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Exploring India's Right-based Forest Legislation as a New Conservation Model for Developing Countries

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Abstract:

To achieve global biodiversity targets, expansion of protected area (PA) network has been regarded as a major strategy in international commitments such as Convention of Biological Diversity, the 2030 Agenda for Sustainable Development, and the Paris Agreement on Climate Change. However, the PA strategy fails to achieve its objective – preserving biodiversity and ecosystem services. Besides, PAs directly affect the land and forest rights of local communities, and thereby diminish human wellbeing and biodiversity. There is an increasing consensus that the post-2020 biodiversity conservation framework should be right-based and sensitive to the role and contributions of local communities to achieve the required target for PAs. Hence, a framework or model for conservation is essential that recognises the rights of local communities in conservation and thus ensures human wellbeing, equity and social justice. The present paper critically analyses the current “fortress conservation” approach to biodiversity conservation in the context of socio-political realities in developing countries. It argues that India's Forest Rights Act 2006 may be considered to be a useful framework to address the wide ranging challenges and concerns facing PA networks in conservation and governance. Various provisions of this legislation legalised the tenure rights of local communities

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and provided access to resources for material as well as non-material benefits. However, a clear and appropriate institutional arrangement specifying power, role and responsibilities of various stakeholders in conservation and management of bio-resources (including protection of endangered species) should be worked out for transformative change in conservation in developing countries including India.

Key words: Biodiversity conservation, Protected Areas, local communities, FRA 2006, India

1. Introduction:

Loss of biodiversity across the globe, particularly in the tropics, has been a major concern for human wellbeing. Bio-resources act as 'safety nets' against increasing risk of uncertainty, shocks and disasters (MEA 2005) in addition to serving daily survival needs. The 'Environmental Sustainability' goal under the Millennium Development Goals and global environmental targets like the Aichi Targets under the Convention on Biological Diversity (CBD), acknowledge this concern. Until recently, creating protected areas (PAs) was considered the dominant strategy for conserving nature and halting the loss of biodiversity (Geldmann et al 2019). In 2010, the CBD adopted the ten year Strategic Plan for Biodiversity 2011-2020. Agreed upon by 168 countries, it set a target of 'at least 17 per cent of terrestrial and 10 percent of coastal and marine areas' (CBD 2010) to achieve a significant reduction of biodiversity loss, but failed to accomplish this. According to Protected Planet Report 2018, there were 238,563 terrestrial PAs protecting just over 20 million square km, equivalent to 14.9% of the earth's land surface. Marine protected areas cover over 6 million square km more of the earth, representing 7.3% of the world's oceans (UNEP-WCMC and IUCN 2018). It is expected that PAs could increase from 15% to 29% of global terrestrial surface by 2030

(McDonald and Butcher 2011). Nonetheless, bio-resources are depleting at a faster rate due to human actions (Cardinale et al 2012). With increasing human pressure in and around PAs, PA creation directly affects the land tenure and forest rights of communities, creating ‘fortress conservation’ areas that diminish local livelihoods and biodiversity (Tauli-Corpuz et al 2020) and thus violates human rights. Here, the question arises: Why is the huge PA network still a key approach to achieve its main goals – preserving biodiversity and ecosystem services?

India has also adopted the human-free dominant ‘fortress conservation’ (Brockington 2002) approach as the effective means for conserving biodiversity, and established a state-controlled PA network. To give it legal standing, the Indian Parliament passed the Wildlife Protection Act in 1972 (WLPA 1972)¹ for preservation of selected fauna only. In these PAs, wildlife protection has become the main agenda, ignoring local communities’ interests, values and conservation strategies. Though India’s first national park – Corbett National Park – was established in 1935, the number of national parks (NPs) and wildlife sanctuaries (WSs) has risen steadily only with the enactment of the WLPA 1972. In 1988, there were 54 NPs and 373 WSs covering 10,962 square km (Sarangi 2017). As of July 2019, there are 870 PAs out of which 104 are NPs, 551 WSs, 88 conservation reserves and 127 community reserves. A total area of 165,158.54 square km is under the PA system. But most PAs have been established without following due legal

1. It empowered to declare its intention to constitute any area, other than reserve forest or sea as a sanctuary for protecting, propagating or developing wildlife or its environment. It provides power to evict local people after following certain procedures before declaring NPs or WSs. Customary forest rights of traditional forest dwellers have been either curtailed or restricted impacting lives and livelihoods. But in many cases settlement of rights and due compensation were ignored leading to violent conflicts, questioning the very purpose of conservation (Ghosh 2014).

process² (Upadhaya and Sane 2009). In most cases, land rights of inhabitants are yet to be settled. More than 60% NPs and 62% Ws have not settled the land and forest rights of forest-dwellers (ibid).

Studies revealed that local communities have an intricate relationship with forests and lands, and those lands are positively related with high biodiversity (Pretty et al 2009). Historically, these communities were dependent on forests for their sustenance, and developed customary laws of resource extraction and management. Reviews from Africa and Latin America concluded that community managed forests are more effective at protection and reducing deforestation than strict PAs (Tauli-Corpuz et al 2020). Community conservation demonstrates considerable financial and non-financial contributions to the sustainable use and protection of globally significant ecosystems. Communities invest in conservation such as forest management, fire protection, patrolling and cataloguing biodiversity in terms of labour and cash (Tauli-Corpuz et al 2020). An estimate suggests that communities invest about 15-23% of the total expenditure on conservation by public and international organisations globally. Major part of this investment is from communities of developing countries where public spending is high. Thus, community conservation is more efficient compared to PAs. Yet, PAs denied local communities' access to their assets like land and forests, knowledge system, spiritual sites and identities and justice (ibid). In some cases, PAs were declared without taking local inhabitants into confidence. Many state-controlled PA authorities continue to deny the rights of local communities to land and livelihoods despite international commitments, policies and laws (ibid). This is largely due to

2. PAs were carved out of existing reserved forests. The reserved forests, in turn, were usually created under the Indian Forest Act 1927 or its subordinate laws to generate revenue for colonial administration. The colonial regime ignored settlement of local communities and usufructory rights over forests during the settlement process (Madhusudan et al 2009).

the lack of rights recognition in national laws, vested interest of state agency or lack of modification in staff training. Scholars are increasingly arguing for shifting funds to local communities, respecting their tenure and rights as essential to achieve effective long-term conservation in a changing climate (Stevens et al 2014; Tauli-Corpuz et al 2020).

Conservationists contended that PAs can and often do contribute to the persistence of biodiversity and recognised them as the only way of preservation of world's flagship species (Joppa et al 2016). On the other hand, studies have shown that human pressures increased inside the PAs, with maximum changes observed in the poor developing tropical regions (Geldman et al 2019). Despite some success in reducing rates of deforestation, halting species extinction and conserving terrestrial and marine areas (Brooks et al 2009), the creation of PAs in developing countries involves huge social, cultural and economic costs (Lele et al 2010; West and Brockington 2006). Besides, the expulsion of original inhabitants or rights-holders from land or resources exacerbates poverty as well as contravenes legal or human rights (Brockington 2002; Tauli-Corpuz et al 2020). It is unreasonable to expect the rural poor to incur the opportunity costs, restrictions and potential harm in the name of global conservation programmes (Arjunan et al 2006). This approach has often ignored local people's dependence on forest ecosystems for survival. Further, it undermines local people's knowledge and traditions in conservation of natural resources and biodiversity (Torry 2011). Even some scholars have raised moral arguments that such an exclusionary approach is ethically incorrect as it ignored the wellbeing of local people, questioning legitimacy of such conservation interventions (Lele et al 2010; Martin et al 2015). The complete exclusion of human activities generated significant conflicts between the local people and forest managers and thus produced limited conservation gains (Adam and Hutton 2007). It is widely agreed that without meeting the needs and gaining the support of local people, such interventions will inevitably fail (Chapin 2004; West and Brockington 2006). In other words, the inclusion

of local people and their wellbeing is essential if the intervention is to succeed. Further, scholars suggested that improvement of local people's wellbeing can enhance environmental sustainability, particularly in developing countries because local communities can and do act as stewards of the natural resources that secure livelihoods (Cernea and Schmidt-Soltau 2006). Hence, the core issue is to devise policy or legislation to include local communities in conservation, so that balance between forest ecosystem and local benefits can be maintained. It reduces conflicts and enhances legitimacy and stewardship in the context of socio-political realities in developing countries.

In this paper, an attempt has been made to trace the philosophy of framing conservation strategy, particularly the dominant PA approach and its limitations, and to propose an alternative approach to address the emerging challenges to conservation. Our goal is to present a framework or model of conservation that recognises the rights of local communities in conservation and thereby ensures human wellbeing, equity and social justice. India's recent forest legislation has tremendous potential to overcome some of the socio-political realities and challenges that the current exclusionary PA approach faces. There is an increasing consensus that the post-2020 biodiversity conservation framework should be right-based and sensitive to the role and contributions of local communities in achieving the 30% target for PAs (CBD 2019). In this context, the various provisions of the recent historic legislation "The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006" (FRA 2006) as well as the WLPA Amendment 2006³ – that include creation of avenues for the co-existence of humans

3 An Amendment of WLPA 2006 has been made to create a new category, critical tiger habitats (CTHs) based on democratic process and must be identified on the basis of scientific and objective criteria, in consultation with an expert committee section 38V(4)] to remove authoritarian conservation by forest bureaucracy. Section 38 V (5) (ii) of the Act goes on to require that prior to the relocation of any person from a tiger reserve, it must be established with the community's consent that human activity is causing irreversible damage to tiger populations (MoLJ 2007).

and wildlife within PAs, recognition of participatory and decision-making powers in identification and governance of wildlife areas, etc. – would be most useful to manage and conserve ecosystems. Various provisions of this legislation legalised the tenure rights and provided access to resources for monetary benefits as well as non-pecuniary benefits like cultural traditions, personal identity and sense of belonging and rootedness, which are increasingly important conservation initiatives (Pascual et al 2017; Cocks et al 2016; Cavet-Mir et al 2014). Drawing of multiple benefits from ecosystem by the local people and valuing ecosystem as feedback mechanism are expected to enhance stewardship and governance of biodiversity as argued by various scholars (Masterson et al 2019; Folke et al 2016).

This article proceeds in four parts. First, we critically discuss the different framing of conservation approaches in the context of PA governance, and its limitations, and thereby argue for a new framework to PA conservation. Second, we present India's forest legislation as a promising model or framework that could address the challenges to conservation, particularly in the context of emerging issues of conservation and socio-political realities of developing tropics. Third, we briefly discuss some positive experiences of implementation of this legislation on the ground, showing local communities' capacity to manage and govern PAs in India. Further, we tried to show how the interested state agencies constantly subvert the local people's rights and authority in PA governance under the FRA by imposing contradictory rules, policies and programmes. Fourth, we conclude that the FRA would be the best solution since it recognises rights and agency of local communities in conservation and ensures equity, thereby reducing recurrent conflicts and strengthening stewardship to conservation. We also recommend a clear and appropriate institutional structure specifying power, role and responsibilities of different stakeholders for effective and sustainable PA conservation.

2. Shifting Paradigms of conservation in Protected Area Regimes:

The framing and purpose of global conservation approach have shifted mainly on how the relationships between people and nature are viewed (Mace 2014). Historically, conservationist-thinking focused on wilderness, wild species and natural ecosystems, and was concerned with conservation of the structure and elements of biodiversity. The approach was to preserve 'the great value of nature' from land-use transformation by human actions on natural ecosystems (Chapin 2004). It divided nature and society and portrayed society as embedded in nature but conceptually a separate entity, conceived as 'compositionism' (Callicot et al 2000). It conceived 'social needs' as subordinate to requirements of nature. People fall outside this sphere of interest, partly because human activities were not considered natural, and partly because human-dominated contexts were considered less amenable to analysis (Robinson 2006). The management philosophy stressed that 'the public good was best served through the protection of forests and water resources, even if this meant the displacement of local communities' (McCracken 1987). Thus, this idea of 'pristine nature' is strongly contradictory to the holistic 'web of life' idea, and sees human interactions with nature as social impacts on nature and always detrimental. The PAs were established under this paradigm.

Till date, most national and international organizations have recognised PAs as essential conservation strategies for maintaining species and habitat diversity (Rodrigues et al 2004). With the establishment of the Yellowstone National Park as the first PA in 1872, protected under the United States of America's law, several international networks have emerged under global regulation, such as UNESCO World Heritage Sites, UNESCO Global Geoparks, Biosphere Reserves and Ramsar Convention Sites (Jungmeier et al 2008; Cited in Hummel et al 2019). Some regional agreements also created networks of PAs, for example, The Natura 2000 network in Europe (EU 2000).

For conservationists, PAs or a network of PAs can have wide ranging purposes, such as maintenance of healthy functioning ecosystems, maintaining specific habitats, preserving ecological processes in intensely managed land or seascapes, and preventing ecosystem fragmentation (Hummel et al 2019).

Despite wide recognition of PA system in conserving biodiversity and its consequent expansion across the globe, its effectiveness in resisting anthropogenic pressure is rather mixed. Some case studies have shown that PAs are successful in maintenance of biodiversity and for preservation of the world's flagship species (Joppa 2016). Gray and others (2016) reported species richness and abundance to be higher inside PAs than outside in the tropics. Other studies compared changes inside PAs and just outside PA boundaries and observed that PAs surrounded by more disturbed landscape performed worse (Laurence et al 2012). Others relate socio-economic conditions and governance, and found that PAs are relatively better in developing countries (Barnes et al 2016). A recent study in more than 12,000 PAs across 152 countries has shown that human pressures have increased to a greater extent inside the PAs, on average, with the highest changes in the tropics, characterised by low HDI and low initial human pressure (Geldmann et al 2019). They argued that 'establishing a large number of PAs without ensuring an appropriate mechanism and resources to stem human pressure can lead to average negative treatment effects' (ibid). To reach the target of 17 percent terrestrial surfaces under PAs, enough resources should be ensured for decreasing pressure and improving ecological conditions. Besides, others claimed that success in arresting deforestation rate largely depends on remoteness of PAs, as they are less subject to degradation pressure (Lele et al 2010). However, a recent study showed that even the remotely placed PAs are not free from human pressure with time (Geldmann et al 2019). The most remote PAs that had low human pressure in earlier period have experienced increased human pressure than PAs under greater initial pressure. Similar patterns are also observed

for changes in wildlife populations (Barnes et al 2016). In fact, in some places, large mammals inside PAs have disappeared even after exclusion of local people, like the case of the Sariska Tiger Reserve in India (TTF 2005). Scholars questioned the management strategy of marking certain areas of forests as 'inviolable', and argued that ecological systems are linked to each other and processes outside PAs will affect ecological processes within. If PAs are surrounded by degraded areas that constrain the genetic, nutrient and water flows to and from the outside, the conservation of biodiversity cannot be achieved (McNeely 1994). The size of PAs in India is too small (average size of 608 square km for NPs and 258 square km for WSSs) for them to survive as islands of biodiversity in a landscape of intensified production (Rai 2014). Hence, the landscape approach may be useful where some level of continuity for ecosystem function and animal migration can be possible.

Although some conservationists continue to favour a completely exclusionary approach (Terborgh et al 2002), others are increasingly arguing for some sort of inclusion of local people. For them, conservation is bound to fail without the support and participation of locals (Chapin 2004; Cernea and Schmidt-Soltau 2006). Improving local peoples' wellbeing can enhance environmental sustainability, as they can and do act as stewards for conservation of natural resources (Colchester 2009). The President of the IUCN argued that "if local people do not support protected areas, then protected areas cannot last" (Adams et al 2004). In recognition of multiple problems associated with the complete exclusionary approach, a participatory and people-centred approach was initiated, popularly known as integrated conservation and development projects (ICDPs) (McShane and Wells 2004). ICDPs were 'crafted' to reduce poverty and improve incomes, health, nutrition and education (Christensen 2004). However, both conservationists and social scientists have criticised ICDPs, although the reasons differ. While conservationists have claimed that community-based

approaches are less concerned with protection of endangered species and environments and fail to achieve conservation goals (Oates 1999), social scientists have argued that ICDPs function as conventional development projects, which often lead to inequitable outcomes, severely limiting local people's rights (Schmidt-Soltau 2004). Failure of this approach, as scholars claimed, was because ICDPs on the ground are generally paternalistic and driven by conservationists' agenda without local people's participation (Chapin 2004). Local communities would rather engage more as recipients of concessions and development assistance than as participants of conservation activities (Lele et al 2010). ICDP managers' focus on local people as major environmental destructors, rather than on large scale extraction of resources by loggers, the mining sector and agriculture, has defeated the endeavour and further alienated local people from conservation activities (Christensen 2004; Schmidt-Soltau 2004).

Pointing to the ineffectiveness of ICDP approach, some economists proposed incentive-based conservation, such as payment of ecosystem services (PES). They argue for direct payments for conservation as it is more economically efficient (Feraro and Kiss 2002). In this mechanism, ecosystem services (e.g., water, carbon, biodiversity) are sold and traded. However, the efficiency of conservation outcomes through PES is rarely evaluated since it requires complex ecological and economic valuations across scales (Pascual et al 2014). Focusing only on economic efficiency, PES design overlooks some other important dimensions, such as social equity dimensions (Corbera and Pascual 2012), cultural values (Chan et al 2012), and complexities of human-environment interactions that shape ecosystem service provisions (Raymond et al 2013). Though PES schemes yield positive equity impacts in some cases, it has negative effects on equity in terms of failure to recognise and engage key stakeholders, such as forest-dependent communities or restrictions on subsistence resource access (Pascual et al

2014) and thus undermines social equity which is instrumental in shaping conservation outcomes.

Since the 2000s, there has been a paradigm shift in conservation strategy framing, from treating people and nature as separate (“nature for itself” and “nature despite people” approach), to a conservation-framing where nature benefits humans (“nature for people” approach) (Mace 2014). Thus, conservation-framing shifted from species protection and focus on ‘ecosystems’ to integrated management, with the goal of providing benefits to people in terms of ecosystem services (Turner and Daily 2008). However, overly utilitarian ecosystem service perspective has changed in recent years to a more nuanced perspective, a reciprocal and dynamic relationship, between people and nature (“people and nature” approach) (Mace 2014). The assumption of stability and equilibrium on the structure and functions of ecosystem is increasingly questioned in new conservation thinking. The North American conservation thinking of “command and control” PA approach undermines the intricate and intertwined relationship of humans with immediate forest ecosystem. Scholars argued for the functionalist perspective where local communities are considered an integral part of the ecosystem. This approach is more concerned with maintaining dynamic, complex ecological processes than with conserving static structures and elements of biodiversity (Callicot et al 2000). The underlying assumption is that human influence on the world is pervasive. The ecosystems are increasingly affected by a range of disturbances. Wilderness is no more than a matter of degree (ibid). The current PA management follows equilibrium dynamics that ignores perturbations. The idea of looking at ecosystems of plants and animals as functions of a unique past, has progressively changed into seeing ecosystems as dynamic and continuously changing, thereby acknowledging the importance of people in functioning of the ecosystem (Chatty and Colchester 2008). It is argued that the current conservation model of treating human and nature as separate entities is reductionist in nature, and the emerging notion that recognises

humans as natural part of nature is gaining wider acceptance in the conservation discourse (Callicot et al 2000). The centralized 'command and control' conservation model is based on the linear cause-effect understanding and mechanistic views of nature (Berkes 2003). It aims to undermine the natural variation in order to make the ecosystem more productive, controllable and predictable. This reductionist approach may impede resilience in a system and thereby make it susceptible to crises (ibid). Acknowledging the complexity in social-ecological interactions in any landscape, conservation scholars are increasingly arguing for such socio-ecological frameworks to address the limitations of current model of conservation (Palamo et al 2014). The socio-ecological systems are 'coupled human and natural systems that are complex, dynamic, unpredictable, shaped by reciprocal feedback loops across scales and levels, and characterized by non-linear dynamics, linked social and ecological processes' (Liu et al 2007). The ecosystem-based management shifted from a single species, extraction-oriented focus in resource management towards a more holistic conceptualization that attempts to strike a balance between the multiple interrelated dimensions of ecological processes and human wellbeing (McLeod and Leslie 2012, MEA 2005).

With the inclusion of people and human societies in ecosystem, the Millennium Ecosystem Assessment (MEA) strengthened the idea of conservation for human wellbeing⁴ (MEA 2005). The underlying principle of such approach is to connect nature and society not only for intrinsic values but also for instrumental values (Folke et al 2011). The MEA recommended that PAs should develop a stronger social support through legal, policy and other effective means, based on the benefits and values of

4. Here it is defined as, "a state of being with others and the environment, which arises when human needs are met, when individuals and communities can act meaningfully to pursue their goals, and when individuals and communities enjoy a satisfactory quality of life" (Breslow et al 2016).

the services the PAs provide (MEA 2005). Since MEA, several studies explored a wide range of ecosystem services contributing to human wellbeing (Cruz-Garcia et al 2017, Diaz et al 2015, Suich et al 2015). Conservation initiatives that focus only on material benefits are increasingly questioned as they undermine the subjective components of human wellbeing (Pascual et al 2017). Subjective components such as cultural traditions and sense of place and identity are gaining traction in measures of wellbeing and development (Pascual et al 2017; Masterson et al 2019). The emerging focus on values and culture in the Intergovernmental Science policy platform for Biodiversity and Ecosystem Services (IPBES) illustrates increased importance of human-nature relationship in maintaining wellbeing and preserving biodiversity (Diaz et al 2015, Pascual et al 2017). Thus, wide-ranging ecosystem services could attract more social support than current exclusionary conservation programmes. Recognising the limitations such as isolation, location bias and lack of societal support faced by PAs, scholars argued for integrative and holistic approaches for the conservation of biodiversity, ecosystem services and PAs (Palamo et al 2014; Masterson et al 2019) with the expansion of PA coverage. By integrating socio-ecological approach into PAs, they can serve as functional units of the conservation system, serving different roles such as ecosystem services for societal needs; providing real opportunity for local people in PA management; and promoting landscape planning (Palamo et al 2014). Scholars like Masterson and others highlighted a potential feedback loop connecting mechanism by which people's benefit from nature helps to promote positive attitudes and behaviours towards local ecosystems, through their material and perceived wellbeing (2019). A socio-ecological system framework helps to understand the character of human-nature relationships that can influence stewardship (Folke et al 2016). Socio-ecological changes occur at a local level, and drivers of these changes are mediated through complex and multilevel institutions (Berkes 2007). Hence, focus is to be given on crafting new, multilevel

institutions that allow governance to adapt to the specific context (Ostrom 2010).

The integration of social considerations into environmental management is instrumental to achieve more robust ecological outcomes (Ban et al 2013; Redpath et al 2013; Kinzig et al 2013). Various conservation interventions such as co-management, ICDPs and PES intended to focus on monetary or material wellbeing and ignored the realities like social equity considerations (Pascual et al 2014). The question of equity emerged in conservation dialogue largely from diverse distributional outcomes experienced in multiple scales. In PA regime, benefits arising from PAs are shared positively at the national and global levels, but with substantial negative impacts at the local level (Adams et al 2004). In the context of substantial negative impacts on local people, global conservation thinking was forced to move beyond a focus on material wellbeing and recognise social equity considerations that refer to fairness and social justice. This expanded consideration of social justice in conservation strategies would include the equitable distribution of costs and benefits, local participation in decision-making, and recognition of local people's distinct identities and cultures affected by current conservation interventions (Zafra-Calvo et al 2017; Zafra-Calvo et al 2019). However, these dimensions are to be supported by a socio-political context in which the existing conditions, such as power dynamics, influence stakeholders' ability to gain recognition or participate in decision-making (Pascual et al 2014). A global survey among the key stakeholders of 250 PAs on assessment of multidimensional social equity revealed that participation in decision-making, transparency in sharing information and the existence of conflict resolution mechanisms get least attention in PA management (Zafra-Calvo et al 2019). Moreover, a lack of recognition and respect for the different communities within PAs is correlated with less access to justice to resolve conflicts, and less participation in decision-making, largely due to historical exclusion of local people from

management of PAs (Brockington and Igoe 2006). Consideration of changing paradigm of conservation and emerging challenges in PA approach necessitates a new framework or model to PA management in developing countries. India's current forest legislation, the FRA 2006 that recognises the rights and agency of local communities, might be considered as a useful framework to address the wide-ranging challenges and concerns facing PA network in conservation and governance.

3. India's Forest Rights Act 2006 as a promising Conservation Model

Scholars are increasingly advocating right-based approaches (RBAs) in conservation discourse to address the ongoing conflicts due to frequent violation of rights of local communities caused by current conservation approaches, including PAs, across the globe (Brockington 2002; Chapin 2004). Secured property rights have been made an integral component of the RBAs in the context of recurrent forest tenure conflicts (Campese et al 2009; Griebler et al 2009). A number of international conservation organisations such as the International Union for Conservation of Nature (IUCN) and the World Wide Fund for Nature (WWF) in their policy statements have called for governments to embrace RBAs for effective and equitable conservation outcomes (Maginnis and Sayer 2008; Griebler et al 2009). The WWF supports the local peoples' rights to 'the lands, territories, and resources that they have traditionally owned or otherwise occupied or used' (WWF International 2008). The RBAs offer an instrument that can serve the goals of nature conservation with justice (Griebler et al 2009). Several international agreements such as Agenda 21, the CBD, the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights; and the International Covenant on Civil and Political Rights, established several rights through laws and regulations (Gavin et al 2015). Examples include right to self-determination, the right to not be deprived of property or forcibly removed from one's land, the rights to traditional habitats, territories and resources,

and respect for knowledge and practices that contribute to equitable and sustainable development (ibid). Despite this legal recognition, indigenous local communities often bear disproportionate burden in respect to their tenure, access, and resource rights (Giunta 2019). The forest resources that support the local communities' livelihood and spiritual and cultural needs are threatened by extractive industries, unsustainable fishing and spread of invasive species (Reyes-Garcia et al 2019), resulting in loss of livelihoods and land conflicts (Scheidel et al 2020). The PA model requires reform and should be replaced by approaches that are consistent with human rights, the realities of collective tenure along with conservation (Baldwin and Beazley 2019). The framework of India's FRA 2006 promises significant opportunities in addressing those concerns and challenges faced in the current PA approach to conservation discussed above. Provisions under the Act recognise these rights, by adopting inclusive forest governance mechanisms, ensuring rights over ancestral lands and access to forest resources, and incorporating multiple world views about nature and traditional local knowledge systems. The major provisions for transformative change are as follows:

First, Sikor and Stahl (2011) supported the recognition of forest rights on the historical and political grounds. The Act provides legal protection of the historical rights of forest-dependent communities. For instance, the Preamble of the Act states its aim to bring major institutional reform in forest governance through empowerment of local indigenous/tribal communities. It stated: "... the recognised rights ... include the *responsibilities* and *authority* for sustainable use, conservation of biodiversity and maintenance of ecological balance ... thereby strengthening the conservation regime of the forests while ensuring livelihood and food security ..." (MoLJ 2007). It vests significant statutory right to forest-dwellers, the '*right to protect, regenerate, conserve or manage any community forest resources* which they have been traditionally protecting or conserving for sustainable use' (ibid, italics added for emphasis). Thus, by linking rights with the

authority for conservation and sustainable use and considering this as a way to strengthen conservation regime while ensuring livelihood and food security, the act lays the foundation of democratic decentralization of forest governance in India (Sarin and Springate-Baginski 2010; Das 2019) and thereby provides opportunity for transformative change in conservation (Reyes-Garcia et al 2021).

Second, evidence shows that local communities are strongly attached to the land and forest they depend on, and develop customary rules that are positively associated with high biodiversity in lands (Pretty et al 2009). The FRA legalised ancestral lands. It states, "... the forest rights on *ancestral lands* and their habitat were not adequately recognised in the consolidation of State forests during the colonial period as well as in independent India resulting in historical injustices to the forest dwelling Scheduled Tribes and other traditional forest dwellers who are integral to the very survival and *sustainability of the forest ecosystems*' (MoLJ 2007, italics added for emphasis). The recognition of ancestral lands currently under subsistence cultivations and homesteads, enhance the interest and will of communities in forest management. By recognising forest-dwellers as integral to sustainability of the ecosystems, the Act acknowledges local communities' understanding about nature as an interconnected web of life, linking humans and non-humans in complex relations (Lyver et al 2017). Such recognition helps local people to value ecosystems and engage in stewardship and governance of ecosystems (Masterson et al 2019) and thus ensure livelihood and food security.

Third, diverse worldviews lead to a variety of ways of understanding the environment, and multiple means for solving environmental problems (Rozzi 2007). Local knowledge systems represent human interaction with local environments over a long period of time, and are often rich, nuanced, and locally adapted (Gavin et al 2015). It should be understood as a

relational expression based on human-nature appreciations and responsibilities rather than only for utilitarian ends (Whyte 2013). For any transformative change, scholars argued that biodiversity policy should recognise different worldviews and local forms of relationship to nature (McGregor et al 2018; Rayes-Garcia et al 2021). Various international agreements such as IPBES and the CBD acknowledge the importance of local knowledge and explicitly support a diversity of knowledge systems to inform international biodiversity assessments and decision-making (Diaz et al 2015). The FRA has radical provisions such as community forest rights (CFRs)⁵ that enable local communities to protect and manage their customary rights and community resources. From the forest governance perspective, the rights to protect and manage community forest resources (CFRes)⁶ are crucial as they provide a legal basis for community ownership and forest governance (Tatpati 2015). The Act provides a democratic process of demarcating and claiming CFRs and other community rights, besides individual land rights (Sarin 2016; Das 2019). The *gram sabha*⁷ (village assembly) is empowered to create mechanisms for conservation of biodiversity and wildlife, and preservation of natural and cultural heritage. These governance provisions are for strengthening the conservation regime while ensuring livelihood and food security for the community (MoLJ 2007). Thus, CFR provisions could be powerful basis for initiating processes towards co-existence, co-management and promoting equitable distribution of resources.

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5. As per section 2(a) of the FRA, CFRs are “customary common forest land within the traditional or customary boundaries of the village...to which the villagers had traditional access”.
 6. Under section 3(1), CFRes as “customary common forest land within traditional or customary boundaries of the village or...,to which the community had traditional access” (Tatpati 2015)
 7. As per Section 2(g) of the Act, GS means a village assembly, which shall consist of all the adult members of a village ... with full and unrestricted participation of women (Das 2019).

Fourth, there are significant differences of power and authority between state agencies and forest-dependent people in the domains of biodiversity policy formulation and implementation, and scholars have argued for inclusion of local people's rights and agency to make transformative change to conservation (Reyes-Garcia et al 2021). The FRA alters the balance of power between the forest bureaucracy and rights-holding communities. It statutorily empowers forest rights-holders and their gram sabha (GS) to protect wildlife, forests and biodiversity as well as their habitats from destructive activities affecting their natural and cultural heritage (Sarin and Springate-Baginski 2010). Section 5 of the Act states: "The holders of any forest right, Gram Sabha and village level institutions in areas where there are holders of any forest rights under this Act are empowered to: a) protect the wild life, forest and biodiversity; b) ensure that the adjoining catchment area, water sources and other eco-sensitive areas are adequately protected; c) ensure that the habitat of forest dwelling Scheduled Tribes and other traditional forest dwellers is preserved from any form of destructive practices affecting their cultural and natural heritage; and d) ensure that the decisions taken in the Gram Sabha to regulate access to community forest resources and to stop any activity which adversely affects the wild animals, forest and the biodiversity are complied with" (MoLJ 2007). Thus, this section devolves rule-making authority over village forest commons to the village assembly from the state forest department's control, as argued for by various scholars for positive outcomes.

Fifth, after assessing the social equity issues among the key stakeholders in PAs, Zafra-Calvo and others conclude that absence of recognition and respect for the different cultural identities and communities within the PAs is positively correlated with less access to justice to solve conflicts and also participation in decision-making process (2019). This is primarily due to historical exclusion of local communities from decisions in management of PAs (Martin et al 2016). It is argued that better

access to conflict resolution is related to more equitable benefit sharing (Zafra-Calvo et al 2019). The issues of tenurial access and cultural identities are recognised under Section 3(1) for “*individual or community tenure or both*”, under which Section 3(1)(k) vests the “right of access to biodiversity and community right to intellectual property and *traditional knowledge* related to *biodiversity and cultural diversity*” (MoLJ 2007).

Sixth, one of the important dimensions of human wellbeing is community capability, which builds on communities’ means to achieve a decent life, by enabling traditional rights, social justice, political participation, decision-making, information and knowledge capacities in order to facilitate free, prior, and informed consent (Gangadharan and Chellam 2020). The domain of decision-making, informed consent and freedom of voice, which is nested within the capabilities framework, is recognised in the FRA. For example, section 6(1) of the FRA vests authority to the local GS “to initiate the process for determining the nature and extent of individual and community forest rights or both” (MoLJ 2007). Similarly, for prior informed consent of local communities, the Section 4(2) states, “The forest rights recognised under this Act in critical wildlife habitats of National Parks and Sanctuaries may subsequently be modified or resettled, provided that no forest rights holders shall be resettled or have their rights in any manner affected for the purposes of creating inviolate areas for wildlife conservation except in case all the following conditions are satisfied”, under which Section 4(2) (e) allows changes only when “the *free informed consent* of the Gram Sabhas in the areas concerned to the proposed resettlement and to the package has been obtained in writing” (MoLJ 2007). According to the FRA, critical wildlife habitats (CWH)⁸ can be created to

8. According to section 2(b) of the Act, “ Critical wildlife habitat means such areas of National parks and Sanctuaries where it has been specifically and clearly established, case by case, on the basis of scientific and objective criteria, that such areas are required to be kept inviolate for the purpose of wildlife conservation...” (MoLJ 2007)

ensure that habitats of particularly threatened species can be made 'inviolable' through modification or acquisition of rights recognised in those areas, subject to some conditions. For example, state governments and experts may conclude that the co-existence between wildlife and people is impossible because the impact of the presence of rights-holders upon wild animals is sufficient to cause irreversible damage and threaten the existence of said species and their habitat. Thus, the Act states "relocation is possible only when it is established that co-existence is not possible and if the local communities give their *informed consent*" (MoLJ 2007). While assessing social equity in PA management, Zafra-Calvo and others considered free, prior and informed consent mechanisms as one of the important dimensions that enhance participation in decision-making and thereby solve recurrent conflicts, promoting equitably-managed PAs (2019); the FRA recognises this.

All these provisions under the FRA can empower local communities to challenge the curtailment of forest rights under 'command and control' PA approach of conservation; and also local institutions like GSs to resist extractive industries, control habitat loss, protect biodiversity, restore ecological functions and undertake adaptive strategy to climate change.

3. Implementation experience on the ground:

3.1. Evidence of local peoples' capacity in PA governance

Despite international commitments, laws and policies to respect and recognise local communities' rights and agency since 2004, a gap remains in state-owned and managed PAs (Tauli-Corpuz et al 2020). Reluctance to devolve power and anti-democratic attitudes among the state agencies has been considered as the major bottleneck for decentralisation of decision-making power in natural resource governance (Das 2019). This is already evident in FRA implementation in PAs of India. On the ground, the overall recognition of its most empowering provisions such as protection, conservation and management of CFRs through

the GS is rather bleak due to continuous obstruction by state forest departments (Kumar et al 2017). Rights recognised were mainly individual land rights; this undermines the provisions that promote autonomy of the local communities in PA governance (Das 2019). Even the negligible efforts of CFR recognition have been stopped in tiger reserves by an order issued by the National Tiger Conservation Agency (NTCA).⁹ In fact, there is absence of initiative on the part of forest department in recognising the provisions of FRA and WLPA Amendment 2006 (Fenari and Pathak-Broome 2017). Forest managers believe that local communities are ignorant and lack the ability to conserve forests. Studies are, however, numerous to counter this assumption. Some positive results on both conservation and livelihood outcomes are already available with the recognition of governing CFRs in certain areas of India (Das 2019). After getting CFRs in some NPs and WSs, GSs have taken initiative in wildlife conservation and management plans. In Odisha's Simlipal Tiger Reserve, with the help of district administration, 21 villages have prepared community-based conservation and management plans in recognised CFR areas based on traditional methods of water diversion, plantation of fruit-bearing trees, and ecological monitoring of their CFRs (Pathak-Broome et al 2017). Similarly, after receiving CFRs, villagers of Panchgaon in the core area of Tadoba Andheri Tiger Reserve in Chandrapur district in Maharashtra devised rules and regulations for using resources within 2,487 acres of CFR areas and also protecting 85 acres as PA for wildlife. Interestingly, villagers took the decision not to harvest 'tendu' leaves, a traditionally important income source, as a measure to reduce forest fires and provide tendu fruits for wildlife. The initiatives of these villagers have significantly impacted the conservation and management plans of villagers in buffer zones too (ibid). In Karnataka, the Soliga tribe of 32 villages in Biligiri Rangaswami Temple (BRT) sanctuary came

9. A statutory body under the MoEFCC for tiger conservation and management of tiger reserves.

together and prepared a tiger conservation plan and identified habitats of tigers and other animals, though their efforts have not been recognised by the forest department. However, official data of BRT reveals that the tiger population is increasing even after Soliga tribals' forest rights have been recognised (Rai 2014). In Shoolpaneswar Wildlife Sanctuary, 58 villages received CFR titles with areas of 40,000 hectares, constituting 65% of total area. Management committees have been formed in most villages and are engaged in preparing rules and regulations on usage rights and management plans, while ensuring huge earning through bamboo sales (Pathak-Broome et al 2017). All this evidence shows that, if power over CFRes is handed over to forest-dependent people, conservation and livelihood conditions may improve, enhancing equity.

Evidence is pouring in that communities empowered by FRA are actively resisting diversion of forest lands, an important driver of biodiversity decline in India (Das 2021). Government of India records suggest that about 1.4 million hectares of forest land have been diverted for non-forestry purposes such as mining, hydro-electric projects and defense installations since the implementation of the Forest Conservation Act 1980¹⁰ (Pathak-Broome et al 2017). The FRA has the provisions that help local communities to challenge the government's unilateral diversion of forest land for these developmental activities. As per the law, governments and other agencies have to take consent from GS for any kind of land diversions for which the GS has recognised rights. Even then, in practice, government agencies and FDs have continuously diverted forest lands for commercial purposes without the consent of the GS (Dash and Kothari 2014). In the Indian Parliament, it was reported in 2016 that about 25,000 hectares of forests are being diverted every year for non-forestry purposes without the consent of local communities (Das 2021).

10. It regulates the diversion of forest land for non-forestry use such as mining, dams, or agriculture.

However, there are instances where local communities rejected the proposal of commercial activities on their own lands citing FRA provisions. For example, the Maria Gond community members of Gadchiroli district of Maharashtra are resisting the diversion of 15,000 hectares of dense forests for 25 different mining projects (Pathak-Broome et al 2017). Similarly, 12 GSs of Dongria Khond community unanimously rejected a bauxite mining proposal on the Niyamgiri Hills in Odisha. The Supreme Court cited the FRA to uphold the right of local GSs to decide whether mining would be undertaken in forest land claimed by local communities (Bera 2013). All of this suggests that if power and authority are provided to local communities as per the FRA, they can successfully govern and manage forests within the institutional framework, contradicting the forest bureaucracy's claim of the incapability of local people in forest governance.

3.2. State's response during implementation: Procedural subterfuge

Contrary to the current conservation understanding, the conservationists and wildlife biologists in India vehemently opposed the Act and argued that conservation and local ways of forest use cannot co-exist (Karanth 2003). They strongly favoured status-quo based on idea of wildlife and nature conservation without human interference, and insisted that the existing IFA 1927¹¹ and WLPA 1972 provided adequate protection to local people and recognition of rights would increase encroachment due to false claims (Pathak-Broome et al 2017). The powerful conservationist lobby and the Ministry of Environment, Forest and Climate Change (MoEFCC) are opposing the implementation of the Act in NPs and WSs. The FRA has the provision for exploring possibilities of co-existence between local communities and wildlife, as opposed to the dominant human-free state-led

11. It defines the procedure for declaring an area a reserved forest, protected forest, or village forest. The prohibition of any human activities has been envisaged until special permission is granted by the Government of India.

protectionist paradigm of conservation. The legislation also supports participatory process of relocation and modification of rights recognition. Yet, the possibilities of exploring co-existence are strongly objected to by the state forest department and the conservationist lobby. The state bureaucracy constantly issues orders and guidelines to subvert, deny or confound the recognition of various rights provisions. For example, the Act stated that the MoEFCC would deliver a set of guidelines for declaration of the CWH within six months of the enactment of the Act, but it was delayed for years. But much before the guidelines were released, the state forest departments were preparing action plans for relocation from the PAs. Secondly, before forest rights rules were enacted, the NTCA of the MoEFCC hurriedly issued an order to notify Critical Tiger Habitats (CTHs) on 16th November 2007 (Bijoy 2011). The order specified a process of constituting a two-member expert committee headed by the Chief Wildlife Warden in consultation with the respective field directors of tiger reserves to delineate CTHs within 10 days of the receipt of the order (ibid), a blatant violation of WLPA Amendment 2006. About 30,446 km² of tiger reserves were notified as CTH before the notification of rules of the FRA on 1st January 2008. In 2007, tiger reserves spanned 25,551 square km, which rapidly expanded by 22% to 32,878 square km of CTH in 3 years. The tiger reserves have jumped from 28 to 50 in 18 states today. The budget jumped from INR 12 crores on average per year in 1972-2004, to 323 crores in 2018-19 (Kukriti 2020). In none of these cases was consent of GSs taken. Also, neither have CTHs been demarcated on the basis of any 'case-by-case scientific study', nor have any attempts been made to assess possibilities of co-existence with local communities. Thus, by naming CTHs, forest-dwellers were deprived of their rights over a large tract of land provided under the FRA 2006. Thirdly, even the text of the rule-framing process on conservation has suffered tinkering. For example, there were wide disparities between the draft rules and final rules. The draft rules elaborately laid down an institutional mechanism for implementing responsibilities

for conservation. Section 5 of the Act provides that GSs are empowered to (a) protect the wildlife, forest and biodiversity; and (b) ensure decision-making power for GS to regulate access to CFRs and stop any activity that adversely affects wild animals (Das 2021). Besides, GS has been given a range of powers – from devising plans and rules for the protection, regulation of access to and sustainable use of the CFRs; to protecting the interests in forest rights of vulnerable groups and women (Roy Burman 2008). But the final rules omitted such detailed institutional mechanisms, and simply stated that the GS must constitute committees for the protection of wildlife, forests and biodiversity from amongst its members, to carry out the provisions of Section 5 of the Act (Das 2021). The absence of clear rules and regulations in forest governance offers scope for diverse interpretations (Mahoney and Thelen 2010). The ambiguity of institutional mechanisms provides an opportunity for FDs to continue to work in their own way to retain control over conservation (Das 2021). Recently, the NTCA has issued a blatantly illegal order to all Chief Wildlife Wardens of tiger reserves directing them not to recognise forest rights under the FRA in CWHs in the absence of guidelines, violating not only the FRA but also WLPA 1972 (Pathak-Broome et al 2017).

The MoEFCC's attitude can be gauged from the initiative of preparing guidelines for declaration of new tiger reserves. While the protocols for relocation from CTH to create inviolate space were ready, the guidelines for demarcating tiger reserves have been issued only in January 2018, replacing prior informed consent of GSs and public scrutiny (Kukriti and Agarwal 2018). Relocating people from CTHs and CWHs of PAs was so high on the agenda that the NTCA approved compensation from the Compensatory Afforestation Fund¹², which is not even meant for

12. As per FCA 1980, diversion of forest land for non-forest purposes must be accompanied by compensatory afforestation. All funds received from the user agencies towards compensatory afforestation, penal compensatory afforestation, net present value of forest land, catchment area treatment plan funds, and so on, shall be deposited.

this purpose. During the FRA implementation, relocations were carried out from various NPs and WSs without prior informed consent of GSs. Wherever consent had been taken, it was done at individual level through various coercive methods (Fenari and Pathak-Broome 2017). Thus, though laws mandate an exploration of co-existence, the issue of relocation from CTH becomes the priority for forest administration. They still believe that conservation in PAs can only be possible by denial of rights of local people and their exclusion from their habitats. Besides, resistance to local management by FDs is based on ecological ideas of stability, centralised control of ecosystem services and intensification of conservation, which ignore history, culture and democratic process (Rai 2014). In governance level, ambiguity in institutional arrangements still exists regarding power-sharing between the GS and the state FD, despite opportunities towards democratic and effective conservation in PAs under the FRA.

4. Concluding Remarks:

The Aichi Target 11 under the CBD stressed that PAs should be 'effectively and equitably managed', that recognise and respect the rights of local communities and costs and benefits are fairly shared (2010). Various indigenous people's organisations demanded the inclusion of legal recognition and protection of their land, water and territories during the discussion for the post-2020 global biodiversity framework (CBD 2021). United Nations 2016 reports, 'While the high rate of biodiversity in indigenous lands is well established, the contribution of indigenous peoples to conservation has yet to be fully acknowledged ... Insecure collective land tenure continues to undermine the ability of indigenous peoples to effectively protect their traditional lands, territories and natural resources' (Tauli-Corpuz et al 2020). Land rights are critical for the well-being of local communities, and a necessary condition for empowering them to contribute towards conservation goals (Bawa et al 2011; Kumar and Kerr 2012). Scholars are advocating a process that provides community control over their resources through tenure reform. It is based on

the assumption that local communities have a greater interest in sustainable resource use than governments and corporations and that those communities will develop a sense of proprietorship over resources and wildlife with the devolution of power (Masterson et al 2019). The empowerment of local people and equitable benefit sharing would increase the likelihood of effective conservation. From these perspectives, the FRA 2006 could be considered an ideal model for equitable PA conservation, particularly within the diverse socio-political context in developing countries. It ensures local people's rights and agency in management and governance of forests and thereby recognises the local forms of relationship to nature for transformative change. By authorising distribution of costs and benefits and local participation in decision-making, and recognising local people's knowledge, culture and identities, the Act acknowledges the expanded social justice consideration to global conservation.

The FRA 2006 provides significant legal space for democratic and effective governance of PAs. The law recognises co-existence in forest landscapes and participation of local people in selection of areas for management of wildlife. It offers scope for extension of conservation from the island level to the landscape level. Recognising CFRs to use, manage and govern forests within traditional boundaries of villages; as well as the FRA's empowerment of GSs for conservation and protection of forests, wildlife, biodiversity and their bio-cultural heritage; is a significant step towards forest governance and restoration of local rights over forest resources. However, the state agencies in India are not ready to share the power they have enjoyed for more than 150 years (Das 2021). They are consistently taking actions to subvert the provisions of FRA during the implementation process, as discussed earlier. The conservationists and state agencies still strongly believe that conservation cannot be possible with humans inside the PAs. Forest managers are still prioritising relocation over exploring co-existence in areas considered important for species and their habitat, despite acceptance of

local knowledge systems in recent legislations. If we look at the curriculum of training programmes for Indian Forest Service cadre, legislations like the FRA that provide more democratic governance model of conservation, find little space (Kothari 2013).

To make conservation effective and sustainable, proper implementation of FRA in PAs is essential. At governance level, there is a lack of clarity on the relative powers, roles, functions and responsibilities of the GSs and the FDs (Joint MoEFCC-MoTA Committee 2010). A clear and appropriate institutional structure specifying power, role and responsibilities of GSs and forest department in conservation and management of bio-resources (including protection of endangered species) should be worked out. Also, all the existing conservation-related laws and policies should align with this law. As there is a wide variation in the extent of forest dependence, practices and resource use, religious beliefs and customs surrounding the forest, local people may devise their own plans and strategies for conservation as well as livelihood needs, as per the law. The local forest department can act as regulator in case of unsustainable forest resource use and can enforce punishments or penalties, also specified in the law. An appellate authority at district level can be formed to redress any dispute or grievance that may arise. Forest managers, in general, are conservative, inward-looking, more comfortable with forest botany than with socio-political issues and reluctant to appreciate local knowledge of conservation. They believe that local communities are ignorant, irrational and lack the capacity to manage forests. On the other hand, local communities perceive forest managers as authoritarian individuals who have arbitrary power to punish and to deny access to resources (Torry 2011). For effective conservation, such mistrust between forest managers and local communities has to be erased. For this, forest managers' mindset, attitude towards local communities should have to change. They have to leave the idea of authoritarian human-free conservation approach and look at forest areas as

'socio-ecological systems', thereby recognising the reality of co-existence between wildlife and local communities practiced for millennia, and facilitate legal provisions of FRA to protect, manage and govern wildlife and biodiversity at the landscape level.

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BOOKS

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