors of India*[92] identified 88 and later 101 elephant corridors across the country (Menon et al. 2005, Menon et al. 2017). Developed through collaborations between researchers, forest officials, and conservation organisations, these reports helped establish

[92] With a third edition currently in preparation

corridors as a key conservation planning tool, despite subsequent sharp ecological critiques of their methodology (Thekkaekara 2019, Puyravaud et al. 2024). By mapping and delineating these corridors, the reports effectively transformed animal movement pathways into fixed governable territories. Since then, several corridors have been "secured" through mechanisms such as privately funded land purchases that are later transferred to forest departments and incorporated into protected areas. These processes illustrate how connectivity initiatives function as forms of territorialisation, extending state authority and conservation control across landscapes beyond the formal boundaries of protected areas, often through collaborations with non-state actors.

This territorial consolidation does not occur only through land acquisition. In practice, elephant corridors are also reinforced through regulatory and judicial interventions that reshape land use beyond PA boundaries. Instruments such as buffer zones of tiger reserves and Eco-Sensitive Zones (ESZs) restrict economic activities and agricultural practices, often requiring forest department approval for actions such as digging borewells. In landscapes such as that around the Biligiri Rangaswamy Temple Wildlife Sanctuary and Tiger Reserve in Karnataka, farmers with conditional land titles – particularly those located within identified elephant corridors – face stringent controls which, combined with broader agrarian pressures, can indirectly compel them to sell land, thereby strengthening corridors (Siddhartha 2025). Connectivity has also been reinforced through court decisions; in Tamil Nadu, several smaller corridors were consolidated into a single large elephant corridor covering roughly 7,000 acres of revenue lands, private holdings, and reserved forests. Although celebrated as a milestone in environmental jurisprudence and resulting in the closure of ecotourism establishments obstructing elephant movement, the ruling also had wider socio-economic impacts on local communities. Together, these measures illustrate how corridor conservation operates as a form of territorial expansion, extending state authority and regulatory control over inhabited landscapes in the name of maintaining wildlife connectivity (Siddhartha 2026).

Building on these earlier corridor mapping efforts, more recent initiatives have further expanded the scale and scope of connectivity assessments. In 2023, the Ministry of Environment Forests and Climate Change (MoEFCC)[93] contributed to the growing number of corridor assessments by releasing its own report identifying 150 corridors and emphasised that this represented the *minimum* number of elephant corridors across the country for India's

[93] Formerly the Ministry of Environment and Forests (MoEF)

heritage animal (Project Elephant Division, MoEFCC, Government of India 2023). While the corridors vary in size, some span vast distances. For example, the Jampani-Bhagabilla corridor extends about 120 km in length and 2 to 5 km in width, linking forest ranges in Odisha and Jharkhand. Of this area, only 1,551.9 hectares is forest land, while nearly 12,000 hectares consists of agricultural and other human-use landscapes. In such a context, prioritising elephant connectivity through land acquisition would require an enormous financial outlay. Even without acquisition, the introduction of conservation regulations and land-use controls would inevitably affect the livelihoods of residents in the 44 revenue villages located within the corridor.

A similar process of corridor mapping and connectivity planning has unfolded in relation to tigers, India's national animal and a species that has received immense financial and institutional attention. In 2014, the National Tiger Conservation Authority and the Wildlife Institute of India identified 32 corridors linking tiger populations across four landscapes (Qureshi et al. 2014). These corridors were framed as essential to maintaining genetic exchange and preventing population isolation. However, as the report's own data indicates, the mapped corridors encompass 2,860 villages and nearly 2.8 million people[94], underscoring the substantial human populations living within these landscapes. At the same time, scientific debates about corridor mapping, such as proposals to expand the network from 32 to 192 corridors using alternative modelling approaches (Shaikh 2025), illustrates how technical decisions about connectivity could extend conservation regulation across much larger inhabited landscapes, potentially affecting a far greater number of people.

Beyond mapping exercises, additional legal and policy instruments are also being used to institutionalise connectivity and extend processes of conservation territorialisation. The 2002 amendment to the WLPA introduced Community Reserves and Conservation Reserves, creating additional legal mechanisms for expanding areas under conservation. In May 2025, the Government of Telangana issued an order declaring the Kumurambheem Conservation Reserve, covering 1,492 sq km, and identifying it as a "tiger corridor area" rather than a formal tiger corridor. The designation could potentially affect 339 tribal villages located within the area[95]. While the notification expands the conservation landscape and may enhance ecological connectivity, it also creates the possibility for the state to later upgrade the reserve to a wildlife

[94] The number of villages and the total population is based on 2011 census data

[95] https://telanganatoday.com/tribals-led-by-tudum-dedba-protest-against-go-49-over-new-tiger-corridor-in-asifabad (accessed on 7-7-2025)

sanctuary or national park, thereby further consolidating the authority of the state conservation apparatus within the prevailing conservation paradigm. Viewed through the lens of the FRA, however, conservation of these areas could instead proceed by recognising the rights of the 339 villages and empowering them to protect and manage the landscape.

Similarly, in the Eastern Vidarbha landscape, spanning 13 districts and five tiger reserves, the state has increasingly notified areas around or between tiger reserves as conservation reserves to strengthen connectivity and protect tiger corridors. This process accelerated in 2020 when the government proposed 11 new conservation reserves, three of them in this landscape (Chatterjee 2020). The Mogarkasa Conservation Reserve was subsequently notified in 2022 to strengthen the Pench-Navegaon-Nagzira corridor, and a tiger safari was introduced there in 2024. Soon after, similar proposals emerged in the Bawanthadi area of Bhandara district near Pench Tiger Reserve. Forest officials promoted the conservation reserve by emphasising tourism opportunities while providing limited clarity on the legal implications to the second author. In response, residents demanded the implementation of the FRA, began filing claims, withheld consent, and resisted boundary demarcation, arguing that the Act already empowers them to conserve these forests.

Connectivity-oriented governance is also being extended through monitoring programmes and technological interventions. National initiatives such as the “Tigers Outside Tiger Reserves” programme aim to track tiger populations beyond protected areas, potentially expanding conservation surveillance and regulatory presence across wider territories. Taken together, these developments illustrate how the growing emphasis on connectivity and wildlife corridors operates as a new form of territorialisation. By mapping, securing, regulating, and monitoring movement pathways across inhabited landscapes, conservation initiatives extend state authority beyond PA boundaries. While framed as ecological necessities for species survival, corridors also reorganise land use, governance, and livelihoods across vast rural territories.

In addition to the material impacts associated with prioritising connectivity over people’s lives, these spatial strategies are accompanied by intensified monitoring and surveillance. Such practices extend the reach of the conservation apparatus into everyday village life, raising concerns about privacy, social pressure, and the governance of rural communities (Simlai and Sandbrook 2021). As highlighted in this section, connectivity conservation through its various methods is not enclosure alone but also spatial ordering.

5.9 The FRA: A framework for reimagining conservation governance and resisting territorialisation

As we have shown, state-led conservation is increasingly extending beyond the bounded spaces of forests and protected areas into surrounding mixed-use landscapes such as farms, pastoral lands, and grasslands. In this process, these inhabited and dynamic environments are reconfigured as conservation territories and wildlife corridors. Through mapping, demarcation, and other technical tools used to identify and secure elephant and tiger corridors, connectivity for charismatic species has become a key mechanism for expanding conservation authority and reorganising landscapes.

In such a scenario, the FRA introduces a different institutional logic by recognising the rights of forest-dwelling communities in ways that retain the complexity of India's socio-ecological landscapes. It affirms grazing rights (both settled and transhumant), seasonal resource access for nomadic and pastoral groups, individual and community rights to cultivate, and collective tenure over habitats and habitations for particularly vulnerable tribal and pre-agricultural communities. By acknowledging these rights, the Act supports the protection and sustainable management of the dynamic and diverse landscapes that constitute India's socio-ecological mosaic. In doing so, it challenges the biopolitical logic that prioritises certain charismatic species and their territories while marginalising particular human populations, instead recognising the multiple ways in which diverse communities and non-human beings co-inhabit and use shared landscapes.

The FRA entrusts the Forest Rights Committee under the Gram Sabha with delineating customary community forest resource boundaries in consultation with villagers, particularly elders with knowledge of customary access, and preparing a corresponding map. These boundaries may include existing legal categories such as reserve forests, protected forests, national parks, and wildlife sanctuaries, thereby formally recognising community authority over access, conservation, and sustainable use of these forests.

At the same time, many of the pressures affecting wildlife habitats and connectivity stem from the large-scale diversion of forests for extractive and development projects. Yet conservation discourse has frequently framed human encroachment and agrarian expansion as the primary threats, often invoking these narratives to justify the securing of wildlife corridors. Between 1980 and 2007, 5,928.57 sq km of forest land was diverted under the FCA for non-forest use. The FRA later introduced the requirement of Gram Sabha consent for

forest diversion, but compliance has remained uneven. Recent data indicates that 3059.45 sq km of forest land was diverted for non-forest use between 2008–09 and 2022–23, often without full adherence to FRA provisions[96].

Scholars have noted that the contemporary conservation boom can enable new forms of accumulation and control. Many conservation initiatives are driven by the generation of revenue, capital accumulation, and the economic valuation of resources such as biodiversity and ecotourism (Igoe and Brockington 2007, Sullivan 2013, Büscher and Fletcher 2015). Evidence from our research in Madhya Pradesh suggests that conservation expansion can also be mobilised as a political and economic instrument to legitimise land appropriation and extraction, sometimes in violation of ecological evidence, legal frameworks, and forest rights. The 2023 notification of the Rani Durgawati Tiger Reserve illustrates how connectivity is invoked to expand state control while legitimising forest diversion elsewhere. To proceed with a river interlinking project that would submerge about 105 sq km within the critical tiger habitat of Panna Tiger Reserve and disrupt internal connectivity, authorities recommended creating three new tiger reserves to enhance connectivity outside the Panna landscape. This led to the rapid notification of new reserves, including Durgawati, placing 52 villages at risk of relocation. Gram Sabhas opposed the move and, invoking their rights under the Forest Rights Act, approached the Tribal Ministry and successfully halted displacement, prompting a broader review of forest rights compliance in tiger reserves (Vajpeyi 2026). In this context, forest-dependent communities have increasingly invoked the FRA as a legal and political tool to challenge such conservation practices and assert their rights over forests and landscapes.

The FRA has laid an important foundation by empowering communities and Gram Sabhas to legally resist forest extraction, land diversion, and other interventions that threaten landscapes and ecosystems, while providing constitutional backing to their struggles against state and corporate-driven land grabs and injustices. As senior CSD member Madhu Sarin (2014: 138) notes, “the movement for the FRA has brought the entire edifice of the Indian forestry establishment under scrutiny in a manner never witnessed since the advent of colonial forestry.” By protecting communities from unlawful evictions and dispossession, recognising them as legitimate authorities responsible for conservation, and mandating Gram Sabha consent for environmental and forest clearances related to forest diversion, the FRA has become a crucial instrument for indigenous communities. It enables them to assert autonomy

[96] https://sansad.in/getFile/loksabhaquestions/annex/1712/AS257.pdf?source=pqals

over land and resources, challenge the extractive state–corporate nexus, and continue their struggle to reclaim and manage their ancestral territories.

Evidence from Central India reveals how the FRA is used to resist connectivity-driven territorialisation. In the Kanha-Achanakmar corridor linking the tiger reserves of Kanha in Madhya Pradesh and Achanakmar in Chhattisgarh, around 200 of the 700 villages in the landscape face potential impacts from the proposed corridor. The area is inhabited largely by the Baiga community, a Particularly Vulnerable Tribal Group. Drawing on a history of displacement since Kanha was declared a tiger reserve in 1973, Baiga communities have mobilised to oppose evictions and forest fencing, including through a 70-kilometre march in 2018 by villagers from over 20 villages demanding recognition of their habitat and community forest rights (Kulkarni 2018, Erhan 2022). Although the corridor has not yet been formally notified, fears of enclosure and eviction persist, and communities continue to use the FRA to assert their rights and resist these territorialising interventions.

Even in the case of the Kumurambheem Conservation Reserve, which if notified, would have captured 1,492 sq km of community forest land, the state was forced to withdraw the notification due to the resistance from community organizations who asserted their authority and rights under the FRA.

These struggles also highlight the broader significance of the FRA in the contemporary moment. In a context where new forms of territorialisation are emerging through connectivity initiatives such as corridors, the FRA provides a critical political and analytical framework to interrogate these approaches and question the premises and practices of conservation itself. This is because its emergence and enactment was grounded in challenging the logic of state-controlled, centralised, and uni-functional models of forest and landscape governance, opening space to rethink conservation authority and the role of forest-dwelling communities in managing these landscapes.

5.10 Discussion and conclusion

This paper has examined the growing prominence of wildlife corridors in India through the lens of conservation territorialisation, showing how connectivity conservation is increasingly extending governance beyond protected areas into rural and agrarian landscapes. Although corridors are widely framed as ecological responses to habitat fragmentation and the spatial needs of wide-ranging species (Anderson and Jenkins 2006, Hilty et al. 2020), their

implementation also reshapes land use, authority, and access to resources. Practices such as corridor mapping and species movement modelling render complex landscapes legible and governable, allowing conservation actors to justify interventions across territories outside protected areas (Scott 1998, Corson 2011). Connectivity conservation therefore operates not only as an ecological strategy but also as a spatial project that expands conservation governance across inhabited landscapes.

These dynamics also reflect longer historical continuities in forest governance. Colonial and postcolonial forest regimes consolidated state authority through legal codification, mapping, and the institutionalisation of scientific forestry, producing what Peluso and Vandergeest (2001) describe as "political forests" (Guha 1989, Sivaramakrishnan 1999). Contemporary conservation governance – marked by the growing involvement of conservation organisations and international actors – extends these territorial logics across broader landscapes (Vandergeest and Peluso 2015). In this context, wildlife corridors function not only as ecological infrastructure but also as mechanisms through which conservation actors reorganise governance across networks of protected areas, private lands, and community territories (Bluwstein 2018, Rasmussen and Lund 2018).

The central contribution of this paper is to highlight the counter-territorialisation potential of the FRA within the expanding landscape of connectivity conservation. While wildlife corridors extend conservation territorialisation across inhabited regions, the FRA creates institutional possibilities for communities to contest and renegotiate these processes. By vesting authority in Gram Sabhas, the Act provides pathways through which communities can challenge administrative decisions, assert stewardship, and influence how conservation unfolds within corridor landscapes (Kumar and Kerr 2012, Springate-Baginski et al. 2013, Sarin 2014). In this sense, the FRA functions not only as a mechanism of historical redress but also as a legal framework capable of reshaping emerging forms of conservation governance. Recognising this counter-territorial potential offers an important lens to rethink connectivity conservation in ways that support more democratic and locally grounded forms of environmental governance.

This paper shows how connectivity conservation functions as a contemporary form of territorialisation, extending governance through technocratic practices while situating wildlife corridors within India's longer history of forest governance. By highlighting the Forest Rights Act as a mechanism of counter-territorialisation, it demonstrates how legal frameworks can

enable forest-dwelling communities to contest and reshape both historical and emerging forms of conservation governance.

The future trajectory of conservation in India will depend on how these competing spatial and political projects unfold. If connectivity initiatives expand through technocratic planning without engaging with the rights and governance structures established under the FRA, they risk reproducing long-standing patterns of dispossession associated with the making of political forests. This tension also resonates globally as conservation agendas increasingly promote ambitious spatial targets such as 30×30 and other landscape-scale approaches. Without attention to existing rights, livelihoods, and local governance, efforts to secure space for biodiversity may generate new forms of enclosure across inhabited landscapes. Aligning conservation practice with rights-based frameworks such as the FRA, however, offers an alternative pathway – one that recognises forests not merely as territories for conservation but as lived landscapes shaped through negotiated relationships between states, communities, and non-human life.

CHAPTER 6: Discussion and Conclusion

6.1 Discussion

The adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF) and its headline 30×30 target – the commitment to bring at least 30 per cent of the earth under protected areas and Other Effective Area-based Conservation Measures by 2030 – marks a pivotal moment in contemporary environmental governance and has generated considerable attention. Framed as an urgent response to accelerating biodiversity loss, KMBF places particular emphasis on Target 3, which calls for the expansion of area-based conservation and the creation of ecologically representative and well-connected systems of protected and conserved areas. In both policy and scientific arenas, connectivity has moved from being a supporting ecological principle to a central organising logic of landscape-scale conservation planning and expansion.

This expanded role is evident in policy discourse, where corridors are presented not merely as tools for achieving Target 3, but also as interventions that directly contribute to multiple other targets. As highlighted in a recent webinar[97], connectivity is seen as contributing directly to Targets 1, 2, 4, 8, and 14 which focus on spatial planning, restoration, species recovery, climate resilience, and decision making, while indirectly contributing to others. In particular, the speaker highlighted that the integration of biodiversity into decision-making under Target 14 positions corridors as key tools for long-term spatial planning, especially in rapidly developing contexts. Corridors are thus framed not simply as ecological linkages, but as foundational mechanisms for reorganising landscapes in line with global biodiversity objectives.

This expansive framing is further reinforced by the widespread promotion of connectivity as a climate adaptation strategy (Nuñez et al. 2013, Schloss et al. 2022). As species ranges shift in response to changing temperature and precipitation patterns, connected landscapes are expected to facilitate movement, genetic exchange, and ecological resilience. In this framing, corridors become forward-looking devices designed to future-proof conservation under conditions of climatic uncertainty. These arguments resonate with the growing advocacy for landscape approaches, which seek to reconcile conservation, agricultural production, and livelihood goals within multifunctional territories through multi-stakeholder negotiation, cross-sectoral coordination, and adaptive management. While landscape approaches promise

[97] LCA Unlocking Nature: Panel Discussion / Topic: Living Corridors held on February 26, 2026

integrated and participatory governance beyond site-based protection, reviews of their practice underscore persistent challenges, including power asymmetries, uneven participation, and limited accountability (Arts et al. 2017). Taken together, while corridors are positioned as providing multiple environmental gains within the broader conservation agenda, they are also accompanied by significant costs to people living in these landscapes.

Yet, critical scholarship highlights that the renewed push to expand protected areas often bypasses fundamental questions of land rights, historical injustice, and entrenched power asymmetries (Büscher 2025). Echoing earlier fortress conservation models, such expansion may intensify dispossession in biodiversity-rich regions of the Global South. Without addressing structural inequalities and the broader political economy underpinning conservation, the 30×30 agenda risks becoming what Büscher calls a "great conservation tragedy," reproducing longstanding injustices under the banner of biodiversity protection. At the same time, while states remain central to this expansion, environmental governance is increasingly shaped by non-state actors at the international level, including NGOs, epistemic communities and corporations. Authority is thus dispersed through hybrid arrangements, in which state and non-state actors jointly shape agendas, standards, and implementation, raising important questions about legitimacy, accountability, and power (Arts 2006).

Building on this, the "Triple G" perspective (government, governance, governmentality) offers a useful lens for analysing such dynamics (Arts 2014). It underscores that forest and conservation politics cannot be understood solely through formal state authority (government), but must also account for multi-actor networks and partnerships (governance), as well as the subtle rationalities and techniques through which environmental subjects are shaped and conduct is steered (governmentality). Together, these dimensions reveal how conservation expansion operates not only through law and coercion, but also through dispersed authority and the production of new norms, responsibilities, and forms of environmental citizenship.

Viewed through this lens, the KMGBF advances ambitious conservation expansion while leaving dominant development imperatives largely undisturbed. By privileging spatial coverage, it avoids making foundational choices about curbing extractive growth, infrastructure expansion, or agrarian transformation. Instead, conservation is expected to coexist with and compete against a wide array of ongoing pressures on land, resources, and livelihoods. The framework thus seeks to reconcile biodiversity protection with continued economic expansion, expanding conservation without relinquishing other claims on territory.

The result is an increasingly entangled landscape in which conservation, mining, energy infrastructure, industrial agriculture, and tourism are layered according to their perceived contribution to national development, a dynamic that reflects what Grandia (2007: 480) evocatively described as attempting to eat one's "conservation cake and get a development desert too."

In India, this dynamic is particularly visible in the conservation of megafauna, specifically the focus on elephants and tigers. The rising tiger numbers and elephant protection carry significant national and international prestige, aligning biodiversity success with narratives of strong environmental governance. Connectivity planning, especially through wildlife corridors, reflects an effort to secure space for wide-ranging species within intensifying landscapes, rather than to fundamentally rethink conservation and development trajectories in forested regions. Corridors therefore operate as spatial instruments – technocratic interventions intended to facilitate ecological connectivity while leaving underlying political-economic pressures largely unchallenged.

In practice, this entails expanding space for conservation through mechanisms such as corridor notifications, zoning regulations, land acquisition, and use restrictions, while simultaneously intensifying pressures on already vulnerable land users. Small and marginal farmers, and forest-dependent communities experience what I have called the Conservation Agrarian Squeeze: the dual forces produced by the overlap of conservation restrictions and expansion and ongoing agrarian transformation. As momentum builds around achieving the symbolic 30 per cent coverage target, new conservation-driven regulatory layers risk further reshaping land and resource use in agrarian landscapes, constricting livelihood possibilities even in the absence of formal displacement. Expanding conservation without meaningfully curbing other claims on land concentrates constraints on those with the least political power. The squeeze thus captures how connectivity planning can redistribute risk and insecurity downward, even as it advances ecological goals at the landscape scale.

However, the politics of connectivity are not linear or uniformly imposed from above. Corridor-making can also unsettle entrenched interests and redistribute power in unexpected ways. By redrawing spatial boundaries and selectively reclassifying land uses, corridors may disrupt established arrangements between state and conservation authorities and ecotourism operators. In some contexts, the selective application of land-related laws can be used to regulate tourism activities that previously operated with relative autonomy, generating newer contestations as

different actors seek to shape how connectivity is defined, governed, and implemented. By extending conservation control, corridors create new arenas of negotiation and conflict, the effects of which are experienced unevenly across different actors and landscapes.

Seen through the lens of 30×30, corridors epitomise a broader shift from fortress conservation confined within protected areas to expansionary governance across agrarian landscapes. If connectivity and the expansion of areas under conservation directly or indirectly through regulation is to avoid reproducing new cycles of dispossession, it must be embedded within democratic and rights-based institutional arrangements. The political history of the Forest Rights Act demonstrates that alternative configurations are not only imaginable but achievable.

While the GBF formally acknowledges Indigenous territories and calls for equitable governance, its implementation continues to unfold within asymmetrical power relations and state-centric territorial logics. As a result, the future of conservation under the KMGBF is likely to depend less on the achievement of numerical coverage targets and more on whether governance arrangements can be meaningfully reoriented toward justice, substantive participation, and the recognition of pre-existing territorial rights – particularly as pressures on land are set to intensify rather than recede.

It is against this backdrop that recent developments assume significance. Since I began this research, policy momentum around elephant corridors has accelerated markedly. The MoEFCC has released a national document identifying 150 elephant corridors across India; an updated edition of the Right of Passage report is forthcoming; the Tamil Nadu Forest Department has published a draft list of corridors for the state; and Karnataka has announced plans to formulate its own corridor policy. In parallel, the lead author of the Right of Passage report recently published an article advocating integrated planning across overlapping tiger and elephant habitats and suggesting that sympatry enables more efficient and socially responsive conservation. Although the paper appeared in an MDPI journal within a month of submission, raising questions about the robustness of the peer review, its broader importance lies less in its academic contribution than in its discursive force. By framing corridors as simultaneously benefiting multiple charismatic megafauna, such arguments further strengthen the case for expanding territorial conservation across shared, inhabited landscapes.

At the same time, the latest national elephant census estimates the population at 22,446, down from earlier figures of 26,000–29,000, renewing urgency around securing habitat connectivity (Qureshi et al., 2025). Comparable connectivity initiatives are underway for tigers and are

increasingly proposed for cheetahs, lions, and other species. This intensifying emphasis on connectivity, deeply embedded in international conservation science and policy, further complicates this trajectory. Corridors and landscape-level conservation are widely celebrated as ecologically progressive alternatives to fortress-style protected areas. Yet, as demonstrated here, connectivity can operate as a diffuse but powerful territorial strategy. Instead of visible enclosures, it produces incremental restrictions, surveillance, and redefinitions of legitimate land use across agrarian and forested mosaics. Under global targets, corridors may multiply as states seek to demonstrate ecological connectivity and measurable progress. For people living in these landscapes, this can translate into new uncertainties: constraints on cultivation, limits on construction, heightened wildlife presence, fluctuating property values, and shifting local economies. Even when physical displacement is avoided, regulatory pressures and uneven enforcement can generate forms of slow violence and dispossession.

Seen in this wider context, the expansion of corridors also aligns with emerging global commitments to scale up conservation, most notably the 30×30 target under the Kunming-Montreal Global Biodiversity Framework, as well as the prioritisation of ecological connectivity in decisions adopted at CMS COP13 of the Convention on the Conservation of Migratory Species of Wild Animals. By calling for the protection and effective conservation of 30 percent of the world's land and sea by 2030, such targets encourage states to rapidly identify and secure additional conservation spaces beyond existing protected areas. Corridors, buffer zones, and other forms of landscape-level conservation thus become attractive instruments: they allow governments to demonstrate progress toward global goals while extending conservation governance into inhabited and productive landscapes. Yet, as this study suggests, these approaches raise critical questions about how conservation expansion unfolds on the ground. If pursued primarily through technocratic mapping and ecological metrics, initiatives associated with 30×30 risk reproducing the same dynamics of territorialisation identified here – incrementally redefining land use, authority, and belonging in rural landscapes. Attending to these dynamics is therefore essential if efforts to expand conservation are to move beyond spatial targets and instead engage more meaningfully with questions of justice, land tenure, livelihoods, and democratic participation in conservation governance.

6.2 Conclusion

This thesis set out to examine how conservation actors in India use elephant corridors to reconfigure rural and agrarian landscapes, and what these processes reveal about contemporary

forms of conservation territorialisation and power. In particular, it asked how corridors are secured on the ground, and how state agencies and non-governmental conservation organisations mobilise the language of ecological connectivity to consolidate authority domestically while projecting influence internationally. It also explored how corridor-making is experienced, negotiated, and contested by local populations, especially in agrarian and ecotourism-dominated landscapes already shaped by livelihood precarity, land commodification, and agrarian distress. Further, the thesis examined the role of scientific claims, flagship species narratives, and influential documents such as *Right of Passage* in mobilising public support and legitimising state intervention. Finally, it situated contemporary wildlife connectivity initiatives within the longer history of conservation territorialisation in India, examining how these initiatives reconfigure or reproduce earlier territorial processes, particularly in the context of the Forest Rights Act's attempt to democratise forest governance. The paragraphs that follow synthesise the empirical and analytical insights of the preceding chapters in order to demonstrate how the thesis has addressed these questions.

To answer these questions, through four empirical chapters I examine a different yet interconnected dimension of corridor-making. Rather than being confined to individual chapters, the research questions are addressed across several chapters as the analysis unfolds. Chapters 2, 3, and 4 explore how connectivity initiatives unfold across multiple scales, ranging from the lived experiences of agrarian communities confronting mounting pressures that often leave them with little meaningful choice but to relinquish land in the name of conservation, to the contested negotiations among state agencies, epistemic communities, conservation organisations, tourism interests, and the judiciary that shape how corridors are governed in practice. These chapters also trace how conservation interventions become embedded within broader projects of state power, through which authority over landscapes and populations is consolidated domestically while these efforts are simultaneously projected internationally as evidence of biodiversity leadership. Chapter 5 then steps back from the immediate dynamics of corridor-making to situate connectivity within India's longer history of forest territorialisation and resistance, examining how the political struggles that culminated in the Forest Rights Act may inform efforts to challenge renewed forms of expansionary conservation. The discussion begins by examining how these dynamics unfold within rural agrarian landscapes where corridor-making takes shape in practice.

These rural landscapes are home to populations whose livelihoods are already marked by multiple forms of vulnerability. Many residents depend on smallholder agriculture, wage

labour, and forest resources while navigating pressures such as fluctuating crop prices, indebtedness, land fragmentation, wildlife-related crop loss, and increasing land commodification driven by tourism and real estate markets. Within such conditions, conservation interventions aimed at securing wildlife connectivity unfold in settings where livelihoods are already under strain, often reshaping how people use, value, and negotiate access to land. In Chapter 2, I addressed the questions of how elephant corridors are secured on the ground and how corridor-making is experienced in agrarian landscapes shaped by livelihood precarity, land commodification, and agrarian distress. I developed the concept of the Conservation Agrarian Squeeze to show how land is assembled for elephant corridors less through overt coercion than through gradual and systemic pressures. Drawing on insights from agrarian political economy and political ecology (Hall et al. 2011, Li 2010), the chapter demonstrates how corridor-making emerges through the interaction of regulatory constraints, volatile agrarian markets, and intensified human–elephant conflict, which together erode the viability of smallholder agriculture. In this sense, conservation and agrarian change appear not as separate processes but as mutually constitutive ones, with conservation gaining ground in landscapes already marked by indebtedness, insecure tenure, crop loss, and uneven state support. This perspective moves beyond framing corridor acquisition solely as "green grabbing" (Fairhead et al. 2012) and instead highlights how structural agrarian distress can make the transition of land toward conservation appear negotiable and, at times, inevitable.

Prioritising ecological connectivity often generates theoretical tensions and practical contradictions, particularly in relation to the uneasy alignment between conservation and ecotourism as conservation unfolds on the ground. Chapter 3 addressed this dynamic by examining how scientific claims about connectivity are mobilised to legitimise state intervention and prioritise ecological connectivity in landscapes where agriculture coexists with a growing ecotourism economy, while also exploring how corridor-making is experienced, negotiated, and contested within these changing rural contexts. In these settings, prioritising connectivity is not simply a neutral application of ecological science but a political project that reconfigures land use, reshapes authority, and redefines which forms of presence and economic activity are considered legitimate. Drawing on political ecology and theories of territorialisation (Vandergeest and Peluso 1995, Corson 2011, Rasmussen and Lund 2018), the chapter demonstrates how corridor-making privileged certain land uses framed as ecologically necessary over others deemed incompatible, even when those uses – such as ecotourism – were themselves promoted as conservation-friendly. Situated within broader debates on neoliberal

conservation and territoriality through conservation (Büscher 2012, Bluwstein and Lund 2018), the analysis highlights how ecological science and legal authority were strategically mobilised to justify intervention and consolidate control over landscapes in the name of wildlife movement. Connectivity thus emerges not merely as an ecological objective but as a spatial strategy of governance.

The increasing pressures placed on rural landscapes must also be understood within the context of broader national and political prestige projects that seek to simultaneously showcase conservation success and economic growth. In this sense, rising tiger numbers, expanding connectivity initiatives, and new conservation designations become part of political narratives that bolster the image of the state and its leadership. Chapter 4, co-authored with Bram Büscher, examines this dynamic by analysing how state agencies deploy flagship species narratives, connectivity initiatives, and related conservation interventions to consolidate authority domestically while projecting influence internationally. It also considers how influential documents such as *Right of Passage* help mobilise public support and legitimise state action. The chapter advances a theoretical contribution to the political ecology of the state by arguing that conservation in India operates as a dialectical mechanism through which the state simultaneously strengthens its power internally and performs environmental leadership externally. Building on von Hardenberg's (2017) notion of the "nature state" and engaging scholarship that foregrounds the role of NGOs (Corson 2011, Lunstrum 2018) as well as state capacities (Death 2016, Meehan and Molden 2015), the analysis highlights the co-constitutive relationship between state agencies and non-state actors over time. It shows how charismatic megafauna – particularly tigers and elephants – function as politically mobilised flagship species (Lorimer 2007, Leader-Williams and Dublin 2000), enabling the state to legitimise territorial authority within national borders while projecting environmental stewardship on the global stage. A central conceptual contribution of the chapter is the identification of conservation corridors as a concrete mechanism that links inward-facing governance – such as regulation, forms of dispossession, and surveillance – with outward-facing diplomacy, including global biodiversity commitments, big cat alliances, and species translocations. Corridors thus emerge as state-mediated socio-ecological arteries through which biopolitical authority is extended across inhabited rural landscapes.

What emerges from chapters 2,3 and 4 is that, although this research was initially prompted by the report of a single organisation, the dynamics it reveals extend far beyond that original point of departure. The report has functioned as a catalyst, providing scientific legitimacy and policy

momentum for bringing additional land under the ambit of the state's conservation apparatus, while simultaneously helping shape how conservation priorities are framed and justified. In doing so, it has facilitated the extension of regulatory authority into agrarian and multi-use landscapes, consolidating territorial control in ways that reshape land relations, governance practices, and everyday livelihoods. Rather than remaining a purely technical or advisory intervention, the report has become embedded within wider state projects of conservation expansion and spatial reordering.

In seeking ways to move forward and reimagine more democratic and just forms of landscape governance – where humans and wildlife co-inhabit landscapes rather than one being prioritised over the other – I adopt a different analytical approach in the final part of the thesis. Here, I addressed the question of how contemporary wildlife connectivity initiatives in India reproduce or reshape processes of conservation territorialisation, and how forms of counter-territorialisation emerge in response, particularly in the context of the Forest Rights Act's attempt to democratise forest governance. Chapter 5 argues that the contemporary expansion of conservation through wildlife connectivity can only be fully understood when situated within India's longer history of forest territorialisation. The chapter traces how colonial and postcolonial forest laws progressively consolidated state authority over forests and forest-dependent communities, and how these processes generated resistance that ultimately culminated in the Forest Rights Act as a legislative attempt to redress historical injustices. By revisiting this political history of contestation, rights-claiming, and institutional reform, the chapter shows how these struggles provide important resources for challenging renewed forms of conservation expansion through connectivity. Drawing on the literature on territorialisation and counter-territorialisation, it highlights how claims to rights, participation, and local authority can open up possibilities for rethinking conservation governance in ways that move beyond exclusionary or state-centric models.

Taken together, these chapters demonstrate that elephant corridors are not simply technical solutions to ecological fragmentation, but power laden projects that reorganise land, authority, and legitimacy across rural India. By tracing corridor-making from everyday agrarian pressures to judicial interventions, from state-NGO alliances to global biodiversity diplomacy, and from colonial territorialisation to contemporary rights-based resistance, this thesis shows how connectivity operates as both an ecological rationale and a governing strategy. Understanding corridors in this way not only reveals the uneven consequences of conservation expansion, but

also opens up critical questions about how, and for whom, future landscapes of connectivity will be shaped.

6.2.1 Openings for future research

As conservation expansion shifts from policy ambition to material reality across diverse global contexts, there is an urgent need to examine more closely how such interventions unfold in practice. This entails moving beyond policy commitments and headline targets to analyse the concrete mechanisms through which land is reclassified, regulated, and incorporated into conservation regimes. Future research should devote sustained attention to the broad constellation of actors shaping conservation expansion including state agencies, NGOs, scientific experts, funders, landholders operating under varied tenurial arrangements, and local communities. Equally important is a careful examination of the institutional frameworks, legal instruments, and discursive narratives through which such expansion is legitimised, stabilised, and rendered commonsensical. Understanding how conservation is legitimised, whether through ecological crisis narratives, climate imperatives, charismatic megafauna, or global biodiversity targets, is central to unpacking its contemporary political force.

At the same time, future research must adopt a more explicitly intersectional lens to understand how the impacts of conservation expansion are differentially experienced, an aspect that this research has only begun to address and which warrants deeper attention. Regulatory restrictions, changing land values, and shifting livelihood opportunities do not affect rural populations uniformly; they intersect with pre-existing hierarchies of caste, class, gender, ethnicity, and age. In many agrarian contexts, land ownership, access to compensation, participation in decision-making forums, and the burdens of human-wildlife conflict are deeply stratified along caste and gender lines. Women, landless labourers, pastoralists, and marginalised caste groups often shoulder a disproportionate share of the burdens associated with conservation expansion. An intersectional analysis would therefore illuminate not only aggregate effects but also the subtle ways in which conservation can reproduce or intensify social inequalities. Such attention is vital for advancing scholarship on territorialisation through conservation and for engaging more substantively with questions of justice, recognition, and redistribution in landscapes increasingly shaped by environmental governance.

To advance this agenda, deeper dialogue is needed between the political ecology of conservation and critical agrarian studies. While political ecology has richly theorised power, territorialisation, and green grabbing, and agrarian studies has illuminated processes of

dispossession, differentiation, and rural transformation, these conversations often proceed in parallel. Yet conservation expansion increasingly unfolds within agrarian landscapes shaped by debt, market volatility, land fragmentation, and uneven state support. Bringing these traditions into closer conversation would enable more nuanced analyses of how conservation intersects with agrarian change, how rural distress conditions land transitions, and how emerging governance regimes reshape property relations and livelihood trajectories.

Finally, in light of intensifying global commitments such as the 30×30 target, interdisciplinary research that bridges international environmental diplomacy with grounded ethnographic and political-economic inquiry is essential. Future research can examine how states translate global biodiversity metrics into national territorial strategies, and how narratives of success – rising wildlife populations, species translocations, or expanding connectivity – circulate internationally to bolster geopolitical standing. Such work would deepen understanding of conservation as simultaneously ecological, political, and diplomatic practice, helping to move debates beyond technocratic target-setting toward more democratically grounded approaches to biodiversity governance.



Figure 6.1: The once bright yellow board, now weathered, that signalled that this parcel of land was acquired to secure this corridor

6.3 Epilogue

In the nearly three years between my first visit to the Edeyarhalli-Doddasampige corridor in early 2019 and the eventual start of sustained fieldwork in late 2021, delayed by the COVID-19 pandemic, the once bright yellow signboard had faded to a washed-out white under the sun. Yet its message remained clear: "This Land Belongs to Elephants!" The board itself did not mark the change of land tenure. The land had already been acquired in 2003, transferred to the Karnataka Forest Department in 2009, and incorporated into BRT. Still, it served as a visible marker of authority, signalling to passersby the locus of formal control over the land.

In this sense, the signboard merely conveys what had already been accomplished: the territorialisation of the land through nearly two decades earlier. Its message erases any trace of prior ownership or cultivation, replacing layered agrarian histories with a singular, authoritative conservation claim and rendering invisible the lives and livelihoods once tied to it. Whether the board is refreshed, fades into illegibility, or is damaged or removed – sometimes by

elephants themselves – makes little difference to the land's legal status. The symbolic marker may weather, but the administrative and legal transformation it has gone through will stay for the foreseeable future, at least until a new claim is asserted over it or it is repurposed for another use. Its incorporation into the Forest Department's jurisdiction signalled a decisive reconfiguration of access, authority, and control in favour of the state and its conservation apparatus. The Edeyarhalli-Doddasampige corridor is just one illustration of how conservation territorialisation unfolds in practice, reconstituting land tenure from regimes that once sustained agrarian livelihoods to landscapes brought firmly under the territorial authority of the state. What was previously cultivated and embedded within local economies has, over time, been transformed into land withdrawn from production and reclassified in the name of ecological connectivity.

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Authorship statement

PhD candidate's name: Ananda Siddhartha

First promotor: Prof. Dr. Bram Büscher

Title of PhD thesis: Securing connectivity: Conservation territorialisation, power, and elephant corridors in rural South India

Date of public defence: 24/08/2024

Chapter 1: *Introduction*. I developed the research questions and wrote this introduction, outlining the importance and novelty of the research and situating it within the existing literature. The text was revised two times following feedback from my promoter and co-promoters.

Chapter 2: *Capturing Land for Elephant Corridors in South India through the Conservation Agrarian Squeeze*. I conceptualised this chapter, collected and analysed the data, and wrote the manuscript, incorporating multiple rounds of feedback from my promoter and co-promoters.

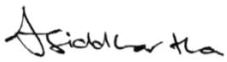
Chapter 3: *Imposing connectivity: Privileging an elephant corridor over ecotourism in the Sigur Plateau, South India*. I conceptualised this chapter, collected and analysed the data, and wrote the manuscript, incorporating multiple rounds of feedback from my promoter and co-promoters.

Chapter 4: *Projecting power and catalysing control: conservation, connectivity and the State in India*. This chapter was conceptualised together with my co-author, Bram Büscher. I collected the data, and the analysis and writing were carried out jointly. Feedback from my co-promoters was incorporated.

Chapter 5: *Territorialising connectivity: wildlife corridors and the Forest Rights Act in India*. This chapter was conceptualised together with my co-author, Aditi Vajpeyi. We jointly collected the data, and the analysis and writing were carried out collaboratively. Multiple rounds of feedback from my promoter and co-promoters were incorporated.

Chapter 6: *Discussion and conclusion*. I wrote the first draft of the chapter following discussions with my promoter and co-promoters on the key information to include. The chapter was finalised after two rounds of feedback.

Date: 13/03/2026



Signature PhD candidate



Signature promotor for agreement

Ananda Siddhartha
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
A1 Managing a research project			
WASS PhD Substitute Introduction	WASS	2022	1
Writing research proposal	SDC, WASS	2020	6
'Science, the judiciary and corridors: imposing connectivity in the Sigur plateau in South India'	SDC seminar, WUR	2024	0.3
'Elephant corridors: the changing face of conservation territorialisation in India'	Political Ecology Network (POLLEN) Conference, University of Brighton, United Kingdom	2020	1
'Imposing connectivity for elephants in the Sigur plateau in South India'	POLLEN Conference, University of Dodoma, Tanzania	2024	1
A2 Integrating research in the corresponding discipline			
Critical Perspectives on Social Theory	WASS	2020	4
The Natures of Life and Death - Political Ecologies of Collapse, Transformation and Revival	WASS	2023	4
Political Ecology of Land and Food Systems	University of Bergen	2023	5
B) General research related competences			
B1 Placing research in a broader scientific context			
Advanced Qualitative Research Design and Data Collection, GEO 56806	GEO, WUR	2021	6
B2 Placing research in a societal context			
'*Land acquired for strengthening elephant corridors, pressurises farmer livelihoods'*	Popular magazine article, Mongabay, India	2026	1
Organising a workshop on Reimagining Conservation futures	Bangalore, India	2023	2
C) Career related competences/personal development			
C1 Employing transferable skills in different domains/careers			
Searching and Organising Literature	WUR Library	2021	0.6
Reviewing a Scientific Manuscript	WGS	2024	0.1
Organising 2 panels at POLLEN24 1. *Experiences, Issues and Ethics of Research and Community Engagement in Protected Areas in India* 2. *Political Ecology of Connectivity and Conservation*	University of Dodoma, Tanzania	2024	1
Total			**33**

*One credit according to ECTS is on average equivalent to 28 hours of study load

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