

Implementation of Forest Rights Act, changing forest landscape, and “politics of REDD+” in India

Ashish Aggarwal*#

Resources, Energy, and Development 8(2): 131–148

Abstract

Despite the rapid development of REDD+, in terms of policy and on ground, there is little empirical evidence on how REDD+ interacts with existing governance mechanisms and impacts people’s rights. Implementation of the Forest Rights Act, 2006 (FRA) in India provides an interesting insight into this interaction. Peoples’ rights over forest resources are being recognized under FRA in a comprehensive manner for the first time in independent India. Although a number of challenges of implementation are yet to be addressed, it has started changing the forest landscape of the country by redefining the relationship between the state and the people with regard to the use and management of forest resources. Close to 1.169 million claims for individual and community rights, covering about 3% of the forest area of the country, have been recognized up to 30 April 2011. People are expected to have much more control over the resources if FRA is implemented in its true spirit. While FRA is being implemented, the Government of India wants to leverage its forest conservation record in international climate change negotiations through REDD+. India considers REDD+ to be a bargaining chip in the negotiations. Civil society groups, however, are strongly contesting this instrument, as they fear REDD+ might provide an opportunity to the government to scuttle implementation of FRA. This contestation or politics of REDD+ is being negotiated and renegotiated continuously, where different stakeholders are guarding their own interests. This case provides some early indications of contestations, which REDD+ is going to evoke at the country level.

Introduction
Indian forestry: the context
Forest Rights Act: historical context, Implementation status, and issues
Changing forest landscape
REDD+ and India’s approach
Politics of REDD+
Conclusion
Acknowledgement
References

Key words

India, Forests, Forest Rights Act, REDD+

* University of Manchester, UK. (enviroashish@gmail.com)

The Energy and Resources Institute (TERI), Delhi

Introduction

Internationally, there is increased focus on forests because of their role in climate change mitigation. Deforestation and degradation in tropical countries contribute between 12%–17% of global greenhouse gas (GHG) emissions (IPCC 2007; Vander Werf *et al* 2009). Besides, the potential for large-scale reduction in GHGs, reducing emissions from deforestation and degradation (REDD) has been projected as a low cost and effective strategy to mitigate climate change (Sathaye *et al* 2007; Stern 2007). It has resulted in the rapid development of the Reducing Emissions from Deforestation and Degradation¹ (REDD+) mechanism in international climate change negotiations, hosted under United Nations Framework Convention on Climate Change (UNFCCC). The idea of REDD+ was first accepted at the Conference of Parties (CoP) 13 at Bali in 2007 and it was ratified by the CoP in Cancun in 2010. Thus, it is almost certain that REDD+ would constitute an integral part of any future climate change policy framework.

There are various studies, which reflect on how REDD+ will affect and get affected by people's rights and forest governance mechanisms on the ground (Corbera and Schroeder 2011; Irland 2011, Larson and Petkova 2010). Some researchers and civil society groups argue that REDD+ projects could adversely impact livelihoods and rights of indigenous groups and local communities, as rights of the communities remain contested over large parts of the forest land in the developing world (Griffiths 2007; Lovera 2008; Rawles 2008). Hence, it has been argued that recognition of rights and security of tenure is critical for equitable REDD+ (Hatcher 2009; Sikor *et al* 2010). Similarly, it has been suggested that REDD+ would face immense governance challenges, such as coordination of

various sectoral policies and addressing complex issues, such as corruption (Angelsen 2009). There has been little progress on the ground in addressing these governance challenges, despite the eagerness of many developing countries to participate in REDD+ (Sunderlin and Atmadija 2009; Sunderlin *et al* 2009).

Despite so much literature, there is little empirical evidence on how REDD+ will affect community rights and forest governance on the ground. The Indian case could provide some illuminating evidence in this regard. There is a huge programme underway for recognition of people's rights over forest resources in the country, through a unique legislative measure known as The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights Act) [henceforth, Forest Rights Act or FRA]. FRA is set to redistribute control over forest resources if implemented in the right spirit (Sarin and Springate-Baginski 2010).

It has been reported that up to 30 April 2011, 1.169 million claims for individual and community rights over forest resources have been accepted across India (MoTA 2011). These claims cover close to 3% of forest area in the country and have already started changing the "playing field" (Springate-Baginski *et al* [undated]). Implementation of FRA has been slow so far because of many challenges. It, however, is expected to improve with certain policy changes and constant pressure from the civil society. FRA will change the forest landscape of the country with recognition of more individual and community rights. Local people will have more control over the management of the forests and their resources.

As FRA is being implemented on the ground, the idea of REDD+ is also gaining momentum in the country. The Indian government supports the implementation of REDD+. It considers forests as an important part of its climate change strategy. In fact, the government has proposed National Mission for a Green India (or Green India Mission or GIM in short) to address climate change issues through the forestry sector. The Indian government wants to finance GIM

¹ '+' in REDD+ acknowledges the role of afforestation, sustainable forest management and conservation in dealing with climate change besides addressing deforestation and degradation. It was a late addition to the policy discussions but now constitutes the part of approved text of UNFCCC

through REDD+ funding from the international community (Sharma 2010). This is considered to be problematic by the civil society groups supporting the implementation of FRA. These groups are very sceptical about REDD+ and they see it as a “way to deny the rights of the people” and allow the private sector to exploit forest resources for profit (CFSD and NFFPFW [undated]). They are strongly opposing REDD+, which has led to a contestation on the ground.

This paper aims to discuss how contestation or “politics of REDD+” is interacting with implementation of FRA and, as a result, is changing the forest landscape of the country. It will also highlight some of the research gaps that need to be plugged to understand this conundrum better.

The second section discusses the forestry context of India. It highlights ownership and management control of the forest resources in the country. The third section of the paper discusses the historical context, genesis, and implementation of the FRA to understand the scepticism of the civil society groups towards the state² and REDD+. The fourth section discusses how FRA is changing the forestry landscape of the country. The fifth and sixth sections discuss the emergence of REDD+ at the international level, India’s approach, and the politics of REDD+.

Indian forestry: the context

Forest resources

India is one of the seventeen mega diverse countries of the world (MoEF [undated] b). It has great diversity of ecosystems and animal and plant species. Forest ecosystems constitute an important part of this diversity. India has 78.37 Mha of area under forest and tree cover, which constitutes 23.84% of its geographical area (FSI 2009). Forests³ cover 69.09 Mha and trees⁴

² The term ‘state’ has two different meanings in this paper as per the context. In one context, it represents government at any level. In the second context, it means a geographical unit. India is a federal union of different states, which are administered by their own governments.

cover 9.28 Mha out of the total area. Tree cover is important from the management point of view as it lies outside the designated forest boundaries. Forest cover has been further divided into three density categories of very dense forests (VDF), moderately dense forests (MDF), and open forests (OF) with more than 70%, 40%–70%, and 10%–40% canopy densities, respectively.

Of the forest cover, 42% is in the open forest cover category. Much of this area is degraded because of huge human and cattle population pressure. India has 2% of the global forest area, and is faced with demands of 16% of the world’s human and 18% of world’s cattle population (MOEF [undated] a). More than 200 million rural people depend on forests for at least part of their livelihoods (FSI 2009). Close to 40% of the population still depends on fuel wood as the primary source of energy (NSSO 2001), a substantial part of which is exploited from the forests beyond their carrying capacities (Aggarwal *et al* 2009a; MOEF 2006). All these pressures have resulted in widespread forest degradation.

Legal status, ownership, and management

Legal status

Forests have been classified broadly into two categories of reserve forests and protected forests as per the Indian Forest Act, 1927. Reserve and protected forests cover 56% and 27% of the forest area (Figure 1). There is another category of village forests mentioned in the Act. Village forests are the reserve forests, which are assigned to the communities for management (MoEF 2006). Another category, which does not find mention in the Indian Forest Act, but covers about 17% of the forest area, is known as “unclassified forests”. This category of forests

³ Forest cover includes the areas, which are more than 1 ha in size and have more than 10% of the crown cover density. These also include areas outside designated forest boundaries with the above mentioned characteristics

⁴ Tree cover includes the areas, which are less than 1 ha in size but has crown cover more than 10%. It includes areas outside the designated forest boundaries

awaits to be included in the reserve or protected forest category (ibid).

The status of rights varies across these legal categories. Local people have minimal rights in the reserve forests. Protected areas like national parks and wildlife sanctuaries, along with other forests, come in this category. People have some rights in the protected forests while rights have not been recognized in the unclassified category. So, across 73% of forest area, which comprises reserved and unclassified forests, people have either minimal rights or their rights have not been recognized.

Ownership and management

Of the total forest area, close to 97% is legally owned by the government (comprising 93% of the forest area controlled by state forest departments and 4% by state revenue departments) and 3% is owned by private entities and communities (MoEF 2006). Though the government owns a large part of the forests, there has been increasing involvement of communities in the management over the years. Reportedly, 28% of the forest area is managed in collaboration with communities under the Joint Forests Management (JFM) programme (Aggarwal *et al* 2009a). Similarly, there have been efforts by companies and individual farmers to manage vegetative cover mainly outside the forest area. After the 1980 Forest Conservation Act, which substantially reduced the supply of raw material from state forest lands to wood-based industries, the government promoted plantation of trees under various agroforestry and social forestry plantation schemes.

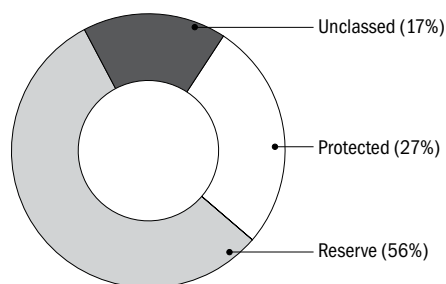


Figure 1 Forest categories in India
Source FSI, 2009

Despite the involvement of communities, the government still manages 69% of the forest area on its own, through the state forest departments (Table 1).

The state owns and manages the largest part of forest estate in the country, where rights of people have not been recognized. It has marginalized forest dependant communities in the country. They have protested against this deprivation of rights for long (Guha 2000). These protests finally resulted in the Forest Rights Act (FRA).

Forest Rights Act: historical context, Implementation status, and issues

The FRA was enacted in the year 2006 and its implementation started in the year 2008. This act recognizes a range of individual and communal rights on forest resources, including ownership of forest land, which have been neglected since independence. It not only aims to undo the “historical injustice” to scheduled tribes and other traditional forest dwelling communities, but also aims to empower the communities for the “responsibilities and authority for sustainable use, conservation of biodiversity, and maintenance of ecological balance” (MoLJ 2007). It marked an unprecedented event in Indian politics, when rights of the tribal and other forest-dependant communities took centre stage.

However, the FRA did not emerge in an “unproblematic and consensual” way (Bose 2010). Different stakeholder groups contested for their interests over a long period of time. In fact, the history of this contestation dates back to the colonial era when rights of people were systematically usurped.

Table 1 Management pattern of Indian forests

S. No.	Management	%age forest area
1	Government	69
2	Government and communities	28
3	Communities and private entities	3

Source Aggarwal *et al*, 2009a

Historical context and genesis of FRA

The genesis of FRA lies in the historical deprivation of rights of tribal and other forest-dependent communities in India (Springate-Baginski *et al* 2009). It started with the colonial rule in the 19th century, when the British started centralizing and restricting forest use for commercial exploitation through legislative measures, such as the Indian Forest Act of 1864 and later on 1927 (Sarin *et al* 2003; Springate-Baginski *et al* 2009). This centralization and reservation of forest land changed the forest–people relations (Sarin *et al* 2003). This policy of reserving forests and restricting people’s rights continued even after independence, which is a common feature of many post-colonial nations.

In independent India, large areas of unsurveyed community lands were transferred to the forest departments through blanket notifications without recognition of their rights or consultation with local people (Bose 2010). In some states like present day Uttarakhand (then part of Uttar Pradesh), the notifications were accompanied by a “forest settlement” process, where rights of communities were partially recognized. But, in many areas, forests were notified as reserved and protected forests without the recognition of rights (Springate-Baginski *et al* 2009; Bose 2010). In many cases, where private feudal forests were annexed to the forest estate of the country, the situation of forest-dependent people became even worse as their existing minimal rights were not recognized (Bose 2010). The forest estate of the country increased by 26 Mha between 1951 and 1988 through the annexations under colonial Forest Act of 1927 (Sarin *et al* 2003). The Indian state became the “biggest violator of the spirit of the Constitution”, which provides for the protection of the rights of tribal people (Sarin 2005). Similarly, the rights over major non-timber forest produce (NTFP), which constitute an important part of the livelihoods of forest-dependant communities, were centralized through various policies between 1960s and 1970s [Saxena (*undated*)].

Increasing concern over the conservation of forests and wildlife in the country resulted in the Wildlife Protection Act of 1972 and Forest Conservation Act of 1980. Wildlife reserves, with minimal rights for tribal people, increased from 131 in 1975 to 572 in 1999, covering 4.7% of the land area of the country (Bose 2010). These laws made the tribal and other forest-dependent communities “encroachers” on their own lands. As a result of the proactive efforts of a bureaucrat, the government issued guidelines to regularize the pre-1980 “encroachments”, in the year 1990, but these were barely implemented.

Besides the conservation concerns, there was a growing demand for development in the country. Mines, industry, large dams, and other infrastructure were created. These further marginalized the tribal and forest-dependent communities. They were displaced from their lands without adequate compensation. It is estimated that 21.3 million people were displaced between 1951 and 1990, out of which 8.54 million or 40% belonged to the Scheduled Tribe category, which constitutes close to 8% of the country’s population (Sarin *et al* 2003; Bose 2010). Hence, tribal communities have paid a heavy price for the “conservation” and “development” of the country. It could be one of the main reasons for the spread of left wing extremism across the tribal districts in the country.

In this historical setting, the actual trigger for the FRA came in the year 2002, when in response to a decision by the Supreme Court, the Ministry of Environment and Forests (MoEF) issued a directive to the state forest departments to evict all the encroachments from the forest land within a fixed time. This order estimated an area of 1,250,000 ha under encroachments spread across eight states. Many state forest departments started the eviction process. It is estimated that between 150,000 to 300,000 families were evicted (CSD 2007; Springate-Baginski *et al* [*undated*]). This led to a massive uproar and protests and the MoEF had to intervene to stop the process. It resulted in a loosely united campaign of various civil society activists and organizations christened as “Campaign for

Survival and Dignity” (Springate-Baginski *et al* [undated]). It became a major political issue. Both the parties promised legislation to recognize the rights of tribal and forest-dependant communities during the forthcoming elections in 2004 (MoEF and MoTA 2010). Once the elections were won by the United Progressive Alliance, led by Indian National Congress, the pressure on the government mounted to fulfil its promises. The Prime Minister asked the Ministry of Tribal affairs (MoTA) instead of the MoEF, which had been handling these affairs so far, to draft a bill to recognize the rights of forest-dependant communities. This was a major shift as a result of protests by the civil society (Springate-Baginski *et al* 2009; Bose 2010). Then, it took three years of strong contestation among various stakeholders before the FRA was finally implemented in 2008.

The majority of the stakeholders aligned themselves into two coalitions—one strongly favoured the status quo based on conservation ideas, while the other coalition wanted a change for the tribal and forest-dependent people (Sarin and Springate-Baginski 2010; MoEF and MoTA 2010). There was conflict within the government—MoTA and MoEF based on different ideologies, which was finally sorted out by the Prime Minister himself (MoEF and MoTA 2010). Powerful lobbies worked on both sides. Pro- rights groups advocated their cause based on the arguments of democratic rights, poverty alleviation, and improved incentive for the tribal people for conservation, whereas the pro-conservation coalition, based their campaign on the ideas of wildlife and nature conservation (Bose 2010). It has been argued that the powerful conservation lobby influenced the media to launch a “misinformation campaign” (Bose 2010). Data and information provided by both the coalitions varied to a great extent. For example, the pro-conservation lobby argued that the proposed bill could result in a loss of 15% of India’s forest cover, whereas the pro-rights group argued that it dealt only with 2% of India’s forest land (Bose 2010). But, due to immense pressure from civil society and its potential political ramifications, the Act was

passed in the parliament in the year 2006. However, there was strong contestation on the text of both the Act and the rules between both the stakeholder coalitions. It is argued that the FRA is a much watered down version of what was proposed initially (Sarin and Springate-Baginski 2010).

Implementation of FRA: status and issues *Status*

The act is being implemented for more than two years now. It has been reported that up till 30 April 2011, 1.169 million titles for individual and community rights have been distributed across India (MoTA 2011). More detailed information is available for the four states of Chhattisgarh, Maharashtra, Rajasthan, and West Bengal (Table 2), which highlights the disparity in recognition of individual and community rights. Individual rights constitute 99.78% of the total recognized claims as against 0.2% of recognized community rights. Similarly, the area recognized under individual rights constitutes 97.5% of the total area as compared to the 2.5% of the area recognized for community rights. So, very few community rights have been recognized as compared to individual rights. Average area given for individual and community claims is 0.88 ha and 10.39 ha, respectively.

Similarly, aggregate information is available for 13 major FRA states of the country— Andhra Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tripura, Uttar Pradesh, and West Bengal. Close to 1 million titles with rights over 1.42 million ha of forest area have been distributed in these states (Table 3). It constitutes 2.8% of the forest area and 3.2% of the forest cover in these states.

As mentioned above, 1.169 million claims have been recognized across the country. However, easily comprehensible information is not available about the total forest area covered under these claims. Based on a combined average of 1.42 ha/claim derived above, it has been estimated that 1.66 Mha of forest area has been distributed so far (Table 4).

Table 2 Detailed analysis of recognized claims under FRA in four states of Chhattisgarh, Maharashtra, Rajasthan, and West Bengal

S. No.	Claim	Number	Number (%age of total)	Area (ha)	Area (%age of total)	Av. area/ claim (ha)
1	Individual	376,835	99.78	333,282	97.49	0.88
2	Community	826	0.22	8,584	2.51	10.39
		377,661	100.00	341,866	100.00	

Source MoTA 2011

Table 3 Recognized claims under FRA in 13 major FRA states

Claims recognised (Number)	Area (ha)	Av. area/ claim (ha)
1,002,792	1,425,206	1.42

Source MoTA 2011

Table 4 Total claims and forest area recognized under FRA at the country level

Claims recognized (Number)	Area (Mha)
1,169,000	1.66

Source MoTA 2011, and area extrapolated from average figure in Table 3

Issues

Despite the progress, there are many issues like low rate of acceptance of claims, low recognition of community rights, and other institutional issues, which have marred the implementation process. These issues are analysed here.

Unequal geographies

FRA has been implemented unevenly across the country. While it is progressing well, at least numerically, in states like Orissa, Chhattisgarh, Madhya Pradesh, Tripura, and others, it has not even started in ten states and Union territories like Arunachal Pradesh, Goa, Tamil Nadu, and Uttarakhand (MoEF and MoTA 2010; MoEF 2011). In some states like Bihar and Himachal Pradesh, progress is very slow (Figure 2). There are different reasons for the slow progress in various states. In most of the north-eastern

states, state governments are not clear about the relevance of the Act for their tribal areas, which already have autonomous administration under sixth schedule of the constitution (MoEF and MoTA 2010). Implementation has been stalled in Tamil Nadu because of a petition against the Act in the high court of the state (ibid). In many other states, the state governments are slow to start the process.

Different state governments are implementing the Act as per their understanding, motivation, and agenda. For example, states of Andhra Pradesh and Madhya Pradesh see the Act as “an opportunity to ‘distribute’ forest land and secure the individual rights” (ibid). These unequal geographies have frustrated tribal, forest-dependent communities, and civil society groups in these areas.

Low rates of acceptance

There has generally been a low rate of acceptance by the government of individual and community claims across the country. Country wide combined rate of acceptance is only 37.60% (Table 4). However, in some states like Himachal Pradesh and Bihar, acceptance rates are abysmally low at below 1%. There are various reasons for these low rates of acceptance. A report by the joint committee of MoEF and MoTA suggests that there is severe shortage of trained manpower at the ground level. Implementation of FRA is an additional responsibility of the concerned departments, which has led to slow progress and rejections of claims (MoEF and MoTA 2010). Sathyapalan (2010) cites differences in objectives and perceptions of

departments leading to lack of coordination and low rates of acceptance. Civil society groups like Campaign for Survival and Dignity (CFS) accuse State Forest Departments (SFDs) of “illegally blocking people’s rights to their homes and lands” (CFS 2009).

The data in Table 4 does not give disaggregated information about the claims of tribal and other forest-dependent communities. Rejection rate of the claims submitted by non tribals might be even higher as they have to prove continuity of their rights over the last 75 years, which is difficult (Jena 2010; Sarker 2011). Jena

Table 5 Range of variations in accepted claims across the country

State	Claims received	Accepted	%age accepted
Himachal Pradesh	5,648	19	0.34
Bihar	2,311	22	0.95
Orissa	449,523	261,500	58.17
Andhra Pradesh	330,143	167,605	50.77
Country wide	3,109,000	1,169,000	37.60

Source MoTA 2011

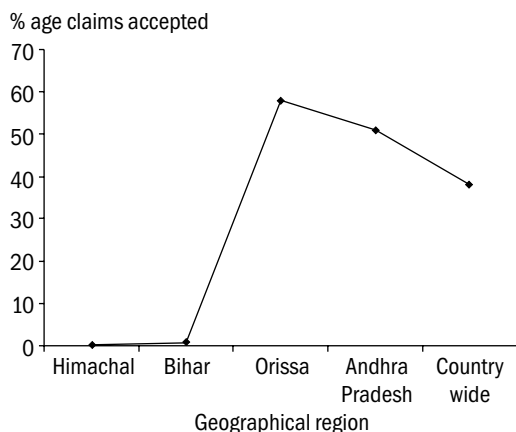


Figure 2 Range of variation in successful claims across the country
Source MoTA 2011

(2010) reports it as one of the main reasons for rejection of two thirds of the claims in the state of Orissa.

Minimal recognition of community rights

Sarker (2011) reports that only 0.67% of the community claims have been accepted up to February 2010. This is one of the biggest challenges faced by the FRA. It has undermined the foundation of FRA that emphasizes security of tenure and livelihoods to the communities. FRA has provision for recognition of more number of community rights than individual rights. But, so far, most of the titles have been given for individual land rights, mainly for agriculture and habitation purposes. There are various reasons for this, including misconception about the act as a provision for individual land rights among public and lower officials, lack of baseline information on community rights, and confusion over demarcating community rights (CSD 2010; MoEF and MoTA 2010).

Institutional issues

Then, there are procedural and equity issues related to constitution of committees, especially at the grassroots level. Forest Rights Committees (FRCs) have been constituted at the grassroots level to help the gram sabhas recognize rights claims. These committees are formed at the panchayat⁵ level in many cases, instead of revenue village⁶ or lower level. It becomes difficult to convene gram sabhas on such a large level (MoEF and MoTA 2010; CSD 2010). Similarly, institutions constituted at higher level like Sub Divisional Level Committees (SDLC) and District Level Committees (DLC) have not helped communities proactively to claim rights.

⁵ Panchayats are elected bodies constituted as the lowest level of local self government system (called Panchayati Raj) in India. These were provided constitutional status under the 73rd Amendment Act, 1992 of the Constitution of India.

⁶ Revenue village means a revenue estate in the revenue records of a district, in which it is situated or a village as may be specified, by notification in the Official Gazette, by the Government.

There are reports of corruption at the grassroots level. Jena (2010) reports that lower government officials ask for \$100 bribe for processing the claim, which is a large amount for poor villagers.

Rights of extremely vulnerable groups

There is lack of information and confusion over the rights of extremely vulnerable groups like nomads, pastoralists, and shifting cultivators (MoEF and MoTA 2010). It involves complicated issues like tenure arrangements across different seasons and states. It requires a lot of consensus building and coordination among the stakeholders and cannot be sorted out quickly. People living in forest villages also face challenging conditions because of lack of infrastructure and other facilities. But, the process to convert these villages into revenue villages as per the provisions under the act has not been started yet (ibid).

Wildlife conservation and forest rights

Though FRA applies to wildlife protected areas (PA) like national parks and sanctuaries, there is reluctance at the state level to recognize the rights in these areas (MoEF and MoTA 2010). State forest departments are taking undue advantage of Critical Wildlife Habitat (CWH) provisions in the FRA and are trying to relocate people from protected areas. Civil society groups have reported instances from various states like Madhya Pradesh, Rajasthan, and Orissa where the rights of people are not being recognized under the FRA and instead efforts are expedited to relocate them (CFSD [undated]; MoEF and MoTA 2010; Satpathy and Jain 2010). Satpathy and Jain (2010) narrate the woes of the displaced people from village Jenabil in the Simlipal tiger reserve in Orissa. These people were displaced under police pressure and were living under sub-human conditions at the relocated site (ibid). A report from Centre for Social Development (CSD), a civil society organization, accuses the government of continuing with the anti-FRA actions, such as afforestation on tribal lands, relocation of people from protected areas, and mining in forest areas (CSD 2010). It has been argued that because

of bureaucratic “apathy and sabotage” and the aforementioned factors, the implementation of FRA has been undermined (ibid).

The MoEF, under tremendous pressure from civil society groups, has issued new guidelines in February 2011, which clearly lays out the process of declaring CWH areas (MoEF 2011). It clearly states that such areas could not be created unless “the process of recognition and vesting of rights....is complete in all the areas under consideration” (ibid).

Civil insurgency

It has been reported that 19% of the forest cover is affected by the civil insurgency, especially left wing extremism known as naxalism in the country (De 2006). It affects governance in 17 national parks, 35 wildlife sanctuaries, 18 reserve forests, mostly tiger reserves, and many other forest areas (ibid). Half a million crimes are reported from India’s forest areas every year and about 30% of it is related to the civil insurgency in these areas (ibid). It has affected implementation of developmental schemes in these districts (Tiwari and Sinha 2010). It has also affected implementation of FRA in such areas (Jena 2010).

Land grabbing and politics

FRA has led to fresh encroachments over forest land across various states in the country, expecting that these will be regularized (Ghate 2009; PTI 2007; Chauhan 2011). Chauhan (2011) argues that various instances of land grabbing were found in a study of 10 states across the country. He reports that 11,000 ha of forest land has been encroached upon in Andhra Pradesh since the implementation of the Act (ibid). Instances of land mafia paying tribals to encroach land have been reported from the states of Maharashtra and Uttar Pradesh (ibid). Similar stories of fresh encroachments have been reported from states like West Bengal and Maharashtra (Ghate 2009).

Encroachments are being promoted by political interests at some places (Kothari 2006). FRA is being used as a political tool. Even the

joint committee of MoEF and MoTA has reported that state governments in Andhra Pradesh and Madhya Pradesh are using FRA as a political tool to distribute lands and gain from it in the upcoming elections (MoEF and MoTA 2010).

Changing forest landscape

It is clear from the discussion so far that the implementation of FRA has been slow and riddled with complex issues. However, if implemented in the right spirit, it is expected to redistribute control and management of forest resources in the country (Sarin and Springate-Baginski 2010). It has addressed the complex issues of ownership of non-timber forest products and rights in governance of forests at the legislative level, for the very first time in Independent India (MoEF and MoTA 2010).

It will “restructure the relationship between rural forest-dependant communities, the forests they use, and the state” (ibid, emphasis in original). FRA is expected to significantly change the forest landscape of the country. In fact, FRA has already started affecting the relationship between the forest bureaucracy and people (Springate-Baginski *et al* [undated]).

The FRA provides for a number of individual and community rights, including right to hold and live in the forest land, community tenure, right over ownership and collection of non-timber forest produce, and any other right, which is recognized under law (MoLJ 2007). With the implementation of community forest resource (CFR) claims, communities will become major stakeholders in the management of the forest resources. It is expected to cover large parts of the forest area in the country. It has been proposed that Community Forest Resource Management Committees (CFRMC) could be constituted to manage the resources (MoEF and MoTA 2010). These CFRMCs would act on behalf of gram sabhas. Even JFM areas, which cover about 22 Mha or one third of the country’s forested landscape, could be recognized as CFR (ibid). Similarly, self initiated community forest management regimes could be recognized under FRA with appropriate provisions for equity and

gender balance wherever required (ibid). Hence, FRA is expected to change forest governance of the country in a major way. Some of the key areas, where it has already or is expected to impact forest governance in the country, have been discussed below.

Control and management of resources

So far, FRA has accepted 1.169 million claims and has redistributed control of close to 3% of the forest area to individuals and communities. Considering that 275 million people are dependent on forests for their livelihoods, what has been achieved so far is nominal. Limited cases of community forest rights have been recognized because of procedural confusion and complexity of the process; however, it would cover a much larger area if these issues can be sorted out (MoEF and MoTA 2010). It would impact a much bigger area than the actual area over which claims are accepted because these claims are scattered over different forest patches. It has been reported that FRA could affect up to 16% of the forest area of the country (Ghate 2009).

Non-timber forest produce management

FRA will also impact the management of non-timber forest produce (NTFP), especially the ones, which are commercially valuable and for which rights are currently centralized. The act provides “right of ownership, access to collect, use, and dispose of minor forest produce, which has been traditionally collected within or outside village boundaries” (MoLJ 2007). Communities will have access to the commercially important NTFPs like tendu leaves, sal and mahua seeds, and many more, which are, at present, controlled by the state. At present, harvesting and trade of these NTFPs is done by the state controlled Forest Development Corporations (FDC). Local people get the meagre labour used for harvesting the NTFPs, whereas middlemen and FDCs share the largest share of revenues. It has been proposed to decentralize NTFP trade, provide price and policy support, and build the capacities of the local people to manage the NTFPs in the changed scenario (MoEF and MoTA 2010).

Biodiversity conservation and wildlife management

As mentioned earlier, there has been little progress in recognizing rights of people inside protected areas. It has been partly due to lack of clarity and partly due to unwillingness of state governments (MoEF and MoTA 2010). But, some of these issues have been sorted out with the issuance of new guidelines regarding Critical Wildlife Habitats (CWH). These guidelines clearly state that rights of individuals and communities under FRA apply to all protected areas, including tiger reserves (MoEF 2011). Relocation of people from such areas without their consent and recognition of their rights has been declared as illegal (*ibid*). It is expected that the process of recognizing rights in PAs will be expedited soon. It will legalize the coexistence of people in many protected areas. Hence, it becomes imperative to involve communities in management of biodiversity (MoEF and MoTA 2010). It has been suggested to bring suitable changes in Wildlife Protection Act (WLP), 1972 to accommodate these changes (*ibid*).

Role of gram sabhas⁷

Role of gram sabhas or village assemblies has been strengthened through the enactment of FRA and some other key policy measures in the country. All the claims are recognized through gram sabhas under FRA. In addition, through an order in 2009, MoEF has made it mandatory to complete the process of recognition of rights and take approval from the local gram sabhas before applying for diversion of forest land for development purposes (MoEF and MoTA 2010). *Gram sabhas* have been proposed as key nodal institutions for implementation of the Green India Mission (GIM in short, discussed later),

⁷ As defined in Forest Rights Act, gram sabha is a village assembly which shall consist of all adult members of a village and in case of states having no panchayats, podas, toals and other village traditional institutions elected village committees with full and un restricted participation of women.

a policy initiative designed to address climate change. It is also being proposed to register Joint Forest Management Committees (JFMC) as committees of gram sabhas, which will give them a legal status (Sethi 2011). These committees number close to 100,000 across the country (MoEF and WII 2005). So, there is increasing control of the gram sabha or the village assembly over the resources. In fact, it has already started affecting the forest diversion process. MoEF has refused to grant approval to a large-scale industrial steel plant in the state of Orissa because it failed to take proper consent from the involved gram sabhas (PTI 2011). In fact, with these provisions and in the wake of its efforts to promote industrialization, the government is finding the implementation of FRA “too hot to handle” (Sethi 2010).

REDD+ and India’s approach

In this changing landscape, the proposal of REDD+, which is being strongly supported by the Government of India would also be affected (Aggarwal *et al* 2009b). In future, a significant area of forests would be owned and managed by individuals and local gram sabhas. This would change how REDD+ activities would be implemented and managed and how carbon revenues are shared. The community would now have complete ownership of carbon revenues generated from their lands. Implementation of FRA is going to affect REDD+ in a major way. Hence, it is imperative to understand the context of REDD+ and India’s approach to it.

REDD+: International context

REDD+ has rapidly emerged as an important component of the international climate change negotiations because of its purported multiple benefits. It has been projected as a low cost and effective strategy to mitigate climate change (Sathaye *et al* 2007; Stern 2007). It has been estimated that 51%–78% of the total carbon benefits could be attained by reducing deforestation and degradation by the year 2100 (Sathaye *et al* 2007). Half of these carbon benefits could be availed at low carbon prices

in the range of \$5 to \$10/tC, which are much cheaper than other policy options (ibid). It could generate significant revenues for the developing countries as well. El lakany and others (2007) have estimated that annual revenues from REDD+ could go up to \$23 billion. In addition, REDD+ could generate co-benefits in the form of conservation and livelihoods (UNEP-WCMC 2007). Therefore, REDD+ has been projected as a win-win strategy for the mitigation of climate change and the development of poor countries.

There is so much hype surrounding REDD+ that more than 170 pilot projects have already been started in anticipation (Cerbu *et al* 2009). Multilateral, bilateral, and private funding mechanisms are now supporting different REDD+ activities at various levels. Multilateral mechanisms like United Nation's joint REDD+ (UN-REDD) programme, World Banks' Forest Carbon Partnership Facility (FCPF), and Forest Investment Programme (FIP) are supporting capacity building activities in many developing countries for the effective implementation of REDD+. Norway is supporting REDD+ demonstration activities in Indonesia under a bilateral agreement worth \$1 billion (CIFOR 2011). Seventy one developed and developing nations have joined a multilateral REDD+ partnership to support and implement REDD+ activities.

Different developed nations have already committed \$4 billion for various REDD activities across the developing world, between 2010 and 2012 under this partnership (Anonymouse 2010). Besides, private investors and financial companies like Merrill Lynch and Canopy Capital are supporting REDD+ projects in various parts of the world (Rawles 2008).

India's approach

India has contributed significantly towards the development of comprehensive REDD+ approach. India proposed the concept of "compensated conservation" approach, which advocated for compensating the countries for maintaining and increasing carbon stocks (ICFRE 2007). A comprehensive REDD+ approach was accepted at the United Nations'

climate negotiations at CoP 13 in Bali in 2007 (MoEF [undated b]). This approach argues for compensating countries, not only for "reducing deforestation", but also for "conservation, sustainable management of forest, and increase in forest cover" (ICFRE 2007). In its latest submission to UNFCCC in August 2009, India has elaborated REDD as "Reducing Emissions from Deforestation in Developing Countries (REDD), Sustainable Forest Management (SFM), and Afforestation and Reforestation (A&R)", which further substantiates its comprehensive approach (MoEF 2009). The basic principle of this approach is that one unit of carbon saved is equal to one unit of carbon added and hence, both should be equally compensated. Thus, India has been consistently seeking equal treatment and compensation, at par with tropical deforesting countries like Indonesia and Brazil (Sharma 2010).

India advocates for a mix of market and global funds to finance REDD+ activities. Central funding should compensate for maintenance of forest carbon stocks whereas money for compensating change in carbon stocks (due to decrease in deforestation and degradation or increase in forest cover) could be generated by selling carbon credits in the international markets (MoEF 2009).

The Indian government wants to finance its ambitious programme, National Mission for a Green India (or Green India Mission or GIM, in short), through REDD+ money over the next ten years (Sharma 2010). It has prepared a comprehensive National Action Plan on Climate Change (NAPCC), which has eight missions that deal with different sectors and issues. National Mission for a Green India deals with forestry sector issues. It has been argued that GIM will be of additional benefit and provide innovative alternatives to usual afforestation programmes in the country. It proposes a "*shift in mindset from our traditional focus of merely increasing **quantity** of our forests cover, towards increasing the **quality** of our forest cover and improving provision of ecosystem services*" (Ramesh 2010a [emphasis in original]).

GIM has been designed on certain key principles. One of them being its “holistic view of greening”, which focuses not only on plantations, but improving ecosystem services (MoEF 2010a). Another approach is a cross sectoral one. It also intends to promote “autonomy and decentralization” by implementing GIM through gram sabhas. It aims to train and develop a cadre of “community foresters” who will help with field monitoring of the mission (ibid).

The mission plans to treat an additional 10 Mha of forest and non-forest area for improved ecosystem services under GIM over the next 10 years, starting from 2011 (MoEF 2010a). It plans to increase forest and tree cover on 5 Mha of land and improve the quality of existing forest and tree cover on 5 Mha of land. The mission targets various types of forests and non-forest lands for the interventions. It targets, moderately dense forests, open forests, degraded grasslands, and wetlands, for qualitative improvement; shifting cultivation areas, cold deserts, mangroves, and abandoned mining areas, for eco restoration and afforestation; and farm land and urban areas through agro forestry and urban forestry (ibid).

The mission intends to sequester an additional annual 50 to 60 million tonnes of CO₂ by the year 2020. It also aims to improve livelihood and income of 3 million households living in and around forests (MoEF 2010a).

Politics of REDD+

India is a rapidly growing economy, which has achieved a GDP growth rate in excess of 8% 2009–10, despite the global economic recession (*Hindustan Times* 2011). A report by consulting firm Pricewaterhouse Coopers (PwC) suggests that India could be the third largest economy in purchasing power parity terms by 2011, just after USA and China (Sinha 2010). With this rapid growth and increased energy use, India’s CO₂ emissions have more than doubled between 1990 and 2008 (IEA 2010). Though India’s per capita emissions are one fourth of the world’s average, it has become one of the 10 largest emitters in the world in terms of absolute emissions (ibid). There is immense pressure on the country to reduce

its emissions (BBC 2009; *Times of India* 2009). As a result, India has taken some proactive steps and has reduced its emissions per unit of GDP (Ramesh 2010b). It has agreed to further reduce its GDP emissions intensity by 20%–25% between 2005–20 (ibid).

As mentioned earlier, India has prepared a comprehensive National Action Plan on Climate Change (NAPCC) to reduce its emissions and address climate change concerns across various sectors and ecosystems in 2008. The Government of India argues that NAPCC is based on the principles of protecting the poor and vulnerable sections of the society, achieving national growth objectives through an alternative approach, and developing new and innovative forms of market, regulatory, and voluntary mechanisms (GoI [undated]). It aims to address climate change issues through eight specific missions that include national solar mission, national mission for enhanced energy efficiency, national mission for sustainable habitat, national water mission, national mission for sustaining Himalayan ecosystems, national mission for a green India, national mission for sustainable agriculture, and national mission for strategic knowledge for climate change.

The Indian government has further stepped up its efforts to reduce emissions post the Copenhagen accord in December 2009. It is preparing a roadmap for low carbon development, which will become an integral part of the country’s Twelfth Five-year Plan, starting in 2012 (MoEF 2010b). It has announced a carbon tax on coal to fund clean energy development in the country (ibid). Apart from this, it has announced a range of scientific assessments, planning exercises, and implementation programmes to address climate change across different sectors and regions in the country.

Forests and ecosystems constitute an important part of India’s strategy to address international concerns over its growing CO₂ emissions. It has been strategically presenting its conservation efforts over a decade and half and has been trying to leverage these in climate

change negotiations. In its submissions to UNFCCC, it has emphasized its REDD+ strategy (MoEF 2009; MoEF 2010c). In a recently released primer on “India’s Forests and REDD+”, government argues that “while most developing countries lost forest cover, *India added around 3 million hectares of forests* and tree cover over the last decade” (MoEF [undated b] *emphasis in original*). It further argues that forests neutralize 11% of India’s emissions at 1994 levels (ibid).

Green India Mission, which is an important part of climate change action strategy, is one of the missions with huge budgets. It intends to treat additional 10 Mha of forest and non-forest area with an estimated expenditure of \$10 billion over next 10 years (MoEF 2010a). It claims that it will sequester an additional 6.35% of its GHG emissions by 2020 (MoEF 2010b). India wants to channelize global REDD+ funds for financing this mission (Sharma 2010). Indian government argues that REDD+ could capture an additional 1 billion tonnes of CO₂ over the next three decades in the country. It will generate \$3 billion worth of revenue, which will benefit the forest- dependent people of the country (MoEF [undated b]).

But, a number of civil society stakeholders are opposing REDD+. Civil society groups like CFSD and NFFPFW believe that REDD+ would affect implementation of Forest Rights Act. They suspect that it would provide an incentive to the government to grab the forest lands in the name of afforestation and not recognize people’s rights under FRA (CFSD and NFFPFW [undated]). They believe that forests would be “jealously guarded as ‘financial assets’ and people’s uses will be entirely stopped” (ibid). These groups have also questioned the implementation of Green India Mission (GIM) and REDD + through joint forest management (JFM) institutions. As these committees are controlled by the state forest departments, the civil society groups believe that REDD+ would strengthen the government’s control over forests (ibid). Also, these groups believe that the Government of India’s support to market-based REDD+ would lead to the involvement of private sector companies, which

will take control of the large areas of forest (CFSD and NFFPFW [undated]).

Hence, implementation of REDD+ is being strongly contested among various stakeholders, especially government and civil society groups. This contestation is being done on different ideological grounds.

The apprehensions of the civil society groups in India are in line with views of Phelps *et al* (2010), who argue that REDD+ might recentralize the forest governance in the hands of state. However, this view seems to contrast much of the theoretical literature, which views REDD+ as an opportunity to recognize community rights and provide security of tenure (Sunderlin and Atmadija 2009; Sunderlin, Larson, and Cronkleton 2009; Agarwal and Angelsen 2009). Hence, there are different views on the issue, which require a detailed primary examination to understand the basis of the apprehensions. Is it the historical relationship of mistrust with the state or are there deeper reasons?

Conclusion

The Forest Rights Act has started a transformation of the forest landscape in India. It is set to redraw not only forest boundaries, but also alter the state–people relations in the context of resource management. Currently, the implementation process is marred by several institutional and efficiency issues, due to which rights have been recognized only over a limited forest area. Also, mostly individual rights have been recognized so far. But, the implementation process is expected to improve with clarifications and amendments in the policy guidelines under the constant vigil of civil society. Once community forest rights are recognized over a large area, local people will have control over the management and conservation of resources. With the recognition of rights, they will have some control over the management of protected areas, which have been exclusionary so far. Communities would have access to the commercially important NTFPs like *tendu* leaves, *sal*, and *mahua* seeds, which are at present controlled by the state. It

will redistribute power and control of the forest resources.

Forest dependent communities and civil society groups are constantly pushing for rapid and transparent implementation of FRA. These groups, however, are concerned by the fact that the Indian government is supporting the REDD+ mechanism in international climate change negotiations. They see it a ploy to jeopardize the implementation of FRA and strengthen the state’s control over the forest resources. As REDD+ could be partly financed through sale of carbon credits in markets, civil society groups see it as an effort by the state to involve private companies in forest management. These apprehensions are rooted in the historical relationship of mistrust and exploitation by the state.

The Indian government, on the other hand, wants to leverage the country’s forest conservation efforts in climate change negotiations through REDD+. It is using REDD+ as a bargaining chip in the negotiations against its increasing energy emissions. It also wants to seek financial assistance from the international community through REDD+. These divergent interests have resulted in strong contestation on the ground.

Although this complex politics over carbon, capital, and community rights needs further research and analysis, it does raise some interesting issues, which might be relevant for implementation of REDD+ in other parts of the world as well. The Indian case clearly points out how REDD+ might influence existing forest governance mechanisms and rights. It also points out concerns and suspicions of the forest-dependent communities and civil society groups towards REDD+. Because of these issues, REDD+ is expected to generate strong contestation among different stakeholders with different interests. Hence, it is imperative to make REDD+ democratic and transparent for just and sustainable outcomes.

Acknowledgement

I thank Dr Lloyd Irland, Yale University, for edits and suggestions. I acknowledge the critical feedback and advice of Dr Dan Brockington and

Dr Phil Woodhouse, University of Manchester, which have helped me think through some of these issues. I also thank Dr K D Singh, Ex Forestry Expert, FAO for his thorough review of the paper.

References

- Aggarwal A, Paul V, and Das S. 2009a. **Forest resources: livelihoods, degradation, and climate change** in *Green India 2047 renewed: looking back to change track*, pp 91–108. New Delhi: The Energy and Resources Institute
- Aggarwal A, Das S, and Paul V. 2009b. **Is India ready to implement REDD +? A Preliminary Assessment**. New Delhi: The Energy and Resources Institute, pp 15
- Agarwal A and Angelsen A. 2009. **Forest tenure rights and REDD+: from inertia to policy solutions** in A Angelsen (ed) *Realizing REDD+ National strategy and policy options*, pp 201–211. Bogor: Centre for International Forestry Research
- Angelsen A. 2009. **Realizing REDD+ National strategy and policy options**. Bogor: Centre for International Forestry Research
- Anon. 2010. **REDD+ partnership**. Details available on <http://www.oslocf2010.no/pop.cfm?FuseAction=D0c&pAction=View&pDocumentId=25019>, last accessed on 15 February 2011
- BBC. 2009. **China carbon cut target puts pressure on India**. Details available on <http://news.bbc.co.uk/1/hi/8382123.stM>, last accessed 5 March 2011
- Bose I. 2010. **How did the Indian Forest Rights Act, 2006, emerge? Improving Institutions for Pro-poor Growth**. Department for International Development. Discussions paper series 39: <http://www.ippg.org.uk/papers/dp39.pdf>, last accessed 19 May 2011
- Cerbu G, Minang P A, Swallow B, Meadu V. 2009. **Global survey of REDD projects: What implications for global climate objectives?** ASB policy brief No 12, ASB Partnership for the Tropical Forest Margins. Kenya: Nairobi
- CFSD. 2009. **Charge sheet on Government’s Violations of Forest Rights**. Details available on <http://forestrightsact.com/current-situation/75-chargesheet-on-governments-violations-of-forest-rights-act?format=pdf>, last accessed on 7 May 2011
- CFSD [undated]. **The Current Situation: The state of the forest rights struggle, based on reports from our member organisations and friendly groups**. Details available on <http://forestrightsact.com/current-situation?format=pdf>, last accessed 7 May 2011

CFSD and NFFPFW [undated]. **Joint statement on REDD climate scheme (reducing emissions from deforestation and degradation of forests).**

Details available on http://www.wrm.org.uy/COP15/REDD_CLIMATE_SCHEME.pdf, last accessed on 17 February 2011

Chauhan C. 2011. **Land mafia paying tribals for forest encroachment**, *Hindustan Times*. Details available on <http://www.hindustantimes.com/StoryPage/Print/679860.aspx>, last accessed on 15 June 2011

CIFOR. 2011. **Cancun analysis: starting the REDD+ dance.** Details available on <http://www.cifor.cgiar.org/our-research/cancun-analysis-starting-the-redd-dance.html>, last accessed on 17 February 2011

Corbera E and Schroeder H. 2011. **Governing and implementing REDD+.** *Environment and Science Policy* doi:10.1016/j.envsci.2010.11.002

CSD. 2007. **The Indian Forest Rights Act, 2006: commoning forest enclosures** as quoted in Springate-Baginski O, Sarin M, Ghosh S, Dasgupta P, Bose I, Banerjee A, Sarap K, Misra P, Behera S, Reddy M.G, Rao P.T. Details available on http://iasc2008.glos.ac.uk/conferencepapers/papers/S/Springate-Baginski_233001.pdf, last accessed on 19 May 2011

CSD. 2010. **Summary Report on Implementation of the Forest Rights Act.** Delhi: Centre for Sustainable Development. Details available on <http://www.forestrightsact.com/component/k2/item/15>, last accessed on 25 April 2011

De D. 2006. **Violent Forests: Indian woodland under Naxal threat.** Details available on http://www.sspconline.org/opinion/Violent%20Forests-IndianWoodlandunderNaxalThreat_DebasishDe_280306, last accessed on 10 June 2011

El Lakany H, Jenkins M, and Richards M. 2007. **Background paper on means of implementation.** Contribution by Program on Forests (PROFOR) to discussions at UNFF-7, 50 pp

FSI. 2009. **India State of Forest Report 2009.** Dehradun, India: Forest Survey of India, 199 pp

Ghate R. 2009. **Decentralizing Forest Management: Pretense or Reality? In the context of Forest Rights Act in India.** Details available on http://www.indiana.edu/~wow4/papers/ghate_wow4.pdf, last accessed on 15 June 2011

GOI [undated]. **National Action Plan on Climate Change, Prime Minister's Council on Climate Change, Government of India.** Details available on <http://pminindia.nic.in/Pg01-52.pdf>, last accessed on 10 March 2010

Griffiths T. 2007. **Seeing "RED"? Avoided Deforestation and the rights of indigenous peoples and local communities.** UK: Forest Peoples Programme

Guha R. 2000. **The Unquiet Woods: ecological change and peasant resistance in the Himalaya.** University of California Press, 265 pp

Hindustan Times. 2011. **GDP set to grow 8.6% in 2010–11.** New Delhi, 7 February. Details available on <http://www.hindustantimes.com/GDP-set-to-grow-8-6-in-2010-11/Article1-659678.aspx>, last accessed on 15 May 2011

ICFRE. 2007. Views from ICFRE, Dehradun, India (an observer organization) to UNFCCC on REDD. Dehradun: Indian Council for Forestry Research and Education, Government of India, 5 pp

IEA. 2010. **Co₂ Emissions From Fuel Combustion, Highlights.** Details available on <http://www.iea.org/co2highlights/co2highlights.pdf>, last accessed on 17 May 2011

IPCC. 2007. **Climate Change 2007: Climate Change Impacts, Adaptation and Vulnerability (Summary for Policy-makers).** Geneva, Switzerland: Intergovernmental Panel on Climate Change

Irland L C. 2011 (forthcoming). **The Big Trees were Kings: Challenges for Global Response to Climate Change and Tropical forest Loss.** *Journal of Environmental Law and Policy*

Jena M. 2010. **Law on Forest Rights Fails to Deliver.** Details available on <http://ipsnews.net/news.asp?idnews=50652>, last accessed 12 May 2011

Kothari A. 2006. **For lasting rights.** *Frontline* 23(26). Details available on <http://www.hindionnet.com/fline/fl2326/stories/20070112003501400.htm>, last accessed on 10 March 2011

Larson A and Petkova E. 2010. **Synergies and Opportunities. An introduction to forest governance, people and REDD+ in Latin America.** Paper presented at the Oaxaca workshop on Forest governance, Decentralization, and REDD+. Mexico, 31 August–3 September 2010

Lovera S. 2008. **The hottest REDD issues: Rights, Equity, Development, Deforestation and Governance by indigenous Peoples and Local Communities.** IUCN and Global Forest Coalition

MoEF. 2006. **Report of the National Forest Commission.** New Delhi: Ministry of Environment & Forests, Government of India

MoEF. 2009. **Climate Change Negotiations: India’s Submissions to the United Nations Framework Convention on Climate Change.**

Delhi: Ministry of Environment and Forests, Government of India, 58 pp

MoEF. 2010a. **National Mission for a Green India** (Under the National Action Plan on Climate Change).

Draft submitted to Prime Minister’s Council on Climate Change. Details available on <http://moef.nic.in/downloads/public-information/GIM-Report-PMCCC.pdf>, last accessed on 15 June 2011

MoEF. 2010b. **India: taking on climate change post-Copenhagen domestic actions.** Details available on <http://www.moef.nic.in/downloads/public-information/India Taking on Climate Change.pdf>, last accessed on 15 February 2011

MoEF. 2010c. **Submission by India to AWG–LCA on organization and methods of work in 2010** (for guidance to AWG–LCA Chair for preparation of text for consideration of Parties). Details available on <http://www.moef.nic.in/downloads/public-information/india-awglca.pdf>, last accessed on 15 February 2011

MoEF. 2011. **Revised guidelines for critical wildlife habitats.** Details available on <http://moef.nic.in/downloads/public-information/rev-gdlns-CWH.pdf>, last accessed on 14 June 2011

MoEF. Undated a. **Asia Pacific Forestry Sector Outlook Study- II**, country report. New Delhi: Ministry of Environment & Forests, Government of India

MoEF. undated b. **India’s Forests and REDD+.** Details available on <http://moef.nic.in/downloads/public-information/REDD-report.pdf>, last accessed on 10 May 2011

MoEF and MoTA. 2010. **Report National Committee on Forest Rights Act:** A joint committee of Ministry of Environment and Forests and Ministry of Tribal Affairs, Government of India, 246 pp

MoEF and WII. 2005. **Proceedings of National Consultative workshop on Joint Forest Management, India Habitat Centre.** Organized by Ministry of Environment and Forests and Winrock International India, New Delhi, 14–15 July

MoLJ. 2007. **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.** *Gazette of India*, Ministry of Law and Justice. Details available on <http://tribal.nic.in/writereaddata/mainlinkFile/File1033.pdf>, last accessed on 15 March 2010

MoTA. 2011. **Status report on implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** [for the period ending 30 April 2011]. New Delhi: Ministry of Tribal Affairs, Government of India. Details available on <http://tribal.nic.in/writereaddata/mainlinkFile/File1282.pdf>, last accessed on 2 June 2011

Phelps J, Webb E L, and Agrawal A. 2010. **Does REDD+ Threaten to Recentralize Forest Governance?** *Science* **328**: 312–313

PTI. 2007. **Forest encroachment worries Gujarat.** http://articles.timesofindia.indiatimes.com/2007-11-14/ahmedabad/27980571_1_forest-rights-act-encroachment-senior-forest-official, last accessed on 15 June 2011

PTI. 2011. **Ramesh puts on hold forest clearance to Posco.** http://articles.timesofindia.indiatimes.com/2011-04-14/flora-fauna/29417075_1_forest-clearance-forest-rights-act-forest-land, last accessed on 25 April 2011

Ramesh J. 2010a. Foreword, National Mission for a Green India (Under The National Action Plan On Climate Change), Draft submitted to Prime Minister’s Council on Climate Change: <http://moef.nic.in/downloads/public-information/GIM-Report-PMCCC.pdf>, last accessed on 15 June 2011

Ramesh J. 2010b. Foreword, India: Greenhouse Gas Emissions 2007, Indian Network for Climate Change Assessment (INCCA), Ministry of Environment and Forests, Government of India, Delhi

Rawles S. 2008. **REDD myths- A critical review of proposed mechanisms to reduce emissions from deforestation and degradation in developing countries**, Friends of Earth International, Netherlands, 43 pp.

Sarin M. 2005. **Scheduled Tribes Bill 2005: A Comment**, *Economic and Political Weekly*, **40**(21): 2131–2134

Sarin M, Singh N M, Sundar N, and Bhogal R K. 2003. **Devolution as a threat to democratic decision-making in forestry?** Findings from Three States in India, Working Paper No. 197, Overseas Development Institute, London, 66 pp

Sarin M and Springate-Baginski O. 2010. **India’s Forest Rights Act -The anatomy of a necessary but not sufficient institutional Reform.** <http://www.ippg.org.uk/papers/dp45.pdf>, accessed on 19 May 2011

Sarker D. 2011. **The Implementation of Forest Rights Act in India: Critical Issues**, *Economic Affairs*, **31**(2): 25–29

- Satpathy P and Jain G. 2010. **Tiger Protection, Maoism and the Forest Rights Act: the story of Jenabil** : <http://www.fra.org.in/Jenabil%20displacement.pdf>, last accessed on 14 June 2011
- Sathyapalan J. 2010. **Implementation of the Forest Rights Act in the Western Ghats Region of Kerala, 45** (30): 65–72
- Sathaye J A, Makundi W, Dale L, Chan P, and Andrasko K. 2007. **GHG mitigation potential, costs and benefits in global forest. A dynamic partial equilibrium approach**, *Energy Journal*, special issue 3: 127–72
- Saxena A [Undated]. **Policies for tribal Development: Analysis and Suggestions** <http://nac.nic.in/communication/tribalannex3.pdf>, last accessed on 20 May 2006
- Sethi N. 2010. **Govt finds Forest Rights Act too hot to handle**: http://articles.timesofindia.indiatimes.com/2010-10-31/india/28214665_1_posco-case-forest-bureaucracy-forest-lands, last accessed on 17 March 2011
- Sethi N. 2011. **I have always been transparent and clear, says Jairam Ramesh**, *Times of India*: http://articles.timesofindia.indiatimes.com/2011-06-05/developmental-issues/29621097_1_forest-rights-act-joint-forest-management-committees-jfmc, last accessed on 10 June 2011
- Sharma V. 2010. Statement by Vijai Sharma, Secretary to the Government of India, Ministry of Environment and Forests Oslo Climate and Forest Conference, 27th May 2010: http://www.moef.nic.in/downloads/public-information/OSLO_Conference.pdf, last accessed on 15 February 2011
- Sinha P, 2010: **India can become 3rd largest economy by 2012: PwC**, *The Economic Times*, 24th January: http://articles.economictimes.indiatimes.com/2010-01-24/news/27606629_1_power-parity-largest-economy-pwc accessed 10/3/11
- Sikor T, Stahl J, Enters T, Ribot J, Singh N, Sunderlin W, Woolenberg L. 2010. **REDD ±, forest people's rights and nested climate governance**. *Global Environmental Change* 20: 423–425
- Springate- Baginski O, Sarin M, Ghosh S, Dasgupta P, Bose I, Banerjee A, Sarap K, Misra P, Behera S, Reddy M G, Rao P T. 2009: **Redressing 'historical injustice' through the Indian Forest Rights Act 2006: A Historical Institutional Analysis of contemporary forest rights reform, Improving Institutions for Pro-poor Growth**, Department for International Development, Discussion paper series, 27
- Springate- Baginski O, Sarin M, Ghosh S, Dasgupta P, Bose I, Banerjee A, Sarap K, Misra P, Behera S, Reddy M G, Rao P T [Undated]. **The Indian Forest Rights Act, 2006: Commoning forest enclosures**: http://iasc2008.glos.ac.uk/conference%20papers/papers/S/Springate-Baginski_233001.pdf, last accessed on 19 May 2011
- Stern N. 2007. **Stern Review: the Economics of Climate Change**. UK: Cambridge University Press
- Sunderlin W D and Atmadija S. 2009. **Is REDD+ an idea whose time has come, or gone?** In A Angelsen, A (ed), *Realising REDD+ National strategy and policy options*. Bogor: Centre for International Forestry Research, 46–53 pp
- Sunderlin W D, Larson A M, and Cronkleton P. 2009. **Forest tenure rights and REDD+ : from inertia to policy solutions**. In A Angelsen (ed), *Realising REDD+ National strategy and policy options*. Bogor: Centre for International Forestry Research, 139–149 pp
- Sunderlin W D and Atmadija S. 2009. **Is REDD+ an idea whose time has come, or gone?** In A Angelsen (ed), *Realising REDD+ National strategy and policy options*. Bogor: Centre for International Forestry Research, 46–53 pp
- Sunderlin W D, Larson A M, and Cronkleton P. 2009. **Forest tenure rights and REDD+ : from inertia to policy solutions**. In A Angelsen (ed), *Realising REDD+ National strategy and policy options*. Bogor: Centre for International Forestry Research, 139–149 pp
- ToI. 2009. **India will not take on emission cut targets, Jairam tells Hillary**. July 20: http://articles.timesofindia.indiatimes.com/2009-07-20/india/28152096_1_binding-commitments-climate-change-copenhagen-summit, last accessed on 17 May 2011
- Tiwari R and Sinha A. 2010. **In the worst-affected Naxal areas, govt schemes are the hardest hit**. <http://www.indianexpress.com/news/in-the-worstaffected-naxal-areas-govt-schemes-are-the-hardest-hit/571071/2>, last accessed on 10 June 2011
- UNEP-WCMC. 2007. **Reducing Emissions from Deforestation: a key opportunity for attaining multiple benefits**, Cambridge, UK, 15 pp
- Van der Werf G R, Morton D C, DeFries R S, Olivier J G J, Kasibhatla P S, Jackson R B et. al. 2009. **CO₂ Emissions from forest loss**. *Nature Geoscience* 2: 737–738