REDD+ in India:
managing carbon storage and biodiversity safeguarding in national forest politics?

Christian Prip & Linda Wallbott

FRIDTJOF NANSENS INSTITUTT
FRIDTJOF NANSEN INSTITUTE

REDD+ in India:
managing carbon storage and biodiversity safeguarding in national forest politics?

Christian Prip
cp@fni.no

Linda Wallbott
wallbott@uni-muenster.de

November 2014

FRIDTJOF NANSENS INSTITUTT
FRIDTJOF NANSEN INSTITUTE

Title

REDD+ in India: managing carbon storage and biodiversity safeguarding in national forest politics?

Abstract

The report analyses India's approach towards the mechanism on reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+), with particular attention to India's handling of both carbon and biodiversity matters.

The evolution of REDD+ under the UN Framework Convention on Climate Change is reviewed. Based on a conceptual section on the meaning of 'safeguards' the report then provides an overview of the policy measures that the REDD+ debate has triggered from various transnational actors in response to concerns that its implementation might impact adversely on biodiversity. After a discussion of India's positioning in these international debates, the second part of the report analyses the country's institutional, legislative, financial and operational assets and challenges as regards realizing REDD+ along with biodiversity safeguarding on the ground.

Internationally, India has been a leading country in expanding the scope of a forest-based mitigation instrument in developing countries from carbon sinks to wider concerns, including biodiversity. Domestically, India has repeatedly stated that it has much to gain from REDD+, carbon benefits and other ecosystem services alike. Still, it is found that India has not moved far in bringing REDD+ into function on the ground and thus has not reaped the potential benefits for biodiversity of REDD+

The report points to a degree of ambiguity in India's position on REDD + both nationally and internationally. While it has supported a multi-purpose REDD+, India has also supported the inclusion of industrial/short rotation plantations in a definition of forests eligible for REDD+ funding. Such plantations are known to have potentially adverse effects on biodiversity. While this corresponds to India's own ambitious target of doubling the area for afforestation and forest restoration, it also opens the door for transformation of biodiversity-rich areas.

Foreword

This report is a contribution to the Indian Centre for Biodiversity Policy and Law (CEBPOL). The Centre has been established in the National Biodiversity Authority (NBA), Chennai, a statutory autonomous body of the Ministry of Environment and Forests responsible for implementing the Biological Diversity Act of 2002. CEBPOL is a joint project on technical and institutional cooperation between the Government of Norway and the Government of India as part of the Indo–Norwegian dialogue under the Joint Working Group on Environment.

CEBPOL is intended as a centre of excellence focused on biodiversity law and policy, catering to the needs of national and international rule-making and subsequent implementation on biodiversity issues. Its objectives are as follows:

1) to provide professional support, advice and expertise to the Governments of India and Norway on a sustained basis on matters relating to biodiversity policies and laws at the national level, as well as in international negotiations relating to biodiversity in multilateral forums;

2) to develop professional expertise in biodiversity-related policies and laws, *inter alia* by encouraging research, development and training in matters relating to the Convention on Biological Diversity, as well as its interface with other multilateral environment agreements and UN bodies;

3) to develop and implement an array of capacity-building programmes through multidisciplinary research and customized training programmes for a wide range of stakeholders, focusing on human resource development;

4) to facilitate interactive information sharing through web conferencing, web seminars and virtual meetings involving relevant research centres and environmental law associations in India, Norway and other countries where such expertise is available;

5) to help to develop India as a regional and international resource centre for biodiversity policy and law, through the provision of training and human resource development.

Acknowledgements

List of acronyms and abbreviations

ABS	Access and Benefit Sharing
AWG-LCA	Ad Hoc Working Group on Long-term Cooperative Action
BDA	Biological Diversity Act
BeRT	Benefits and Risk Tool
BMC	Biodiversity Management Committee
CBD	Convention on Biological Diversity
CBDR	Common but Differentiated Responsibilities
CCBA	Climate, Community and Biodiversity Alliance
CDM	Clean Development Mechanism
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP	Conference of the Parties
CSD	Commission on Sustainable Development
ESMF	Environmental and Social Management Framework
FAO	UN Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FPIC	Free, Prior and Informed Consent
FRA	Forest Rights Act
FSI	Forest Survey of India
GHG	Greenhouse gases
GIM	Green India Mission
ICFRE	Indian Council for Forestry Research and Education
IFF	Intergovernmental Forum on Forests
IPCC	Intergovernmental Panel on Climate Change
IPF	International Panel on Forests
IPLCs	Indigenous peoples and local communities
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organization
JFM	Joint Forest Management
JFMCs	Joint Forest Management Committees
JI	Joint Implementation
LULUCF	Land-Use, Land Use Change and Forestry
MAI	Mean Annual Increment

MAT	Mutually Agreed Terms
MoEF	Ministry of Environment and Forests
MoEFC	Ministry of Environment, Forests and Climate
MoLJ	Ministry of Law and Justice
MoTA	Ministry of Tribal Affairs
MRV	Measurement, Reporting and Verification
NBA	National Biodiversity Authority
NBSAP	National Biodiversity Strategy and Action Plan
NFP	National Forest Policy
PFM	Participatory Forest Monitoring
RED	Reducing Emissions from Deforestation
REDD	Reducing Emissions from Deforestation and Forest Degradation
REL	Reference Emission Level
RL	Reference Level
SA	Strategic Assessment
SBB	State Biodiversity Board
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBSTTA	Subsidiary Body for Scientific Technical and Technological Advice
SEPC	Social and Environmental Principles and Criteria
SESA	Strategic Environmental and Social Assessment
SFM	Sustainable Forest Management
SIS	Safeguard Information System
SMF	Sustainable Management of Forests
TERI	The Energy and Resources Institute
TFAP	Tropical Forestry Action Programme
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples

Contents

1   Introduction

The forests of the world contain a large share of the planet's terrestrial biodiversity[1] and contribute to regulating the climate on a global scale.[2] Hence they can be accounted as global public goods (Gulbrandsen 2012: 25). Yet, despite the many ecosystem services which forests provide to humanity, land-use change is occurring on a massive scale[3] and deforestation is believed to account for between 20% and 25% of global greenhouse gas (GHG) emissions.

At the same time, the condition of forests is of national and local relevance and has traditionally been regarded as a matter of national sovereignty. India, for example, is a forest-rich country which has continuously argued in this direction. It has a forest cover of approximately 24% which has stabilized over the period from 1947 to 2007, and even increased between 1997 and 2007 by 3.13 million ha, according to the Indian government (Sud et al. n.d.: 7). Forests of all types and the forestry sector are important for dealing with climate change but also for biodiversity and people's livelihoods. Estimates of the number of people in India who are directly dependent on forests for at least part of their livelihood range from 200 million (Sud et al. n.d) to 275 million and even to 350-400 million (see Nayak et al. n.d.), constituting more than one quarter of India's population.[4] India contains an estimated 7 to 8% of the world's recorded species and is one of 17 mega-diverse countries in the world (Gokhale n.d.). Moreover, India ranks among the fastest growing economies in the world with a rate of about 6% over the past decade and 7 to 8% most recently (Walsh et al. 2011). While economic growth has helped millions of Indians out of poverty, the rapid growth in production and consumption has also led to increased GHG emissions and heavy impacts on forests and other ecosystems, challenging both carrying capacity and the recent improvements in people's living conditions.

---

[1] Art.2 CBD defines 'biodiversity' as diversity of genes, species and ecosystems.

[2] According to the Intergovernmental Panel on Climate Change (IPCC) forest ecosystems absorb more than 4,200 billion tons of CO_2, of which 70% is bound in the forest floor (see Gulbrandsen 2012: 26). Furthermore, the IPCC estimates that emissions from land-use change – mostly tropical deforestation – in the 1990s amounted to 1.6 billion tons of carbon per year, or 20% of global carbon emissions (see Okereke and Dooley 2010). For more figures (including regionally disaggregated figures) on deforestation and forest degradation see Levin et al. (2008: 540–41).

[3] The main drivers of deforestation are the conversion of forests to agricultural land for commercial as well as for subsistence use, commercial and illegal logging, and the conversion of land into plantations to grow biofuels. This leads to an estimated annual emission of CO_2 of 5.8 billion tons (Gulbrandsen 2012: 26).

[4] The livelihood of two-thirds of the Indian population is supported by agriculture (Fujiwara 2010: 3) and the land in India has been increasingly utilized for agriculture (Kishwan 2007: 30). These two aspects not only make coordination between forest and agriculture politics especially relevant but also underscore the importance of implementing safeguards in forest governance.

On the international level, India plays a prominent role in the two global treaties that address climate change and biodiversity loss: the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), both with forest issues high on the agenda. Recent notable policy developments in these Conventions have been the adoption of (1) a mechanism on deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (UNFCCC's REDD+); and the combined adoption of (2) a Strategic Plan for Biodiversity 2011–2020 (including 20 targets on the conservation and sustainable use of biodiversity), a Strategy for Resource Mobilization and a Protocol on Access and Benefit Sharing for Genetic Resources (CBD). Both achievements were agreed in 2010 and have considerable functional and political overlap in relation to forest politics.

1. REDD+ is supposed to create incentives for enhancing carbon stocks through reducing deforestation and degradation and promoting sustainable management of forests. Although its primary aim is to reduce GHG emissions, the mechanism is expected to be able to deliver huge co-benefits for biodiversity. Halting deforestation along with desertification and forest degradation has the potential to protect biodiversity and the provision of ecosystem services (Levin et al. 2008: 539), thus contributing also to the realization of the Millennium Development Goals (Sukhdev 2008). On the other hand, depending on the definition of 'forests', biodiversity, ecosystem services and development prospects might be threatened if natural forests are converted and monocultures and plantations are installed. Thus, REDD+ has also been addressed by the CBD primarily with the aim of providing advice on relevant safeguards for biodiversity to UNFCCC and governments in REDD+ application.

   On the impact on forest-dependent indigenous peoples and local communities (IPLCs), REDD+ is seen as having both a potential for benefits through its overall aim to reduce deforestation and forest degradation, and threats through a suspected increase in privatization and/or centralization of forests leading to possible violation of IPLCs' rights. It is the latter aspect that has given impetus to the discussion on social safeguards in REDD+ politics to minimize such risk.

2. The Strategic Plan for Biodiversity 2011–2020 has been set as the overarching framework on biodiversity for the entire UN system. It includes the Aichi Biodiversity Targets that aim, *inter alia,* at significantly reducing deforestation and managing all areas under forestry sustainably. The Strategic Plan supports the explicit rationale that biodiversity, ecosystem functioning and the provision of ecosystem services as well as sustaining local livelihoods and economic development are intrinsically linked.

Against this background and in particular because India has argued strongly for an equal consideration of forest conservation aspects in REDD+, this report will examine the standing of this mechanism and its possible threats or co-benefits for biodiversity and will assess the possible

dynamics that might come with the implementation of REDD+ on the ground.

Various assumptions persist in this regard. Some hold that REDD+ *per se* will have positive impacts on biodiversity (Pistorius and Schmitt 2013). Just as forest-based climate change mitigation could have positive effects on biodiversity, so could conservation of forest biodiversity strengthen climate change mitigation (and adaptation) by enhancing forest ecosystem resilience and thereby the long-term stability of the carbon pool (Karousakis 2009). Others, however, see REDD+, with its primary focus on carbon storage, as a threat to biodiversity: they hold that it would give priority to one specific ecosystem service at the expense of other equally important services provided by forests, such as biodiversity and sustaining livelihoods of forest-dependent people (Vijge and Gupta 2013). Thus, the evolving carbon markets that stem from REDD+ would largely fail to value biodiversity because carbon sequestration – possibly through monoculture plantations – would appear to be a more attractive economic proposition (Rosendal and Schei 2014). Moreover, REDD+ mechanisms could be so designed as to create perverse incentives to deforest in order to be able to participate once the mechanism will come into force (Karousakis 2009).

From again another perspective, some see the proliferation of non-carbon concerns like safeguarding biodiversity in REDD+ as a problem. What later became REDD+ started as a relatively simple mechanism aimed at minimizing carbon emissions through avoided deforestation. For these sceptics, the broader approach is perceived to have led to an overburdened and complicated mechanism with a risk of raising transaction costs with counterproductive implications for the realization of the mechanisms – now relatively broad – objectives (Angelsen and McNeill 2012; Visseren-Hamakers et al. 2012).

Building on the extensive literature that has emerged on REDD+, we aim to contribute to the debate with a study that focuses on the conditions and achievements regarding the complementary consideration of forest and biodiversity concerns from a national – Indian – perspective. We begin by describing relevant international cooperation and agreements on forests. This will be followed by an outline of India's profile and positions in those forest-related institutions and negotiations, focusing on the recent achievements of REDD+ and the Strategic Plan. We ask if and how far India has developed a formal negotiation profile that would translate the functional overlap of biodiversity and forest matters into an integrated mandate. Finally, we assess the provisions and (preparatory) practices concerning REDD+ in India's domestic policies and programmes, again focusing on whether and to what extent risk avoidance and co-benefits have been taken into consideration in policy formulation and implementation.

Besides the literature review, background information for the report was obtained through interviews with Indian forest and biodiversity stakeholders in Chennai and New Delhi, 25 November to 5 December 2013. Our interviewees included representatives of the Ministry of Environment and Forests (MoEF) (since May 2014 Ministry of Environment Forests

and Climate Change, MoEFC), the National Biodiversity Authority (NBA), The Energy and Resources Institute (TERI) and various individuals active in discussions on REDD+ and biodiversity in India. We did not have the opportunity to interact with representatives of local forest-dependent communities – which could be considered a weakness – but the issue of local forest governance, and the differing views held on this issue, are well covered by the literature we have reviewed.

2   REDD+ in India: the international dimension

2.1   International cooperation and commitments in relation to forest [5]

Forests as a policy issue are dealt with in a broad range of international institutions. Legally binding provisions, however, are confined to the CBD (although this does not explicitly address forests; see Gulbrandsen 2012) and the Kyoto Protocol to the UNFCCC. Beyond this, '[t]he political stance of the international community on forest policy is a story of failed attempts to settle a legally binding forest treaty, and of creative solutions to emerge in the wake of these defeats' (ibid: 24). Further arrangements have been formed through the early Forest Principles and Chapter 11 of Agenda 21, in the Intergovernmental Panel on Forests (IPF), the Intergovernmental Forum on Forests (IFF) and under the UN Forum on Forests (UNFF). To assess how India as a forest-rich developing country positions itself within this regime complex, the following sub-sections will map the major cornerstones of global forest governance. This will set the stage for the assessment of national-level forest biodiversity synergies as they emerge from the intersection of UNFCCC and CBD mandates. First, however, a short theoretical-conceptual detour is in place to fully capture the main implications of 'safeguards' and 'co-benefits'.

2.1.1 Safeguards and co-benefits in forest governance: conceptual clarifications

Conceptually, avoiding harm from project development or project imple-mentation and creating surplus benefits can be analysed independently from each other. Yet, in practice, '[t]he issues of multiple benefits and safeguards are closely linked" (UN-REDD 2012).

One broad definition sees safeguards as 'a set of principles, rules and procedures put in place to achieve social and environmental goals. Whereas principles and rules outline safeguards' substantive elements […] procedures delineate the task of implementing, monitoring and enforcing safeguards' (Roe et al. 2013: 8).

Focusing on the defensive connotation of the term (*do no harm*), it can be argued that the primary aim of both social and biodiversity *safeguards* alike is to minimize if not completely avoid negative impacts (risk and/or harm) from activities within the policy area in question (see Benick et al. 2010; Pistorius et al. 2010). Such risks might emerge when REDD+ is perceived purely as a mitigation instrument. What does not follow from such a narrow understanding is the mandate to create positive social and environmental non-carbon co-benefits from project development and implementation. Thus, social, environmental, legal or financial risk and/or harm might take the form of restricted access for IPLCs to forest

---

[5] This sub-section is mostly taken from Wallbott (unpubl. manuscript).

areas and forest services, or in the form of financing forest management strategies that harm biodiversity.

On the other hand, forest-related activities might also have the potential (as shown by various country-level studies; see Roe et al. 2013) to yield net positive impacts and to enhance synergies – depending on national and local circumstances – also beyond the reduction of GHGs for the environment and society. Such gains (*do good*) in biodiversity conservation and ecosystem services provision, adaptation and enhancement of financial and livelihood options (Lee et al. 2011) can be seen as *co-benefits* that could be achieved by fortunate coincidence, intentionally as 'two for the price of one' (Karousakis 2009: 18), and/or as additional benefits. Visseren-Hamakers et al. (2012: 646) even argue that non-carbon aspects of REDD+ – like biodiversity conservation, equity and sustainable livelihood – are 'so critical to both the legitimacy and effectiveness of REDD+ [that they] are better viewed as prerequisites than as values to be safeguarded'. In any case, mainstreaming safeguards and co-benefits requires their inclusion in strategy development, identification and planning, implementation, and monitoring (Lee et al. 2011; see also Dickson and Kapos 2012).

2.1.1.1 Social safeguards and co-benefits

Social safeguards aim at securing forest-related stakeholders like IPLCs against risks that come with forest-related activities either directly (relocation, exclusion) or indirectly (reducing forest ecosystem services like the provision of local water, game and timber). The welfare of forest communities may benefit through effective participation of local interests and sustainable forest management.[6] In this context, an important yet not consistently used provision (Roe et al. 2013: 14; see also Lee et al. 2011: 3) is the concept of free, prior and informed consent (FPIC), whereby IPLCs are to be included effectively in adopting and implementing development projects, administrative measures and other interventions. Thereby also local-level drivers of deforestation and forest degradation might be targeted. Forest people's rights in the context of forest governance can be operationalized through the transfer of tenure rights to those who have been dispossessed in the past, to create some formal ownership in forest management activities, through their participation in forest-related decision-making processes and acknowledging their right to political and cultural self-determination (Sikor et al. 2010: 423).[7] In general terms, social safeguards should ensure and recognize that the

---

[6] Chhatre et al. (2012) distinguish proximate co-benefits like improved rural livelihoods and lower costs of policy implementation from long-term co-benefits such as increased adaptive capacity of local communities and enhanced transparency and accountability in forest governance.

[7] As measured against the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), social safeguards can be considered derivatives of the broader portfolio of human rights. Herein, substantive human rights include the right to life, health, food, housing and work. Procedural rights, on the other hand, refer to participation in political decision-making, including the right to information and access to justice.

traditional knowledge, customary law and practices of IPLCs are not obstructed.

2.1.1.2 Biodiversity safeguards and co-benefits

Impacts for biodiversity as a result of forest-based activities must be considered as part of the broader environmental impacts that arise through forest conversion, the introduction of invasive and alien species, pollution, sedimentation and reduced quality of soil and water (see Roe et al. 2013: 16). Such an understanding builds on the understanding that forests do more than merely providing for carbon storage services. In turn, broader ecosystem and biodiversity benefits, including resilience and adaptability, might be derived if the environmental integrity of forest-related activities is considered. Thus, biodiversity safeguards also have the implicit aim of preventing undesirable effects of REDD+, as manifested for example through monocultures and plantations. As Humphreys (2003: 46) explains:

> "Plantations are not ecologically representative and cannot provide all of the goods and services that natural forests provide. They cannot support the same level of biodiversity as natural forests (and could therefore violate a broad interpretation of the biodiversity convention), cannot provide a steady stream of non-timber forest products (such as nuts and berries), and do not provide the same cultural, spiritual and recreational services as natural forests."

2.1.2 *Mapping the field of international forest governance*

Against scientific reports on forest degradation and a growing environmental movement, forests have been on the international agenda since the 1980s.[8] However, and especially following the milestone event of global environmental governance in Rio de Janeiro in 1992, the international community has continued to disagree regarding a binding convention on forests. At the 1992 conference ideas on a forest convention were presented, without leading to a corresponding agreement (see also Rosendal 1995). Instead, the parties agreed that forest matters should be dealt with in context of the non-legally binding Forest Principles,[9] to encompass all types of forests including tropical forests (Humphreys 1996). Further deliberations were relegated to the FAO (Persson 2005).

---

[8] Already in the mid-1980s the Tropical Forestry Action Programme (TFAP) was initiated, with the aim of reducing deforestation; however, it had only limited impact (Persson 2005). In 1986 the International Tropical Timber Organization (ITTO) was established, following the adoption of the International Tropical Timber Agreement (ITTA) in 1983, which entered into force in 1985. It was superseded by the adoption of the second ITTA agreement in 1994 (entered into force in 1997) and the third ITTA agreement in 2006. In 1990, the ITTO decided that by the year 2000 all international timber trade should stem from sustainably managed forests (Rosendal 1995: 100).

[9] Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests. The Principles acknowledge the sovereign right of all nations to exploit their forest resources in accordance with their own needs.

In order to 'clarify and expand' (Gulbrandsen 2012: 30) on the Forest
Principles, the UN Commission on Sustainable Development (CSD) tried
to reach an agreement on forests in 1995. Under the auspices of the CSD,
the deadlock was resolved with the formation of the 'Intergovernmental
Panel on Forests' (IPF; 1995–97), and the subsequent establishment of
the 'Intergovernmental Forum on Forests' (1997–2000) (see also
Rosendal 2001; Humphreys 2001). These processes culminated in the
formation of the UN Forum on Forests (UNFF) in 2000, particularly
under the impression of growing consensus on the relevance of forests
for environmental issues of common concern. The Forum was to be
considered as the only space 'for 'stand-alone' forest negotiations'
(Gulbrandsen 2012: 34) with universal membership under the UN
Economic and Social Council (Humphreys 2001).[10] However, also the
UNFF failed to reach consensus on encompassing output. In 2007 the
Non-Legally Binding Instrument on All Types of Forests was adopted,
which will be reviewed in 2015. In parallel to these forest-specific
international institutions, also other arenas, like the CBD and the
UNFCCC, the UNCCD, the Convention on International Trade in
Endangered Species of Wild Fauna and Flora (CITES) and the World
Trade Organization (WTO), have been dealing with forest-related aspects
(see Persson 2005: 351–52 for a broader discussion).

On the policy side, sustainable forest management can be regarded as the
key normative principle of international forest governance; it has been
cited in policies of the IPF, the IFF and in Article 2.1.a(ii) of the Kyoto
Protocol (Humphreys 2003). Functional elements that may be interpreted
as forms of social safeguards have – despite absence of a standard
definition of the term – found their way into various international forest
agreements. For example, the IPF/IFF Proposals contain provisions on
traditional forest-related knowledge. Also the principle of public partici-
pation has been incorporated into – among others – the Forest Principles,
Agenda 21, the IPF/IFF Proposals, and in the ITTA (Humphreys 2003:
44–45).

2.1.3 Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol

Both the Kyoto Protocol and the UNFCCC acknowledge the ability of
forests to capture and sequester CO_2. Annex I parties to the Kyoto
Protocol may engage in forest-related abatement activities to meet their
emission targets, except those involving deforestation and forest
degradation. Such activities may be included in the land-use, land-use

---

[10] The four global objectives of the UNFF are (1) reverse the loss of forest cover
worldwide; (2) enhance forest-based economic, social and environmental benefits; (3)
increase significantly the area of protected forests worldwide and (4) reverse the decline
in official development assistance for sustainable forest management. The UNFF has
acknowledged seven thematic components of SFM: (1) extent of forest resources, (2)
biological diversity, (3) forest health and vitality, (4) productive functions of forest
resources, (5) protective functions of forest resources, (6) socio-economic functions, (7)
legal, policy and institutional framework (see Pistorius et al. 2010: 6).

change and forestry (LULUCF) sector within a party's own country[11] and in international projects under the flexible Kyoto mechanisms of Joint Implementation (JI) and Clean Development Mechanism (CDM) (Levin et al. 2008: 544). Relevant JI projects, conducted solely in Annex I countries, must be developed in accordance with LULUCF reporting guidelines, which are limited to afforestation,[12] reforestation[13] and deforestation,[14] and do not include forest management. CDM projects in non-Annex I countries are limited, again, to afforestation and reforestation and – due partly to methodological reasons related to leakage, additionality of the project-based contribution to mitigation, permanence and baselines – do not include projects related to forest protection or sustainable management of existing forests, reduction of deforestation and forest degradation (Gulbrandsen 2012: 39–40; Levin et al. 2008: 544).[15]

2.1.3.1 Development and design of REDD+ under the UNFCCC

In 2005, the item on 'reducing emissions from deforestation (RED) in developing countries' was introduced into the formal agenda of the 11th Conference of the Parties (COP) by a submission of Papua New Guinea and Costa Rica (FCCC/CP/2005/MISC.1). This submission framed deforestation as a technical issue of emissions in connection with land-use change. The process for further consideration started at the 24th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) in 2006. In Bali 2007, SBSTA reported back to COP-13 and parties adopted a decision on 'Reducing emissions from deforestation in developing countries: approaches to stimulate action' (Decision 2/CP.13), broadening the scope of action to reduce emissions from forest degradation (REDD). The Bali decision implicitly captured the relevance of the mechanism for positive net impact and non-climate issues (e.g. biodiversity), noting that it

> "can promote *co-benefits* and may complement the aims and objectives of other relevant international conventions and agreements" (Decision 1/CP.13; emphasis added).

However, another decision of this COP referred to the instrument as

---

[11] The latter might be included into inventory accounting.

[12] Creation of forests through plantation, rehabilitation, natural and artificial regeneration on lands that have been out of forest use. For different implications on biodiversity through afforestation and reforestation see Pistorius et al. (2010: 4–5).

[13] Establishment of forests in areas that have lacked forests.

[14] Non-temporary removal of forests.

[15] 'Leakage' refers to the possibility that the benefits gained through reduction of deforestation might be annulled by forest removal in other areas. 'Permanence' refers to the fact that trees are only temporary storages of carbon, and that it is released back into the atmosphere when the trees decease.

"Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" (Decision 1/CP.13, 1(b)(iii)).

In this naming, on the one hand, the '+' measures to reduce the loss of forest carbon stocks (from deforestation and forest degradation), to maintain stocks, and to enhance stocks (e.g. through afforestation, reforestation and forest restoration) were included. But by placing a semi-colon between 'developing countries' and 'and the role of conservation […]' some parties, among them India, felt that a hierarchy was created between the various sets of activities, with deforestation and forest degradation receiving higher priority in comparison to the conservation aspects. At the next COP in Poznan (2008), the punctuation was changed and the semi-colon was replaced by a comma. The SBSTA recommendation concerning methodological guidance on the mechanism then referred to

"reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" (FCCC/SBSTA/2008/13, V para.38).

Through this change the same formal relevance was attributed to 'conservation, sustainable management of forests and enhancement of forest carbon stocks' as to deforestation and forest degradation. However, no official decisions on the mechanism were taken in Poznan (Okereke and Dooley 2010: 83). Furthermore, in view of later developments, there are grounds to caution against overly optimistic expectations that the Poznan change in punctuation reflected a broad shift in enhancing the potential for non-carbon benefits of REDD+. At the intersessional meetings of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) in Bonn in 2009 the term 'safeguards' in relation to biodiversity was introduced. One interpretation of this is that parties sought to avoid the seemingly more demanding implications entailed by a language which would explicitly highlight the 'co-benefit' aspirations of REDD+. Another reading suggests that the term 'safeguard' has come to be used as a catch-all phrase that would allow parties to include both the enhancement of benefits as well as the avoidance of harm (see also Pistorius et al. 2010: 2).

At COP-15, in 2009, a decision draft text officially adopted the term REDD+ and covered the scope of activities, guiding principles and safeguards, approaches and means of implementation as well as the question of measurement, reporting and verification of actions (Wong 2010). Also, between COPs of 2009 and 2010 parties discussed a series of draft environmental and social safeguards (see Swan and McNally 2011; Wallbott 2014). In the end, on basis of an extended mandate, the AWG-LCA continued negotiations and adopted – as the main substantial outcome of COP-16 negotiations in 2010 in Cancun – a REDD+ decision (Decision 1/CP.16).

Since then, UNFCCC REDD+ negotiations have dealt above all with technical matters, resulting in the concluding Warsaw Framework for REDD+, adopted at COP-19 in 2013, which includes agreements on finance (results-based payment), guidelines and procedures for technical assessment of submissions on forest reference emission levels and/or forest reference, modalities for measurement, reporting and verification as well as for national forest monitoring systems, drivers of deforestation and coordination of support for the implementation of mitigation activities in the forest sector. Notably, the parties also agreed on the timing and frequency of reporting on how REDD+ safeguards are being addressed and respected. The following sub-section spells out in greater detail the content and negotiation history of these REDD+ safeguards.

2.1.3.2 The REDD+ safeguard system under the UNFCCC

Main parts of the direction that REDD+ will take are captured in paragraphs 70ff. of the 2010 AWG-LCA decision. Importantly, paragraph 70 lists the activities that are part of REDD+ while paragraph 71 requests parties to develop the essential elements of a national REDD+ framework, including a national action strategy, a national reference level as well as a robust and transparent national monitoring and reporting system 'on how the safeguards […] are being addressed and respected throughout the implementation of [REDD+ activities] '. This is part of the three-phase approach towards REDD+ actions:

1. "preparation activities such as development of national strategies or action plans, policies and measures, and capacity building;
2. implementation of national policies and measures and national strategies;
3. results-based actions that should be fully measured, reported and verified".

The Annex to Decision 1/CP.16 specifies the qualifications that apply to REDD+ activities. In particular, provisions (d) and (k) of paragraph 1 are relevant for biodiversity-related impact of the mechanism. Activities should

(a) "contribute to the achievement of the objective set out in Article 2 of the Convention;
(b) contribute to the fulfilment of the commitments set out in Article 4, paragraph 3, of the Convention;
(c) be country-driven and be considered options available to Parties;
(d) be consistent with the objective of environmental integrity and take into account the multiple functions of forests and other ecosystems;
(e) be undertaken in accordance with national development priorities, objectives and circumstances and capabilities and should respect sovereignty;
(f) be consistent with parties' national sustainable development needs and goals;
(g) be implemented in the context of sustainable development and reducing poverty, while responding to climate change;
(h) be consistent with the adaptation needs of the country;
(i) be supported by adequate and predictable financial and technology support, including support for capacity-building;
(j) be results-based;
(k) promote sustainable management of forests".

Also, the REDD+ safeguards are not part of the operational text of the Cancun Agreements. It is again in the Annex where seven broad safeguard principles are listed. It is important to note that the safeguards are not legally binding for parties; rather, they should be 'promoted and supported' as follows:

    (a) "that actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;

    (b) transparent and effective national forest governance structures, taking into account national legislation and sovereignty;

    (c) respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;

    (d) the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision;

    (e) that actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;[16]

    (f) actions to address the risks of reversals;

    (g) actions to reduce displacement of emissions."

The fact that REDD+ activities are meant not only to avoid conversion of natural forests, but also to promote their protection, can be read as an indication that the Cancun safeguard principles on biodiversity actually go beyond the meaning of safeguards in its strict sense of 'no harm', but instead aim to achieve additional benefits for biodiversity and forest ecosystem services (Pistorius et al. 2010). But the Cancun agreement did not automatically operationalize the safeguards. It was left to the parties to identify the relevant policies, laws and regulation that already existed, as well as to develop a policy-specific 'safeguard information system' (SIS) concerning the national approach through which REDD+ safeguards would be addressed and respected.

In June 2011, the SBSTA invited parties and accredited observers to submit their views on methodological guidance on SIS.[17] COP-17 in Durban in 2011 then presented guidance on systems for reporting on how safeguards are addressed and respected (Decision 12/CP.17). In this context, since 2010 negotiations have continued to circle around the question of the character of safeguard provisions, whether they should be regarded as 'standards' or mere 'policy guidance' (Swan and McNally

---

[16] Safeguard (e) includes the following footnote: 'Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day.'

[17] For a review of the received 26 submission (of which 14 were issued by parties) see Larsen et al. (2012).

2011: 8) and how and at which level to measure, report and verify (MRV) their inclusion in REDD+ processes.[18] Given the unspecific language of the Cancun safeguards as well as the plurality of approaches (see Roe et al. 2013), uncertainty emerged among some parties concerning the development of country-level safeguard approaches, as well as concerns that approaches might not cover relevant aspects comprehensively and effectively (Peskett and Todd n.d.). It has also been argued that the adoption of an integrated land-use planning approach to the implementation of REDD+ might make it easier to address the Cancun safeguards, reducing risks and enhancing benefits (UN-REDD 2012).

2.1.4 Convention on Biological Diversity (CBD)

Holding the greatest share of the world's terrestrial biodiversity, forests have received considerable attention in the work of the CBD. Already in 1998, the CBD adopted a Programme of Work on Forests, expanded at COP-6 in 2002, consisting of three programme elements: conservation, sustainable use and benefit-sharing; institutional and socio-economic enabling environment; and knowledge, assessment and monitoring (Dec/VI/22, para.10 Annex).[19] Under these elements, 12 goals, 27 objectives and 130 activities have been developed. Soon after the UNFCCC had opened for the possibility of developing an incentive mechanism for REDD it received considerable attention in the CBD context. It was soon realized that such a mechanism could have a potential to deliver benefits but also threats beyond climate change mitigation, including threats to forest biodiversity. In 2006, in response to the emerging discussions under the UNFCCC, the CBD COP-8 noted that 'effective actions to reduce deforestation could constitute a unique opportunity for biodiversity protection' and consequently encouraged states 'to integrate biodiversity considerations into all relevant national policies, programmes and plans in response to climate change; taking into account the maintenance and restoration of the resilience of ecosystems which are essential for sustaining the delivery of their goods and services' (Decision VIII/30).

Also in 2008, following the previous seminal AWG-LCA decision on REDD+ under the UNFCCC, considerable activity regarding forest-related biodiversity matters emerged in the CBD. In May 2008, CBD COP-9 took a decision calling on parties and others to ensure that REDD+ would not run counter to the CBD objectives, but would support implementation of the forest work programme. In line with the general importance that the CBD has attributed to the role of IPLCs in biodiversity management, the COP-9 decision also called for a REDD+

---

[18] The 'MRVing' of biodiversity safeguards might imply not only include local-/community-level monitoring but also the collection of spatial information and remote sensing on all deforestation, afforestation, reforestation and conservation practices and developments. To MRV social and biodiversity safeguards requires technical, institutional and agency capacity-building.

[19] Notably, the CBD had early on emphasized the importance of IPLCs' contribution to conservation and sustainable use of biodiversity; see e.g. Art. 8(j) and Art. 10 (c) on the protection and encouragement of traditional knowledge and customary use.

mechanism to provide benefits for this group of actors where possible, and to respect their rights (Dec. IX/5). Finally, in 2008 the CBD established the second Ad Hoc Technical Expert Group on Biodiversity and Climate Change to analyse the links between biodiversity and climate change adaptation and mitigation, and to give scientific advice on biodiversity to the UNFCCC. Technical Reports issued thereafter highlight that

- REDD+ and biodiversity politics have great potential for synergies;
- IPLCs should be included to secure the success of REDD+;
- Stable and resilient forests are a precondition for the stable storage of carbon
- A long-term holistic approach to spatial planning and analysis is required;
- The enhancement of forest carbon stocks can provide biodiversity benefits;
- Ecological tipping points or thresholds could endanger REDD+ efforts.

Exchanges between the Convention and REDD+ related processes continued in the form of an expert workshop on Biodiversity Benefits of REDD+, convened jointly by the CBD and UN-REDD[20] in September 2010 in Nairobi. Then, at CBD COP-10 in October 2010 in Nagoya, parties adopted the Aichi Biodiversity Targets as part of the Strategic Plan for Biodiversity 2011–2020 (Dec X/2). Their relevance for forest governance and forest biodiversity is evident in particular with regard to the following targets to be met by 2020:

- *Target 5* sets out to at least halve deforestation and – where feasible – to bring it close to zero;
- *Target 7* mandates the parties to manage all areas under forestry sustainably;
- *Target 11* calls upon parties to conserve at least 17% of terrestrial and inland water areas;
- *Target 15* (second part) aims at the restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation, and to combating desertification.

Also at CBD's COP-10 in Nagoya 2010, just a few weeks before UNFCCC's COP-16 in Cancun would formally include REDD+ and corresponding safeguards in the international climate regime, it was decided that the CBD Secretariat should prepare advice concerning the applications of future biodiversity safeguards and the enhancement of benefits through REDD+, to be approved by its COP-11 in 2012.[21] Such advice was prepared by the Secretariat in collaboration with a wide range

---

[20] UN-REDD is a collaborative initiative that brings together technical experts from the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP). To date, it has supported national REDD+ readiness activities in 48 partner countries (for more information see http://www.un-redd.org/AboutUN-REDDProgramme/tabid/102613/Default.aspx; accessed 29 November 2013).

[21] REDD+ should 'avoid negative impacts on, and enhance benefits for, biodiversity', and the Secretariat should identify possible indicators and monitoring mechanisms for assessing the biodiversity impact of the mechanism.

of partners and after convening a global workshop and a series of regional workshops.[22] However, in the end, the advisory text and its accompanying decision were not referred to as 'advice' but merely included as an annex without title. Moreover, the annex was not approved by COP-11 but only 'taken note of with appreciation' (Dec. IX/19).

Generally, CBD concern with REDD+ has been characterized by appreciation of the functional implications of the mechanism's implementation for forest biodiversity. Most delegations to the CBD hold the view that – given its policy expertise and long-term engagement with various stakeholders – the Convention has an obvious role to play in providing advice to the UNFCCC on safeguards related to biodiversity and the involvement of IPLCs. However, some countries argue against addressing the same subject matter in different multilateral spaces, and hold that REDD+ should be kept strictly under the auspices of the UNFCCC. Since the UNFCCC has never asked the CBD for advice on safeguards application, those countries argue that the CBD involvement is formally in conflict with UNFCCC's 'sovereign' decision on REDD+ safeguards.

2.1.5 Existing international standards for the assessment of REDD+ co-benefits

So far, the two main multilateral platforms to bring forward REDD+ readiness activities on the ground have been the UN-REDD Programme and the World Bank's Forest Carbon Partnership Facility (FCPF)[23]. Both initiatives collaborate internationally and at the national level, and have issued safeguard standards for their REDD+ activities to capture the performance of REDD+ regarding risk reduction and the provision of biodiversity co-benefits. In this, though, they have both been focusing on the readiness phase, with 'little attention so far to biodiversity outcomes and impacts' but focusing instead on minimizing risk (Swan and McNally 2011: 13; but see Rapp 2012 for a different appreciation of the FCPF). They can be regarded as early movers in terms of operationalizing

---

[22] The Secretariat identified the following areas of opportunity that might arise for promoting biodiversity through the implementation of REDD+ activities: (1) *in situ* conservation of forest biodiversity through improved protected area management and forest landscape restoration; (2) improved production forest management; (3) improved forest governance through promotion of principles of good governance, participatory processes, and reinforcing traditional knowledge and customary tenure; (4) improved monitoring and reporting of biodiversity benefits through refinement of conceptual definitions; development of framework indicators; and integrated participatory forest monitoring (PFM) approaches.

On the other hand, it identified the following main risks for biodiversity through REDD+ implementation: (1) conversion of natural forests of high biodiversity value to industrial monoculture plantations consisting of quick-growing exotic species; (2) displacement of deforestation and forest degradation to areas of high forest biodiversity value; (3) afforestation and reforestation by replacing non-forest ecosystems of high biodiversity value to enhance carbon stocks (CBD 2011; see also Swan and McNally 2011: 4–7).

[23] Currently, the FCPF has participation agreements with 36 developing countries (http://www.forestcarbonpartnership.org/redd-country-participants; accessed 3 December 2013).

REDD+ – and not only as the 'most common safeguard design standards' (Roe et al. 2013: 4) but also as possible role models for other institutions. Hence, even though India is not a participating or candidate country within their programmes, it is worthwhile to review the platforms' standards for safeguarding and enhancing biodiversity. In addition, it is appropriate to include in this undertaking also a more encompassing standard that has been developed through collaboration between two NGOs (see below).

To start with, in 2010, UN-REDD had begun to develop a set of Social and Environmental Principles and Criteria (SEPC) to assist prospective country participants in operationalizing their REDD+ readiness activities (Swan and McNally 2011: 12) and to develop a coordinated cross-sectoral approach to safeguards (UN-REDD 2012: 3). The SEPC include *do no harm* as well as *do good* provisions. These are explicitly linked to the UNFCCC REDD+ safeguards and other multilateral processes, including the CBD, but no operational guidance was formulated to minimize risks and maximize benefits in relation to biodiversity. In 2012, after public consultation and revision, UN-REDD's Policy Board welcomed the SEPC as a guiding framework for its programmes. In addition, a Benefits and Risk Tool (BeRT) is being developed to support the application and elaboration of the SEPC. A range of principles and criteria are particularly relevant to biodiversity safeguarding (which relate directly to section 2(e) and (g) of the UNFCCC safeguards; see above) and reflect the understanding that the value of forests lies in the wide range of services which they provide (UN-REDD 2012):

- *"Criterion 15*: Address the risk of reversals of REDD+ achievements, including potential future risks to forest carbon stocks and other benefits to ensure the efficiency and effectiveness of REDD+;
- *Criterion 16*: Ensure […] alignment with ministries' and sub-national strategies and plans that may have an impact on, or be affected by the forest sector and/or land use change;
- *Criterion 17*: Ensure consistency with and contribution to national biodiversity conservation policies (including National Biodiversity Strategies and Action Plans), other environmental and natural resource management policy objectives, national forest programmes, and international commitments to the environment;
- *Principle 5*: Protect natural forest from degradation and/or conversion;
- *Criterion 18*: Ensure that REDD+ activities do not cause the conversion of natural forest to planted forest, unless as part of forest restoration, and make reducing conversion of forests to other land uses (e.g. agriculture, infrastructure) a REDD+ priority;
- *Criterion 19*: Avoid or minimize degradation of natural forest by REDD+ activities and make reducing degradation due to other causes (e.g. agriculture, extractive activities, infrastructure) a REDD+ priority;
- *Criterion 20*: Avoid or minimize indirect land-use change impacts of REDD+ activities on forest carbon stocks, biodiversity and other ecosystem services;
- *Principle 6*: Maintain and enhance multiple functions of forest including conservation of biodiversity and provision of ecosystem services;
- *Criterion 21*: Ensure that land-use planning for REDD+ explicitly takes account of potential synergies and trade-offs between the multiple

functions of forest and the benefits they provide, respecting local and other stakeholders' values;

- *Criterion 22*: Ensure that planted and natural forests are managed to maintain and enhance ecosystem services and biodiversity important in both local and national contexts;
- *Principle 7*: Avoid or minimize adverse impacts on non-forest ecosystem services and biodiversity
- *Criterion 23*: Avoid or minimize adverse impacts on carbon stocks, other ecosystem services and biodiversity of non-forest ecosystems resulting directly from REDD+ activities;
- *Criterion 24*: Avoid or minimize adverse impacts on carbon stocks, other ecosystem services and biodiversity of non-forest ecosystems resulting indirectly from REDD+ activities (including those of indirect land-use change impacts and intensification of land use)".

The World Bank hosts the FCPF and has aligned the safeguard standards of this policy-specific programme with the broader World Bank approaches 'to avoid, mitigate, or minimize adverse environmental and social impacts of projects and strategies, and to implement projects and strategies that produce positive outcomes for people and the environment', which are part of its legally binding Transfer Agreements (FCPF 2011: 2), applicable to Multiple Delivery Partners. Under the FCPF Readiness Fund the following biodiversity-related safeguard and co-benefit provisions apply (FCPF 2011: 5):

- *Environmental Assessment*: To help ensure the environmental and social soundness and sustainability of investment projects/strategies and to support integration of environmental and social aspects of projects/strategies into the decision-making process;
- *Natural Habitats*: To promote environmentally sustainable development by supporting the protection, conservation, maintenance, and rehabilitation of natural habitats and their functions;
- *Forests*: To realize the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.

Also those countries who participate in the World Bank's REDD+ readiness programme are expected to conduct World Bank Strategic Environmental and Social Assessments (SESA) of their REDD+ strategy, including the Strategic Assessment (SA) and the Environmental and Social Management Framework (ESMF) (FCPF 2011: 6–9). The purpose of the first is to identify 'key social and environmental issues related to the drivers of deforestation, and an assessment of legal, policy, regulatory, institutional and capacity gaps'; the latter 'provides a framework for assessing environmental and social risks of specific REDD+ activities and developing and monitoring appropriate strategies to manage and mitigate any negative impacts' (Swan and McNally 2011: 12). Yet, whereas the World Bank acknowledges that REDD+ potentially puts biodiversity at risk but can also 'deliver significant benefits to […] the sustainable management of biodiversity' (FCPF 2011: 9), no specific guidance is given on the development and/or application of relevant measures. In 2012, the FCPF Facility Management Team specified how World Policies and Procedures relate specifically to the UNFCCC safeguards for REDD+, mentioning in particular Operational Policies on

Natural Habitats (OP 4.04), on Forests (OP 4.36) and on Environmental Assessment (OP 4.01) (FCPF 2013).

In addition to these seminal multilateral facilities, the voluntary initiative Climate, Community & Biodiversity Alliance (CCBA) has, together with CARE International, developed a widely accepted project-level and multi-stakeholder REDD+ Social and Environmental Standards (REDD+ SES), seen as more encompassing in terms of capturing the social and environmental impacts risks and impacts of REDD+ activities throughout the project cycle (Swan and McNally 2011: 13). REDD+ SES was specifically designed to go beyond a defensive notion of safeguarding social and environmental impacts at a minimum level, to identify and elaborate on benefits that might be derived from REDD+ (Moss and Nussbaum 2011: 15). Biodiversity concerns are explicitly captured in its principle 6: 'The REDD+ programme maintains and enhances biodiversity and ecosystem services.'

In the last years, some authors have assessed the cross-sectoral linkages within REDD+ related safeguard standards. These analyses have revealed various limitations of the standards under scrutiny. For example, Swan and McNally (2011: 13–14) who build on the work of Epple et al. (2011) find that:

- The standards focus more on the prevention of harm and less on possible guidance on the enhancement of benefits;

- Despite the mention of indirect effects of REDD+ activities, little advice is given in relation to specific recommendations of how to address such impacts;

- The standards deal mostly with the direct conversion of ecosystems, with less focus on the degradation that might arise as a result of fragmentation or disruption of ecological linkages;

- The imprecise language of the standards often leaves considerable room for manoeuvre in terms of operationalization, due not least to the frequent absence of definitions and guidance for interpretation;

- Finally, Swann and McNally note the lack of indicators for measuring compliance, especially with view to assessing whether objectives (as opposed to process-related measures) have been achieved.

Similarly, an overview by Peskett and Todd (n.d.) finds that the various standard proposals differ widely in terms of the objectives which they aim to achieve, the structure of the safeguard instruments, their content (for example, the mandatory inclusion of free, prior and informed consent), their character (mandatory or voluntary application) and scope (the activities to which the safeguards apply).

In sum, we find that the following objectives are repeatedly considered relevant: setting sound biodiversity objectives and indicators (building on National Biodiversity Strategies and Action Plans); identifying areas with high biodiversity and ecosystem services benefits (one tool could be the Carbon and Biodiversity Demonstration Atlas developed by the UNEP World Conservation Monitoring Centre); identifying high risks of deforestation and forest degradation; fostering integrated land-use

planning; ensuring the effective participation of IPLCs; and documenting biodiversity benefits. In more general terms, these aspects should be taken up in REDD+ related laws and policies, institutional set-up, financing, MRV, social and biodiversity safeguarding. We will return to these categories when reviewing India's national efforts at implementing REDD+ and the extent to which biodiversity concerns are included.

2.2   India in international forest-related negotiations

After having set out the development of global governance structures in relation to forests, we now turn to India's position in relevant international environmental negotiations.

2.2.1 India's position on international forest governance

Traditionally, India has – alongside countries like the USA, Brazil, Malaysia[24] – opposed a specific forest convention, fearing not only that, under such a convention, it would lose the sovereignty over its forests but also that its national forest industry would be subjected to comparative disadvantages (Persson 2005: 349; Gulbrandsen 2012: 29–32). Instead, India has advocated for continued leadership on the part of the developing countries in formulating forest principles, and for comprehensive transfers of financing and technology from the industrialized countries to ensure implementation of those principles (Rosendal 1995: 103), for example in form of a Global Forest Fund under the IFF (Humphreys 2001: 131).

2.2.2 India in UNFCCC and CBD negotiations

In UN climate negotiations, India is member of the informal group of emerging economies (Brazil, South Africa, China and India), yet depicts itself as still a developing country in the UNFCCC context, in particular given its low ranking in the Human Development Index.[25] However, in recent negotiation rounds India has emerged as a key actor due to its current and prospective aggregate emission levels,[26] and its economic performance and leadership role in the developing world (Joshi 2013). Furthermore, India has long been considered a Southern hardliner in climate change negotiations (see Vihma 2011: 74): It promoted the inception of the 'Common but Differentiated Responsibilities' (CBDR) principle that has formally put industrialized (Annex I) countries at the helm in combating climate change (Jakobsen 1998), and has defended this principle ever since. Furthermore, India has continuously called for the right to development – including the rights of developing countries to

---

[24] Notably, India is not part of the Rainforest Coalition, but maintains working relation with the alliance (interview 2012a).

[25] Rank 136 of 186 between 1980 and 2010, see http://hdr.undp.org/hdr4press/press/outreach/figures/HDI_Trends_2013.pdf (accessed 28 November 2013).

[26] India is already the world's 5th largest emitter of GHGs (Fujiwara 2010: 1) and the World Resources Institute estimates that India's annual GHG emissions will exceed half of the emissions of the developed countries in the next 25 years (see Vihma 2011).

increase their share of emissions as captured in the CBDR – and for full compensation for the incremental costs of mitigation (Fujiwara 2010: 11). The assumption also prevailed when in 2010 India issued its own mitigation pledges, while clarifying that any actions aimed at reducing domestic emissions were entirely voluntary and that these would not include emissions from agriculture (Fujiwara 2010: 12–13).

Thus, India resists having similar obligations placed on developing countries to cut GHG emissions as compared to industrialized countries' contributions. Instead, it advocates for basing access to and allocation of global environmental resources (including atmospheric space) on equal per capita rights (Walsh et al. 2011).[27] Some have referred to this pattern of emphasizing issues of fairness and equity in its negotiating position as a 'moralistic framing' (Narlikar 2013: 608) or even as 'neocolonial rhetoric' (Vihma 2011: 78). More recently, however, some observers find that India has softened its rhetoric (ibid: 75–76) and become more flexible in UN climate negotiations (Fujiwara 2010: 12), shifting its focus away from a normative emphasis towards finding more pragmatic cost-effective mitigation strategies (Shukla and Dar 2011).[28] As regards India's approach to UNFCCC forest-related negotiation items, it has been promoting (national) projects of afforestation and deforestation under the CDM (MoEF 2009), and also sees REDD+ as a useful bargaining chip vis-à-vis the developed countries.

India's characteristic features as a negotiating party under the CBD as regards forest policies include its membership in the group of megadiverse countries that contain approximately 60 to 70% of terrestrial species diversity (Voges and Biberhofer 2012: 124). However, India has increasingly developed user interests and markets for the technological and industrial use of genetic resources as well, thereby raising its stakes in biodiversity prospecting activities (see Wallbott et al. 2014).

2.2.3 India's position on REDD+ and related safeguards

2.2.3.1 Compensated conservation and sustainable management of forests

India has managed to build up forests over the past decades through national programmes. Yet, despite net forest growth in past years, the country would not profit from a mechanism which focused on the 'RED' aspects of forest governance. To be able to attract further incentives to add to forest carbon stocks, India has advocated an expanded scope of the instrument to include 'compensated conservation' in addition to deforestation avoided (FCCC/SBSTA/2007/MISC.14/Add.2; see also Wolff 2011: 266). This shift in focus has also been presented as

---

[27] India's per capita emissions are less than one-third of the world average value (Fujiwara 2010: 1–2).

[28] This observation is in line with other assessments that characterize India as an emerging major power that 'is moving towards "selective coalitions" that lead it away from its allies in the Third World' (Narlikar 2013: 597; on negotiation dynamics within the G77, see also Najam 2005; Kasa et al. 2008).

constituting 'an alternative to the principle of compensated reduction' (Kishwan 2007). Thus, the main characteristic of India's position in international REDD+ negotiations has been its persistent advocacy of equal consideration to be given to three components of forest governance: (1) conservation/ reduced deforestation and stabilization of carbon stocks, (2) sustainable management of forests, and (3) enhancement of forest carbon stocks/ afforestation and reforestation (MoEF 2009). As noted by one of our interviewees:

> "(…) you have to look into this issue of forestry actions in a holistic manner, don't ignore the countries, who are on the plus-side because they are diminishing the negative effect of deforesting countries, even if they reduce it. So it was not acceptable. Then, in Bali, this text was coming again and again: the whole of conservation, the unsustainable management of forest – but what they wanted is, no, this is not the right place for this; we are not considering this as an issue. So the issue should be dropped, we discuss it somewhere else. But we said, no, it has to be there" (interview 2012b).

Yet, in line with the above assessment of India's modified and more pragmatic approach to climate negotiations, another interviewee pointed out that the inclusion of forests was not primarily a matter of international equity (interview 2012a) but a cost-effective means of mitigation. At the same time carbon services are considered to be 'an additional incentive' for forest conservation and for the sustainable management of forests next to the benefits and ecosystem services that can accrue to local communities (ibid). In turn, official documents present the participation of local communities in Joint Forest Management (JFM; see below) approaches as a means of promoting regeneration and reforestation (India 2007).

India's position on the definition of 'forest', a crucial element of REDD+, seems ambiguous. On the one hand, the official standpoint is that 'carbon service from forest and plantations is one of the co-benefits and not the main or the sole benefit' of REDD+ politics (see India n.d.: 2). Also, India has issued proposals to allow for 'a country specific definition of forest in terms of crown density, which should include natural as well as industrial/short rotation plantations, or in the alternative, if techno-logically possible, a forest definition based on a minimum default biomass/carbon stocks per unit area' (India 2007) and to build on a national and flexible definition of 'forest' for national-level accounting of forest carbon stocks, allowing REDD+ host countries 'to elect ToF (trees outside forests) area and/or other tree resources outside the traditional forests to be included in the national accounts' (India 2012). These would seem to contribute to a wide range of eligible activities under REDD+, while sidelining biodiversity considerations.

On the other hand, India has supported the 'umbrella approach' of 'sustainable management of forests' (SMF) together with conservation

and increase in forest cover[29] to REDD+ (MoEF 2009; interview 2012a). This must be distinguished from 'sustainable forest management' (SFM).[30] The distinguishing feature of the former is that non-carbon forest services like biodiversity conservation, poverty alleviation and watershed protection are to be considered and possibly enhanced in management practices. This approach goes beyond a *do no harm* approach to forest governance, highlighting instead the multitude of additional benefits that might be derived from it:

> "In tune with the nation's forest policy, the national strategy aims at enhancing and improving the forest and tree cover along with the biodiversity of the country, thereby enhancing the quantum of forest ecosystem services that flow to the local community" (India 2011a: 3).

In this light, observers have found that 'India remains staunchly opposed to differentiation between plantations and natural forest in the REDD mechanism' (Okereke and Dooley 2010: 89). Also, India's integrative approach does not go so far as to substantially link negotiations on biodiversity and climate issues. Rather, India has been reluctant to open a UNFCCC/SBSTA-programme on valuation of various kinds of forest ecosystem-services (including non-carbon), on the grounds that it would stretch the mandate and time-constraints of the Convention too far (interview 2012b).

2.2.3.2 Further elements of a REDD+ design

Regarding further elements of a REDD+ design, India advocates a flexible mix of market- and non-market-based financing approaches in REDD+ (India 2011b). It prioritizes a market-based approach for those mechanisms that provide incentives for change in forest carbon stocks (due to incremental carbon stocks and reduced deforestation) and baseline stocks; public funding, on the other hand, should support the conservation of forest carbon stocks. Furthermore, India maintains that REDD+ should be kept outside the CDM mechanism of the Kyoto Protocol, because

> "[i]n fact, the CDM market is a conglomerate of so many sectors. There are LULUCF projects; there are energy and energy

---

[29] This 'net approach' (Okereke and Dooley 2010: 89) builds on the basic idea that natural forests can be replaced by plantations and be accounted for as increased forest cover.

[30] A FAO briefing note between COP-14 and -15 had already pointed out that the REDD+ negotiations were characterized by inconsistent usage of the differing terminologies (Braatz n.d.), and that the concepts were often presented interchangeably in negotiation texts. On the other hand, Benick et al. (2010: 2) have concluded in their summary report of an international expert workshop on REDD+ 'that the reason for using SMF in the Bali language of UNFCCC is of political nature and that the terms both have the same meaning, respectively refer to similar objectives'. In any case, land-use planning and clear tenure rights (including FPIC) were relevant under these concepts. India has pointed out in a national submission that such clarification was also necessary 'to steer its [the sustainable management of forest] proper application in forestry mitigation actions' (India n.d.: 4) in national contexts.

transition projects. So we thought, in case we bring the REDD projects in the same market, this market will not be in a very good condition. Therefore we do not want to call it CDM" (interview 2012b).

And finally, India holds that a MRV system for REDD+ projects that goes beyond an information system would infringe national sovereignty (interview 2012a). Generally, REDD+ should be based on national-level instead of project-based provisions, covering all forest and forestry areas (interview 2012b). In the Indian view, Reference Level (RL)/ Reference Emission Level (REL) must be fixed. Building on the national JFM policy, in the absence of an agreed RL/REL at the international level, the year 1990 could be adopted as the baseline year for REDD+ (Sud et al. n.d.: 4).

Against this backdrop, in the following section we examine if and how far India has actually managed to prepare corresponding and appropriate structures for implementing REDD+ and the extent to which considerations for biodiversity have been included.

3   REDD+ in India: the national dimension

3.1   Forest governance in India

3.1.1 Forest status

India has a forest cover of more than 70 million hectares, which corresponds to almost one fourth of the country's area – twice the size of Finland – and which neutralizes 11% of India's GHG total emissions (MoEF n.d.). Unlike most other developing countries, India, according to its government, has not lost but added forest cover over the last decade (MoEF n.d.).[31] However, forest degradation remains a major problem. The growing stock per ha of forest area is far below the global average; more than 40% of India's forests are degraded and understocked (Nayak et al. n.d.).

Of the total forest area, some 97% is legally owned by the government (Aggarwal 2011). Estimates of forest-dependent people in India vary, with figures between 200 and 275 million. Among those, approximately one third are estimated to be tribal people (Aggarwal et al. 2009a) of which another 50% live in forest fringe areas (World Bank 2006). Forest productivity is low compared to world standards, increasing the gap between demand and supply of various forest products: the 'Mean Annual Increment' (MAI), a measure of forest productivity, is only 0.7 m3/ha for India's forests compared to the global average of 2.1 m3/ha (Aggarwal et al. 2009a).

3.1.2 Forest-related laws and policies

Forest governance in India is a complex issue, with governance responsibilities dispersed across national, state and local levels. While the Ministry of Environment, Forests and Climate (MoEFC) draws up national policies, responsibility for administering forests lies primarily with the 29 states and their State Forest Departments. Local forest governance is reflected through the JFM system at the state level and more recently through the 2006 Forest Rights Act (FRA), described below. The division of governance power between the state and the local level has been a contentious issue, as we will show.

India has a long history of national forest regulation. The first Forest Act was enacted in 1865; the Forest Act of 1927 is still in force today, even though it dates from a time when India was still a British colony and cannot reflect the progressive changes in forest policy since then. The Act distinguishes two types of forests: reserve forests and classified forests. However about 17% of national forest cover is not captured by this dual categorization (Aggarwal 2011).

---

[31] A perception contested by some forest experts and NGOs (see Ravindranath et al. 2012).

In 1980 the Forest Conservation Act was adopted. It was put in place to restrict the use of forest land for non-forestry purposes without the prior approval of the central government (Sharma et al. n.d.). In case of diversion of forest land, the Act obliges the land-user to pay for compensatory afforestation as well as an amount equal to the value of the forest that has been diverted.[32]

A radical paradigm shift was achieved with the National Forest Policy (NFP) of 1988. While early forest management was revenue-oriented, the NFP is conservation-oriented. It also focuses on the needs of forest-dependent people and their involvement in forest management as well as on environmental protection and restoration – all important elements for successful implementation of REDD+ (Aggarwal et al. 2009a).

With the NFP, the Government of India initiated JFM with the stated aim to facilitate involvement of local communities in the management of forests and to develop partnerships between the communities and the State Forest Departments. In this context local communities have been described as users, with the State Governments being owners to manage the resource and share the costs equally (Sharma et al. n.d.). JFM is institutionalized through Forest Protection Committees or Joint Forest Management Committees (JFMCs). Currently, nearly 30% of the forests in India across 28 states and union territories of India are managed through JFM (Vijge and Gupta 2013; Aggarwal et al. 2009b). However, the performance of these committees is perceived differently and varies across regions. Some studies indicate a positive impact on forest manage-ment, livelihoods and cooperation with forest departments (Ravindranath and Sudha 2004), whereas others question their effectiveness and financial sustainability. Indeed, it has been reported that only 40% of JFMCs are actually turning their financial resources into functional outcomes (Aggarwal et al. 2009a). Furthermore, many communities see JFM as a centralized approach that ignores the rights of forest-dwelling communities and existing management institutions (Aggarwal et al. 2009b).

The 2006 Forest Rights Act (FRA) marked another significant step by recognizing people's rights over forest resources. The main purpose of the Act was to do away with the centralization of forest governance and to strengthen local forest governance 'with the objective of remedying the historical injustice to the forest dwelling Scheduled Tribes and other traditional forest dwellers of the country' (MoTA 2012: 1). Still, adoption of the FRA was highly controversial and led to a polarized debate: proponents of the Act called for democratic rights, poverty alleviation and better incentives for local people for conservation whereas opponents argued that the Act would lead to overexploitation of forests and be detrimental to nature conservation (Aggarwal 2011).

---

[32] Views differ as to the actual effects of the Act on forest conservation (see Aggrawal et al. 2009b: 6; Sharma et al. n.d.: 7).

Centralization of Indian forest governance – an administrative legacy from the colonial past – has been justified with the need to establish large areas of wildlife reserves, also across federal state boundaries. In this sense, concerns over the conservation of forests and wildlife were weighed against rights for tribal and other forest-dependent communities. Another argument for central land-use governance was the need to coordinate economic development on a large scale. This resulted in communities being displaced in large numbers without compensation when mines, dam, industries and large infrastructure were created (Aggarwal 2011). Against this background, the FRA was then presented as rectifying an historical injustice and as a means to empower local communities for the 'responsibilities and authority sustainable use, conservation of biodiversity and maintenance of ecological balance' (MoLJ 2007). It can be assumed that the FRA will seriously affect the management of non-timber forest products, such as medicinal plants and will transform the forest landscape considerably and thereby, in general terms, will also have a major influence on REDD+ implementation in India.

Those who may claim rights under the Act are dwellers who reside primarily in forests/forests land and who have depended on it for a livelihood for at least three generations (which is 75 years before 13 December, 2005 according to the Act; Sarin 2010: 7). Alternatively, rights may be rewarded to members of a Scheduled Tribe (Forest Dwelling Scheduled Tribe). The Act recognizes three types of rights: Land Rights, Use Rights and Right to Protect and Conserve. District Committees decide on the rights upon recommendations from the Gram Sabhas, which are village assemblies bound by law serving as local governance institutions and consisting of all the adults of the village.

By the end of 2013, more than 3 million rights claims had been settled, representing 85% of the total claims filed under the Act. Out of the claims dealt with, some 1.4 million have been distributed – the large majority being individual, with very few community titles (MoTA 2014). However, FRA has been unevenly implemented across the country and has barely started in certain states. One reason is the very low rate of acceptance of claims in some states (Aggarwal 2011) even leading to an increase in state control over forestry (Vijge and Gupta 2013). The slow pace of processing the rights claims and the low level of acceptance have been heavily criticized by local community representatives.

FRA does not address its relation to the JFM system between the states and the local communities described above, leaving the JFMCs – under state authority – and Gram Sabhas – under local authority – with overlapping governance functions. In 2011, however, the central government issued an advisory to the state governments to put JFMCs under the authority of the Gram Sabhas (Sharma n.d.). JFM is intended to evolve from a state-based into a locally-based governance system referred to as 'JFM+' (Sud et al. 2012).

Finally, in 2010, the government put in place a National Mission for a Green India (Green India Mission, GIM; MoEF 2010). This is a part of the National Action Plan for Climate Change and the first policy document that explicitly links climate change and forest policy. The Indian government has referred to GIM as the country's 'new flagship forestry programme' (MoEF n.d.).

The overarching objective of GIM is to double the area for afforestation and forest restoration over the next ten years, thereby significantly reducing carbon emissions from these sources. However, the MoEFC is keen to stress that GIM also aims to improve the provision of other ecosystem goods and services and that it marks a fundamental shift from merely focusing on forest quantity (coverage) to forest quality: there is 'a clear and more important focus on enhancing biodiversity, restoring ecosystems and habitat diversity' (MoEF n.d.). Further, according to the MoEFC, GIM will place a major focus on decentralization. Local communities will be at the heart of implementing GIM with Gram Sabha as the overarching institution and with revamped JFMCs under its authority. Still, GIM has been heavily criticized by some civil society groups for prolonging or even enhancing traditional state control over forests (see Vijge and Gupta 2013). A second criticism has been that it would still focus too much on carbon storage and not give sufficient consideration to other 'greening' aspects – a point particularly relevant for India's forests, given the huge diversity of species and ecosystems in the region.

3.2 Biodiversity governance in India

3.2.1 Biodiversity status

India is one of only 17 mega-diverse countries worldwide. Despite a share of the global land area of only 2.4% share the country holds an estimated 7 to 8% of the world's recorded species. Out of 34 global biodiversity hotspots, India includes four (Gokhale n.d.). These figures indicate the high relevance of biodiversity safeguarding in its national forest politics.

3.2.2 Biodiversity-related laws and policies

The conservation and sustainable use of various components of the country's biodiversity are impacted by various sectoral measures – including those on forestry noted above. However, several issue-specific rules also exist. To start with, the protection of national wild flora and fauna is regulated through the Wildlife (Protection) Act of 1972 (amended in 2001 and 2002). Under this instrument protected areas have been set up, covering approximately 4.7 percent of the total geographical area.

The Biological Diversity Act (BDA), enacted in 2002 to fulfil India's obligations under the CBD, became operational after the Biological Diversity Rules were adopted in 2004 under the BDA. The primary function of BDA is to regulate access to biological resources and associated traditional knowledge in India (BDA sections 3–7), to ensure conservation and sustainable use of biodiversity and fair and equitable

sharing from use of the resources. The Act also prescribes certain general duties of the central and state governments: these include developing national plans and strategies for biodiversity; integrating biodiversity into cross-sectoral and sectoral plans and programmes; regulating, managing and controlling genetically modified organisms; undertaking environmental impact assessments; respecting and protecting traditional knowledge related to biodiversity; and notifying areas of importance for biodiversity and threatened species (BDA sections 36–40).

The BDA establishes statutory, autonomous institutions at three geographical levels for implementation: these are the National Biodiversity Authority (NBA), the State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs) at the local level (BDA sections 8, 22 and 41). The purpose of the local BMCs is 'promoting conservation, sustainable use, and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks, and breeds of animals, and microorganisms and chronicling of knowledge relating to biological diversity'(BDA sections 8, 22 and 41). BMCs are to prepare so-called 'People's Biodiversity Registers' in consultation with local residents. The Registers shall contain comprehensive information on the availability and knowledge of local biological resources, their medicinal use and any other aspects of utilization (Biological Diversity Rules 2004, Section 22).

According to guidelines established by the NBA, BMCs are to be constituted by the local bodies, which shall make efforts to integrate BMCs with other village-level committees related to natural resource management (NBA 2013: 1). As of August 2014, a total of 34,135 BMCs has been established – however, very unevenly distributed across states.[33] Full implementation is proceeding slowly: as of August 2014 only 1863 People's Biodiversity Registers were reported as having been established.[34]

Hence, forest and biodiversity issues in India are managed by a diverse set of institutions and policies/laws that have often been established separately. In functional terms, they may overlap and impact each other when regulating the same geographical area. These issues are likely to become even more crucial with the advent of REDD+ and the requirements that biodiversity and social safeguards be taken into consideration.

3.3   Is India ready for REDD+?

From this follows the question whether and to what extent India's existing governance systems – particularly in the forest sector – are 'ready' to implement REDD+.

As noted, India has been a staunch international advocate of REDD+ and also of introducing safeguards for the protection of other forest ecosystem

---

[33] http://nbaindia.org/content/20/35/1/bmc.html (accessed August 31, 2014).
[34] http://nbaindia.org/content/105/30/1/pbr.html (accessed August 31, 2014).

services than carbon sequestration. Consistent with India's international stance, the government has presented REDD+ as a useful complement to the national forest regime. Forests are an important part of Indian culture, and India has a long history of forest policies, governance and law with a multifunctional perspective. India sees conservation, expansion and improvement of the quality of forests as a major national priority. REDD+ is perceived to be able to reward India's earlier efforts to conserve forests, through the provision of carbon services to the international community in addition to providing traditional goods and services to local communities, as well as biodiversity (MoEF n.d.). Further, REDD+ is seen an appropriate tool for keeping India's GHG emissions at a low level. According to the MoEFC, a REDD+ programme for India could capture more than 1 billion tonnes of additional CO_2 over the next decades, equivalent to more than USD 3 billion. Thus, officially, the Indian government sees great opportunities in REDD+. Against this backdrop, in the following we assess India's REDD+ readiness against a set of key parameters in terms of what REDD+ implementation will actually require, and which laws and policies, institutional and financial structures (including the standing of IPLCs) and MRV compounds are already in place.

3.3.1 Laws and policies

As noted, India has rather advanced policies and laws in place on forest management, although the Forest Act from colonial times, which is still the main supporting legal instrument, may need to be modernized to give legal support for more comprehensive changes in forest politics. The GIM from 2010, the first policy instrument to link forest and climate change, states that most actions under GIM are relevant to REDD+. However, GIM is not a national REDD+ strategy as required by the UNFCCC (UNFCCC, 1/CP.16, para. 71). Such a strategy is still lacking, and is needed to respond to India's high expectations for REDD+, to raise awareness among policy-makers and decision-makers and to fill the gaps in REDD+ implementation further described below.

3.3.2 Institutional set-up

As follows from India's history of forest regulation, there are robust forest institutions compared to the situation in many other countries – at least on the federal and state level (through the MoEFC) and the State Forest Departments. India is currently in a transition phase regarding local-level forest institutions, and particular attention must be paid to avoid duplication of work between institutional entities when implementing REDD+. However, some degree of supplementing the existing framework will be necessary, to fulfil international requirements as well as India's own high expectations to REDD+.

Recently, a National REDD+ Cell has been established in the MoEFC, expected to play a key role in designing and implementing REDD+ strategies. The Cell has multiple tasks, such as to coordinate activities at the federal level, mobilize and disburse resources, guide REDD+ activities as well as ensure funding and participation in international REDD+ negotiations (Sud et al. 2012). According to interviewees close

to the government, the REDD+ Cell currently consists of one official in the MoEFC who shares his REDD+ assignments with other forest-related assignments. It seems unlikely that under these circumstances and without considerable allocation of resources the Cell will be able to fulfil its envisaged tasks. According to interviewees, the planned REDD+ cells at federal state levels have not yet been established, and sufficient capacity-building activities focused on REDD+ have not been conducted. Currently the establishment of a technical group – additionally to the REDD+ Cell – is in the planning phase in order to develop carbon monitoring methodologies and a National Forest Carbon Accounting Programme (MoEF n.d.). This will complement the wide-ranging research activities conducted by, *inter alia,* the Indian Council for Forestry Research and Education (ICFRE), Forest Survey of India (FSI) and the national Remote Sensing Agency.

Finally, the government officially recognizes that critical linkages exist between forest resources and rural livelihoods in REDD+ implement-ation, and that there are likely to be competing demands regarding land-use among various groups of stakeholders. In order to develop synergistic approaches and sustainable solutions, substantial communication and cooperation between sectors like agriculture, health, rural development and energy, institutions and individuals will be required (Sud et al. 2012). However, thus far, such linkages have been weak.

3.3.3 Financing

Successful implementation of REDD+ needs substantial funding, and that is one of the most serious obstacles to implementation globally and in India. At the international level discussions have focused on whether REDD+ financing should be market- or fund-based. India has opted for a mix of the two. However, given the tremendous drop in global carbon markets, these no longer seem to be the most reliable source of financing.[35]

As noted, it has been recognized in the UNFCCC context in that develop-ing countries should receive financial support for implementing REDD+ activities. Thus far, India has obtained only limited financing for its self-declared REDD+ commitments. When the GIM was launched, the Indian government declared its intention to fund it with some USD 8.5 billion over 10 years. However, it was not until four years later, in 2014, that a first sum of approximately 25% of the total amount was allocated accordingly (Sethi and Me 2014). Interviews with Indian REDD+ stakeholders revealed that it is still quite unclear how REDD+ funding will be secured beyond GIM. India has not made use of the opportunities for support from the main multilateral mechanisms referred to above that

---

[35] However, it should be noted that India's carbon market is relatively advanced, and that India hosts the second largest share of CDM projects globally (Vijge and Gupta 2013).

currently promote capacity-building, policy development and implement-
ation of REDD+.[36]

From the government's perspective, India has already moved beyond the
stage of institutional capacity-building and development of MRV systems
(phases 1 and 2) that the multilateral REDD+ mechanisms are still
focusing on. It has been reported that the government considers India to
be already in phase 3 – which would mean that it has already developed
sufficient capacities to monitor forest carbon stocks and is ready/eligible
for results-based compensation (Vijge and Gupta 2013). In addition, and
on grounds of sovereignty, the government has appeared reluctant to
submit to standards and subject REDD+ activities to international
scrutiny as required by the international mechanisms (ibid). Correspond-
ingly, interviewees believed that once the REDD+ capacity has been
further developed at the various levels and GIM activities have been
launched, India will seek to get a share of the larger result-based funding
flows that are expected to be disbursed as a result of the 2013 Warsaw
Framework for REDD+.

On a bilateral basis, there is already one example of external support for
REDD+ in India: the USAID-funded 'India Forest Partnership for Land
Use Science' programme, or 'India Forest PLUS'. Launched in 2012 with
a USD 15 million budget, it is aimed at accelerating India's transition to a
low-carbon economy on the basis of REDD+.[37] The programme seeks to
strengthen India's capacity to develop systems for forest carbon measure-
ment and monitoring, as well to conduct GHG inventories, and to support
the application of science and technology for improved and more cost-
efficient management and monitoring systems. The programme is further
intended to assist in improving tools and capacity for land-use planning
that can reduce deforestation while also ensuring the rights and engage-
ment of local and indigenous communities. It is to be implemented in
four Indian states: Himachal Pradesh, Sikkim, Madhya Pradesh and
Karnataka. According to our interviewees, specific projects at state level
are under development. The programme will also apply at the national
level, and interviewees see it as an untapped opportunity to strengthen the
national REDD+ Cell in the MoEFC.

REDD+-related activity at the sub-national has been very low. However,
two local self-designated projects have emerged in the state of
Meghalaya, both of them re-oriented from community-based natural
resource management projects to REDD+ pilot projects in order to
leverage carbon credits as an additional financial benefit (Vijge and
Gupta 2013). Although these are conducted independent of government
control, observers reported that the Indian government has been follow-
ing the projects closely (see also section 3.4 on 'ABS and REDD+').

---

[36] The UN-REDD Programme, Social and Environmental Principles and Criteria (SEPC),
The Forest Carbon Partnership Facility (FCPF) Readiness Fund and REDD+ Social and
Environmental Standards (REDD+ SES)

[37] http://www.state.gov/r/pa/prs/ps/2012/06/192270.htm (accessed August 31, 2014).

3.3.4 Measurement, reporting and verification

As an important part of the global REDD+ regime, countries are expected to develop a robust and transparent national system to monitor changes in forest cover and carbon stocks over time. This also applies to the non-carbon benefits covered by the Cancun safeguards. India has a long tradition of national forest monitoring, and a 'State of the Forest Report' is produced biannually by Forest Survey on India under the MoEFC. However, as regards carbon storage, the monitoring system is still in its infancy, and India has yet to determine the reference baselines for emission measurements and modalities for MRV (Sud et al. n.d.).

Coordination, like the division of tasks on MRV between various administrative levels, also needs to be established. It has been argued that engaging forest-dependent communities would be important for MRV, as well as having the added benefits of creating employment opportunities and gaining community support for forest protection (Danielsen et al. 2011; Aggarwal et al. 2009b).

3.3.5 Indigenous peoples and local communities

The dependency of a large percentage of the Indian population on forests for their livelihood is one driver of forest degradation. Close to 40% of the population still depend on fuel wood as their primary source of energy, which has made India the world's largest consumer of fuelwood (Aggarwal et al. 2009a). Timber and fodder for cattle are examples of other forest products where there are tremendous gaps between demand and supply (ibid.). These various types of drivers must be dealt with if India is to achieve sustainable management of forests and thereby also realize REDD+ objectives.

The REDD+ social safeguards call for the respect of the knowledge and rights of IPLCs. The official position of the Indian government is that such safeguards already exist, through legislation on local rights to forests and local institutions, reviewed above. Moreover, the government sees REDD+ as a clear benefit for local communities, in addition to the forest goods and services already provided to forest-dwelling communities. According to the government, the country's legislative framework will both ensure that REDD+ will not adversely impact on the rights of communities and that there will flow more monetary benefits to them to implement REDD+ (Sud et al. n.d.; MoEF n.d.). In the REDD+ component that is furthest advanced in India, the GIM, there is strong support for the FRA, and local communities are meant to have a crucial role in its implementation.

However, as discussed above, the national transition from a system of JFM between states and local communities to a system of local self-governance under the Gram Sabahs, as stipulated by the 2006 FRA, has been met with reluctance in some Indian states (Vijge and Gupta 2013). Also, while the official government position is that IPLCs will benefit from REDD+, various civil society observers, among them the National Forum of Forest People and Forest Workers, have expressed a diverging opinion. They believe that GIM and REDD+ will undermine rather than

support the implementation of the FRA (Aggarwal et al. 2009a; Equations 2011; NFFPFW n.d.). These critics take the fact that India has been open to a marked-based REDD+ mechanism in international negotiations as confirmation that the government regards forests as financial assets rather than as livelihoods for hundreds of millions of people. Similarly, they caution against private companies taking control over large forest areas, with the expected lessening of community rights.

Another concern raised by civil society groups is the GIM objective of improving the quality of forests by restoring and afforesting large areas. The type of forests often regarded as degraded and of low value are the moderately dense and open forests. These are therefore expected to be the main targets for restoration ad afforestation. However, such open forests are essential to forest communities for extracting fuelwood, fodder, small timber and for grazing cattle. Large-scale transformation of those areas is suspected of leading to displacement of forest communities and depriving them of their habitat and livelihood options (Equations 2011).

The local governance structure for GIM and REDD+ has also been heavily criticized (ibid). The prospect of JFMC's continuing key role in forest governance – albeit revamped as JFMC+ and under Gram Sabha authority – is perceived by critics as disregard of the FRA and as an attempt to maintain or reintroduce the old system of centralized politics through the back door. Critics also see the slow pace of FRA implement-ation as deliberate obstruction by some Indian states. Vijge and Gupta (2013) argue that the open and democratic process through which the FRA was designed has not necessarily stimulated local empowerment, and that state control over forests has even increased in some states. They also reveal a history of broken promises by some states regarding the distribution of forest revenues under the JFM system.

The Indian government's heavy promotion of GIM and REDD+ as tools for strengthening local forest governance and empowerment, in the face of the perceptions of at least some civil society groups that these tools are undermining the same, reveals some deep-rooted differences of opinion between key REDD+ actors in India. Reliance, accountability, trust-building, responsiveness and creating meaningful incentives and alternatives for local communities are key elements of getting ready for REDD+. It is not enough to simply declare that all REDD+ funding will flow to local communities. An essential element in incentivizing would be to ease people's dependence on forests, not least through more efficient use of forest products and the provision of alternative sources of fuel, fodder, and timber.

3.3.6 REDD+ readiness related to biodiversity concerns

Indian politics have traditionally emphasized the link between bio-diversity and ecosystem services and the heavy dependence of local com-munities on these services for subsistence and livelihood. As forest eco-systems are the richest terrestrial ecosystems in terms of biodiversity, and India has a large forest cover and at least 200 million people dependent on its forests, safeguarding biodiversity will – not least in line with the formal insights the CBD (see above) – necessarily be an important

element in establishing a sustainable and broadly supported national REDD+ mechanism.

The above assessment has shown that India is only partly ready for REDD+. That also implies that India is also not yet ready to reap the potential benefits that REDD+ might bring for biodiversity – even more so, since the country's official position presents biodiversity conservation not as an add-on to carbon sequestration but as standing on equal footing with it.

As is the case regarding benefits for the livelihoods of forest-dependent peoples, it is not uncommon for national authorities to state that bio-diversity benefits will emerge automatically through REDD+ (MoEF, n.d.; Gokhale n.d.; Sud et al. 2012). However, India is hardly different from other countries in relation to the actual design of policy implement-ation being crucial in determining the kind of outcome that REDD+ will entail for biodiversity. The factors discussed in the first part of this report as being generally important for biodiversity in the context of REDD+ also appear relevant for India:

Setting sound biodiversity objectives for REDD+ is very much about aligning national forest and biodiversity policies. India already has this as an overall objective, and institutional responsibility for dealing with forests and with biodiversity is located within the same ministry. Hence, India should be in a good position for this endeavour, if communication between the various units can be ensured. A suitable instrument for making such an alignment is India's National Biodiversity Strategy and Action Plan (NBSAP). NBSAPs – as prescribed in CBD article 6(a) – have been appointed as the primary national mechanism for imple-mentation of the CBD, and should explicitly include national targets to support the 20 global 'Aichi Targets' (CBD 2010). According to the Aichi targets, 17 states are to update their NBSAPs by 2015, and India is currently involved in such a process.

Identifying areas with high biodiversity and ecosystem services benefits and *integrated land use planning* are crucial for biodiversity integration in REDD+. So far, the Indian REDD+ focus has been less on avoiding deforestation and more on the 'plus' component – enhancement of carbon stocks through afforestation and reforestation as the main issue under GIM. That component clearly does not automatically go hand in hand with biodiversity safeguarding or even generating biodiversity co-benefits.

India has been under enormous pressure to promote plantation forestry. It ranked fourth in the world between 1990 and 2010 with regard to increase in planted forests (Singh et al. 2013). In the absence of careful mapping and planning, there is a risk that areas of high biodiversity value could be transformed. Also civil society groups have expressed major concerns on this matter. As a result of the ambitious afforestation target in the GIM, trade-offs might occur between carbon and biodiversity concerns when creating the envisaged large areas of plantations (Vijge and Gupta 2013). This mapping and planning exercise will require broad stakeholder involvement at all levels as well as close cooperation

between governance levels, and could serve as a push to establish and provide sufficient funding to REDD+ institutions at state and local levels.

Including and benefiting IPLCs through community-based forest governance is another crucial element for obtaining biodiversity benefits through REDD+. Thus, also for the sake of biodiversity it is important that trust can be built between communities and higher levels of governance, and that obstacles for implementing the FRA (which, *inter alia,* provides community rights for non-timber forest products) are removed.

On the level of local forest governance, there is a need to establish close collaboration and convergence between the Gram Sabhas and the local institutions they may create for local forest governance on the one side, and the BMCs established pursuant to the BDA on the other.

There is an urgent need to establish the modalities of a benefit-sharing/payment for ecosystem services mechanism and to determine clearly how REDD+ funding is to be allocated across various political levels (see section below on ABS and REDD+). As noted above, part of the controversy on the FRA has involved the concerns voiced by some stakeholders that further devolution of forest management to local communities would lead to further overexploitation and unsustainable management, detrimental to wildlife and biodiversity. This only adds to the need for empowering and incentivizing IPLCs. To prevent negative effects on biodiversity outside protected areas, it has been suggested the 1927 Forest Act and the 1972 Wildlife Protection Act be amended (Sharma et al. n.d.).

Local community rights in protected areas has been a controversial issue also after the FRA entered into force, and there have been recent examples of state authorities relocating local communities from protected areas (Aggarwal 2011). FRA makes room for co-management of protected areas with local communities, which seems to be a positive starting point, at least from a formal point of view. Furthermore, it has been estimated that eco-tourism has a strong potential for creating revenues for local communities in India (Aggarwal et al. 2009a; World Bank 2006).

Documentation of additional biodiversity benefits through MRV is to be carried out also for biodiversity and the other REDD+ safeguards. So far, attention in relation to REDD+ MRV has been given predominantly to carbon, and considerations for MRV of the biodiversity component of REDD+ - and the inclusion of IPLCs herein - have hardly begun in India.

3.4   ABS and REDD+

One area in which these linkages between traditional forest politics, REDD+, biodiversity concerns and inclusion of IPLCs will likely play out in the future is the so-called 'ABS' approach.

ABS is derived from the CBD and its regulation of **A**ccess to Genetic Resources and **B**enefit **S**haring from their utilization. CBD (Article 15)

reaffirms that states have sovereign rights to genetic resources and that access to those requires prior informed consent (PIC) from and mutually agreed terms (MAT) with the providing country. The Nagoya Protocol on ABS adopted in 2010 expands on these provisions and establishes that PIC and MAT are required also from IPLCs harbouring the genetic resources and associated traditional knowledge (see Wallbott et al. 2014). India has signed the Protocol in May 2011. It came into force in October 2014.

The intention behind this international regulatory framework is to ensure that benefits derived from research, development and commercial utilization of genetic resources for pharmaceuticals, cosmetics, new crops and other purposes (often referred to as 'bioprospecting') are fairly and equitably shared with those who provide the resources and the knowledge of their properties.

India already has a national ABS system to regulate bioprospecting through its BDA of 2002. Bioprospecting is highly relevant for India, especially in relation to medicinal plants: indeed, some 50% of the drugs listed in the British Pharmacopoeia have their origins in the West Himalayan region alone (Bavikatte and Tvedt 2014). Forest communities have used these plants for thousands of years for traditional medicines, and possess knowledge of the plants' properties that has become increasingly attractive to national as well as international pharmaceutics developers (Dhillion 2014). Ayurveda, Siddha and Unani are examples of traditional Indian health systems in high demand.

There is clearly a market for medicinal plants and associated traditional knowledge. However, and despite the ABS regulatory system, the trade is largely unregulated, and there are very few examples of benefit-sharing arrangements with communities (Bavikatte and Tvedt 2014; Dhillion 2014). Establishing a system to reward forest communities for providing such valuable non-timber forest products could serve as a strong incentive for conservation of forests and forest biodiversity, and thereby relate also to REDD+ application. The People's Biodiversity Register documentation of traditional knowledge under the BDA provides a useful tool for supporting such a system (Gokhale n.d.).

While ABS in relation to genetic resources is covered by CBD's international legal framework, the concept of benefit sharing could also be applied to the provision of other ecosystem services, including carbon sequestration. As noted, there are so far only two REDD+ pilot projects in India, both in the state of Meghalaya. One is located in the Khasi Hill region and has been initiated by Khasi indigenous communities in cooperation with the US-based NGO Community Forestry International. An original project aimed at watershed restoration through forest restoration activities and reducing pressure on forests was expanded to become a REDD+ project certified under Plan Vivo standards, a UK-based carbon registry. The project seeks to use carbon credits to improve the livelihoods of more than 25,000 forest-dependent people by compensating them for their conservation and restoration activities (Bhatt et al. 2012). This example seems to be the closest that India has come to participating in a REDD+ induced voluntary carbon market for forestry

credits (Vijge and Gupta 2013). Furthermore, it can be seen as one step towards integrating community-based projects for forest conservation and restoration with regard to climate change mitigation and biodiversity safeguarding.

4   Conclusions

In this report we have examined India's position on REDD+ and bio-diversity internationally and on the status of its REDD+ readiness nationally, with particular emphasis on biodiversity concerns. Although India was a driver of the instrument's development in the international context, it has not moved far in developing a national REDD+ strategy and in bringing REDD+ into function on the ground, even though it claims to be legally and institutionally well equipped for this purpose. Also in terms of India's policy approach to REDD+, our analysis reveals a somewhat ambiguous picture.

Internationally, India has been a leading country in expanding the scope of a forest-based mitigation instrument in developing countries from carbon sinks to wider concerns, including biodiversity. This line is consistent with India's multifunctional perspective on its own forests and with the observation that India has repeatedly stated that it has much to gain from REDD+, carbon benefits and other ecosystem services alike.

On the other hand, India has supported the inclusion of industrial/short rotation plantations in a definition of forests eligible for REDD+ funding. Such plantations are known to have potentially adverse effects on bio-diversity. While this corresponds to India's own ambitious target, under GIM, of doubling the area for afforestation and forest restoration, it also opens the door for potentially degrading transformation of biodiversity-rich areas.

Hence, speculations have arisen whether India is truly serious in its support for a broad synergistic approach – or whether it is in fact striving for carbonization and commodification of forests through REDD+ (see Vijge and Gupta 2013). Given India's history of multiple-purposes forestry and its very strong stand in international negotiations on broadening the scope of the instrument, we would not necessarily endorse such a conclusion on a 'carbon-only' agenda at this early stage of REDD+ politics. Rather, we would hypothesize that the slow pace of progress has been a result of the enormous complexity involved in establishing a broad-scope REDD+ mechanism in a federal state of India's size. Policy change and implementation and the coordination of institutions and administrative units are a challenge in land-use and forestry, given India's enormous forest cover of 24% of its vast territory, the hundreds of millions of forest-dependent people (particularly IPLCs) and the traditionally strong role of State Forest Departments. These have been rather reluctant to recognize decentralized forest ownership and governance system recently established under the FRA.

To remove suspicion and maintain credibility, the Indian government will need to take decisive action without further delay, by first developing a national REDD+ strategy as also required by the UNFCCC. This strategy must address many unresolved issues, including institution-building on various levels, financing, MRV and empowering and incentivizing IPLCs. On the latter, implementation of the FRA is of crucial importance. Once proper community rights to forests have been established, IPLCs will have control over the management and conservation of forest

resources, including commercially important non-timber forest products. Because of the strong contestation REDD+ has generated among certain stakeholders, it is important to make REDD+ democratic and transparent, to ensure just and sustainable outcomes (Aggarwal 2011).

The above will also be a prerequisite for reaping the biodiversity benefits of REDD+. Furthermore, special attention must be given to biodiversity, not only to benefit but also to avoid harm from other REDD+-related activities. Achieving the ambitious GIM target of doubling the area for afforestation and forest restoration over the next ten years might well prove harmful to biodiversity, unless accompanied by careful mapping and land-use planning to avoid plantations on biodiversity-sensitive areas. This extensive planning process as well as other large-scale REDD+ activities (such as MRV) spans multiple scales from the community to the national level, with important roles for forest governance at each level.

Finally, and more generally, the potential of REDD+ as an additional benefit to carbon sequestration should be highlighted in India's national biodiversity planning – currently expressed in the preparation of a revised national biodiversity strategy and action plan – and fed appropriately into the REDD+ preparation process.

5   Literature

Aggarwal, A (2011) 'Implementation of Forest Rights, changing forest landscape, and politics of REDD+ in India', *Resources, Energy and Development*, 8:2, 131 – 148.

Aggarwal, A/ Paul, V/ Das, S (2009a) 'Forest resources: Degradation, Livelihoods and Climate Change', in D Datt and S Nischal (eds) *Looking Back to Change Track*. New Delhi: TERI, 91-108.

Aggarwal, A/ Das, S/ Paul, V (2009b) Is India ready to implement REDD plus? A preliminary assessment. TERI discussion paper.

Angelsen, A/ McNeill, D (2012) The evolution of REDD+. In A Angelsen, M Brockhaus, WD Sunderlin, and LV Verchot *Analysing REDD+: Challenges and choices*. Bogor: CIFOR, 31-50.

Bhatt, S/ Bavikatte, K/ Subramanian, SM (2012) Khasi Hill, Community based Experiences on Access and Benefit Sharing: Case Studies National Biodiversity Authority Chennai, 9-20.

Bavikatte, K/ Walløe Tvedt, M (2014) 'Regulatory Innovations for Bioprospecting in India: The Two-Step Approach'(*forthcoming*)

Braatz, S (n.d.) Sustainable management of forests and REDD+: Negotiations need clear terminology, Food and Agriculture Organization, available at http://www.fao.org/forestry/18938-0efeb18b14c2ad28b0a2f2ce71b136f2e.pdf.

Chhatre, A/ Lakhanpal, S/ Larson, AM/ Nelson, F/ Ojha, H/ Rao, J (2012) 'Social safeguards and co-benefits in REDD+: a review of the adjacent possible', *Current Opinion in Environmental Sustainability,* 4(6), 654-660.

Danielsen, F/ Skutsch, M/ Burgess, ND/ Moestrup Jensen, P/ Andrianandrasana H/ Karky, B/ Lewis, R/ Lovett, JC/ Massao, J/ Ngaga, J/ Phartiyal, P/ Poulsen, MK/ Singh, ASP/ Solis, S/ Sørensen, M/ Tewari, A/ Young, R/ Zahabu, E (2011) At the heart of REDD+: a role for local people in monitoring forests? *Conservation Letters*, 4:2, 158–167.

Dhillion, SS (2014) Technology transfer in India: CBD, institutions, actors, typologies and perceptions. Fridtjof Nansen Institute, Lysaker: FNI Report 2/2014.

Dickson, B/ Kapos, V (2012) 'Biodiversity monitoring for REDD+', *Current Opinion in Environmental Sustainability*, 4:6, 717–725.

Equations (2011) Green India Mission: India's REDD+ Action Plan to disempower and evict forest communities from their own homelands, available at www.equitabletourism.org/readfull.php?AID=1831).

Forest Carbon Partnership Facility (FCPF) Readiness Fund (2011) Common approach to environmental and social safeguards for multiple delivery partners, available at (www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/

Documents/PDF/Nov2011/FCPF%20Readiness%20Fund%20Common%20Approach%20_Final_%2010-Aug-2011_Revised.pdf.

Forest Carbon Partnership Facility (FCPF) (2013) World Bank Safeguard Policies and the UNFCCC REDD+ Safeguards, available at https://www.forestcarbonpartnership.org/sites/fcp/files/2013/june2013/FMT%20Note%20CF-2013-3_FCPF%20WB%20Safeguard%20Policies%20and%20UNFCCC%20REDD%2B%20Safeguards_FINAL.pdf.

Fujiwara, N (2010) The political economy of India's climate agenda. CEPS Working Document No. 325. Brussels: Centre for European Policy Studies.

Gokhale, Y (n.d.) Conservation of biodiversity and ecosystem services by REDD+ project in India. New Delhi: TERI and Ministry of Environment and Forests.

Gulbrandsen, LH (2012) International Forest Politics: Intergovernmental Failure, Non-Governmental Success? In S Andresen, EL Boasson and G Hønneland (eds) *International Environmental Agreements: An Introduction*. London/New York: Routledge, 151-169.

Humphreys, D (1996) *Forest politics: the evolution of international cooperation.* London: Earthscan.

Humphreys, D (2001) 'Forest negotiations at the United Nations: explaining cooperation and discord', *Forest Policy and Economics* 3: 125–135.

Humphreys, D (2003) 'Life protective or carcinogenic challenge? Global forests governance under advanced capitalism', *Global Environmental Politics*, 3:2, 40–55.

India (2011a) Submission from Government of India on Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, available at https://unfccc.int/files/methods/redd/application/pdf/india_submission_sbsta-19_sept_11.pdf.

India (2011b) Submission on possible outcome in Durban in respect of the financial mechanism of REDD-plus to Antonio La Vina, Facilitator, Informal Group on REDD-plus of LCA, available at http://unfccc.int/files/bodies/awg-lca/application/pdf/india-submission-financial-mechanismredd+kishwan20_nov-2011.pdf.

Indufor (2012) Forest Stewardship Council. Strategic Review of the Future of Forest Plantations, Helsinki.

Jakobsen Feitelberg, S (1998) India's position on climate change from Rio to Kyoto: a policy analysis. Copenhagen: Centre for Development Research.

Joshi, S (2013) 'Understanding India's representation of North–South climate politics', *Global Environmental Politics*, 13:2, 128–147.

Karousakis, K (2009) 'Promoting biodiversity co-benefits in REDD', OECD Environment Working Papers, No. 11. Paris: OECD Publications.

Kasa, S/ Gullberg, AT/ Heggelund, G (2008) 'The Group of 77 in the international climate negotiations: recent developments and future directions', *International Environmental Agreements*, 8:2, 113–127.

Kishwan, J (2007) 'Reducing emissions from deforestation in developing countries', presentation held in Cairns, 7–9 March.

Larsen, G/ Rey, D/ Daviet, F (2012) Map of SBSTA Submissions: REDD+ Safeguard Information System. World Resources Institute and Client Earth, Working Paper.

Lee, D/ Seifert-Granzin, J/ Neeff, T/ Göhler, D/ Liss, BM/ Busch, A (2011) *Maximizing the co-benefits of REDD-plus actions*. Berlin: Deutsche Gesellschaft für Internationale Zusammenarbeit and German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

Levin, K/ McDermott, C/ Cashore, B (2008) 'The climate regime as global forest governance: can reduced emissions from Deforestation and Forest Degradation (REDD) initiatives pass a "dual effectiveness" test?' *International Forestry Review,* 10:3, 538–549.

Ministry of Environment and Forests India (MoEF) (n.d.) India's Forests and REDD+, available at www.moef.nic.in/downloads/public-information/REDD-report.pdf.

Ministry of Environment and Forests India (MoEF) (2009) Statement at the Eighth Session of the United Nations Forum on Forests, New York (21 April). Earth Negotiations Bulletin, available at www.iisd.ca/forestry/unff/unff8/apr21.htm.

Ministry of Environment and Forests India (MoEF) (2010) National Mission for a Green India: raft submitted to Prime Minister's Council on Climate Change, available at http://www.indiaenvironmentportal.org.in/node/317122/.

Ministry of Law and Justice (MoLJ) (2007). The Scheduled Tribes and Other Traditional Forest Dwellers /Recognition of Forest Rights) Act, 2006, available at www.forests.tn.nic.in/legislations/graphics/The%20Scheduled%20Tribes%20&%20Traditional%20Forest%20Dwellers%20ACt%202006.pdf.

Ministry of Tribal Affairs (MoTA) (2012) Implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 – Guidelines. New Delhi.

Ministry of Tribal Affairs (MoTA) (2014) Press release by the Ministry of Tribal Affairs, 18 February 2014, available at http://pib.nic.in/newsite/PrintRelease.aspx?relid=103784.

Moss, N/ Nussbaum, R (2011) A review of three REDD+ Safeguard Initiatives. FCPF and UN-REDD, available at http://reddpluspartnership.org/29785-0e1d064b96b75dfb79469cf0d86708dda.pdf.

Najam, A (2005) 'Developing countries and global environmental governance: from contestation to participation to engagement', *International Environmental Agreements*, 5:3, 303–321.

Narlikar, A (2013) 'India rising: responsible to whom?' *International Affairs* 89(3): 595–614.National Forum of Forest People and Forest Workers (NFFPFW) (n.d.). Imaginary sinks: India's REDD ambitions. , available at http://infochangeindia.org/environment/community-forests-of-orissa/.

National Biodivesity Authority (NBA) (2013) Guidelines for Operationalization of Biodiversity Management Committees (BMCs), available at http://nbaindia.org/uploaded/pdf/Guidelines_BMC_1.pdf.

Nayak BP/ Kohl P/ Sharma JV (n.d.) Livelihood of local communities and forest degradation in India: issues for REDD+, available at www.teriin.org/projects/nfa/pdf/Policy_Brief_Livelihood_Local_Communities.pdf.

Persson, R (2005) 'Where is the United Nations Forum on Forests going?' *International Forestry Review*, 7:4, 348–357.

Peskett, L/Todd, K (n.d.) Putting REDD+ Safeguards Information Systems into Practice. Geneva: UN-REDD Programme Policy Brief.

Pistorius, T/ Schmitt, CB (eds) (2013) The Protection of Forests under Global Biodiversity and Climate Policies. Policy Options and Case Studies on Greening REDD+. Berlin: Federal Agency for Nature Conservation, available at www.bfn.de/fileadmin/MDB/documents/service/Skript_344.pdf.

Pistorius, T/ Schmitt, CB/ Benick, D/ Entenmann, S (2010) Greening REDD+: Challenges and opportunities for forest biodiversity conservation. Freiburg.

Rapp, K (2012) 'Cancun & Durban decisions on safeguards and the FCPF', presentation at the Pan Africa Indigenous Peoples Dialogue, 19–24 April. Arusha.

Ravindranath, NH/ Srivastava, N/ Murthy, IK/ Malaviya, S/ Munsi, M/ Sharma, N (2012) Deforestation and forest degradation in India – implications for REDD+., available at www.academia.edu/2538205/Deforestation_and_forest_degradation_in_India-implications_for_REDD.

Ravindranath, NH/ Sudha P (2004) *Joint Forest Management in India: spread, performance and impact*. Hyderabad: University Press.

Roe, S/ Streck, C/ Pritchard, L/ Costenbader, J (2013) Safeguards in REDD+ and Forest Carbon Standards. A review of social, environmental

and procedural concepts and application, available at
www.climatefocus.com/documents/safeguards.

Rosendal, GK (1995) The forest issue in post-UNCED international
negotiations: conflicting interests and fora for reconciliation, *Biodiversity
and Conservation*, 4: 91–107.

Rosendal, GK (2001) Overlapping international regimes: the case of the
Intergovernmental Forum on Forests (IFF) between climate change and
biodiversity', *International Environmental Agreements: Politics, Law
and Economics*, 1:4, 447–468.

Rosendal, GK/ Schei, PJ (2014) 'How May REDD+ Affect the Practical,
Legal and Institutional Framework for Payment for Ecosystem Services
in Costa Rica?' Ecosystem Services (*forthcoming*).

Sarin, M (with Springarte-Baginski, O) (2010) India's Forest Rights Act
– The anatomy of a necessary but not sufficient institutional reform.
Research Programme Consortium for Improving Institutions for Pro-Poor
Growth, Manchester.

Sethi, N/ Me, M (2014) CCEA approves Rs. 46,000 crore Green India
Mission, available at
http://www.livemint.com/Politics/vmQa48zjStIKQiLx5m6wWN/CCEA-
approves-46000-crore-Green-India-Mission.html.

Sharma JV/ Kohli, P/ Nayak, P (n.d.). Forest governance and
implementation of REDD+ in India, available at
www.teriin.org/projects/nfa/pdf/Policy_Brief_Livelihood_Local_Commu
nities.pdf.

Shukla, PR/ Dar, S (2011) 'Climate agreements and India: aligning
options and opportunities on a new track', *International Environmental
Agreements* 11: 229–243.

Sikor, T/ Stahl, J/ Enters, T/ Ribot, JC/ Singh, N/ Sunderlin, WD/
Wollenberg, L (2010) 'REDD-plus, forest people's rights and nested
climate governance', *Global Environmental Change*, 20:3, 423–425.

Sud, R/ Vir Sharma, J/ Kumar Bansal, A (n.d.) *International REDD+
architecture and its relevance for India*. Ministry of Environment and
Forests/ The Government of India and The Energy and Resources
Institute.

Sukhdev, P (2008) *The economics of ecosystems and biodiversity:
Interim report*. Cambridge: European Community.

Swan, S/ McNally, R (2011) High-Biodiversity REDD+:
Operationalising Safeguards and Delivering Environmental Co-benefits.
Netherlands Development Organisation, available at
www.snvworld.org/files/publications/hb_redd_safeguards.pdf.

UN-REDD (2012) REDD+ Beyond Carbon: Safeguards and Multiple
Benefits, Workshop Report, 13–15 November 2012, Cambridge,
available at

http://www.unredd.net/index.php?option=com_docman&task=doc_down
load&gid=9007&Itemid=53.

Vigje, MJ/ Gupta, A (2013) Framing REDD+ in India: Carbonizing and
centralizing forest governance? *Environmental Science & Policy*, 38, 17 -
27.

Vihma, A (2011) 'India and global climate governance: between
principles and pragmatism', *Journal of Environment and Development*,
20:1, 69–94.

Visseren-Hamakers, IJ/ McDermott, C/ Vijge, MJ/ Cashore, B (2012)
'Trade-offs, co-benefits and safeguards: current debates on the breadth of
REDD+', *Current Opinion in Environmental Sustainability*, 4, 646–53.

Voges, M/ Biberhofer, P (2010) Neue Macht des Südens? Die
Politisierung internationaler Biodiversitätspolitik durch die Like-Minded
Group of Megadiverse Countries. In U Brand (ed) *Globale Umweltpolitik
und Internationalisierung des Staates— Biodiversitätspolitik aus
strategisch-relationaler Perspektive.* Münster: Westfälisches Dampfboot,
105–154.

Wallbott, L (unpubl. manuscript) *Construction and effectiveness of
justice claims in international negotiations: scrutinizing climate and
biodiversity politics* (PhD thesis, working title).

Wallbott, L (2014) 'Indigenous peoples in UN REDD+ negotiations:
"Importing Power" and Lobbying for Rights through Discursive Interplay
Management', *Ecology and Society*, 19:1, 21.

Wallbott, L/ Wolff, F/ Poźarowska, J (2014) The negotiations of the
Nagoya Protocol: issues, coalitions and process. In S Oberthür and GK
Rosendal (eds) *Global Governance of Genetic Resources: Access and
Benefit Sharing after the Nagoya Protocol.* London: Routledge, 33–59.

Walsh, S/ Tian, H/ Whalley, J/ Agarwal, M (2011) 'China and India's
participation in global climate negotiations', *International Environmental
Agreements,* 11:3, 261–273.

Wolff, Franziska (2011) 'Explaining the construction of global carbon
markets: REDD+ as a test case?' *International Journal of Global Energy
Issues*, 35:2/3/4, 255–274.

Wong, JLP (2010) 'REDD+ from the UNFCCC's perspective: status of
play, needs and expectations', presentation at'GEF–STAP Workshop on
Implementing the SFM/REDD+ Program in GEF-5 (Washington DC, 1–
2 September), available at
http://www.unep.org/stap/Portals/61/docs/SFM/05.Wong.pdf.

World Bank (2006). Report No. 34481. India. Unlocking Opportunities
for Forest Dependent People
http://siteresources.worldbank.org/INDIAEXTN/Resources/Reports-
Publications/366387-1143196617295/Forestry_Report_volume_I.pdf.

The Fridtjof Nansen Institute is a non-profit, independent research institute focusing on international environmental, energy, and resource management. The institute has a multi-disciplinary approach, with main emphasis on political science and international law. It collaborates extensively with other research institutions in Norway and abroad.

FRIDTJOF NANSENS INSTITUTT

FRIDTJOF NANSEN INSTITUTE

Fridtjof Nansens vei 17, P.O. Box 326, NO-1326 Lysaker, Norway
Phone: (47) 67 11 19 00 – Fax: (47) 67 11 19 10 – E-mail: post@fni.no
Website: www.fni.no