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.

Capacity Building on REDD-plus in India

The National REDD-plus architecture is expected to be designed and implemented by National REDD-plus Cell under the Ministry of Environment & Forests in coordination with State Forest Departments (SFDs) and proposed State Level REDD-plus Cells. With the necessary support from SFDs, the JFM committees along with other grassroot level institutions 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 and their roles and responsibilities. The capacity needs to be developed also on MRV mechanism, social and environmental safeguards, benefit-sharing and other related issues. The REDD-plus Cell of the Academy is in the process of developing reading materials and modules for capacity building of entry level and in-service forest officers and other stakeholders.

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 Probationers, In-service Indian Forest Service Officers, participants of Joint Trainings for IAS/IPS/IFS, 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:

(i) The "Apex Academic Committee on REDD-plus in relation to global warming and climate change", which involves the stakeholders, viz., MoEF, 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.

(ii) 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, New Delhi. The Core Academic Committee looks after day to day working of the Cell.

REDD-plus

(Reducing emissions from deforestation and degradation, the role of conservation, sustainable management of forests and enhancement of carbon stocks in forests)

Indira Gandhi National Forest Academy
New Forest, Dehradun - 248006
Website: www.ignfa.gov.in

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 the 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 including emissions from forestry sector may not help in limiting the rise in global temperature to the level below 2^{0}C by the end of this century. 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, soil and wood products. Hence, if global forest resources are saved from further deforestation and degradation and enhanced simultaneously, they can deliver large reductions in GHG emissions and the removal of excess carbon dioxide from atmosphere at low cost within a short time frame. This also has the potential to reduce poverty by providing livelihood opportunities and to contribute into sustainable development of the countries. To address all these issues, REDD, a forest based climate change mitigation measure, was developed during the Conference of Parties (COP) 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 the Conference of the Parties to the UNFCCC in Bali (COP-13) 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 in December 2010, at COP-16, as it was reflected in the outcome of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention.

Issues and Challenges of 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 over the eight years when REDD came into existence, yet several elements of it are still the bone of contention between the developed and developing nations apart from the interests of individual countries, posing serious confrontation into its actual implementation. The issues of reference levels, monitoring, reporting and verification (MRV) of carbon emissions from forest activities, finance and safeguards are some key challenges centering among most of the climate change negotiations pertaining to REDD-plus that need to be resolved. We also need 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 any reductions in deforestation and degradation are real and it should create mechanism that stops destruction of forest in non-project areas or other countries. The fact that trees store carbon temporarily and the stored carbon is released back to atmosphere on harvest, i.e., non-permanence,

is another important methodological challenge that needs to be addressed. The co-benefits like poverty reduction, biodiversity conservation, and several other ecosystem services are 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; 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 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.

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 emerging technologies like Remote Sensing, GIS and modeling for addressing MRV and aspects like leakage and additionality. In India,