Struggles for just conservation: an analysis of India's biodiversity conservation conflicts

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Abstract

The protection of the Earth's remaining biodiversity continues to be a debate of global importance as well as a source of contestation. In this context, the Indian government started with its post-colonial forest conservation from the 1970s, by ushering in the Wildlife Protection Act in 1972. It has since reinforced its conservation policies, over the last 15 years giving particular focus to the protection of tigers, considered a keystone and endangered species. In 2004, a Tiger Task Force was set up to protect the tiger, followed by the establishment of protected habitats for tiger conservation, which in turn reinforced the idea of a human-wildlife binary and legitimized the control of these spaces through armed policing. These changes in environmental governance have altered the relationship between local communities and forest guards, in many cases aggravating already conflictual interactions. This article discusses the political ecology of emerging conflicts around protected areas (national parks, tiger reserves and wildlife sanctuaries) in India through an analysis of 26 conflicts documented in the Environmental Justice Atlas (EJAtlas), and informed by field research conducted within and around protected areas of India. Specifically, the article analyzes the interplay between conservation policies and the rights of the commons recognized under the Forest Rights Act, 2006, as well as the socioeconomic impacts of conservation policies in terms of dispossession, violence and the increase of "green militarization." The article also highlights the social resistance movements developed against these trends, which are framed as part of the growing environmental justice movement. The article concludes with how this struggle may be essential to achieving an ecologically sustainable society in the future and to shape a new conservation model.

Key words: conservation, India, protected areas, environmental justice, political ecology

Résumé

La protection de la biodiversité restante sur la Terre continue d'être un sujet d'importance mondiale ainsi que de contestation. Dans ce contexte, le gouvernement indien a commencé, dans les années 1970, son régime de conservation des forêts post-coloniale avec l'introduction de la loi sur la protection de la faune (Wildlife Protection Act), 1972. Il a depuis renforcé ses politiques de conservation, en accordant une attention particulière au cours des 15 dernières années à la protection des tigres, considérés comme une espèce clé, en danger de disparition. En 2004, un groupe de travail sur le tigre a été mis en place pour le protéger. La création d'habitats protégés pour le tigre a renforcé l'idée d'une dichotomie entre nature et société, justifiant le contrôle armé de ces zones. Cette nouvelle ère de gouvernance environnementale a radicalement changé la relation entre les

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habitants et les gardes forestiers, accentuant dans de nombreux cas un environnement conflictuel. Cet article traite de la « political ecology » de ces conflits émergents autour des aires protégées (parcs nationaux, réserves de tigres et sanctuaires de faune) en Inde à travers une analyse de 26 conflits documentés dans l'Atlas de Justice Environnementale (EJAtlas) et éclairés par des recherches sur le terrain menées à l'intérieur et autour des aires protégées en Inde. Plus précisément, l'article analyse l'interaction entre les politiques de conservation et les droits des biens communs reconnus par la loi sur les droits forestiers (Forest Rights Act) 2006 ainsi que les impacts socio-économiques des politiques de conservation (dépossession, violence et augmentation de la militarisation verte). L'article met également en évidence les mouvements de résistance sociale contre ces tendances, qui sont considérés comme faisant partie du mouvement croissant pour la justice environnementale. L'article conclut en quoi cette lutte peut être essentielle pour parvenir à une société écologiquement durable à l'avenir et pour façonner une nouvelle idée de modèle de conservation.

Mots-clés: conservation, Inde, aires protégées, justice environnementale, « political ecology »

Resumen

La protección de la biodiversidad que queda en la Tierra sigue siendo un debate de importancia mundial, así como de contestación. En este contexto, el gobierno indio comenzó con un régimen poscolonial de conservación forestal en la década de 1970, con la promulgación de la ley de protección de la vida silvestre de 1972 (Wildlife Protection Act). Desde entonces, India ha reforzado sus políticas de conservación, prestando especial atención durante los últimos 15 años a la protección de tigres, considerados una especie clave en peligro de extinción. Ejemplo de esto es la creación en 2004 del Grupo de Trabajo sobre el Tigre. La creación de hábitats protegidos para los tigres reforzó la idea binaria de humano-vida silvestre, justificando el control armado en estos espacios. Esta gobernanza ambiental de la nueva era cambió drásticamente la relación entre la población local y los guardabosques, agravando en muchos casos un ambiente conflictivo. Este artículo discute la ecología política de estos conflictos emergentes alrededor de áreas protegidas en India, mediante un análisis de 26 conflictos documentados en el Atlas de Justicia Ambiental (EJAtlas) y con información recopilada por investigaciones de campo realizadas dentro y alrededor de áreas protegidas de India. Específicamente, el artículo analiza la interacción entre las políticas de conservación y los derechos de los bienes comunes reconocidos por la ley de derechos forestales de 2006 (Forest Rights Act), y los impactos socioeconómicos de las políticas de conservación (despojo, violencia y aumento de la militarización verde). Por otra parte, el artículo destaca los movimientos de resistencia social contra esas tendencias, que pueden verse como parte del creciente movimiento de justicia ambiental. El artículo concluye con una reflexión de cómo esta lucha puede ser esencial para lograr una sociedad ecológica sostenible en el futuro y dar forma a una nueva idea de modelo de conservación.

Palabras claves: conservación, India, áreas protegidas, justicia ambiental, ecología política

1. Introduction

In recent decades, the international community has developed different policies and strategies to ensure that biodiversity is protected and to preserve the world's most endangered species (Brockington & Duffy, 2010; Murat & Büscher, 2012; Orlove & Brush, 2016) The creation of protected areas has traditionally been one of the main strategies used as a recognized model to effectively protect and conserve biological diversity (Wilson, 2016).

Following this international policy trend, the Indian government (GoI) started its trajectory towards a "greener India", expanding its protected area network and strengthening its 'Project Tiger' program for the conservation of this species. These changes were part of the 2006 amendment of the Wildlife Protection Act of 1972, the first law codified for the protection of forest and wildlife, which prohibits the use of natural resources within a national park (Lewis, 2003). Moreover, in 2009, the country's National Action Plan on Climate Change (NAPCC)² introduced a series of measures to mitigate climate change (Gosh, 2015; Rastogi, 2011; Sharachchandra, 2013). These measures together with the continued expansion of protected areas and the

² The National Action Plan on Climate Change (NAPCC) was set up on June 30, 2008, outlining eight primary objectives to ensure mitigation and climate change in India.

increased restrictions on resource use have intensified the clashes between the affected local communities and the forest department (Ashish *et al.*, 1995; Baviskar, 2012; Gadgil & Guha, 1994). However, as a result of a long struggle for the recognition of forest rights, the Scheduled Tribes and Other Traditional Forest Dwellers (recognition of rights) Act, 2006 (hereafter Forest Rights Act), was passed to recognize and secure the rights of local and forest dwellers communities to use, inhabit and conserve forest areas. This includes reserved forests and protected areas such as wildlife sanctuaries and national parks to which a community has had traditional access. This Act has empowered and strengthened the affected communities and united them in the struggle for environmental justice (Kothari & Pathak, 2012).

This article aims to understand the struggle of the local and indigenous communities living within and around protected forest areas in India, to analyze the local resistances against fortress conservation measures such as relocation, criminalization and militarization. The article addresses two specific questions. First, how are communities defending their rights within protected areas in India and what challenges are they facing? Second, in the absence of state support and in the face of government hostility, how are these communities able to reclaim these rights? The study analyzes the influences on recognition of community forest rights of these marginalized or often invisible conflicts, suggesting that the alliance between local communities and larger networks is one key for positive resolution. It also highlights the importance of this local resistance within the potential role of environmental justice movements to contribute to sustainability (Martinez-Alier *et al.*, 2016; Scheidel *et al.*, 2018).

So far, the literature has analyzed the legal issues related to the Forest Rights Act (Bijoy, 2017; Pathak *et al.*, 2017) as well as the judicial and regulatory failures which are at the heart of these conflicts (Shanker *et al.*, 2017). Violation of rights, abuses, and harassment by forest authorities and bureaucracy have also been highlighted in several case studies of protected areas (Fanari, 2018; Gooch, 2009; Rai *et al.*, 2018; Sebastian & Azeez, 2014; Smadja, 2018). However, the majority of these investigations lack a national comparative analysis of these struggles. Comparative studies have the aim to analyze movements across regions and states to better examine the complexity of the phenomena, and represent a step forward in the theoretical understanding of socio-political movements (Shah, 1992). The article is an attempt to analyze, from a comparative perspective, what I call 'conservation justice movements', to better highlight the nuances and complexities of these resistances.

In Section 4, I focus **firstly** on the emerging conservation justice movements and describe the articulation of the movements and alliances. **Secondly,** regarding their struggle for recognition of forest rights, I highlight the difficulties and the perseverance of the local communities and the political movements to fight for the recognition of their common resource rights despite state support. A **third** emphasis is on incidences of dispossession, violence and militarization, which I consider to be both the reasons and the outcomes of these conservation conflicts. **Fourthly**, I highlight the forms of mobilization used by analyzing the forms of resistance used by the social movements. **Lastly**, in Section 5, I critically analyze successful movements and their significance, highlighting some of the variables that play an important role for 'success' in conservation conflicts (Scheidel *et al.*, 2020).

2. Ecological distribution conflicts and environmental justice research

A growing body of literature from political ecologists and social scientists is concerned with the social impact of protected areas on local communities (Agrawal & Redford, 2009; Brockington, 2004; Dowie, 2010; Martin *et al.*, 2018). In response to this, international policies have recognized the need to include communities in the management of common resources (Convention of Biological Diversity, COP7, IUCN) (Borrini-Feyerabend *et al.*, 2007; Pathak *et al.*, 2014). However, in many instances, the state and official agencies have failed to recognize the presence of local communities in specific environments, and the possibilities for coexistence (Pathak *et al.*, 2017; Saberwal *et al.*, 2001). Conflicts over conservation projects have been documented in the literature worldwide, showing a lack of support for an alternative mode of conservation (Bocarejo & Ojeda, 2016; Dash & Kothari, 2012; Sharachchandra, 2017). Moreover, increasing attention given

to wildlife protection as an international security affair has justified a process of militarization in conservation programs, a trend that has been observed particularly in the Global South (Duffy *et al.*, 2019; Massé & Margulies, 2020; Simlai, 2015).

In India, as with other natural resource conflicts documented by Shah (1992) and Gadgil and Guha (1994), these conflicts emerged in defense of local communities' rights and management regimes. Protected area conflicts emerge as a clash between livelihoods and park conservation measures (Lewis, 2003). Moreover, they are characterized by the historical oppression of politically weak groups who practise everyday resistance to conservation edicts, and therefore are less visible and less studied (Mukherjee, 2009; Scott, 1985). Protected forest areas are often economically disadvantaged because of their isolation. This has a direct impact on the articulation of the movements associated with them because of lack of material and non-material resources, as well as the dispersion of the community inhabiting the protected area (Holmes, 2007).

In this article, I analyze conservation conflicts around protected areas from the theoretical premises of political ecology, using the concept of Ecological Distribution Conflicts. The term was coined by Martinez-Alier and O'Connor (1996) to describe social conflicts arising over the unequal distribution of environmental benefits, as well as over unequal and unsustainable allocations of environmental burdens. Ecological Distribution Conflicts emerge from the unfair distribution of environmental resources, and they materialize as struggles over valuation processes in terms of livelihood values, indigenous territorial rights, and ecological values (Martinez-Alier *et al.*, 2010). Ecological Distribution Conflicts have recently been considered an important subject of study in sustainability sciences because of their transformative aspects and the contributions they may bring for sustainable and just uses of the environment (Scheidel *et al.*, 2018).

Acts of resistance against conflictive projects by local communities and civil society not only oppose the unsustainable or unjust use of natural resources, but frequently generate transformative social actions and alternative environmental debates, and induce a re-negotiation of values around what is considered sustainable and just (Martinez-Alier, 2002; Temper *et al.*, 2018). The article is interested in this transformative aspect of conflicts, looking at resistance as an important variable for achieving success. 'Success' here is measured by the recognition of community forest resource rights and their legal distribution in India under the Forest Rights Act.

The article also draws on the idea of environmental justice, a concept born in the early 1980s among the Black and Latino communities in the United States to describe minority communities who were disproportionately exposed to higher levels of environmental pollution and harm, leading to the development of a grassroots campaign against environmental racism and for environmental justice (Bullard, 1990). Related literature tends to recognize three dimensions of environmental justice, including a) distribution, which refers to giving all members of society a fair share of the benefits and resources available; b) procedure, which focuses on ensuring that decisions made are based on fair processes that lead to fair treatment; and c) recognition, which concerns acknowledging and accommodating cultural differences in both procedure and distribution (Schlosberg, 2007). This article analyzes these different dimensions of injustices, as these conservation conflicts around protected areas are typically characterized by a lack of recognition of local knowledge, identity and culture (Martin *et al.*, 2016).

These 'conservation justice movements' are part of post-colonial struggles emerging against a conservation model based on the unequal distribution of common natural resources and the exclusion of local communities from their traditional means of livelihood. The uneven expansion of forest territories in the name of wildlife protection is further intensifying the vulnerability of these already marginalized communities by the continued denial of their land and forest rights. Their demands for justice, land rights and recognition are strictly linked to their opposition towards strict and exclusive conservation projects.

3. Studying biodiversity conservation conflicts in India

India is considered one of the world's mega-diverse countries that together support two-thirds of the world's biological resources (Karanth *et al.*, 2008). It has 903 protected areas that cover a total of 165,159 km² and represent 5% of the Indian territory, legally protecting its biodiversity and wildlife (Envis, December,

2019).³ Among the most endangered and protected species in India are tigers (<u>Panthera tigris tigris</u>) and rhinos (<u>Rhinoceros unicornis</u>), which are also included in the IUCN red list of threatened species. Besides wild animals, India's protected areas are also inhabited by several traditional communities, mostly belonging to the scheduled tribes, scheduled castes or other traditional forest dwellers, equaling more than 4.3 million people (GoI, 2005).

Wildlife management is under the control of the Indian Forest Service, a government body that has existed since colonial times. It was instituted under the Indian Forest Act of 1878, a colonial policy enacted to consolidate the laws relating to forests, the transit of forest products and the duties leviable on timber and other forest products. This colonial legacy and the mechanisms used to gain control over natural resources remain a bulwark for forest governance even today (Bijoy, 2017; Gadgil & Guha, 1995). Forest conservation and environmental policies started to increase exponentially after the Stockholm Conference in 1972, joined by India's Prime Minister Indira Gandhi (Guha *et al.*, 2012) The first response of the Indian state towards environmental issues was the enactment of the Wildlife Protection Act in 1972 that gave further authority to the forest department. The Wildlife Protection Act prohibits villagers living within and around national parks and protected areas from using fodder, grazing animals or using non-timber forest products in such areas. The law also facilitated the displacement of entire villages located within or around national parks, which led to numerous conflicts between indigenous and local communities (Lasgorceix & Kothari, 2009).

Since the implementation of the Wildlife Protection Act, conflicts over the use of natural resources have spread throughout the country. The long struggles by local communities demanding their rights, and the need to find solutions for rapid forest degradation compelled the government to implement more inclusive and sustainable models of forest governance (Sundar, 2002). The Joint Forest Management program launched in 1988 was one of the first attempts; however, this form of co-management transferred very limited power to the communities and did not really lead to any decentralization of power (Kumar *et al.*, 2015; Sundar, 2002). More recently, the Forest Rights Act has recognized the rights of the scheduled tribes and other forest-dwelling communities to inhabit, use and manage their traditional natural resources on which they were traditionally dependent, including in forest protected areas.

However, the same year that the Forest Rights Act was implemented, the Wildlife Protection Act was amended to include, in the tiger reserves, the land-use category of Critical Tiger Habitat, interpreted as an inviolate area free of humans. In 2017, 31 Critical Tiger Habitats were set up, often including the previous buffer areas and therefore encompassing numerous villages living in the forestland, which strengthened the exclusionary character of conservation and intensified plans for resettlement.⁴ The number of tiger reserves jumped from 28 in 2005 to 52 in 2022, spread around 18 states, and covering 71,027 sq km (Envis, February, 2022). A National Tiger Conservation Authority was set up by the Minister of Environment and Forest for better managing the tiger reserves, a project that was reinforced by international interest in protecting the endangered tiger (Bijoy, 2011; Karanth *et al.*, 2008). Moreover, new measures to respond to the climate change crisis were set up from 2008 onwards, such as the Green Indian Mission⁵ and the Compensatory Afforestation Plan.⁶ These, together with other mechanisms for environmental protection (Gosh, 2015; Sharachchandra,

³ The current status of protected areas in India from 2000 can be found here: http://www.wiienvis.nic.in/Database/Protected_Area_854.aspx

⁴ As per the Forest Rights Act and Wildlife Protection Act, displacement can only happen with the consent of local communities and only after being scientifically proven that no-coexistence is possible. As argued by Bijoy (2011) it is doubtful that a proper scientific study to notify the CTH was undertaken in such a short time.

⁵ The Green Indian Mission is one of the 7th missions set up under the National Plan for Climate Change, 2009. Under this in 2014, Rs. 61 crores (US\$7.14 m) were released for the afforestation of 10 million hectares of land.

⁶ India's Compensatory Afforestation Fund Act, passed in 2016, approves the release of the money collected in the Compensatory Afforestation Fund to the forest department to be spent on afforestation projects. More info: https://wrm.org.uy/wp-content/uploads/2019/09/WRM-Compensatory-Afforesation-in-India-2019.pdf

2013), have raised many concerns amidst forest dwelling communities, adding to the already long list of issues experienced by the local and indigenous communities inhabiting these forests (Shahabuddin *et al.*, 2007).

This article provides an overview of 26 biodiversity conservation conflicts in India taking place in forest protected areas, including national parks, tiger reserves and wildlife sanctuaries. I have documented these conflicts in the Global Environmental Justice Atlas (EJAtlas), a global inventory of cases of socioenvironmental conflicts built through a collaborative process between academics and activist groups. It includes both qualitative and quantitative data on thousands of cases of conflict as well the social responses to them (Temper *et al.*, 2018). As of September 2020, the EJAtlas has 3,271 cases, out of which 338 are registered in India.

Each case in the EJAtlas includes the following types of data: general characteristics (location, relevant background information, type of project or commodity being contested) and project details; companies, finance institutions and government actors involved; social and environmental impacts; actors and forms of mobilization, conflict outcomes; and references to relevant legislation, academic research, videos, and other media (Scheidel *et al.*, 2020). The database aims to develop a system whereby environmental conflicts can be described, analyzed, compared and interpreted (Gobby *et al.*, 2021). Each case is moderated by a group based at the *Universitat Autònoma de Barcelona* which checks the reliability of the documented cases added to the platform (for more information cf. Temper *et al.*, 2015).

In the EJAtlas, there are 30 cases classified as "biodiversity conservation" in India. Out of these 30, I have analyzed 26, and left out the other four, as I only took into consideration cases that correspond to the struggle over access and use of forest resources by local communities inhabiting protected areas. Each documented case is based on primary and secondary data. The primary data have been observed and reported from the field and were gathered through interviews, group discussions and documents collected in eleven protected areas visited from March 2017 to February 2018. In these protected areas I conducted interviews both with local communities, local organizations and forest departments (when possible). In-depth interviews based on two or three weeks of fieldwork were carried out for eight protected areas (Achanakmar, Simlipal, Nagarhole, Wayanand, Kaziranga, Jaldapara, Sundarban and Manas). Shorter interviews based on 2 to 3 days of fieldwork were conducted in Dudhwa, Corbett and Rajaji. The study areas were chosen based on four criteria: a) political sensitivity for the fieldwork case studies to ensure the smoothness of the work, b) geographical areas, which aim at including representative cases from the entire sub-continent, c) accessibility and contacts, and d) presence of forest dwellers and indigenous communities. Secondary data primarily comes from three sources: (i) English literature review; (ii) reports available on the Forest Rights Act website and other available reports; (iii) secondary information shared by the Community Forest Rights – Learning and Advocacy group as well as activists, reporters, journalists etc. (please see Appendix 1 for details of every case).

The data collection on the implementation of the Forest Rights Act is mostly based on year-long research conducted in India while collaborating with Kalpavriksh⁷, a non-profit organization working on environmental and social issues. Due to the lack of disaggregated data available on the management of protected areas, the data on the implementation of community forest resource rights comes mostly from interviews with local people and activists and documentation shared by local *sangathan* (organizations) and NGOs; other secondary data were collected online from the Ministry of Forest, Environment and climate change of India (http://moef.gov.in/), the official tiger project website (https://projecttiger.nic.in/), and the State Research Centre on Wildlife and Protected Areas (https://www.wiienvis.nic.in/Database/Protected_Area_854.aspx).

I used the EJAtlas as a source for all the cases, conducting a descriptive analysis to understand the forms of resistance and the type of mobilization (e.g. street marches, blockade, boycott *etc.*) and the different actors involved (e.g. indigenous communities, farmers, environmental organizations *etc.*). I structured the analysis by three levels. First, I explored the association between the type of mobilization used by the communities and the success of the communities to get their community forest resource rights legally recognized under the Forest

⁷ The study was carried out with the support of Kalpavriksh in India as a National Report on the implementation of the Forest Rights Act within protected areas in India, funded by the Rights and Resources Initiative (RRI).

Rights Act. Subsequently, I analyzed the type of violence, using both the data on criminalization, displacement and the degree of militarization. Finally, I analyzed the association between the cases considered successful and the external actors involved, such as national or local NGOs, or international conservation NGOs.

4. Social movements, land rights, and mobilization

The 26 cases of conflicts analyzed emerge from relatively different historical processes, and are spread across India. The great majority of the cases studied (92%) involve movements made up of indigenous peoples' groups, suggesting that biodiversity conservation conflicts are mostly related to indigenous populations. In India, indigenous communities are recognized under the administrative category of scheduled tribes; however, a heterogeneous set of ethnic and tribal groups are accepted within the historical term of Adivasi⁸ (Bijoy et al., 2010). As shown in Figure 1, forest areas (represented in green) and the territories of indigenous populations (represented in pink) overlap in the majority of the territory (center, north-east and north-west), by indicating the high concentration of Adivasi around forest protected areas. These disputes are related to the larger struggle over the access and use of forestland and other natural resources, including fish, grassland and agricultural fields (Shah, 1992 Gooch, 2009; Hussain et al., 2016; Rastogi et al., 2010). However, all of these activities are part of the daily disputes against the centralized conservation management by the forest department, which for decades have affected their life, marginalized them from their means of livelihood and failed to recognize their distinctive identities. Moreover, as documented in the EJAtlas, some of these studied areas are also inhabited by one of the most vulnerable people of India, the dalits9 (evidence found in eight cases, but possible presence in more areas). The dalits, treated as untouchables in many parts of India even today, are categorized by the Indian Constitution as a Scheduled Caste (SC).

Local and indigenous communities organize themselves under local *sangathans* (organizations), sociopolitical pressure groups mostly operating locally with a specific focus on rights and justice. In many cases these *sanghatans* are supported by local non-governmental organizations. The NGOs play an important role in translating into vernacular language the bureaucratic legal texts affecting rights and justice, also creating awareness of rights and duties among local people. In the study I documented ten organizations supporting conservation justice movements, such as the North Eastern Society for Protection of Nature and Wildlife. They have supported the struggle of the Rabha indigenous peoples in the Buxa Tiger Reserve in West Bengal for many years (EJAtlas 2018b; GU *et al.*, 2018). There are many other instances of local organizations actively supporting local and indigenous communities, whose assistance has been decisive in the process of rights recognition.

At a national level, national trade unions also support these *sangathans*. In the cases analyzed, I documented the presence of two unions, one called the 'All Indian Union of Forest Working People' which mostly work with forest dwellers in the northern part of India, and the other is called 'All India Forum of Forest Movements' which mostly is active in the Indian central region. The support of these unions has strengthened the localized movements in terms of articulating their political demands at the national level. They, together with other national organizations, have functioned as a bridge between local communities and the government authorities, raising awareness at the local level as well as exercising political pressure nationally. These agencies, working as umbrella organizations, have been essential in bringing together the localized struggles and translating their demands for inclusiveness, respect and dignity into a post-colonial and post-capitalist model of conservation based on systemic change and alternative development.

⁸ Adivasi refers to over 700 hundred different tribes (8.6% of India population). The 2011 census reports around 104 million adivasi

⁹ The term *dalit* means 'oppressed' and has been politically adopted by the people otherwise referred as 'untouchables' in order to symbolize a movement for change and for the eradication of centuries-old oppression under the caste system.

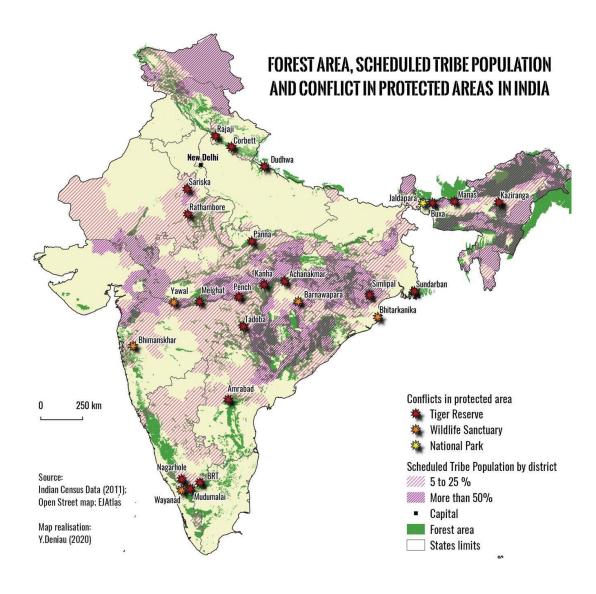


Figure 1. Forest area and scheduled tribe population. Source: own elaboration, based on Indian census data (2011); Open Street Map; EJAtlas. Map realization: Y. Deniau.

Struggle over the recognition of forest rights

An important aspect of these conservation conflicts in India is the legal means used by social movements to protest against perceived environmental injustices. The Forest Rights Act has been used as a weapon in the hands of these communities to reclaim their rights denied since colonial times. The Act has been considered a very revolutionary and powerful law at the international level. Besides recognizing individual land rights of habitation and cultivation it also acknowledges community forest rights and community forest resource rights. Community forest rights signify those user rights (*nistar*) which they have traditionally exercised (i.e. access, use and disposal of non-timber forest produce), and rights over water resources from water bodies and pastures. By contrast, community forest resource rights refer to "rights to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use" (FRA, 2006, 3.1 (i)). These rights constitute the most revolutionary part of the Forest Rights Act, as they take

into consideration the local knowledge of the communities in managing the forest areas and its natural resources, and are therefore extremely important to support community conservation. These rights are crucial in changing top-down centralized forest governance towards more decentralized community-based conservation (Asher & Agarwal, 2006; Dash, 2010).

The study shows that the implementation of the Forest Rights Act in these 26 protected areas has been almost absent, in particular when it comes to forest and forest resource rights, especially in critical tiger habitats. Neither community rights nor community forest resource rights were implemented in 18 cases, 69% of the sample. This includes both protected areas where local communities were not yet aware of the Act (10 cases, or 38%), as well as those areas where local communities have claimed those rights through the Forest Rights Act, but the bureaucratic machine has not yet responded (eight cases, or 31%). Evidence of community forest resource rights being recognized and vested was found only in five cases, 19% (details in Appendix 1).

The lack of understanding the principles of the Act and the continued opposition by conservation groups could be one of the reasons for the lack of its implementation, especially in tiger reserves. Evidence of such opposition is the Supreme Court order issued on 13 February 2019 following a petition launched by a group of conservation organizations (Wildlife First, Nature Conservation Society and Tiger Research and Conservation Trust) ordering the eviction of alleged 'encroachers', which could have potentially evicted 10,000 people. 10 Moreover, the lack of awareness of the Act by the functionaries of the Tribal Development Authority represents another important cause for the misrecognition of these rights. In addition to this, the forest department continues to exercise its power over the forest, completely ignoring the precepts of the Act and amplifying the clash with local communities (GU et al, 2018; Menon, 2020). An example is the struggle of the Rabhas indigenous community in Jaldapara and Buxa tiger reserves. Despite the long struggle to assert their rights, forest rights continue to be denied without any clear explanation. In addition to this, the forest guards continue to harass the communities through the use of physical force, strict regulations and arbitrary arrests and detentions. These acts discourage people from fighting for their due rights. The criminalization of the community has affected their traditional practices such as grazing and foraging (Banerjee et al., 2010; EJAtlas 2019a; 2018b; Ghosh, 2018). This lack of interest reflects the continued opposition to the Forest Rights Act at the national level, which in many cases has been reinforced by Supreme Court judgements and by the National Tiger Conservation Authority (Bijoy, 2017; Pathak et al., 2017; Shahabuddin & Bhamidipati, 2014).

On the other hand, as noted above, the recognition of community forest resource rights was observed only in five protected areas. Out of these, three protected areas had their rights recognized in those villages inhabiting the Critical Tiger Habitat, where restrictions and threats of relocation have been severe. These are Simlipal Tiger Reserve in Orissa (44 community forest resource rights recognized in 2015, both in core and buffer areas), Biligiri Ranganatha Swami Temple Tiger Reserve in Karnataka (25 community forest resource rights recognized in 2013 and 10 community forest resource rights in 2017, core and buffer areas), and Melghat Tiger Reserve in Maharastra (3 community forest resource rights recognized in the core in September 2019). Other community forest resource rights have been recognized in the buffer area of Tadoba Tiger Reserve, and in the Yawal Widlife Sanctuary. In this last one, the support of the district administration together with the persistence of the local NGOs finally pushed the administration to legally recognize the community forest resource rights for the six villages located in the sanctuary, that are currently co-managing sanctuary forest resources with the forest department (Pathak & Kumar, 2017; please see Appendix 1 for details).

¹⁰ See this press release statement published by RRI condemning the Supreme Court order, Feb. 13, 2019 eviction: https://rightsandresources.org/en/blog/evicting-millions-of-indigenous-and-local-peoples-from-their-forest-homes-as-ordered-by-indian-supreme-court-is-condemned-by-global-experts/#.XuyBP2ozZ0s

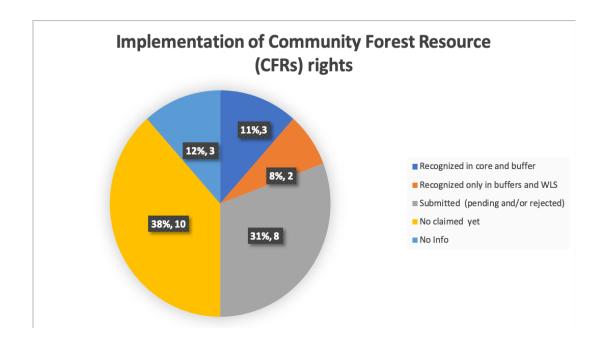


Figure 2: Implementation of community conservation resource rights in Protected Areas (%, number of cases), India. From 2009 to 2019. Source: own elaboration.

In all these cases, the long struggle of the local communities, the support and facilitation of external organization as well as the local administration has played an important role in recognizing rights. For example, in Simlipal Tiger Reserve, in Mayurbhanj district, although the process to claim rights started in 2008, it was only later with the technical support of the Vasundhara organization in collaboration with the district administration that a first consultation was organized, shifting the attention from individual rights to community rights over forest resources. Indeed, in January 2013, the District Collector, Mr. Rajesh P. Patil, organized the first public consultation with the village communities, administrative officials, Tribal Department Agency, and a resource person from the Forest Rights Act (Bibhore *et al.*, 2016). This is one of the rare cases where the support of the district administration has been essential in moving towards co-existence and collaboration. Studies show that while the banning of traditional practices had negative effects on wildlife and biodiversity, the exercise of common forest rights and the restoration of customary land management practices have been beneficial for the environment (Madegowda, 2009; Madegowda & Rao, 2017; Menon & Rai, 2017; Nautiyal & Nidamanuri, 2012). For example, the restoration of shifting cultivation and slash and burn (*jhum*) practices have helped to improve degraded biodiversity in the Biligiri Ranganatha Tiger Reserve, regenerating local indigenous species and helping in controlling invasive species such as *lantana* (Madegowda, 2009).

However, although rights have been recognized, in many instances the communities must continue their struggle to assert these rights, which in certain cases continue to be *de facto* unrecognized. For example, in Simlipal Tiger Reserve, the same administration helping on the bureaucratic process, also pushed the communities to accept the relocation package following the community forest resource right distribution, in order to legally free the people from the tiger reserve (Debasree, 2019; Puspanjali & Gunjan,2010; Sahoo, 2012). Similarly, in Melghat Tiger Reserve, rights recognized on paper are not reflected on the ground.

Conservation violence

The struggle for the recognition of forest rights goes together with the struggle against criminalization, corruption and harassment, and is also known as 'green violence' (Büscher & Ramutsindela, 2015). These

struggles are not new to protected areas, and have been documented in the literature both in India as well as in other Southern countries (Brockington & Igoe, 2006; Büscher, 2016; Cernea & Schmidt-Soltau, 2003; Loperena, 2016; Mogomotsi & Madigele, n.d.). Amidst the violations carried out in the name of conservation, I discuss here dispossession, criminalization of activists, militarization and violence that have even led to cases of murder in four of the studied cases. As described in Figure 3 below, cases of displacement from protected areas are mostly coming from the central region of India, also called the 'tribal belt' since majorly populated by *Adivasi*. Cases of criminalization of local people and activists are seen in areas where special police forces are deployed, such as the Special Tiger Protection Force, a force under the forest and police department deployed for the protection of the tigers. This suggests a correlation between increasing violence and higher securitization of conserved forests.

Displacement and dispossession are some of the best-documented consequences. In this study, I analyzed the cases of displacement reported after the year 2000, and evidence shows that this has occurred in 18 out of the 26 cases affecting about 13,445 families (for more details, see Appendix 1). In the observed cases, displacement has involved both relocation and/or eviction under the premise of encroachment into protected areas (Brockington *et al.*, 2008; Menon & Karthik, 2019). This was evident in Kanha Tiger Reserve, where a French TV channel reported that 2,000 people were systematically resettled and evicted from their land (Mukherjee, 2009; Venkateshwarlu, 2015). Even when relocation was planned, free, prior and informed consent (FPIC) was denied or not well understood (Ghate, 2005; Sekar, 2016). In various cases such as Ranthambore and Sariska Tiger Reserve, I also observed that the communities did not receive fair compensation or rehabilitation of their livelihoods. Indeed, as documented by Shubam Garg (the Executive Director of Gramin Shiksha Kendra, working in the area for many years), communities are still demanding school facilities and land titles in these two areas. Evictions were also ordered by state courts, as happened in 2017 for the Van Gujjars relating to Corbett Tiger Reserve in Uttarakhand, who were evicted as alleged illegal encroachers (Agrawal, 2014; Chettri *et al.*, n.d.).

It is worrisome that international conservation organizations have occasionally supported the displacement of local and indigenous forest dwellers. In the Nagarhole Tiger Reserve, for example, the relocation of local communities has been highly promoted by a local organization called LIFT which is directly supported by the Wildlife Conservation Society (Desai & Bhargav, 2010). Although several studies, mostly carried out by the Wildlife Conservation Society, show the positive impact of resettlements of people (Karanth & Karanth, 2008; Karanth *et al.*, 2018), including access to housing, education, 'development' opportunities, jobs *etc.*, research shows that the resettlements are far from 'voluntary' and 'satisfactory' (Ghate & Beazley, 2007). The Wildlife Conservation Society has also supported similar cases of displacement in Kanha and Melghat Tiger Reserves, and Wayanand Wildlife Sanctuary (Karanth *et al.*, 2018; Mukherjee, 2011; Sekar, 2016).

More specifically, relocation has been accompanied by the **criminalization** of activists, i.e. the criminal prosecution of individuals and abuses of civil and human rights (Scheidel *et al.*, 2020). I found evidence of illegal arrests and abuses of power by forest and police officials in 15 Protected Areas (see Appendix 1). In all these cases, local police illegally detained socio-environmental activists for being vocal against the current management of the PA, which included the denial of resources rights or a relocation plan. Women are doubly victimized, often physically abused and criminalized by the forest rangers, as in the cases of the *Tharu* in Dudhwa (EJAtlas, 2019e; Sawakar, 2017; Singh, 2007). Numerous people are incriminated on poaching charges (Dutta, 2020a; Simlai, 2015). Others are simply booked under 'offences' cases, which include trespassing on forest land, collecting firewood or honey, even though these activities are in fact their right enshrined under the Forest Rights Act, and ensure security and livelihoods for the communities (Kothari and Pathak, 2012). Moreover, it is important to understand that often these 'wildlife crimes' are not only based on economic needs, but on cultural needs to reaffirm places of belonging. This is the case for the *Tharu* women in Dudhwa, whose use of medicinal forest plants helps to reaffirm their identity as a community.

Criminalization has increased drastically after the approval of the National Wildlife Crime Control Bureau, 2006, and the subsequent creation of the Tiger and Other Endangered Species Crime Control Bureau in 2008. This suggests the increased interest of the Indian Government in punishing wildlife crimes by enhancing **militarization** and creating new militarized guards to ensure wildlife security (Margulies, 2018;

Simlai, 2015).¹¹ The idea of a military body to control biodiversity degradation goes back to the 1980s when the Ecological Task Force was established with the aim of instilling discipline and dedication in reforestation projects (Jayaram, 2016). Following the same logic, in 2009 the National Tiger Conservation Authority proposed a Special Tiger Protection Force to control the limits of tiger reserves and to respond to anti-poaching attacks. Special Tiger Protection Forces are currently active in eight tiger reserves and there is a proposal for their enforcement in 10 more areas (NTCA website, as per 27/04/2020).¹² In the study, I found processes of militarization in fifteen cases, in which a Special Tiger Protection Force has been formed, militarized guards are active or incidences of violence have occurred.

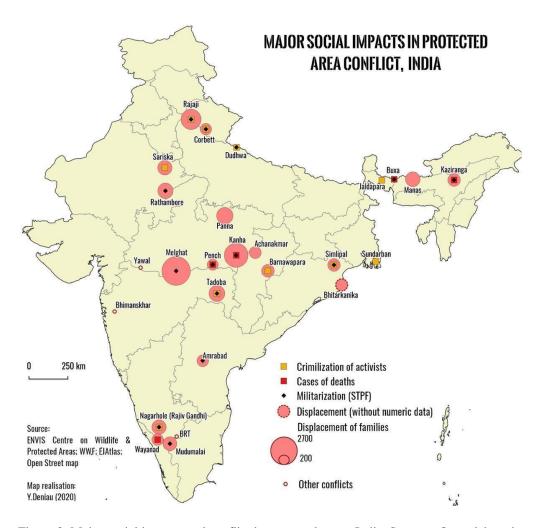


Figure 3: Major social impacts and conflict in protected areas, India. Sources: Own elaboration based on ENVIS data; WWF; EJAtlas; Open Street Map. Map realization: Y. Deniau.

¹¹ The National Wildlife Crime Control Bureau was proposed by the GoI on March 2005 and approved as a state authority under the Wildlife Protection Act, 1972 (2006 Amendment). Following reports of tiger disappearance from Sariska TR, a Tiger and Other Endangered Species Crime Control Bureau was proposed, becoming operation in 2008. As per the website, 154 people have been convicted of wildlife crimes. See http://wccb.gov.in/

¹² According to a Press Information Bureau dated 4 September 2012, a proposal to the army and to deploy a Special Tiger Protection Force was approved on 29 February 2008, for 13 Tiger Reserves. On 4 April 2020, the NTCA website raised this to 18 in 12 states. Detailed information on the NTCA website: https://projecttiger.nic.in/content/257_6_STPF.aspx

In Kaziranga National Park, in the northeast of India, in the name of combatting the illegal trade in Rhinoceros (Rhinoceros unicornis), the government ratified a series of new policies together with the deployment of new armed battalions (Yadav, 2015; Barbora, 2017; Dutta, 2020a). In 2010 a state order highlighted the necessity of forest guards with "immunity from prosecution without prior sanctions" (Notification 4072, 14 July, 2010). International organizations such as the World Wildlife Fund for Nature (WWF) seem "to encourage a more aggressive approach towards the containment of Rhino poaching in India" (WWF, 2016). TRAFFIC, the wildlife monitoring network of WWF, is working with the state forces to bring the army and intelligence personnel together to combat the illegal wildlife trade. According to local reports, these measures significantly affect the life of the local and indigenous communities living at the edge of the park, who are often framed as the poachers (Doley, 2016). The adverse measures of the increasing militarization around Kaziranga were reported by the BBC which declares that in the year 2015 "Kaziranga killed more people in the park than poachers killed rhinos – 23 people lost their lives compared to just 17 rhinos poached" (Rowlatt, 2017).

Forms of mobilization

Social movements are generally permeated by the political culture of the system in which they develop, which influences the types of strategies advanced by the collective actors (Della Porta & Diani, 2006). In these case studies, the forms of resistance differ from place to place, with seven types most recurrent. However, it is important to remind ourselves that in many cases, the resistance is articulated in day-to-day struggles, by residents asserting their rights to hunt and to use their resources, and by continuing to assert their cultural lifestyles and subverting official regulations and sanctions (Holmes, 2007; Scott, 1985).

As observed in Figure 4, the first three forms of resistance widely used by the communities are: 1) street marches/rallies and protests, 2) official complaint letters and petitions, 3) refusal or blockade of compensation. Street marches (or *yatras*) are the most used form of protest by the local communities, observed in 22 cases (85%). This traditional form of protest used customarily by local communities in India are called *pradarshan* (form of a procession, culminating in a meeting near a locus of official power) and are sometimes accompanied by a *dharna* (sit-in strike) (Gadgil & Guha, 1994). This form of protest shows the sense of collectivism and the strength of the community gathered together to protest against a project. Use of an official complaint, letter and petitions were observed in 18 cases (69%), while the refusal of compensation has been found in 15 cases (58%). This symbolic form of protest, based on refusing land and/or money for relocation is easily performed by the communities without the necessity to get politically organized, and is considered implicit resistance (Holmes, 2007). This happened in places such as Achanakmar Tiger Reserves, showing the resilience of the Baiga communities in refusing to leave their traditional forestland even after a proposal of compensation. Among the numerous forms of protest, the most common ones include land occupation, lawsuits and use of the high court, the use or the development of a network, as well as the involvement of national and international NGOs.

The literature based on the EJAtlas suggests that the more diverse and numerous the forms of mobilization used by the movement, the higher is the chance for the movement to be successful (Scheidel *et al.*, 2020). The EJAtlas categorizes 27 forms of mobilization. Although in these cases of biodiversity conflicts, the resistance might be less articulated than in other spaces, in total we have found that out of 26 cases, five movements have employed more than eight different forms of mobilization. One of these five is the Biligiri Ranganatha Tiger Reserve, which has been considered one of the most successful cases in achieving communitarian rights in forest protected areas. This might suggest that using numerous forms of mobilization plays an important role in achieving success in these cases of biodiversity conservation, and it confirms theories found in critical literature that recognizes how social movements contribute towards the recognition of community based-management of natural resources (Scheidel *et al.*, 2020). However, other key factors, such as strengthening of communities, collective choices and economic autonomy have also been observed, suggesting that we could consider success, as discussed below, as going beyond the mere recognition of community forest resource rights.

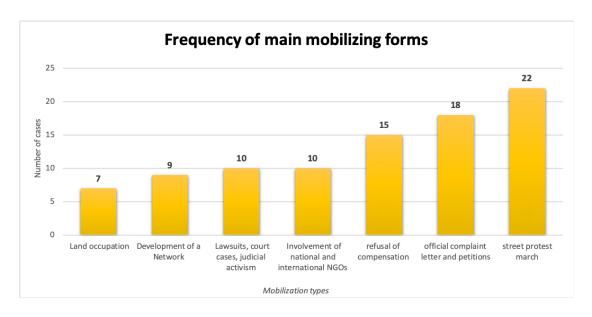


Figure 4: Frequency of forms of resistances, documented in the 26 cases studied. Source: EJAtlas.

5. Discussion: reflection around successful resistance

Challenges in resistance

Political ecologists have debated how to define the success of social resistance movements, and it is clear that success can manifest in many forms and with different meanings (Gamboa *et al.*, 2020; Hess & Satcher, 2019; Villamayor-Tomas & García-López, 2018). In this study, I have called 'success' those (few) cases where community forest resource rights have been legally recognized, allowing the indigenous and local communities to fully access their traditional forestland. However, analysis of the cases brings to light other types of victories that go beyond the recognition of these common rights, and are associated with the strengthening of local communities (Villamayor-Tomas & García-López, 2018). This is observed in those cases where the types of resistance used are more numerous (more than 8), such as Nagarhole Tiger Reserve, Dudhwa Tiger Reserve, Buxa Tiger Reserve and Bhimashankar Wildlife Sanctuary. For example, in Buxa Tiger Reserve, all forest villages of the *Rabha* indigenous community applied for community forest resource rights, organizing activities to raise awareness on forest rights (GU *et al.*, 2018). These activities have fortified their leadership, asserting control over the community forests even without legal recognition. Their leadership has also played an important role in national-level struggles for forest rights. A similar case is Dudhwa, where despite continued physical abuses and repression, mobilization and resistance have contributed to the strengthening of the movement, bringing up important gender reflections among the *Tharu* leadership (Singh, 2007).

One factor that might undermine the legal recognition of community forest resource rights is the level of repression played out in these spaces. My findings suggest that when repression and hostility are higher, the recognition of rights becomes tougher. This was examined in the high criminalization of local communities through the government's efforts to silence people contesting the 'fortress conservation' model demonstrated how dangerous and insecure it has become to speak up against conservation projects in India. Conservation measures such as relocation and militarization are used as means to regain control by the forest officials rather than for ecological purposes (Peluso, 1993; Sah & Mallick, 2020). This ultimately denies legal recognition of forest rights, impeding social and ecological transformation. Moreover, it seemed that when such conservation

measures are supported by conservation organizations, conflicts and violence intensify. This is not to suggest that these institutions directly produce violence, but it does show that the presence of international conservation organizations is not supporting or leading the communities towards a community management approach.

On the other hand, as observed in Section 4, community forest resource rights under the Forest Rights Act were recognized for five cases, despite government hostility. The 'successful' cases recognized in this study have been facilitated by local or national organizations that have functioned as bridges between local demands and official authorities. As explained by Sanghamitra Dubey, an independent researcher on forest rights, "In Simlipal Tiger Reserve, the organisation Vasundhara's contribution was really important in terms of facilitation and awareness, also to facilitate the collaboration with the district collector. It would not have been possible without civil society support." As also recognized in the literature, being part of a national network and being supported by external organizations could play an important role in the development and strengthening of localized struggles (Dwivedi, 1997). However, this is not to discredit the strength of local communities and their historical political process as essential to successful outcomes of the movement.

Problematizing success

Detailed analysis of the successful cases studied reveals that legal recognition of rights without involvement of local communities is not sufficient for communities to *de facto* enjoy those rights. This is evident in the case of Simlipal Tiger Reserve, where the lack of commitment by the administration and forest department is failing in recognition of a co-management plan with the local communities (Chatterjee, 2019). Indeed, the process of relocation continued from both core and buffer areas. In this case, the absence of a process to strengthen the communities might have undermined access to rights recognized under the Forest Rights Act, hence suggesting a lack of political transformation. As suggested by M. S. A. Rao (1979), the real success comes from the *de facto* social transformation of the collective: "a sufficient level of understanding and reflection is required on the part of the participants, and they must be able to observe and perceive the contrast between the social and cultural conditions of the privileged and those of the deprived, and must realize that it is possible to do something about it" (Rao 1979: 207, in Shah, 1992).

These reflections suggest that while union and external organization support are important, local resistance and community strength are essential for a real political transformation. However, on the other hand, strengthening the communities has its own limitations, which is often delimited by the strength of the opposition, the type of repression exercised by the state, and the power structure context within society. Indeed, as pointed out by Brockington (2004) and re-analyzed by Shanker *et al.* (2017), in the Indian context, "conservation alliances have marginalized the communities making them poor and in many instances powerless." This leads towards two conclusions: **first**, that local communities and resistance alone are not always sufficient to produce 'success', and alliances between communities and external actors could play a pivotal role; **second**, that repression in these cases in the form of 'fortress conservation' is becoming detrimental to the legal recognition of community rights (Villamayor-Tomas *et al.*, 2020).

The complexities of these conservation resistances lie also in the distance and abstract character of the policy maker, which influence the strength and the success of the same struggle. As Holmes observes, "conservation's neighbors have to deal with decision makers they can rarely reach" (Holmes, 2007). Without a directly responsible landlord or company, it is more complex to organize political resistance. The responsibility generally falls on the forest guards, and in many instances they have very limited decisionmaking power (Dutta, 2020b). Indeed, many conservation programs are framed by international or transnational organizations that, although far from the protected areas, can directly influence the local policy makers. Indeed, organizations such as the World Wildlife Fund for Nature are directly promoting anti-poaching militarization activities, as well as since 1973 supporting the government to finance the tiger project. Together with them, the Global Environmental Facility and the World Bank have supported tiger conservation through its Global Tiger Initiatives since 2008, raising £33 million (US\$45m, Rai *et al.*, 2018). This confers to these conflicts a complex character that could influence strategies and resistances of the movements, and impact the final outcome of the struggle.

Furthermore, prevailing perceptions have brought additional challenges to local communities in asserting their rights over these territories. The idea of environmental conservation based on scientific knowledge has acquired a positive connotation since colonial times, led by the debate between the heroic conservationists and the small-minded opponents, the villains or the encroachers (Brockington *et al.*, 2008; Duffy, 2016). The protesters in these cases have often been framed as the 'villains' or the 'poachers', and because of this, their struggle for land resources and their opposition to conservation projects have been considered irrelevant. These cultural perceptions have failed to recognize these movements as critically significant in the struggle for sustainability and for the achievement of social and environmental justice (Martin *et al.*, 2016). As observed by Martin *et al.* (2016), recognition of different epistemological knowledge systems is, therefore, a needed step to ensure environmental justice in conservation. This will eventually influence the achievement of 'success' for these conservation justice movements.

6. Conclusion

At the heart of the struggle against conservation policies is the lack of equal distribution of common natural resources, and an indelible need for a just and fair distribution and participation in conservation policy and practice. These struggles are also driven by the unequal power relations between already marginalized communities, and elites represented by the Indian government authorities who manage state forest lands (Veuthey & Gerber, 2012). The Forest Rights Act, which has the potential to democratize forest management under the decision making of the *gram sabha*, has been largely ignored by official agencies in Protected Areas to date, thus failing to recognize co-existence and collective governance regimes as a possible and successful conservation approach.

The colonial and imperialistic idea of pristine landscape and virgin territory continues to influence the decision making of the state authorities which, in partnership with conservation organizations, support a fortress conservation model that displaces, criminalizes and represses local communities (Margulies, 2019; Rai *et al.*, 2018). Moreover, the process of enforcing militarized control and calling for national security to protect wildlife, with armed guards and surveillance technology, echoes other green militarization trends ongoing in other parts of the world (Büscher & Ramutsindela, 2015; Duffy *et al.*, 2019)

The struggles analyzed in this article make it evident that conservation in India needs to change. In this regard, the Forest Rights Act has become an opportunity to bring together struggles that were rather localized and isolated before. As Della Porta and Diani argue, "for protests to emerge, activists might believe that an opportunity exists, that they have the power to bring about change" (2006: 18). The legal recognition of these forest rights under Indian legislation has empowered communities to such a degree that one can observe a country-wide conservation justice movement emerging. This movement is part of the larger struggle for systemic change, bringing into light how a real and just conservation model can become an essential component for achieving a genuinely sustainable society.

To conclude, conservation struggles in India exemplify struggles over resource rights and, above all, recognition of justice (Martin *et al.*, 2016). Those who challenge state-driven conservation discourses and policies demand the recognition of their culture, livelihoods and identity, and advocate for another conservation model where management rules can be fairly negotiated and implemented based on co-management and conviviality principles (Büscher & Fletcher, 2020). For all these reasons, I believe that this movement is playing a pivotal role in reframing priorities and contradictions and for the possible renegotiation of power structures (Veuthey & Gerber, 2012; Villamayor-Tomas & García-López, 2018). This movement is advancing alternatives to dominant ideas and contributing to shaping the idea that 'knowledge', in this case environmental knowledge, is based on a social construction that serves to legitimize and perpetuate social structures based on injustice.

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Appendix 1: Cases cited. CFR refers to Community Forest Resource Right. NP refers to National Park. TR refers to Tiger Reserve. WLS refers to Wildlife Sanctuary.

Cases EJAtlas*	Protected Areas	Forest Rights Act process	Displacement from 1999 to 2019	Examples of documented criminalization	Militarization and employment of STPF**	Related Literature Review	EJAtlas Link
2017	Achanakmar WLS & TR	CFRs not filed within the core of TR. Fulwaripara village submitted 1 CFR claim in 2017 (EJAtlas 2017).	3 villages, equal to 347 families relocated.	On 6 January 2017, a group of 26 local people were detained and some of them tortured for collecting Bamboo from the forest (interview, 2017)		Shahabuddin & Bhamidipati 2014; Sebastian & Azeez, 2014; Fanari 2019a.	https://ejatlas.org/conflict/displacement-for-conservation-in-achanakmar-tiger-reserve-cg-india
2019v	Barnawapara WLS	22 CFRs submitted but not recognized (as per 2017 report).	A total of 374 families from three villages relocated between 2010 and 2014. No consent. Rehabilitation has not been successful (EJAtlas, 2019v).	On Jan 15, 2018, police physically assaulted people in Rampur village; a local activist R. was arrested, while trying to file a First Information Report (FIR) (shared by local activist, Dec. 2017).		Fanari, 2019, 2019a.	https://ejatlas.org/conflict/b arnawapara-wls
2019c	Bhimashankar WLS	Villagers started the process of filing forest rights claim; no reply from the District Collector (EJAtlas 2019c)	No relocation	No info		Lakhanpal 2019.	https://ejatlas.org/conflict/b himashankar-wildlife- sanctuary-conflict-between- dependence-on-resources- versus-its-conservation
2018c	Bhitarnika NP &TR	No information.	90 families relocated (EJAtlas 2018c).	No info		Das & Chatterjee, 2015.	https://ejatlas.org/conflict/la nd-and-livelihood-conflicts- in-bhitarkanika-wildlife- sanctuary-odisha-india
2019	Biligiri Ranga Swamy Temple WLS & TR	In 2011, the <i>Soligas</i> received 42 CFRs titles covering 60% of the Tiger Reserve, both in core and buffer area (Madegowda, 2009; 2013; 2017; Rai <i>et al</i> , 2018; EJAtlas 2019).	No relocation	Soligas harassed for using common resources such as honey and NTPF (interview with local activist; Kalpavriksh, 2013, pg. 50).		Madegowda, 2009; 2013; 2017; Rai <i>et al</i> , 2018; Kalpavriksh 2013.	https://ejatlas.org/conflict/st ruggle-for-community- rights-in-the-protected- areas-of-biligiri-ranganatha- temple-brt-india

2018b	Buxa NP & TR	36 gram sabhas (from core and buffer area) filed CFR claims. Claims remain pending as on June 2020 (GU et al, 2018).	Bhutia Basti relocated in 1993 without prior informed consent. In 2008 another attempt at relocation without success (Banerjee <i>et al</i> , 2010; GU <i>et al</i> , 2018; EJAtlas 2018b).	Many villagers have pending legal charges against them (documents collected in the field, 2017; GU <i>et a</i> l, 2018).	In Buxa there have been many incidents of violence by the FD against the local people (fact finding report, 2011)**.	Das, 2008; GU et al. (2018); Banerjee et al, 2010.	https://ejatlas.org/conflict/b uxa-tiger-reserve-west- bengal-india
2019d	Corbett NP & TR	Awareness of Forest Rights Act but claims not filed. Support of local NGO to stop threats of relocation (Chettri. et al, 2021, in draft; EJAtlas 2019d).	From 1994 to 2001, 4 villages were relocated from the core area, namely Laldangh (83 families), Kothiraw (300 families), Jhirna (70 families), and Dhara (50 families) (as per information collected by an activist living in Ramnagar). Since 2014, 57 Gujjar families have been threatened with relocation (Chettri et al., in draft).	Van Gujjars are constantly harassed even outside the tiger reserve, including tearing apart their homes, legal false cases of forest offences etc. (interviews, Gooch, 2009).	Special Tiger Protection Force (STPF) deployed in August 2019. The force will have 85 posts including a deputy forest conservation, and 81 special forest guards.	Rastogi et al. 2010; Kumar et al., 2019; Hussain et al., 2016; Gooch, 2009; Fanari, 2019a; Chettri et al. 2021.	https://ejatlas.org/conflict/ji m-corbett-national-park
2019e	Dudhwa NP & TR	In 2013, the <i>Tharu</i> community of Dudhwa TR filed the CFRs claim, however the file of the claims went missing from the administration; the <i>Tharu</i> filed again the claims in 2016. In July 2019 the claims were rejected, declaring the <i>Tharu</i> living in the park as 'encroachers' (Agarwal, 2018).	In the '70, 44 <i>Tharu</i> villages were relocated from inside the forest area. No recent relocation happened (EJAtlas 2019e: Singh, 2007).	In 2016, a local 75 years old <i>Tharu</i> man was arrested on false charges of poaching. <i>Tharu</i> women were assaulted several times, last event in June 2020 (Singh, 2007).	Special Tiger Protection Force (STPF) set up in 2016. In 2018 the SSB (Sashastra Seema Bal) the Central arm police Force has joined with the STFP and the Dudhwa Forest Department.	Agarwal, 2018; Singh, 2007, Fanari, 2019a.	https://ejatlas.org/conflict/st ruggle-for-forest-rights- into-the-core-of-dudhwa- national-park-uttar-pradesh
2019a	Jaldapara NP	12 gram sabhas submitted their CFRs claims in 2009. Steady and slow process. Claims are still pending (GU, N., Guha, T.L.,	No relocation carried out (EJAtlas, 2019a)	In 2014, a strong protest led to the registration of cases against five members of the North Khairbari GS. In 2019, Sundar Rabha, a local HR activist, was		Ghosh 2018; GU et al. 2018; Ghosh, 2016.	https://ejatlas.org/conflict/ja ldapara-national-park-west- bengal-india

		&, Tatpati, M. 2018; EJAtlas 2019a).		illegally arrested 3 times (Interview, 2017).			
2019f	Kanha NP & TR	Uncertain process of CFR claims. Identified as submitted and pending.	When the park was created about 27 villages were relocated from the core area (Mukherjee, 2009). In 2014, 450 families were reported to be violently evicted (EJAtlas,2019f). According to <i>Lok Sabha</i> , 12/07/2019 reply 1,870 families have been relocated from the CTH.	No evidence.	Special Tiger Protection Force (STPF) recognized for deployment.	Mukherjee 2009, 2011, Fanari, 2019a.	https://ejatlas.org/conflict/k anha-tiger-reserve
2017a	Kaziranga NP & TR	Forest rights not recognized under FRA. <i>Mishing</i> indigenous communities are looking for an alternative autonomous forms of governance (EJAtlas, 2017a; Cremin, 2012; Smadja, 2018; Saikia, 2011).	In 1908 villages relocation started for the creation of the National Park (Langerscoix & Kothari, 2009); 2 villages evicted in 2016 with violence and confrontation, leading to the death of two people; scattered evictions happened in the 6th additional areas (Barbora, 2017; EJAtlas, 2017a)	In 2017, P. Doley and S. Narah, local <i>Mishing</i> activists, were falsely charged under 'attempt to murder' after contesting an EIA for a development project. On June 2020, 5 youths charged with 'forest offence' after protesting against FD harassment.	In 2007, 430 persons deployed in forest protection force; 2010 shoot-at-sight policy; 2014, Rhino Task Force & Special Rhino Protection Force with 88 personnel; 2016 STPF with 112 personnel. Electronic eye as surveillance system and drones**.	Cremin, 2012; Smadjia, 2018; Barbora, 2017; Fanari, 2019a.	https://ejatlas.org/conflict/k aziranga-conflict-rhinos- and-poachers-assam-india
2019g	Mudumalai NP & TR	No clear awareness of the Act ((EJAtlas, 2019g; Menon & Karthik, 2016; 2019). CFRs not claimed.	As per newspaper reports a number of about 700 families relocated from the park (EJAtlas, 2019g). As per official records, 19 families relocated from CTH (<i>Lok sabha</i> , 12/07/2019)	No info or evidence.	Special Tiger Protection Force (STPF) already deployed.	Menon & Karthik, 2019.	https://ejatlas.org/conflict/e viction-from-manas- national-park
2019h	Manas NP & TR	Community forest rights mapping is still at the early stage. General confusion on the potential of the Act	100 people displaced in 2014 (Dutta, 2020) and 70 families evicted in 2017 (EJAtlas, 2019h).	No info.	Special Tiger Protection Force (STPF) already deployed from 2018/19, with 88 forest guards and watcher.	Dutta, 2020; Soud et al, 2013, Fanari, 2019.	https://ejatlas.org/conflict/m elghat-tiger-reserve

		(EJAtlas, 2019h). CFRs not claimed.					
2019i	Melghat NP & TR	From 2012 about 12 CFR recognized from the buffer area; in 2020, 3 CFRs recognized in the core area (information from Khojmelghat).	16 villages (2,952 families) evicted from the core area between 2003 to 2015. There are 3,100 families remaining in the core area (EJAtlas, 2019i; Lok Sabha, 12/07/2019)	On 1st September 2020, two people were arrested by police and charged under WLPA, 1972, alleged for destroying wildlife.	Special Tiger protection force recognized for deployment. Drones and other surveillance techniques employed.	Sekar, 2016; Sawakar, 2017; Fanari, 2019a	https://ejatlas.org/conflict/m udumalai-tiger-reserve-and- disputes-over-land-tamil- nadu-india
20191	Nagarhole NP & TR	Since 2009, 54 villages submitted their CFRs claims. CFRs not recognized and still pending. In Mysore district, in the HD Cote Taluk, in 2010/11, 14 CRs were distributed (EJAtlas 20191)	From 1999/2000 to 2010, about 487 tribal families relocated from CTH (Lok Sabha, 12/07/2019). Initially, 280 families were relocated in Nagapura and Sollepura between 2000 and 2007, for a compensation of 1 lakh rupees and 5 acres of land (Assadi, 2014; Desai & Bhargav, 2010; EJAtlas 20191).	In 2013 a case of land encroachment was registered against a local <i>Jenu Kuruba</i> activist, while asserting his rights to build a house in his traditional land.	Telangana state decided to set up a Special Tiger Protection Force (STPF) in Jan 2019. They are in Principle of Approval.	Mahanti, 2003; Nautiyal & Nidamanuri 2012; Desai & Bhargav, 2010.	https://ejatlas.org/conflict/forced-eviction-from-nagarhole-national-park-karnataka-india
2019m	Nagarjuna Naga/ Amrabad TR	FRA process slow with lack of awareness. Mostly filed for Individual rights (Reddy et al, 2011; Rau & Kumar, 2016). 54 CRs claimed by the villagers residing in the core area. 5 CRs distributed (personal interview).	Some 200 families have been resettled in Shanti Nagar and Gandhi Nagar near Yerragondapalem in Prakasam district. There is a plan to relocate about 1,100 families from the tiger core area (EJAtlas 2019m).	Many false cases were registered against the <i>Chenchus</i> people living within the forest protected park (information from the field, Dec. 2017).		Reddy et al., 2011; Rao & Kumar, 2016; Fanari, 2019a.	https://ejatlas.org/conflict/ur anium-mining-proposed- within-the-amrabad-tiger- reserve-telangana
2019n	Panna NP & TR	No information.	12 villages relocated from 2008 to 2012 for a total of 983 families; the last one, Umravan, was relocated in 2015. They mostly belong to <i>Gond Adivasis</i> .	No info	Special Tiger Protection Force (STPF) already deployed.	Runacres, 2020; Fanari, 2019a.	https://ejatlas.org/conflict/p anna-tiger-reserve-india

20190	Pench NP & TR	Fishing rights (Community Rights) claimed but rejected in 2017 (EJAtlas, 2019o). CFRs not claimed.	Between 1973 and 1990 about 10,000 families evicted. In 2017 the last villages in the core area with about 100 fishers' families were relocated (EJAtlas, 2019o).	After 2007 numerous false cases against the 700 fisher people asking for fishing rights.	Special Tiger Protection Force (STPF) deployed. Women trained (https://www.youtube.c om/watch?v=- FIGqPkCbE4&t=416s)	Chatterjee, 2019; Fanari, 2019a.	https://ejatlas.org/conflict/st ruggle-for-fishing-right- within-the-pench-tiger- reserve-maharastra
2019p	Rajaji NP & TR	Forest Dwellers have submitted their CFRs at the Sub Divisional level committed (SDLCs) but all claims were rejected (Agrawal, 2014).	A total of 1,593 Van Gujjars families were relocated from 2002-2019. Attempt to evict other families in June 2020 (Sah & Mallik 2020; Agrawal, 2014; EJAtlas, 2019p).	On 28 June 2011, a movement leader was arrested on false charges; on June 16 2020 a Van Gujjar of Rajaji and his family were arrested (4 women and 2 young boys) (Down to Earth report, 30 June 2020).	Karnataka became the first state to set a special commando unit of 54 trained person in Nagarhole and Bandipur in 2009.	Agrawal, 2014: Gooch, 2009; Sah & Mallik, 2020; Fanari, 2019a.	https://ejatlas.org/conflict/ra jaji-national-park
2019q	Ranthambhore NP & TR	Forest rights not claimed (EJAtlas, 2019q).	In 1976, 12 villages relocated. Five more villages (1,238 families) were relocated from the core area between 2002-2015 (Lok Sabha, question No 3405, 12/07/2019).	No info.	Special Tiger Protection Force (STPF) already deployed.	Fanari, 2019a.	https://ejatlas.org/conflict/ra nthambore-tiger-reserve- rajasthan-india
2019r	Sariska NP & TR	No information.	Initial phase of planning to relocate 11 villages from CTH. 3 villages were documented to be relocated between 2008-2014, for 650 families (Shahbuddin <i>et al</i> , 2007; 2019).	A community leader commented: "the forest department is torturing villagers and registering false cases against them, as a result, the future of many youngsters will be ruined" (TOI, May 24, 2018).		Shahbuddin <i>et al</i> , 2007, 2014; Rangarajan & Shabuddin, 2006; Fanari, 2019a.	https://ejatlas.org/conflict/sa riska-tr
2018a	Simlipal NP & TR	44 CFRs recognized in April 2015 in core and buffer with collaboration of District administration and support of external	4 villages relocated from the core and 2 from the buffer zone, for a total of 453 families. The last village was relocated on 24 January 2020 (Sahoo M,	The local indigenous movement leader has been facing threats from the FD to campaign against relocation measures (interview, 2017).	A Special Tiger Protection Force (STPF) has been approved as per parliamentary assurance.	Sahoo, 2012; Bibhore <i>et al</i> , 2016; Satpathy & Gunjan, 2010; Chatterjee, 2019; Fanari, 2019, 2019a.	https://ejatlas.org/conflict/si mlipal-national-park- conflict-over-conservation- project

		NGOs (Bibhore <i>et al.</i> , 2016; EJAtlas 2018a).	2012; Satpathy & Gunjan, 2010; Chatterjee 2019).				
2019s	Sundarban WLS, NP & TR	The Forest Rights Act is not recognized in the area. Fisher communities are starting the process to claim their forest rights in the mangrove forest. Until today, no claims filed and no implementing agencies formed at the District level.	No relocation.	False cases filed against fishermen and honey collectors living around the TR (fieldwork, 2017).		Chacraverti, 2014; Ghosh, 2015: Sen, 2017.	https://ejatlas.org/conflict/s undarban-tiger-reserve
2019t	Tadoba NP & TR	In 2013, the process of claiming forest rights started with the submission of 26 CFRs. 5 CFRs were recognized in buffer villages in 2016 and other 4 in 2020 (EJAtlas, 2019t).	From 2007 to 2014 6 villages with 992 families were relocated (Ghate 2005; EJAtlas, 2019t).	An activist of the <i>Gurudev</i> Sewa Mandal organization was arrested in 2015 after protesting relocation under the accusation of threatening police officers (and see <i>Down to Earth</i> , Dec. 23, 2011).	Special Tiger Protection Force (STPF) already created and deployed. Women trained.	Ghate, 2005; Ghate & Beazley, 2007; Fanari, 2019, 2019a.	https://ejatlas.org/conflict/ta doba-andhari-tiger-reserve
2019u	Wayanad WLS	An indefinite number of Individual Forest Rights granted to villagers by the Forest Department. CFRs not claimed (EJAtlas, 2019u).	4 villages have been relocated between 2015- 2019. There is a plan to relocate 14 villages, 800 families (EJAtlas, 2019u).	False cases filed by police against indigenous leaders.		Margulies, 2018; Bijoy & Raman, 2003; Fanari, 2019.	https://ejatlas.org/conflict/wayanand-kerala
2019Ь	Yawal WLS	1,350 hectares mapped under CFRs. Six villages living in the sanctuary got CFRs recognized. They are co-managing their forest area together	A press release informed that 5 village had to be relocated from within the sanctuary. No relocation happened (Pathak B., <i>et al</i> , 2017; EJAtlas, 2019b).	On 6 January 2017, a group of 26 local people were detained and some of them tortured because of collecting Bamboo from the forest.		Pathak B., et al 2017.	https://ejatlas.org/conflict/y awal-wildlife-sanctuary- maharastra-india

with Forest Department			
(Pathak B., et al 2017,			
Pathak & Kumar,			
2017)			

^{*} All the information is systematically documented in the Environmental Justice Atlas. All cases have been recounted under a form of a Featured Map, called *Losing grounds: How are India's conservation efforts putting the local communities in peril*. Available here: https://ejatlas.org/featured/conflictprotectedareaindia **Data retrieved from the NTCA Website on the Special Tiger Protection Force (Accessed May 2020); other secondary data collected from news reports.