



IMPLICATION FOR BIODIVERSITY CONSERVATION AND MONITORING UNDER REDD+ CLIMATE CHANGE MITIGATION PROGRAMME IN INDIA

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ABSTRACT

International climate change mitigation programme Reducing Emissions from Deforestation and Forest Degradation; conservation of carbon stock; sustainable management of forest and enhancement of carbon stock (REDD+) provides an opportunity for biodiversity conservation and monitoring. Biodiversity monitoring is essential for REDD+ to safeguard biodiversity. REDD+ has the potential to achieve important benefits for biodiversity conservation and to secure the provision of ecosystem services, such as water regulation, soil erosion, prevention and the provision of timber and non-timber forest products. Much emphasis is given on the greenhouse gas emissions and removals at national and international arena. Integration of biodiversity conservation and monitoring in REDD+ programmes will be helpful in regulating how ecosystems will respond to increasing atmospheric carbon dioxide. Various rules, regulation, policies and standards are analyzed to provide the suggestions for biodiversity conservation and monitoring under REDD+ climate change mitigation programme in India. Implementation of REDD+ at the national, state or pilot project level require the consultation and participation of all the stakeholders to focus on goals that can be achieved under climate change mitigation programme. Related to this, India needs a massive capacity building of local institutions and stakeholders to get benefits of REDD+.

KEYWORDS: biodiversity co-benefits, greenhouse gas emissions, Green India Mission, safeguard, policies, National Biodiversity Targets.

INTRODUCTION

Emergence of REDD+

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is an international climate change mitigation programme adopted under United Nations Framework Convention on Climate Change (UNFCCC). The conceptual paper jointly presented by Papua New Guinea and Costa Rica called “Reducing emissions from deforestation in developing countries: approaches to stimulate action” at 11th Conference of the Parties (COP), held in Montreal in 2005 led to the evolution of Reducing Emission from Deforestation and Forest Degradation (UNFCCC, 2005). With due course of development in the couple of years lead to the adoption of decision 1/CP.13 known as Bali Action Plan in 2007 by COP 13 (UNFCCC, 2008) which provides the basis for the negotiations on REDD+, together with the ‘Cancun Agreements’ (UNFCCC 2011a). The Bali Action Plan addresses REDD+ in paragraph 1(b) (iii): 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. COP 13 in Bali also adopted decision 2/CP.13 which encourages all parties, in a position to do so, to support capacity-building, provide technical assistance, facilitate the transfer of technology

“to improve, inter-alia, data collection, estimation of emissions from deforestation and forest degradation, monitoring and reporting, and address the institutional needs of developing countries to estimate and reduce emissions from deforestation and forest degradation” (UNFCCC, 2008). In the Indian context, Rawat and Kishwan (2008) presented a forest conservation-based climate change mitigation approach for India and advocated for compensating countries for the carbon conserved through sustainable management of forests and enhancement of forest carbon stocks. This approach, later on, became the ‘+’ part of REDD agenda in UNFCCC. India in its submission to UNFCCC has clearly mentioned that carbon service from forest and plantations is one of the co-benefits and not the main or the sole benefit (UNFCCC, 2011b). Agarwal *et al.*, (2009), Pant *et al.* (2010), TERI (2012), Sud *et al.* (2012), Sharma and Chaudhry (2013), Vijge and Gupta (2014), and Singh *et al.* (2015) have also analyzed India’s readiness for REDD+.

The Paris Agreement (UNFCCC, 2016) recognized the role of forests as a carbon sink for mitigation of climate change under Article 5. It encourages all Parties, developed and developing countries, to take action to conserve and enhance emissions sinks and reservoirs, including forests. It also encourages countries to “take action to implement and support, including through

results-based payments” REDD+ activities. The overarching COP “decision” also recognized “the importance of adequate and predictable” finance for REDD+ activities. Biodiversity conservation and monitoring can be included in the multiple benefits associated with the effective implementation of REDD+.

MATERIALS & METHODS

The numbers of approaches have been developed at the International level for the integration of the biodiversity safeguards inclusive of REDD+ mechanisms. In this paper, various rules and regulations, policy instruments, standards were studied to synergize and integrate the elements of REDD+ for biodiversity conservation and monitoring in India. Role of community and spatial mapping in biodiversity conservation and monitoring is also described to integrate with REDD+.

RESULTS

Biodiversity Safeguards in REDD+

Biodiversity and climate change are interlinked with each other and the impacts of climate change on biodiversity will vary from region to region. Biodiversity is an important factor in regulating how ecosystems will respond to increasing atmospheric carbon dioxide. Carbon stock in forest depends on well functioning and resilient forest ecosystem and biodiversity supports maintain forest ecosystem resilience. Thus, the biodiversity conservation and monitoring are important for REDD+ success.

Safeguards are a set of principles, rules, and procedures put in place to achieve social and environmental goals. The safeguards ensure that REDD+ will be implemented in an inclusive, transparent manner, with respect for the rights of indigenous peoples and local communities and with consideration for the protection of biodiversity. Safeguards are regularly addressed with the relevance and significance to the developing countries at the international forums but still safeguards systems are poorly discussed and country-specific safeguards designs have received sufficient attention in terms of a safeguards design process.

Biodiversity Safeguards System

India with only for 2.4 % of the world’s land area accounts for 7-8% of the recorded species, including over 45,000 species of plants and 91,000 species of animals. India is known for traditional knowledge associated with biological resources which support millions of people for their livelihood. India has four global biodiversity hotspots viz. Himalaya, Western Ghats, North-East, and Nicobar Islands (MOEF&CC, 2014a). India has a very strong forest monitoring system instrumental through Forest Survey of India since 1987. According to FSI (2015), total forest cover is 701,673 km² which work out as 21.34 percent of the geographical area of the country. In terms of density classes, the area covered by Very Dense Forest is 85,904 km², with Moderately Dense Forest of 315,374 km² and Open Forest covering 300,395 km².

Schroth and McNeely (2011) emphasized the significance of forest biodiversity monitoring for REDD+ programmes. Biodiversity monitoring will facilitate the tracking of biodiversity concerns in REDD+ projects and implementation of REDD+ which do not harm the natural

biodiversity. However, currently, there is no methodological framework for developing the biodiversity safeguards system in India. Biodiversity indicators need to be identified depending on the diverse landscapes of India that will help in the development and implementation of biodiversity safeguards and achieve the international objective of climate change mitigation through REDD+. Biodiversity indicators can be helpful to make policies for biodiversity conservation and sustainable use. Countries that are participating in REDD+ are required to respect and address the Cancun Safeguards during the REDD+ design and implementation process. Over this aspect, India is required to develop a Biodiversity Safeguards System (BSS) by respecting the decisions of UNFCCC. Implications for biodiversity conservation and monitoring under REDD+ are presented to form the BSS and synergize the elements of REDD+ with National and International rules and regulations.

REDD+ and Forest Governance in India

Ministry of Environment, Forest and Climate Change (MOEF&CC) act as an agency of Government of India for the planning, management, cooperation and implementation of India’s environmental, forestry and climate change policies and programmes at national level. In India, State governments administer and manage the forests through their Forest Departments on the basis of Forest Working Plan. Presently and at an appreciative level, India has taken the lead in conserving its forests along with the increase in the population and infrastructural development. Currently, India has 21.34 % of the geographical area under forests (FSI, 2015) and many laws and policy instruments are designed to manage and conserve the forests. Forests policies, laws and regulations that support the implementation of REDD+ at national, as well as state-level, can be identified within the National Forest Policy, 1988, The Indian Forest Act, 1927, The Wildlife (Protection) Act, 1972; The Forest Conservation Act, 1980; Biological Diversity Act, 2002; Biological Diversity Rules, 2004; National Environment Policy, 2006; The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 and The Compensatory Afforestation Fund Act, 2016.

National REDD+ Policy and Strategy

National REDD+ Policy and Strategy is at a development stage and the draft of the policy states that the policy will be helpful in implementing the climate change mitigation programme along with biodiversity safeguards (MOEF&CC, 2014c). The REDD+ Strategy will be guided by the National REDD+ Policy to address critical gaps in the capacity and institutional framework towards creating REDD+ Readiness in the country. Provisions for safeguard are earmarked in REDD+ Strategy to ensure the safeguard of existing traditional rights of the local community; transparency in forest governance; active participation of local community to design the micro plans for sustainable management of forest and benefit sharing of REDD+ incentives.

REDD+ Reference Document

A magnificent document has been released by MOEF&CC that highlight the policy framework to support REDD+ implementation as part of forest management in the

country. Concepts and issues related to REDD+ in India related to the national reference level, safeguard, role and responsibilities to different government and other organizations are addressed. Reference Document comprehensively addresses the need of capacity building across all levels of the government, expert organizations, civil society, other organizations and local communities. Important aspects of National Forest Monitoring System comprising MRV and Safeguards Information systems are briefed (MOEF&CC, 2014b).

Green India Mission

Green India Mission was launched by Government of India as one of the eight Missions under the National Action Plan on Climate Change (NAPCC) to improve the quality and quantity of forest and tree cover and enhance the ecosystem services like carbon sinks, hydrological services, and biodiversity; along with provisioning services like fuel, fodder, small timber and NTFPs with the following objectives:

- (a) Increased forest/tree cover on 5 Mha of forest/non-forest lands and improved quality of forest cover on another 5 Mha (a total of 10 Mha).
- (b) Improved ecosystem services including biodiversity, hydrological services, and carbon sequestration as a result of treatment of 10 m ha.
- (c) Increased forest-based livelihood income for 3 million forest-dependent households.
- (d) Enhanced annual CO₂ sequestration of 50-60 million tonnes by the year 2020.

In the country, Green India Mission significantly addresses the enhancement of carbon stock and sustainable management of forest elements of REDD+.

National Biodiversity Targets

National Biodiversity Targets (NBTs) under National Biodiversity Action Plan (MOEF&CC, 2014a) can be synergized with the REDD+ planning and implementation. Target 3 of NBTs Strategies for reducing rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being. Reducing the rate of degradation, fragmentation, and loss of all natural habitats is in synergy with the reducing emissions from deforestation and forest degradation element of REDD+. If the drivers of deforestation and forest degradation are not addressed, the emissions from the forest will go on increasing. Table 1 represents the synergy of NBTs with the different elements of REDD+. Target 6 of NBTs mention the landscape based designation, management, and conservation of protected areas, also focusing on the conservation of biodiversity and ecosystem services. Carbon sequestration is an important ecosystem service provided by the forest ecosystem to mitigate the climate change. Thus, there is a clear indication of synergizing the Target 6 with the conservation of carbon stocks element of REDD+.

TABLE 1: Possible synergy of National Biodiversity Targets with the REDD+ elements

Target	National Biodiversity Target	REDD+ Element
Target 3	Strategies for reducing rate of degradation, fragmentation and loss of all natural habitats are finalized and actions put in place by 2020 for environmental amelioration and human well-being.	Reducing emissions from deforestation Reducing emissions from forest degradation
Target 4	By 2020, invasive alien species and pathways are identified and strategies to manage them developed so that populations of prioritized invasive alien species are managed.	Sustainable management of forests
Target 5	By 2020, measures are adopted for sustainable management of agriculture, forestry and fisheries.	Sustainable management of forests Enhancement of carbon stocks
Target 6	Ecologically representative areas on land and in inland waters, as well as coastal and marine zones, especially those of particular importance for species, biodiversity and ecosystem services, are conserved effectively and equitably, on the basis of PA designation and management and other area-based conservation measures and are integrated into the wider landscapes and seascapes, covering over 20% of the geographic area of the country, by 2020	Conservation of forest carbon stocks
Target 11	By 2020, national initiatives using communities' traditional knowledge relating to biodiversity are strengthened, with a view to protecting this knowledge in accordance with national legislations and international obligations.	Conservation of forest carbon stocks

National Working Plan Code 2014

At the country level, Working Plan has been the main instrument of forest planning for scientific management of forests. At the Forest Divisional level, it is a very useful document for evaluating the status of forests, biodiversity resources, assessing the impact of past management

practices and deciding about suitable management interventions for future. The first planned working of forests in the country was written in 1837 and after India became independent in 1947, the forest department undertook a big exercise to bring substantial areas under the working plans. State/ provincial governments adopted

their own provincial working plan codes. MoEF&CC adopted a uniform code, the National Working Plan Code – 2014 (FRI, 2014) for preparation of working plans for the management of forests.

According to Working Plan Code-2014, the forest management planning must provide for sustainable management of forests and its biodiversity as enshrined in the National Forest Policy, encompassing the ecological (environmental), economic (production) and social (including cultural) dimensions. The objectives for attaining this goal include conservation of forests and reducing forest degradation, maintenance and enhancement of ecosystem services including ecotourism, enhancement of forest productivity together with establishment of regeneration to improve forest health and vitality as per ecological and silvicultural requirements of the species, progressively increasing the growing stock and carbon sequestration potential, maintenance of biological diversity, sustainable yield of forest produce, prevention of soil erosion and stabilization of the terrain; improvement and regulation of hydrological regime; people's involvement in planning and management of forests fulfilling socio-economic and livelihood needs of the people. Along with the various objectives and other management practices under national working plan code-2014, the REDD+ is now as an important component at the forest division level. The linkage of REDD+ with national forest inventory with the help of robust and dynamic national carbon MRV (measuring, reporting and verification of carbon stocks) based on forest resource assessment of working plan has been incorporated under national working plan code 2014 so that the REDD+ implementation can be facilitated at the forest division level of every state.

Joint Forest Management Committee

In 1990, India initiated a Joint Forest Management Programme for protection and management of forests through involving local communities and established Joint Forest Management Committees (JFMC). Under the JFMC setup, the local communities and State Forest Department jointly plan and implement forest regeneration and development programmes, and the communities are rewarded with a substantial share in forest produce in return for their efforts in protection and management of forests. JFMC functions through its three system of- the forest supporting system, life-supporting system and JFMC supporting system (Paulraj, 2012). So far, more than 1, 12, 816 JFMC have been formed which cover ca. 25 million ha of forest area (ICFRE, 2010). JFMC has enabled protection and regeneration of existing forests, and raising of forest plantations, which is contributing in the conservation of existing forests as also the carbon stocks. Over the years, the involvement of the local communities in the management of forests has increased manifold due to setting up of JFMCs in many parts the country. In India, 59.31 % forest land is administered by the government and 28.5 % is designated for use by communities and indigenous groups (RRI, 2011).

Community Participation in Biodiversity Conservation and Monitoring

REDD+ has emerged as an important tool to combat the climate change by addressing deforestation and forest

degradation. Furthermore, REDD+ also has the potential for sustainable management of forest, conservation, and enhancement of carbon stock. However, the most important feature is that it also caters the need for the maintenance, protection, and restoration of biodiversity and ecosystem services. Involvement of communities for implementation of REDD+ can assist in the identification of drivers of deforestation and forest gradation and developing measures to address in order to reduce the anthropogenic pressure on biodiversity. Reduction in anthropogenic pressure on forest ecosystem will assist in the recovery of biodiversity. Effective implementation of REDD+ with the support from the local community can also help in the biodiversity conservation and monitoring. National Biodiversity Authority (NBA) established under India's Biological Diversity Act 2002 performs the facilitative, regulatory and advisory function for Government of India on the issuance of conservation as well as sustainable use of biological resource and fair and equitable sharing of benefits of use. State Biodiversity Boards (SBB) and Biodiversity Management Committees are regulated by NBA. SBBs are constituted in order to promote conservation, sustainable use, preservation of habitats and documentation of biodiversity through people's participation by constituting People's Biodiversity Register under Biological Diversity Act 2002. NBA has supported the establishment of SBBs in 29 States and 37,769 BMCs (www.nbaindia.org). Biodiversity Management Committee constituted under Biological Diversity Act, 2002 can be augmented with the REDD+ protocols to conserve and monitor biodiversity with the support from the forest department and local communities obligately dependent on forest resources for their livelihood.

Forest Council (*Van Panchayats*): A Unique System of Forest Governance in Uttarakhand

State of Uttarakhand in India is known for its tenets of forest conservation. The world famous Chipko Movement set a legendary example for forest conservation and role of women in protecting their forests. High dependence on forests has led to the evolution of Community Forestry which is maintained through village community forests council (*Van Panchayat*). The *Van Panchayats* (VP) were borne out of local conflict to colonial forest management in the early twentieth century when the reservation of forest was met with extensive agitation and in some cases incendiary protest (Guha, 1989). The recommendation of Kumaon Forest Grievances Committee was taken to constitute *Van Panchayats* with the villages, Forest Panchayat rules and regulations were made in the year 1931 and were subsequently replaced by Uttaranchal Panchayati Van Rule, 2005. The devolution of authority from the state to the local community for the management of forest resources started, when large forest areas from the newly reserved forests in Kumaon were entrusted to VP for management. The VPs have their method of controlling and managing forests to meet the community demand of fuelwood, fodder, leaf litter for manuring crop and bedding material for cattle, etc. Since their establishment in 1931, VP numbers first rose slowly but have grown exponentially in the last few years. From 429 in 1949 it had risen to 3635 in 1993, doubling this by

2001, and had reached the 12089 by 2006 (Tompsett, 2014) managing the total forest area of about 5,23289 hectares which is about 14 percent of the total area of the state.

Community Forest Management in North East India

Eight States viz. Assam, Arunachal Pradesh, Nagaland, Mizoram, Meghalaya, Manipur, Tripura and Sikkim forms the North East Part of India. The region occurs at the juxtaposition of Indo-Malaya, Indo-China, Indo-Myanmar, and Indo-Bangladesh. Variation in climatic, edaphic and altitudinal factors in making way for rich biodiversity (Tripathi *et al.*, 2016). North East region of country is also known for the community conservation efforts since historical times. Tribal communities in north east region of the country are traditionally managing forests for their livelihood. Community Conserved Areas includes ecosystems where local communities have ownership, a stake or are empowered enough to influence decisions that impact the resources on which their livelihood depends (Bhatt *et al.*, 2012). Rules and regulations for the management of community forest depend on socio-economic parameters as well as resource availability at a given site (Tiwari *et al.*, 2013). Forest management practices are based on traditional forest knowledge evolved over generations by the communities for enhancing the sustainability of forests and forestry sector (Tiwari *et al.*, 2010). Traditional knowledge of the community about the forest management and conservation can effectively be utilized for biodiversity conservation and monitoring under the framework of REDD+ and incentivize the local community for forest conservation and management.

Standard and Methodology for REDD+ Implementation

With the increase in the concern for climate change and the impact of climate change on the biodiversity, international standards and instrument are developed to safeguard the biodiversity. REDD+ projects should not only focus on carbon benefits but should also focus on the multiple benefits derived from the forest ecosystem. Carbon centric REDD+ project can cause the displacement of the activity and affect the areas of low carbon but high biodiversity values (CBD, 2011a). Decision 1/CP. 16 of Cancun Agreement encourages REDD+ “actions complement or are consistent with the objectives of national forest programmes and consistent with the conservation of natural forests and biological diversity, ensuring that the actions 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” (UNFCCC, 2011). Warsaw Framework also gives importance to safeguards to be respected during the implementation of REDD+ activities to mitigate the climate change (UNFCCC, 2014).

Various standards and principles like The REDD+ Social and Environmental Standards; Climate, Community & Biodiversity (CCB) Standards; Social and Environmental Principles and Criteria (SEPC) in UN-REDD Programme; Environmental Safeguards in the Forest Carbon Partnership Facility (FCPF) Readiness Fund-World Bank are developed to safeguard the biodiversity during the

implementation of REDD+ programmes. Entenmann (2010) and Pistorius *et al.*, (2010) signified that CCB Standards are the most applicable and acceptable project level standard to monitor the impact of REDD+ implementation on biodiversity and it also provides guidelines to safeguard the biodiversity from the negative impacts of REDD+ projects at a particular site.

Spatial Planning for Biodiversity Conservation and Monitoring

Remote sensing has become an essential tool to monitor the biodiversity at varied scales. Roy *et al.*, (2012) has done an assessment of biodiversity characterization at the landscape level in India. 150 vegetation and land use classes are delineated using visual interpretation technique at 1:50,000 scale. The baseline data is significant for prioritizing the biodiversity conservation and developing management strategies for protecting the species under the effect of climate change (Shahid and Joshi, 2015) and to safeguard the biodiversity during REDD+ implementation (Mant *et al.*, 2013).

Spatial planning will help in the prioritization of areas for the implementation of REDD+. Benefits and risks of implementation of REDD+ vary spatially and depends on various factors like social, biophysical, cultural. Spatial analysis will also help in the coordination of stakeholders to identify the specific locations to implement the REDD+ programmes and minimize the risk. Negative and positive impacts of REDD+ implementation can also be monitored using remote sensing and geographical information system. Thematic maps can assist in consultations with various stakeholders like communities, forest department, nongovernmental organizations etc. Forest Survey of India is instrumental in mapping the forest cover of India biennial basis since 1987. Forest cover assessment reports can be used to design the reference level and to identify the specific location for the implementation of REDD+.

DISCUSSION

REDD+ has become important climate change mitigation programme under Paris Agreement. Global attention towards forest-human interaction has been mobilized due to REDD+ (Matthews *et al.*, 2014). Implementation of REDD+ requires a lot of planning to prioritize the location to execute activities to reduce the emission from deforestation and forest degradation and also conserve and enhance the carbon stock through afforestation, assisted natural regeneration with the support from local communities (ICFRE, 2016). Ehara (2013) have analyzed the various international standards for safeguarding biodiversity and ecosystem services. REDD+ project proponent should prioritize the use of standards according to the national circumstances in design, implementation, evaluation and pass incentives to the local community for their efforts in conserving and managing forests keeping in view the biodiversity safeguards. Entenmann *et al.*, (2014) represented the significance of forest biodiversity monitoring for REDD+ in Peru. Robust and transparent biodiversity monitoring system for REDD+ can support compliance with UNFCCC safeguards, multilateral funding initiatives, and commitments to other conventions. Harrison *et al.*, (2012) signified the importance of site-specific biodiversity monitoring protocols under REDD+.

Risks and opportunities of REDD+ implementation for biodiversity conservation vary according to the country and significant differences exist to address them in each country. India, a megadiverse country can develop REDD+ projects according to the needs of the various forest ecosystems existing in diverse landscapes. REDD+ cost, risk and benefit analysis should always be adopted before implementing REDD+ at the project level (GIZ, 2012). REDD+ can be instrumental to achieve more policy goals than emissions reduction alone, and it could contribute to the sustainable use of forest resources and biodiversity conservation. The extent to which it can deliver these outcomes will depend on which policy measures are selected for implementation, and how and where they are put into action. REDD+ has the potential to secure the provision of ecosystem services, such as water regulation, soil erosion, prevention and the provision of timber and non-timber forest products. REDD+ also has the potential to deliver enormous benefits for biodiversity conservation because forests in the developing world harbor much of the world's terrestrial and freshwater biota, and are also threatened by ongoing forest clearance and degradation (Paoli *et al.*, 2010). Carbon and biodiversity services of the REDD+ implementation has the potential to mobilize and efficiently use REDD+ finance. Biodiversity conservation could also be integrated into REDD framework to areas of high biodiversity value and to protected areas that connect and promotes the persistence of biodiversity (Harvey, 2009). India being a country with increasing forest cover can include the biodiversity considerations under REDD+ programme and develop a mechanism to synergize the elements of REDD+ with national rules and regulations to conserve and monitor biodiversity and incentivize the local community to improve their livelihood through forest management.

CONCLUSION

Biodiversity Safeguard System can ensure that all REDD+ activities are covered by adequate safeguard policies. The national system can be more sensitive to unique landscapes spread across the India. Investing in biodiversity safeguards can provide benefits in conserving the biodiversity of India. Incorporation of the spatial data about the biodiversity in the REDD+ mechanism will be helpful in long-term monitoring of biodiversity. In order to develop a national system for REDD+ safeguards, the government and stakeholders will need to agree on the goals that the system should achieve. UNFCCC REDD+ safeguard mechanism should be adopted to qualify for the carbon credits generated through the implementation of REDD+ to reduce the greenhouse gas emissions. REDD+ needs to be institutionalized at national and subnational level. Although now REDD+ is a component of new National Working Plan Code 2014, however, Working Plan Officers and other frontline forest staff need to be sensitized on various aspects of REDD+. India needs a massive capacity building of local institutions and stakeholders to get ready for REDD+.

Development of benefit sharing mechanism is required to pass the incentives to the community for their role in conservation and enhancement of carbon stock. There

should be greater space for local level planning and management for forest ecosystem restoration with special reference to carbon sequestration. Strengthening local community institutions are required to pass on REDD+ at the community level. Uniform guidelines across the states are needed to develop forestry and REDD+ actions at national level. National REDD+ Policy should be finalized as soon as possible so that the implementation of REDD+ can be taken in line with the Paris Agreement. The REDD+ Cell established at the MOEF&CC needs to be strengthened to undertake these tasks on a priority basis in accordance with the various COP decisions and methodological guidance agreed under the UNFCCC.

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