



2015: Future of REDD-plus

(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)

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What is REDD?

Deforestation and forest degradation account for around one-fifth of the global Green House Gas (GHG) emissions which is contributing significantly to the warming of global climate systems. However, these large emissions have not been the part of mitigation effort of the global community as these were earlier not included in United Nations Framework Convention on Climate Change (UNFCCC) or its Kyoto Protocol. Any serious effort of combating global Climate Change without addressing emissions from forestry sector may not help in limiting the



rise in global temperature to the levels which would prevent interference with the climate systems. Reducing emissions from deforestation and forest degradation (REDD) offers an immediate opportunity to mitigate significant sources of emissions at relatively low estimated cost. It also has the potential to generate substantial co-benefits of biodiversity conservation, opportunities for livelihood and sustainable development.

Evolution of REDD-plus

Forests have the potential to arrest the fast pace of changing climate by removing the accumulated carbon dioxide from atmosphere and sequester it into vegetation and soil. In durable wood products also, the carbon continues to be locked. Hence, when global forest resources are saved from further deforestation and degradation, and enhanced simultaneously, they deliver large reductions in GHG emissions and bring removal of carbon dioxide from atmosphere. This also has the potential in poverty alleviation by creating livelihood opportunities, and to contribute towards sustainable development of the countries. To address all these issues, REDD, a forest based Climate Change mitigation measure, was developed during COP 11 (Conference of Parties to UNFCCC) in 2005 from a proposal by a group of countries led by Papua New Guinea calling themselves the Coalition for Rainforest Nations. Two years later, the proposal was taken up at COP 13 in Bali and the concept evolved into REDD-plus by also incorporating different measures of enhancing forest cover and carbon stocks, i.e., conservation, sustainable management of forests and enhancement of forest carbon stocks. REDD-plus became part of the Cancun Agreement (COP 16) in December 2010, as it was reflected in the outcome of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention. The Climate Change talks in Durban (COP 17) resulted in a mixed bag for REDD-plus, where the negotiations centered around four key areas of finance, safeguards, reference levels, and measuring, reporting and verification (MRV) of carbon emissions from forest activities. Some progress was made on issues of finance and parties were allowed to choose from a number of financing options including markets. No agreements however could be reached on MRV. During COP 18 held in 2013 in Doha, it was decided to undertake a work programme on result based

finance for REDD-plus comprising two co-chairs, one from developing and one from developed countries which included ways and means to transfer payments for result based actions, ways to incentivize non-carbon benefits and to improve the coordination of results based finance.

REDD-plus made significant progress during the COP 19 held in Warsaw, which was dubbed by many experts as REDD-plus COP. The major decision was on result based finance for developing countries implementing REDD-plus activities which would allow them to receive funds. The **'Warsaw Framework for REDD-plus'** emphasized that parties must measure, report and verify anthropogenic forest related emissions; developing countries must undertake MRV as part of National Forest Monitoring System (NFMS); and the safeguards to be the central part of REDD-plus mechanism. Besides, parties are required to provide information on how safeguards are being addressed.

The 20th COP held in Lima, Peru, in December 2014 concluded the talks with **'Lima Call for Climate Action'** that lays the foundation for a new global climate deal. The issue on safeguards was discussed under REDD-plus. Annex-1 Parties were keen on continuing dialogue on type of information, transparency, consistency, comprehensiveness and effectiveness of information on safeguards, whereas the developing country parties opposed



further discussion and guidance on Safeguard Information System (SIS) in the respective countries. Another significant achievement of this COP had been that the parties agreed to submit their Intended Nationally Determined Contributions (INDCs) by March 2015. A significant progress on adaptation was also made as the new **Green Climate Fund** crossed an initial \$10 billion target, and a total of 27 countries pledged contributions including

five developing countries of Peru, Columbia, South Korea, Mongolia and Mexico.

Expectations from COP 21 to be held in Paris

During the COP 21 scheduled to be held during 30th Nov-11th Dec 2015 in Paris, the nations will, for the first time aim to achieve a legally binding and universal agreement on climate with the aim to limit the increase of the global surface temperature to no more than 2°C compared with pre-industrial levels so that adverse impact of global warming can be avoided.

During the COP 17 held in Durban in 2011, the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) was established to develop a protocol, another legal instrument or an agreed outcome with legal force under the convention, applicable to all parties for post 2020 implementation. The ADP has to complete its work as early as possible, but no later than 2015 for which the related negotiations have been taking place during all the recent COPs. A substantial progress towards the preparation of negotiating text for

COP 21 has been made during the recent session of ADP held in Geneva during 8-13 February 2015. The negotiating text covers the issues of mitigation, adaptation, finance, technology and capacity-building. The text also mentions that adequate, predictable and sustainable funding for REDD-plus be provided on continuous basis from private, non-market-based sources and results-based finance. Text also mentions that developing country parties implementing REDD-plus activities may utilize the positive incentives and results-based finance in accordance with the '**Warsaw Framework for REDD-plus**'. It is also to be seen whether the role of forests including REDD-plus is recognized under ADP to ensure its contribution to mitigate Climate Change is guaranteed in the new climate regime applicable for adoption in COP 21 and whether REDD-plus will be financially supported. The issue on 'how safeguards are being respected and addressed' is also likely to draw attention of the parties to the convention.

Issues and Challenges in REDD-plus

REDD-plus is based on a core principle of financially incentivizing the individuals, communities, projects and countries to reduce GHG emissions from forest sector. It is nearly a decade when the agenda for REDD came into existence, yet several elements of it are still the bone of contention between the developed and developing nations. The issues of result based finance and safeguards are some key challenges centering among most of the Climate Change negotiations pertaining to REDD-plus that need to be resolved. One also needs to find ways to measure reductions in emissions when data are poor or non-existent to put a REDD-plus mechanism into action. It is further required to ensure that reductions in deforestation and forest degradation are real and it should create mechanism that stops destruction of forest in non-project areas. The fact that trees store carbon temporarily and the stored carbon is released back in to atmosphere on harvest, i.e., non-permanence, is another important methodological challenge that needs to be addressed. The methodological guidance on measurements of non-carbon benefits like biodiversity conservation, watershed benefits and several other ecosystem services are also crucial for an international REDD-plus architecture.

REDD-plus in India

To implement REDD-plus, India has enabling policies and legal framework like National Forest Policy, 1988; National Environmental Policy, 2006; Indian Forest Act, 1927; Wildlife Protection Act, 1972; Forest Conservation Act, 1980; Biological Diversity Act, 2002 and Forest Rights Act, 2006 in place



for the sustainable management of its forests. It has demonstrated its commitment to address Climate Change by launching the ambitious Green India Mission (GIM) programme under its National Action Plan on Climate Change for further improving the quality and extent of forest and tree cover. Participation of local communities in forest management, and centrally

sponsored scheme on "Intensification of Forest Management", for creation of infrastructure for the development, protection, and conservation of forest resources in the country further strengthen its commitments for mitigation of Climate Change. MoEF&CC has also initiated the review of Indian Forest Policy which is likely to further address the issues on Climate Change and REDD-plus in particular.

India's Stand on REDD-plus

India has recommended a flexible combination of market and non-market based approach and is advocating for incentivizing removals and emission reductions to be separate from the CDM market. It is supporting for a flexible and country specific Forest Reference Level for base line carbon estimation and use of technologies like Remote Sensing, GIS and modeling for addressing MRV and aspects like leakage and additionality. Since most of the forest land is publicly owned, the country may like to go for Reference Level (RL) at national level instead of Reference Emission Level (REL). This would help to incentivize the removals in the form of conservation, SMF and enhancement of forest carbon stocks. In India, the safeguards to protect the rights of forest dependent communities are already in place in the form of policy and legal instruments like Joint Forest Management (JFM) programmes, the Forest Rights Act and the Biological Diversity Act. India's existing institutional set-up with some additional responsibilities could be used for implementation and management of REDD-plus in the country.

Challenges related to REDD-plus in India

The REDD-plus preparedness in India requires developing a National Forest Reference Level (NFRL) and sub-national Reference Levels covering all States and UTs because construction of NFRL will be a pre-requisite for incentivizing REDD-plus performance. In order to address the emissions from forest degradation, the communities need to be provided with other alternatives such as source of clean energy e.g., LPG, biogas etc and growing fodder as an agroforestry component. Providing alternatives for clean energy, development of infrastructure and employment opportunities in rural areas require huge investments. The different ministries such as Ministry of Rural Development, Ministry of Tribal Affairs, Ministry of Finance and Ministry of Environment, Forest and Climate Change may chalk out a suitable strategy to mobilize investments and technical support. The ecosystem services from forests such as clean water, biodiversity conservation, ambient air quality regulation, prevention and control of soil erosion needs due recognition and a mechanism to incentivize the providers of these services (e.g., village forest communities) would also help in addressing forest degradation. A mechanism for smooth flow of REDD-plus incentives from Central Government to State Government and finally to local communities needs also to be put in place.

Capacity Building for REDD-plus in India

After the 20th COP at Lima, the MoEF&CC has brought a **"Reference Document for REDD-plus in India"** which provides the basic guidelines for

future course of REDD-plus. The National REDD-plus architecture is expected to be designed and implemented by National REDD-plus Cell under the MoEF&CC in coordination with State Forest Departments (SFDs) and other institutions. The JFM committees along with other grassroot level institutions assisted by SFDs are well suited for undertaking the pilot REDD-plus projects for generating valuable experiences and technical capability, field testing of proposed methodologies, identifying gaps and barriers for fully operationalizing a national REDD-plus framework. This calls



for adoption of simple and systematic approach to build capacity of all the stakeholders, i.e., forest officials at all levels, supporting institutions, local forest dependent communities on various issues ranging from general awareness about the REDD-plus strategy to their roles and responsibilities. The capacity needs to be developed also on MRV mechanism, social and environmental safeguards, benefit-sharing and other related issues.

REDD-plus Performance of SFDs: Need for Documentation

Forest cover is one of the most prominent features of the global landscapes covering about 30 percent of its geographical area. India is among the first countries in the world which started managing its forest sustainably and scientifically. As per latest State of Forest Report of FSI, India's current forest and tree cover is estimated to be 78.92 million ha, constituting 24.01 per cent of the geographical area of the country. According to National Forest Commission report of 2006 around 41 per cent of country's forests are already degraded, 70 per cent of the forests have no natural regeneration, and 55 per cent of the forests



are prone to fire. Increasing pressures on forests on account of increasing human and bovine population has resulted into degradation of forests which needs to be analyzed thoroughly. State Forests Departments carry out numerous forest management, plantations and other forestry activities which add to the REDD-plus performance. These actions if documented systematically would demonstrate REDD-plus achievements at the national level.

SFDs under different schemes and projects take definite steps towards reducing forest degradation, which include protection, gap plantation and Assisted Natural Regeneration (ANR). In order to reduce pressure on forests, SFDs carry out high density fuelwood plantations outside forests, promotion of agroforestry, farm forestry and distribution of seedlings for planting on homesteads and other privately owned blank areas. Measures on providing alternatives to fuelwood such as providing LPG connections, solar cookers, improved cook stoves, pressure cookers etc. are also taken which helps in

reducing degradation of forests. Some of the steps, which could add to the performance towards reducing deforestation, would be alternative to land diversion such as construction of underground roads and tunnels for road and rail transport, construction of flyovers with underpass for wildlife in forest areas, and other alternatives to road transport such as cable transportation in hilly areas.

The SFDs carry out management of all government owned forests as per the prescriptions of the approved working plans which adds to the REDD-plus performance towards Sustainable Management of Forests. About a quarter of these forests are managed with the partnership of local communities on the principle of '**care and share**'. All the protected areas i.e., National Parks, Wild Life Sanctuaries, Conservation Reserves, Community Reserves, Biosphere Reserves managed by the State Wildlife Departments can be included under 'Conservation' component of REDD-plus. Under the component on 'Enhancement of Carbon Stocks' the SFDs may include afforestation, reforestation, gap plantation, canal bank, railway and roadside plantations and other similar afforestation and plantations being carried out under various schemes including Green India Mission.

REDD-plus in India: Present Status

Government of India has taken several initiatives and programmes to implement low carbon development strategies since it launched India's National Action Plan on Climate Change in 2008 through eight National Missions out of which Green India Mission aims to enhance carbon sinks in sustainably managed forests & other ecosystems, and adaptation of vulnerable species/ecosystems & forest-dependent communities. The MoEF&CC through its draft policy on REDD-plus aims to provide monetary incentives to forest communities for protecting forests, which



are major carbon sinks. The policy also aims at developing a mechanism for the fund flow to the communities and to put in place safeguards against the leakages of funds and for protecting rights and livelihoods of communities. At present India is in the readiness phase of REDD-plus which includes development of national strategies, construction of National Forest Reference Level, MRV and capacity building. India's first REDD-plus pilot project is in the East Khasi Hills district (Mawphlang), Meghalaya. There are some other pilot projects running with the help of Institutions such as TERI in Uttarakhand, U.P., M.P., Odisha, West Bengal, Nagaland, Gujarat, and Rajasthan. ICFRE is involved in 'REDD-plus pilot project' in *Van Panchayats* of Uttarakhand and IGNFA is carrying out a 'Pilot study on REDD-plus' in Timli Forest Range of Kalsi Soil Conservation Forest Division, Uttarakhand. Another project on 'Partnership for Land Use Science (Forest-PLUS)' funded by USAID under bilateral agreement with MoEF&CC is being implemented on four locations in H.P., Karnataka, M.P. and Sikkim with the aim to explore methods and approaches to REDD-plus implementation.

REDD-plus Cell of IGNFA

A "Cell for REDD-plus in relation to Global Warming and Climate Change" has been set up in Indira Gandhi National Forest Academy, Dehradun to equip itself to impart latest knowledge and skills on REDD-plus to various stakeholders especially Indian Forest Service during probation in IGNFA, and while working in SFDs as well as participants of Higher Judiciary Courses, Indian Revenue Service, Indian Railway Traffic Service and other Courses. The mandate of the Cell is to deliberate upon and opinion building on issues relating to:

- a) International REDD-plus framework;
- b) Modalities, procedures and current debate on negotiations;
- c) National REDD-plus framework;
- d) Construction of National Forest Reference Level;
- e) Forest Governance and Implementation of REDD-plus in India;
- f) Assessment of carbon stocks and MRV issues;
- g) Capacity building of stakeholders in REDD-plus implementation;
- h) REDD-plus financing possibilities; and similar other issues related to REDD-plus.

Two Committees have been constituted for functioning of the REDD-plus Cell:

1. The "**Apex Academic Committee on REDD-plus in relation to Global Warming and Climate Change**", which involves the stakeholders, viz., MoEF&CC, FSI, ICFRE, WII, IIRS and other experts in the field of Forests and Climate Change. The Apex Committee plays an advisory role to the Cell.
2. The "**Core Academic Committee on REDD-plus in relation to Global Warming and Climate Change**" consists of experts drawn from forestry institutions located in Dehradun and MoEF&CC, New Delhi. The Core Academic Committee looks after day to day working of the Cell.

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