

National REDD+ Strategy and Action Plan for India: Issues and Challenges

30 August 2016



Indian Council of Forestry Research and Education, Dehradun

**International Centre for Integrated Mountain Development,
Kathmandu, Nepal**



Proceedings of the Workshop

National REDD+ Strategy and Action Plan for India: Issues and Challenges

30 August 2016

Hosted By:



Indian Council of Forestry Research and Education,
Dehradun



International Centre for Integrated Mountain Development,
Kathmandu, Nepal

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भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार की एक स्वायत्त संस्था)
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(An Autonomous Body of Ministry of Environment, Forest and Climate Change, Govt. of India)
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Foreword

Reducing emission from deforestation and forest degradation in developing countries (REDD) along with conservation and sustainable management of forests and enhancement of forest carbon stock, collectively referred as “REDD+” has been introduced as the most significant mechanism for early actions towards limiting global temperature to 2°C. REDD+ has been discussed under UNFCCC forum more than a decade. Now methodological guidance has been agreed under UNFCCC and several efforts have been taken for the implementation of REDD+ at international level.

Himalayan countries are adopting this mechanism and taking possible efforts at national and sub- national levels, but the level of implementation has been much slower as compared to other countries especially in Latin America and Indonesia, Malaysia, Vietnam and Cambodia in Asia. In India, nearly 200,000 villages are classified as forest fringe village, with large dependency of communities on forest resources, there is an ample scope and opportunities for incentivizing those communities under REDD+ mechanism who are involved in community controlled forest management activities like JFM, Van Panchayats etc. For this purpose, India needs to accelerate its REDD+ readiness at national level and compliance as per the UNFCCC requirements.

Many countries have prepared their national REDD+ strategies at national and sub-national level, so that REDD+ can be implemented effectively and efficiently with minimal adverse impacts. Keeping this in view, ICFRE in collaboration with ICIMOD organized one day workshop “National REDD+ Strategy and Action Plan for India: Issues and Challenges” on 30 August, 2016 at ICFRE Dehradun. ICFRE is thankful to ICIMOD for providing support for the workshop. ICFRE is pleased to bring out the proceedings of the workshop and looking forward for future cooperation with regional and international organizations for making REDD+ workable in India. The recommendations of the workshop will be forwarded to Ministry of Environment, Forest and Climate Change. Hopefully, Government of India will soon come out with a National Strategy on REDD+ for effective implementation of REDD+ at national level.

(Dr. Shashi Kumar)



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भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्
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Preface

Globally, the forests are considered to provide a large climate change mitigation opportunity at relatively lower cost along with significant co-benefits. This fact is very well acknowledged in the recently adopted Paris Agreement on Climate Change. Article 5 (para 1) of the Paris Agreement reiterates “Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1(d), of the Convention, including forests”. This once again reaffirms that the forests play an important role in achieving the aim of Paris Agreement by keeping global temperature rise well below 2°C.

The concept of REDD+ as climate change mitigation tool is quite matured now. UNFCCC has agreed on methodological guidance for the implementation of REDD+, various countries have initiated REDD+ projects. Green Climate Fund (GCF) established by the UNFCCC is now open to finance REDD+ projects provided they meet the laid down criteria for REDD+. One of the essential requirements is that the countries should have a national REDD+ strategy or Action Plan in place. Hence, for obtaining the benefits of REDD+ finance, India needs to develop its national REDD+ strategy and action plan.

ICFRE is proactive in the field of forests and climate change and is contributing significantly to climate change issues relevant in the forestry at national and international level. The 'REDD+ Himalaya project' with active involvement of ICIMOD has been initiated at four landscapes i.e. Nepal, Myanmar, India and Bhutan with one of its prime objectives of building REDD+ capacity and developing REDD+ strategy at national level. Under the REDD+ Himalaya project, ICFRE has jointly organized one day workshop with ICIMOD in context of developing national REDD+ strategy for India.

I am hopeful that the deliberations and recommendations of the workshop will contribute towards developing national REDD+ strategy document for India. I appreciate the efforts put by the officers and staff of Biodiversity and Climate Change Division, Directorate of Research, ICFRE for bringing the proceedings along with the recommendations for developing 'National REDD+ Strategy'.

(Dr.G.S. Goraya)

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Abbreviation Used

CAMPA	Compensatory Afforestation Fund Management and Planning Authority
COP	Conference of Parties
CSR	Corporate Social Responsibility
D-RAP	District REDD+ Action Plan
DRWG	District REDD+ Working Group
FREL	Forest Reference Emission Level
FRL	Forest Reference Level
FSI	Forest Survey of India
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
ICFRE	Indian Council of Forestry Research and Education
ICIMOD	International Centre for Integrated Mountain Development
IGNFA	Indira Gandhi National Forest Academy
IPCC	Intergovernmental Panel on Climate Change
JFM	Joint Forest Management
JICA	Japan International Cooperation Agency
KSLCDI	Kailash Sacred Landscape Conservation and Development Initiative
LFGs	Local Forestry Groups
MoEF&CC	Ministry of Environment, Forest and Climate Change
MRV	Measurement, Reporting and Verification
NABARD	National Bank for Agriculture and Rural Development
NRP	National REDD+ Policy
NRS	National REDD+ Strategy
P-RAP	Provincial REDD+ Action Plan
REDD	Reducing Emission from Deforestation and Forest Degradation
SFD	State Forest Department
SHGs	Small Help Groups
SIS	Safeguard Information System
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United State Agency for International Development
VCS	Verified Carbon Standard



1. INTRODUCTION

Forests are both sources and sinks of carbon. Deforestation results in immediate release of the carbon originally stored in the trees as CO₂ emissions. Reducing emissions from deforestation and forest degradation in developing countries REDD” was first introduced as a climate change mitigation option. With Indian intervention Conservation of Forest stocks, enhancement of forest carbon stocks and sustainable management of Forests was included in the agenda of REDD and since then REDD became REDD+. Finally, Cancun Agreements in 2010 finalised the scope of REDD+ to include following activities:

- (a) Reducing emissions from deforestation;
- (b) Reducing emissions from forest degradation;
- (c) Conservation of forest carbon stocks;
- (d) Sustainable management of forest;
- (e) Enhancement of forest carbon stocks;



REDD+ remains one critical instrument under the UNFCCC that provides financial incentive to the developing countries for unlocking their potential in mitigating GHG

by intervention in the forestry sector and at the same time providing adaptation co-benefits. In order to tap REDD+ finance available through variety of sources including GCF, India, in accordance to Cancun Agreements, needs to develop following elements:

- (i) A national REDD+ strategy or action plan;
- (ii) A national forest reference emission level and/or forest reference level or, if appropriate, as an interim measure, subnational (i.e., state level/or at physiographic level for country like India) forest reference emission levels and/or forest reference levels.
- (iii) A robust and transparent national forest monitoring system for the monitoring and reporting of the REDD+ activities
- (iv) A system for providing information on how the safeguards are being addressed and respected throughout the implementation of the activities

Countries are preparing strategies for implementing REDD+ and simultaneously trying to develop relevant capacity at different levels so that REDD+ can be implemented effectively and efficiently with minimal adverse impacts.

It is, in this context ICFRE with active collaboration from ICIMOD organised a one day workshop “National REDD+ Strategy and Action Plan for India: Issues and Challenges” at ICFRE headquarters Dehradun on 30th August 2016, under the project REDD+ Himalayas: Developing and Using Experience in Implementing REDD+ in the Himalayas. The objective of the workshop was to discuss the Issues and Challenges faced by India in developing its National REDD+ Strategy and Action Plan. Further, a road map through the recommendation will be sent to the Ministry of Environment, Forest and Climate Change (MOEF&CC) to develop the National REDD+ Strategy and Action Plan in time bound manner.

2. INAUGURAL SESSION

The workshop started with the warm welcome address by Dr. T. P. Singh, Assistant Director General (ADG), Biodiversity and Climate Change Division, (BCC) ICFRE. He briefed about the Transboundary REDD+ Himalaya project implemented by ICFRE. He highlighted the contribution of ICIMOD in the development of protocols for elements of MRV that are measurable, reportable and verifiable, Safeguard Information System (SIS). He also briefly talked about the Draft of the National REDD+ Strategy and Policy web hosted on MOEF&CC website.



Dr. Rajan Kotru, Regional Programme Manager, Transboundary Landscapes, ICIMOD, congratulated ICFRE for conducting National workshop for designing REDD+ Strategy and Action Plan for India. He further explained about the transboundary REDD+ programme in the Himalayas. He highlighted the significance of REDD+ for ecosystem services, biodiversity conservation, and water regulatory services. He also stressed about the implementation of regional REDD+ programme to mitigate the climate change and support the livelihood of the local community. Dr. Kotru also highlighted the importance of local community through *Gram Panchayats*, *Van Panchayats*, etc in the implementation of REDD+ programmes at landscape level. He also explained about the initiatives of ICIMOD in the Kailash Sacred Landscape through Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI) being implemented in China, India and Nepal. He stressed about the standardization of packages and practices for the implementation of REDD+ at regional scale.

Dr. Shashi Kumar, Director General, ICFRE apprised the meeting with the words that climate change is happening and is inevitable. REDD+ is a good initiative to tackle the climate change through forestry sector. Climate change will create more problems to next generation and there is need to address the climate change and forests can play vital role in the sequestration of carbon dioxide. He also quoted Gandhiji's words

“Nature has enough for our need but not for our greed”. Dr. Kumar talked about the various anthropogenic factors responsible for climate change. He also briefed about the impacts of climate change on ecosystem. He said that perennial rivers are becoming seasonal, sea level is rising, cloud bursts are happening and coastal areas are submerging in the sea. He further said that the climate change will impact economic growth and India needs serious steps to tackle climate change.



3. TECHNICAL SESSION

Technical session: Setting background for REDD+ Implementation Chair: Dr. G.S. Goraya, DDG (Res), ICFRE	
Project Brief and REDD Action Plan process	Dr. Bhaskar Singh Karky, ICIMOD, Nepal
ICFRE initiative on REDD+ in India	Dr. T.P. Singh, ADG (BCC), ICFRE
Developing REDD+ Reference Level and MRV for India	Mr. Rajesh Kumar, Sr. Deputy Director, FSI, Dehradun
Meghalaya Experience on REDD+ implementation	Dr. Subhash Ashutosh Addl. PCCF, Meghalaya
Financial Mechanism for REDD+ and GCF	Mr. Swapan Mehra, IORA Ecological Solutions
Draft National REDD+ Policy and Strategy: Gap analysis	Mr. V.R.S. Rawat, Scientist 'F' (BCC), ICFRE

The Chairperson of the session, Dr. G.S. Goraya, DDG (Research), ICFRE, introduced the session and the participants. In his introductory remarks, Chair highlighted the importance of forestry sector in climate change mitigation and adaptation. Chair further stressed that REDD+ offers an opportunity to achieve these climate change objectives at regional and national level. In order to implement REDD+ on ground, country needs a sound national strategy and action plan for REDD+.

Dr. Bhaskar Singh Karky, Resource Economist, Programme Coordinator REDD+ Initiative, delivered his presentation on “District REDD+ Action Plan (D-RAP) Chitwan District”. He briefed that in order to implement a national REDD+ strategy, assessment of the drivers, barriers, policies and measures at a regional or sub-national level is essential. It has been done at district level in Nepal. A District REDD+ Action Plan (D-RAP) has been prepared for Chitwan district in Nepal. D-RAP is prepared in close consultation and coordination with District Forest Office (DFO), Chitwan National Park (CNP), Local Forestry Groups (LFGs) and private sectors. The objectives of the D-RAP are to reduce Greenhouse Gas (GHG) emissions from deforestation and forest degradation, enhance carbon stocks, and improve the health of forest ecosystems; minimize potential social and environmental risks of REDD+ implementation; ensure implementation and effective monitoring of the REDD+ intervention packages; develop D-RAP templates replicable to other districts in Nepal; and contribute in implementing National REDD+ Strategy (NRS) at sub-national level. Dr. Karky explained about the various direct and indirect causes of deforestation and forest degradation and barriers. Drivers of Deforestation and forest degradation were prioritized. Intervention packages were developed to address each of the prioritized drivers. He further explained about the social and environmental risks associated with the implementation of intervention packages. He said that social risks includes negative social side-effects on poor and marginalized social groups while environmental risks are the potential



side-effects from REDD+ interventions that threaten risk to biodiversity from over-use of hybrid and exotic agroforestry species. Dr. Karky also explained about the social benefits and environmental safeguards. He stressed that D-RAP are to be aligned with National REDD+ Strategy to contribute to achieve the targets. D-RAP should also align with the district planning. He also stressed for the strong monitoring of the intervention packages through Divisional Forest Officer (DFO) and District REDD+ Working Group (DRWG). Dr. Karky highlighted that using a participatory approach to design the



Chitwan D-RAP reflects the support of the Chitwan District stakeholders to the national REDD+ readiness process; provides the basis for improved methodological guidance for developing D-RAPs in the remaining districts of Nepal and Chitwan D-RAP process to be replicated in other districts. Dr. Karky also briefly apprised about the Provincial REDD+ Action Plan (PRAP) of Vietnam prepared by UN-REDD. He highlighted that the objective is to enhance Vietnam's ability to benefit from future results-based payments for REDD+ and undertake transformational changes in the forestry sector. He also explained about the outcomes of the P-RAP. He summed up with highlighting the procedure for the implementation of P-RAP.

Dr. T.P Singh, Assistant Director General (Biodiversity and Climate Change), ICFRE, presented ICFRE initiative on REDD+. He described about the emergence of REDD+ under Cancun Agreement and highlighted the significance of Post 2020 climate change scenario under Paris Agreement adopted at COP 21 in November 2015. He further explained about the status of two REDD+ projects implemented by ICFRE with the support from Uttarakhand Forest Department and ICIMOD. He briefly explained about implementation site of the projects. Uttarakhand REDD+ pilot project is being implemented in Nainital district of Uttarakhand state. Under ICFRE-ICIMOD Trans-boundary REDD+ Himalayas project, two studies were conducted. First was the scoping study of REDD+ in Kailash Sacred Landscape and second study was the Stocktaking of REDD+ in India. Dr. Singh explained about the standards being followed for the implementation of REDD+ project in Uttarakhand. He apprised about the VM006 methodology of the Verified Carbon Standard (VCS) is followed for the implementation of REDD+ programme in Uttarakhand. Also, Climate, Community and Biodiversity Standards are followed for the additional biodiversity and community value. Dr Singh further informed

about the drivers of forest degradation.



Some of the drivers of forest degradation prevailing in Uttarakhand REDD+ pilot project site (Kalsa Gola Sub-watershed) are collection of fuelwood for cooking and source of energy for heating during winter months; fodder collection for animals; cattle Grazing in the Forest; fire; collection of leaf litter for livestock bedding and manuring; encroachment in the forest and illegal felling. He explained that carbon loss from fuelwood, fodder and litter collection is approx 4 t/ha/yr. Dr. Singh also proposes measure to address



the forest degradation. Some of the measures are dried pine needles (*Pirul*) collection contributes reduction in fire incidence; small water reservoirs can be prepared to store the rain water; check dam construction to control the flow of water and soil erosion; appropriate tool/implements can be provided to *Van Panchayats* to control the fire occurrence; improved cook stove and LPG can be provided to the community to reduce the usage of fuelwood hence addressing forest degradation. He further explained about the steps for the registration of project under VCS.

Dr. Singh also elaborated on the ICIMOD-ICFRE Transboundary REDD+ project. He explained the objective of the project which includes establishment of South-south cooperation; exchange of experience and mutual learning for other three countries; MRV, SIS, Reference Levels (Regional); development of methods for calculating, modelling and forecasting carbon sequestration; preparation for REDD+ Readiness in North-Eastern India. He informed that the activities done so far include two side events at COP 21 in Paris (Dec 2015); project inception workshop at Aizawl (28-29 Jan.); preliminary site selection in Mizoram; stock taking review to understand REDD+ implementation in India; scoping study of REDD+ in Kailash Sacred Landscape (KSL) of Uttarakhand Himalayas. Dr Singh also briefed about the outcomes of consultation meeting held at Govind Ballabh Pant National Institute of Himalayan Environment and Sustainable Development (GBPNIHESD), Almora and at village Naukina, Pithoragarh for the scoping study of REDD+ in KSL. He explained about the drivers of forest degradation and also suggested interventions to address the drivers of forest degradation. He further shed light on the activities planned till December 2016 which includes scoping study of promoting Bamboo plantation in addressing REDD+ Objectives in Mizoram; provision of Solar Dryer for community based Turmeric grower Self Help Groups (SHGs); starting preparation of State REDD+ Action Plan for Mizoram and Uttarakhand; development of training manuals; formation of REDD+ Working Group with members from all North-Eastern States and Uttarakhand; side event on REDD+ Transboundary Project in India Pavilion at COP-22 in Marrakesh, Morocco in association with ICIMOD. In his concluding statement, he said that REDD+ offers an innovative way to mitigate climate change in post 2020 scenario; India needs to finalize REDD+ Strategy; pilot programmes are offering good, and they need to be synergized; capacity building of stakeholders holds the key to successful implementation at all levels.

Mr. Rajesh Kumar, Senior Deputy Director, Forest Survey of India, Dehradun delivered his presentation on “Developing Reference level of REDD+”. He explained that there is no explicit difference between Forest Reference Emission Level (FREL) and Forest Reference Level (FRL). FREL includes only emissions, and a FRL includes removals as well. Thus comprising of activities that enhances forest carbon stocks. The



Conference of Parties (COP) FREL/FRLs are: “...benchmarks for assessing each country's performance in implementing [REDD+] activities”. He further explained that components of REDD+ include National Strategy or Action Plan; National Forest Monitoring System; Safeguards Information System and Forest Reference Level/Forest Reference Emission Level. He also explained the various decisions of COP that assist in developing FREL/REL. Mr. Kumar briefed that the purpose of forest reference level is to assess country



performance in contributing to mitigation of climate change through actions related to their forests; results-based payments require an assessed forest reference level and country may wish to assess progress on the outcomes of the policies and measures taken to mitigate climate change in the forestry sector for domestic reasons. Mr. Kumar expressed guidance on FREL/FRL construction. FREL/FRL be expressed in tonnes of carbon dioxide equivalent per year; maintain consistency with national GHG inventories. In terms of forest definition, sources of data used (for the activity and the emission factors) and carbon pools/GHG gases included for construction of FRLs; IPCC guidance and guidelines for National GHG Inventories can be used as a basis for estimating forest-related GHG emissions by sources and removals by sinks. Guidance further include FREL/FRL be established transparently, providing information and rationale of FRL development. Step-wise approach should be followed. The decisions of UNFCCC enables to improve FRLs over time by incorporating better data, improved methodologies and, where appropriate, additional pools. It also suggests that countries should update their FRLs periodically. FRL/FREL should be submitted to the UNFCCC for technical assessment. Information used by Parties in constructing a FRL includes historical data. FRL/FREL should be transparent, complete, and consistent and include accurate methodological information. Mr Kumar said that FRL/FREL should include description of data sets, approaches, methods, models, the assumptions used, descriptions of relevant policies and plans, and descriptions of changes from previously submitted information. Mr. Kumar also shed light on the key elements of FRL/FREL which includes forest definition; historical data; scope: REDD+ activities, pools and gases included in FRL; FRL calculation methodology includes details on national circumstances and how these are considered if adjustments are



made; scale: The area covered by the FRL, with due consideration to the development of sub-national FRLs as an interim measure. Mr. Kumar summed up his presentation by highlighting the national circumstances for developing the FREL/FRL. India is yet to develop and communicate its Reference level for REDD+ in accordance with UNFCCC decisions.

Dr. Subash Ashutosh, Additional Principal Chief Conservator of Forests, Meghalaya



delivered his presentation on “REDD+: the Meghalaya Experience”. He started his presentation by highlighting the introduction of REDD+ as climate change mitigation programme. Dr. Ashutosh elaborately explained about the Uiam Sub-watershed REDD+ Project in Meghalaya which is being implemented in 17,052 ha area with 8,106 ha forest cover, of which 3,652 ha is Dense Forest and 4,454 ha is Open Forest. He also apprised the drivers of deforestation and forest degradation in the project area and different phases of the project designing.

Prominent drivers include forest fire, fuelwood collection, quarrying, grazing, erosion, loss of biomass and destruction of endangered species habitat. Measure taken to address the drivers were also apprised. Measures include firelines, firewatcher, fuel efficient stoves, animal stall feeding, check dams, afforestation and rehabilitation & protection of habitats of rare orchids & amphibians etc.

Dr. Ashutosh also explained about the project activities carried in the project area. The activities completed include forest fire control (21 km fire line & fire watchers); Sustainable firewood (Fuelwood plantation on periphery); Regulation of grazing (Shifting to pigs & broilers); Agricultural containment (Organic cultivation & Orchards); Alternatives to charcoal making (Alternate livelihoods). He also explained project timeline which comprises of pilot activity, project design & preparation and implementation phase. He also explained that the for 1st certification in 2013, 21,805 tCO₂ C-certificates are issued. 5,193 tCO₂ equivalent credits are sold @US\$6-7/tCO₂ and received US\$ 25,947 fund. Uiam Watershed Trust Fund has been established for the utilization of fund for the project management & monitoring; awareness raising; establishment of 21 community nurseries; support to Women micro-finance groups & famer's clubs and forest restoration activities.

Dr. Ashutosh further highlighted Umket Raid REDD+ Pilot Project initiated and steered by the Forest Department with the support from the State Government. Total project area of the project is 1,089.83 ha comprising of community forest, village forest and private forest. He also explained the step wise procedure for the implementation of the project. He further explained the interventions carried under project.

Interventions for forest management includes improving stocking of forest by planting in blank areas; assisted natural regeneration; fire protection; prevention of unauthorized removal of trees; eradication of invasive species; bamboo plantation. He also apprised about the annual increment in forest carbon after interventions. Dr. Ashutosh briefed about the various activities being carried in the project area which includes smokeless chullahs to local community; livelihood and enterprise promotion; apiculture; multipurpose reservoir; sericulture; eco



tourism; community nursery. He summed up the presentations by highlighting the importance of REDD+ in climate change mitigation and livelihood upliftment of the community.


Mr. Swapan Mehra, Chief Executing Officer, IORA Ecological Solutions, delivered his presentation on “Financial Mechanism for REDD+ and Green Climate Fund”. He initiated with the phased approach for REDD+ financing. Phase I emphasizes that countries can access immediate international funds for developing National REDD+ Strategy, institutional strengthening, capacity building etc. while in Phase II countries can access funding for implementing National REDD+ strategies, capacity building and result based demonstration activities. Phase III comprises of result based funding mainly market based. Currently, funding available through UNREDD, Forest Carbon Partnership Facility (FCPF) etc. He further highlighted the financing mechanism for REDD+ in India. He described that Central and State funds could be drawn for capacity building and readiness. Funds under Green India Mission, Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds and Corporate Social Responsibility (CSR) can be accessed for project establishment cost. REDD+ project operating cost can be accessed through State funds, CSR and international donors. Mr. Mehra also discussed different financing sources viz; bilateral, multilateral, market based, non market based and private sectors. He highlighted the global funds like FCPF Readiness Fund, FCPF Carbon Fund, UNREDD, BioCarbon Fund, Forest Investment Program, Global Environment Facility (GEF), Green Climate Fund, Japan International Cooperation Agency (JICA) Funds available for REDD+ financing. He also shed light on the major REDD+ funding countries and regions receiving REDD+ funds. Mr. Mehra explained the mechanism of voluntary carbon market and transacted volume by different projects.

Mr. Mehra briefed about the Green Climate Fund (GCF). He explained the conditionality and eligibility for GCF Fund. He explained that recipient countries can submit the proposal for funding. Access to the funding can be through accredited national, sub-national and regional implementing entities. National Bank for Agriculture and Rural Development (NABARD) is the only accreted entity of GCF in India. He briefed about the Forest-PLUS programme funded by USAID to improve the methodologies for the estimation of carbon content of different forest types, facilitate community participation and improve data management and availability. He also highlighted about the various Forest-PLUS projects being implemented in the states of Himachal Pradesh, Sikkim, Karnataka and Madhya Pradesh. He summed up his presentation by highlighting the unique features of project implemented in Sikkim and the plantation drive carried out in the project implemented in Madhya Pradesh.

Mr. V.R.S. Rawat, Scientist 'F', BCC, ICFRE delivered his presentation on “Draft National REDD+ Policy and Strategy: Gap analysis”. He begins his presentation by highlighting the overview of REDD+ development. He



highlighted the status of REDD+ implementation at national level. He stated that National Strategy/Action Plan is still in draft stage since last two years. No progress has been made on Safeguard Information System (SIS). Reference Level/Reference Emission Level/ (RL/REL) is under development by Forest Survey of India (FSI). Though India has well established national forest monitoring system maintained by FSI but needs to be tuned in accordance with UNFCCC guidelines. He also shed light on the modalities for (RL/REL) development.



Mr. Rawat explained that forest reference emission levels and/or forest reference levels expressed in tonnes of CO₂eq per year, are benchmarks for assessing each country's performance in implementing the REDD+ activities. Countries has to submit information and rationale on the development of their forest RL/REL including details of national circumstances. So far, 14 countries (e.g. Brazil, Chile, Congo etc) have submitted a proposed forest RL/REL. He also stated that technical assessment of RL/REL is mandatory under UNFCCC guidelines.

Mr. Rawat highlighted the significance of SIS for the implementation of REDD+ projects. He also explained that actions are consistent with the conservation of natural forests and biological diversity, ensuring that the (REDD+) 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. Mr. Rawat also elaborated on various Decisions of UNFCCC regarding SIS/RL/REL, National Forest Monitoring System.

Mr. Rawat apprised about the various objectives of draft National Policy on REDD+. The REDD+ Strategy is guided by the National REDD+ Policy. The strategy for operationalizing the draft REDD+ Policy as given in the webhosted document is (i) to build a critical mass of technical and institutional capacities of various stakeholders including SFDs, local communities, other related government agencies, (ii) to carry out periodic assessment of non-carbon and carbon variables relevant to reporting and financing under REDD+, (iii) to have a mechanism for Stakeholder participation, (iv) to enhancing cross-sectoral coordination within multiple government agencies including forestry and environmental authorities, land management authorities, (v) to analyse gaps in capacity and data by all REDD+ stakeholders and ensure that readiness activities promote a comprehensive and integrated approach and develop a transparent and accountable systems for REDD+ implementation, and (vi) to develop appropriate Management Information System (MIS) for sharing of relevant information/data related to REDD+ with all stakeholders;. Mr. Rawat also briefed about the essential elements of REDD+ framework in the draft document.

He also informed that MoEF &CC constituted a Committee in 2015 for the preparation of National REDD+ Policy (NRP) and draft was ready in May 2015 but NRP was not web hosted for public comments. He said that it is broadly a Policy document and lacks implementation strategy, time line, action plan and deliverables etc. He also explained the objectives, implementation principles and benefits of REDD+ implementation. Mr. Rawat informed that MoEF&CC has published a REDD+ reference Document for India. This is a very comprehensive documents prepared by country REDD+ experts. Essential elements of REDD+ Staregy can be carved out from this document. REDD+ Cell at MOEF&CC has the task of coordinating and guiding REDD+ related actions, SFDs, guiding, collaborating and funding. He also proposed that REDD+ projects activities can be implemented in India in different agro-ecological regions of India addressing the different agreed REDD+ actions (e.g. Reducing Emissions from Forest Degradation in North Eastern States).

To sum up the session Chair in his concluding remarks stressed that National REDD+ Strategy is one of the elements to be developed for implementing REDD+ activities. It is highly dependent upon national circumstances. During the development and implementation of national strategies or action plans, countries should address, inter alia: the drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations and the REDD+ Safeguards. He summed up his remarks that REDD+ activities to be implemented in phased manner, beginning with the development of national strategies or action plans, policies and measures, and capacity-building; followed by the implementation of national policies and measures and national strategies or action plans, technology development and transfer and results-based demonstration activities, and finally evolving into results-based actions that should be fully measured, reported and verified (MRVable).

4. PLENARY SESSION

Preparedness of SFDs in REDD+ implementation and capacity building with reference to proposed national REDD+ Policy and strategy

Chair: Mr. Saibal Dasgupta, Director General, Forest Survey of India

Panelists:

1. Dr. Subhash Ashutosh, Addl. PCCF, Meghalaya
2. Dr. Mohit Gera, Professor, IGNFA, Dehradun
3. Mr. Noyal Thomas, DIG, Forest Policy, MoEF&CC, New Delhi
4. Mr. Vidya Sagar, CCF Uttarakhand Forest Department
5. Dr. Bhskar Karky, ICIMOD



Shri Saibal Dasgupta, Director General, Forest Survey of India, Dehradun Chaired the Plenary Session. Chair introduced the topic and the panellists. Following deliberations were made during the plenary session:

Dr. Mohit Gera, Professor, Indira Gandhi National Forest Academy, Dehradun stressed the need to fix the timeline for the preparation and implementation of National Policy on REDD+. He also showed concerned for the capacity building for the implementation of REDD+. He proposed that the capsule course should be prepared for Indian Forest Services Officials. Dr. Gera also highlighted that the protocol should be developed to assess the Non Carbon Benefits of implementing REDD+ projects. He further expressed that the Payment for ecosystem services also needs to be qualified and evaluated with REDD+ programmes and also can find reference in the national REDD+ Strategy. Policy and strategy should incorporate guiding principles for equitable distribution of REDD+ benefits.

Dr. Subash Ashutosh, Additional Principal Chief Conservator of Forests, Meghalaya said that REDD+ involves many stake holders outside the realm of forestry sector. These stakeholders need to be identified and sensitized for the implementation of REDD+ projects. He also stated that valuing is not required for REDD+ project and for the credibility of the project biodiversity and safeguards standards needs to be followed.

Dr. Bhaskar Karky, ICIMOD said that the REDD desk is established at the district level in Nepal and this model can be replicated in India at Division level. He proposed that road map may be prepared for State Level REDD+ Action Plans (S-RAP) as in Vietnam through establishment of State REDD+ Cells and principles for SRAP can be guided through REDD+ Strategy.

Mr. Noyal Thomas Deputy Inspector General of Forests (Forest Policy), MOEF&CC, New Delhi expressed his concerned for the training of frontline staff in the implementation of REDD+ Policy and Strategy. Private agencies will be requested to allocate the funds under Corporate Social Responsibility (CSR) for the REDD+. Pilot study of REDD+ will be started.

Mr. K. Vidhya Sagar, CCF, Uttarakhand Forest Department, Dehradun said that Uttarakhand Forest Department has taken the lead in the REDD+ and already funded pilot project implemented by ICFRE. He also expressed the need of adequate training for the staff and training manual should be prepared in local language also so that field staff can understand the technicality of REDD+ project.

Dr. G.S. Goraya, DDG (Research) ICFRE proposed that Policy and Strategy can be different documents as policy required legislation procedure while strategy can be decided among experts.

Mr. Saibal Das Gupta, in his concluding remarks underscored the REDD+ Capacity programmes being organised by ICFRE and FSI. ICFRE has developed expertise on REDD+ policy issues and its implementation, while FSI is leads in Nation Forest Monitoring and MRV related aspects. He also proposed that the REDD+ can be part of curriculum at IGNFA to train the forest officials. Hs also said that small video film should be developed to train the concept of REDD+ in an easy and understandable manner. Trainings should be provided for MRV procedure. REDD+ expert groups should be created at State level.



5. RECOMMENDATIONS OF THE WORKSHOP

Recommendations of the workshop are given below :

1. Meeting UNFCCC Requirements

During the ICFRE-ICIMOD workshop on “National REDD+ Strategy and Action Plan for India: Issues and Challenges” on 30 August 2016, various recommendations were made. It was also resolved to forward these recommendations to the Ministry of Environment and Forest and Climate Change (MoEF&CC) to initiate appropriate actions at the government level.

India, in accordance to UNFCCC agreements, needs to develop following elements:

- (i) A national REDD+ strategy and action plan.
- (ii) A national forest reference emission level and/or forest reference level and, if possible, sub-national (i.e., state level) forest reference emission levels and/or forest reference levels.
- (iii) A robust and transparent national forest monitoring system for the measurement, reporting and verification (MRV) of the REDD+ activities.
- (iv) A system for providing information on how the safeguards are being addressed and respected throughout the implementation of the activities.


These elements are needed for tapping REDD+ finance available through a variety of sources, public and private, bilateral and multilateral, including alternative sources.

2. Governance Structure for REDD+

- (i) National REDD+ Cell at the MoEF & CC could initiate process developing India's REDD+ Strategy and Action in accordance with the UNFCCC requirements. REDD+ Cell at the MoEF&CC should also endeavor to promote establishment of State REDD+ Cells for dissemination of mechanism at state level. States may then establish a REDD+ desk at Divisional Level
- (ii) At national level a robust REDD+ Governance structure is needed in the form of a National REDD+ Authority under the purview of MoEF&CC. The REDD+ Cell may provide secretarial work to the National REDD+ Authority. The proposed REDD+ Strategy could suggest a governing structure of REDD+ Authority, its functions and various bodies to support the functioning of National REDD+ Authority.
- (iii) REDD+ cell in the ministry need to be strengthened with adequate expertise, preferably with officials having practical experience in the field. Specifically it should have a capacity building sub cell which can coordinate dissemination of expertise to ground level so that strategy can be rolled out on wider canvass with lesser costs.
- (iv) National Forest policy 1988 which is under revision could mention about carbon benefit of forests/REDD+.
- (v) There are REDD desk at district level in Nepal this model can be replicated in Indian situation also at the Forest Division level.

3. Elements of REDD+ Strategy, Action Plan and Time lines

- (i) Government of India (MoEF&CC) has adopted a Reference document to operationalize REDD+ in the



country. The document based on the existing knowledge available on the subject and roles and responsibilities of different departments, institutions, civil society and local communities to facilitate institutionalization and implementation of REDD+ in the country. This document could serve as a starting point for National REDD+ Strategy. However, it needs further refinement in accordance with UNFCCC decisions.

- (ii) It was also recommended that a road map for implementation of National REDD+ strategies and accomplishing the elements therein with strict time lines/ action lines and deliverables need to be drawn. Actions that need to be considered for quick start of REDD+ in India are as follows:
 - (a) Identification of essential elements required for a national REDD+ strategy for effective implementation at state (Sub-national) and national level e.g. Safeguard Information System, REL/RL, National Forest Monitoring System, MRV, Capacity building, implementation of pilot projects, carbon right, land tenure, quantification of REDD+ benefits, and benefit-sharing mechanism with REDD+, evolving a system of performance based payment to Communities, and arranging finance for REDD+ actions.
 - (b) An action plan with time line for execution of the different actions identified in the National REDD+ Strategy.

4. Capacity Building

- (i) Capacity building for REDD+ needs to be brought down to cutting edge level with better methodology and better packaging at different levels. Joint modules can be developed by IGNFA, ICFRE, FSI, CASFOS, IIFM and other state level training organizations. Capacity building must reach state forest training institutes to develop sufficient expertise at that level.
- (ii) Capacity building could also include a module for REDD+ participating community members to be trained in recording the data. Simple protocols need to be developed for this purpose, 20-30 minute videos on REDD+, and manuals in the form of user-friendly material need to be developed for different stakeholders. Expert group and agencies from outside the forestry sector also need to be identified for using them for capacity building of cutting edge staff, and also for developing training modules and organize capacity building programmes.

5. Stakeholder Consultation

- (i) REDD+ involves many stakeholders outside the realm of forestry sector. These players need to be identified, and linkages need to be developed with their actions that help in addressing drivers of deforestation and forest degradation. General awareness raising for public representatives need to be undertaken, since ultimately the political economy matters.
- (ii) Stakeholder consultation process is needed for developing strategy and addressing the concerns raised during the consultation process like gender issues and involvement of indigenous people and local communities. Livelihoods enhancement should be the ultimate objective of REDD+ in India.

6. Learning from Successful REDD+ Programmes

- (i) Identification of collaborating partners at national and international level with specific tasks to be performed based on their proven strength.

- (iii) National REDD+ strategy can consider a road map for preparing State Level REDD+ Action Plans (S-RAP) (Example Vietnam) or further at Forest Circle or Division level (As done for district level in Nepal) through establishment of state REDD+ Cells.
- (iv) States needs to be motivated for REDD+ projects in voluntary market, like VCS (e.g, Forest Plus, Uttarakhand REDD+), Plan Vivo (Example Meghalaya), Gold standard etc. at small scale (watershed/subwatershed level/subdivision group of village community level). Capacity developed and lesson learnt from this exercise will help in developing REDD+ at Sub national/ National level. At state levels attempts can also be made to develop a State level REDD+ programme for financial support from Green Climate Fund (GCF) of UNFCCC.
- (v) Exchange visit of participating communities, (JFM/ Van Panchayat etc.), field foresters to the successfully operating REDD+ projects needs to be arranged to further motivate REDD+ actions in the states.

7. Mobilizing REDD+ Finance

- (i) Resources need to be augmented for start of REDD+ in a phased manner i.e., (a) beginning with the development of national strategies or action plans, policies and measures, and capacity-building, (b) followed by the implementation of national policies and measures and national strategies or action plans, technology development and transfer and results-based demonstration activities, and (c) evolving into results-based actions that should be fully measured, reported and verified (MRVable).
- (ii) Funding from financial bodies for aforesaid phase I and phase II of REDD+, which may go hand in hand. Augment Finance for REDD+ actions for performance based payments for emission reduction through sources like multilateral, bilateral funding and GCF etc. Further MoEF&CC needs to explore financial resources from multilateral/ bilateral (UN REDD, FCPF readiness fund, WB Biocarbon fund, FIP, GEF, GCF, USAID, GIZ etc. India has recently joined UN-REDD Programme. MoEF&CC/REDD+ Cell can explore finance for phase I and phase II actions of REDD+ implementation of other elements like, SIS or REL/RL.
- (iii) Payment for ecosystem services (Ecosystems services automatically flows with carbon benefits) also needs to be qualified and evaluated with REDD+ programmes and also can find reference in the national REDD+ Strategy. Forest Governance should form an important element of REDD+ Strategy. Policy and strategy should incorporate guiding principles for equitable distribution of REDD+ benefits.

A brief review of current REDD+ draft policy and strategy document

- (i) In order to give impetus to REDD+, Government of India came out with a draft National REDD+ policy and strategy document, which is web hosted at the MoEF&CC's website. While policy represents the will and vision of the nation to implement REDD+, the Strategy and Action Plan shall consists of actions with a definite time frame for achieving various actions required at national and state level required for implementing REDD+.
- (ii) A REDD+ policy at national level will be helpful in laying down guiding principles in steering REDD+ at national level. The Current Final Draft Policy is inadequate as it does not appropriately reflects the relevant UNFCCC decisions on REDD+, the objectives are too broad and most of them are components of the strategy and Action plan.
- (iii) The strategy section of the draft final document is very weak and need more elaboration with objectivity and a time frame. A preamble needs to be included, that will stress the primary objective of policy as enrichment of our ecosystems and then to tap international resources for such efforts. Any unspelt clarification shall be interpreted using preamble. The strategy needs to draw a time-line to finalise REDD+ actions.

Workshop's Schedule

TIME	TOPIC	RESOURCE PERSON
09.15-09.30 A.M.	Registration	
09.30-10.00 A.M.	Inaugural session <ul style="list-style-type: none"> Welcome and Introduction to Workshop: Dr. T.P. Singh, ADG, ICFRE Introduction by Participants Remarks by Dr. Rajan Kotru, Regional Programme Manager, ICIMOD Address by Dr. Shashi Kumar, DG, ICFRE 	
10.00 -10.30 A.M.	High Tea and Group Photo	
10.30 A.M.-1.00 P.M.	Technical session: Setting background for REDD+ Implementation	
10.30 -10.55 A.M.	Project Brief and REDD Action Plan process	Dr. Bhaskar Singh Karky, ICIMOD, Nepal
10.55 -11.20 A.M.	ICFRE initiative on REDD+ in India	Dr. T.P. Singh, ADG (BCC), ICFRE
11.20 A.M-11.45 P.M	Developing REDD+ Reference Level and MRV for India	Mr. Rajesh Kumar, Sr. Deputy Director, FSI, Dehradun
11.45 - 12.10 P.M.	Meghalaya Experience on REDD+ implementation	Dr. Subhash Ashutosh Addl. PCCF, Meghalaya
12.10 - 12.30 P.M.	Financial Mechanism for REDD+ and GCF	Mr. Swapan Mehra, IORA Ecological Solutions
12.30-1.30 P.M.	Lunch Break: At Visiting Scientists Hostel, FRI	
1.30 – 2.00 P.M. 30 min	Draft National REDD+ Policy and Strategy: Gap analysis ICFRE	Mr. V.R.S. Rawat, Scientist 'F' (BCC),
02.00 - 03.00 P.M.	Plenary Session	
02.00 - 03.00 P.M.1 hr	Preparedness of SFDs in REDD+ implementation and capacity building with reference to proposed national REDD+ Policy and strategy Chair: Mr. Saibal Dasgupta, Director General, Forest Survey of India Panelists: (i) Dr. Subhash Ashutosh, APCCF, Meghalaya (ii) Dr. Mohit Gera, Professor, IGNFA (iii) Mr. Noyal Thomas, DIG (FP), MoEF&CC (iv) Mr. Basant Pant, Program Officer, ICIMOD (v) Dr. Parag M. Dhakate, CF, Uttarakhand Forest Department	
03.15 – 03.35 P.M. 20 min	Drafting recommendations to GOI on REDD+ strategy and action Plans: Mr. V.R.S. Rawat	
03.35 P.M.	Vote of thanks and tea	

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Presentations of the Workshop Speakers

DISTRICT REDD+ ACTION PLAN (D-RAP) CHITWAN DISTRICT

Rabindra Roy
Bhaskar Singh Karky
25 August 2016

International Centre for Integrated Mountain Development
Kathmandu, Nepal



FOR MOUNTAINS AND PEOPLE

context

- In order to implement a national REDD+ strategy, assessment of the drivers, barriers and PAMs at a regional or sub-national level is essential i.e. district level in Nepal.
- District REDD+ Action Plan (DRAP) for Chitwan District has been prepared first in country
- DRAP is prepared in close consultation and coordination with
 - District Forest Office (DFO)
 - Chitwan National Park (CNP)
 - Local Forestry Groups (LFGs) and
 - private sectors

objectives

The main objectives of the Chitwan D-RAP are to:

- reduce GHG emissions from deforestation and forest degradation, enhance carbon stocks, and improve the health of forest ecosystems;
- minimize potential social and environmental risks of REDD+ implementation;
- ensure implementation and effective monitoring of the REDD+ intervention packages;
- develop D-RAP templates replicable to other districts in Nepal; and
- contribute in implementing National REDD Strategy (NRS) at sub-national level.

methods

- District consultative workshops
- DFO, CNP, DDC, DADO, FECOFUN, BZMC, HIMAWANTI, private sector and other forest sector actors; [stakeholders.docx](#)
- Identification of hotspots in terms of deforestation, forest degradation and forest enhancement activities and field visit;
- A series of consultative workshops/meetings with experts was organized in Kathmandu.

eight hotspots

- Padampur,
 - Kabilaas,
 - Shaktikhor,
 - Koraak,
 - Birendranagar,
 - Piple,
 - Lothaar and
 - Baadarjhhulaa.
- [map.jpg](#) [hotspot datasheet.docx](#)



drivers of D&DF and barrier to EA			
Direct and Indirect Causes of Deforestation and Forest Degradation, and Barriers to Improved Forest Management			
	Deforestation	Forest Degradation	Barriers to Improved Forest Management
Direct drivers or causes	Illegal forest encroachment; infrastructure, power lines, road expansion, public buildings, etc.; rehabilitation of flood victims; resettlement and relocation	Unsustainable/illegal timber and fuelwood extraction; shifting cultivation; landslides and flash floods; grazing; degradation by invasive species; religious activities; infrastructure development; forest fire	Economic, social, institutional and technological barriers to improved forest management
Indirect drivers or causes	High demand for land, low farm productivity; ineffective land use policy; weak forest governance; lack of employment; weak market infrastructure and technical inputs	Weak policies for private forestry and agroforestry; weak management capacity; high price of LPG/kerosene and lack of access to clean energy; undersupply and high price of timber; high forest dependence for fuel wood	Low investment in sustainable forest management; weak management capacity; weak research, outreach and coordination; weak professional attitudes; weak governance; and lack of good business plans

three major drivers (prioritized)	
Deforestation	forest encroachment for farming and illegal settlement, <ul style="list-style-type: none"> • resettlement, and • rural infrastructure development.
Forest Degradation	unsustainable supply of timber and fuelwood, <ul style="list-style-type: none"> • dependency for livelihoods, and • forest fire
Forest Enhancement Activities	existing barriers in implementation of improved management of natural and plantation forests

drivers of D&DF and barrier to EA cont.		
Key results identified from solution trees		
Deforestation: Reduced forest encroachment for farming and illegal settlement (8)	Forest Degradation: Reduced unsustainable supply of timber and fuelwood (5)	Enhancement: Improved management of natural and plantation forests (6)
Agroforestry (AF) producer cooperatives established and supported	Incentivized (policy and finance) for private forestry and AF	PES mechanism piloted
Material and technical support provided to promote AF	Deregulation for easier transport of wood and non-wood products	Resource people trained for timely revision of CBFM Operational Plans (OPs)
Local campaigns for AF and forest conservation	Policy and finance incentives for product value-addition, e.g. wood seasoning	Multi-stakeholder mechanism strengthened
Forest and private land boundary demarcation in conflict areas	Improved forest management and monitoring capacity of DFO and CFUG	CBFM areas increased
District forest monitoring protocol and reporting system developed	Alternative and more efficient energy options promoted to save forest	Silviculture-based sustainable forest management expanded, especially in CBFM areas
Regular price dissemination of farm and off-farm products		Improved Linkages between research and extension
Coordination between DADO and VDC for effective functioning of Haatbazaar (weekly markets)		
Grant support for commercial AF production		

D-RAP intervention packages (IPs)		
Intervention Packages in Chitwan D-RAP		
Key challenges	Priority drivers/ barriers	Intervention Packages
Deforestation	Forest encroachment for farming and illegal settlement	1. Promotion of Agroforestry 2. Delineation of forest and private land boundaries 3. Diversification of livelihoods
Forest Degradation	Unsustainable supply of fuelwood and timber	4: Promotion of alternative and more efficient energy options and fuel efficient technology 5. Promotion of community-based SFM
Barriers to enhancement activities	Economic, social, institutional and technological barriers to improved forest management	6. Forest based Payments for Ecosystem Services (PES) (Cross-cutting component: Linkages between research and extension)

social and environmental risks of IPs
<ul style="list-style-type: none"> • social risks <ul style="list-style-type: none"> • negative social side-effects on poor and marginalized social groups • environmental risks <ul style="list-style-type: none"> • potential side-effects from REDD+ interventions that threaten: risk to biodiversity from over-use of hybrid and exotic agroforestry species

social benefits and environmental safeguards
<ul style="list-style-type: none"> • Social benefits <ul style="list-style-type: none"> • AF cooperative: reserving shares, minimize elite capture etc. • environmental safeguards <ul style="list-style-type: none"> • AF cooperative: hybrid and exotic agroforestry species: at least 50% indigenous tree and crop species

alignment with policy

- **Alignment with policy**
 - the National REDD Strategy (NRS)
 - to contribute to achieve the targets set out in the NRS
 - sectoral alignment with district planning
 - periodic DDC plans, the Chitwan District Forest Sector Plan, and the periodic DFO and CNP plans

monitoring of IPs

- DRWG, the DFO and the CNP as the key agencies for conducting regular monitoring;
- DFO and CNP periodically present the monitoring data to DRWG;
- DRWG and the REDD IC analyze and use the monitoring data according to their own objectives;
- the REDD IC integrates the data into its national database system.

conclusions

- using a participatory approach to designing the Chitwan D-RAP reflects the support of the Chitwan District stakeholders to the national REDD+ readiness process;
- provides the basis for improved methodological guidance for developing D-RAPs in the remaining districts of Nepal,
- Chitwan D-RAP process to be replicated in other districts.



Thank you for your kind attention...





Introduction of UNREDD Phase II

- **Objective:** To enhance Viet Nam's ability to benefit from future results-based payments for REDD+ and undertake transformational changes in the forestry sector.
- **Six outcomes**
- **Duration:** 2013 – 2015 – extended to 2018
- **Budget:** NOK 180 million, equivalent to approx. US\$30 million (almost half for demonstration activities)

Phase II: Outcomes

- **Outcome 1:** Capacities for an operational National REDD+ Action Programme (NRAP) are in place
- **Outcome 2:** The six pilot provinces enabled to plan and implement REDD+ actions (PRAP/SiRAP)
- **Outcome 3:** National Forest Monitoring System (NFMS) for Monitoring and Measurement, Reporting and Verification and National REDD+ Information System (NRIS) on Safeguards are operational

Phase II: Outcomes

- **Outcome 4:** Stakeholders at different levels are able to receive positive incentives
- **Outcome 5:** Mechanisms to address the social and environmental safeguards under the Cancun Agreement, established
- **Outcome 6:** Regional cooperation enhances progress on REDD+ implementation

PRAP Process

- The PRAP process is an **integral part of the broader development planning** of Province such as SEDP and FPD
- The PRAP is **participatory process** and deals with **cross-sectoral** issues
- The PRAP process should be **owned and driven by the province** through the facilitation of the UN-REDD Programme and its PMU, PPMU

So why do DRAP in Nepal

- DRAP is a comprehensive REDD+ plan at local level
- DRAP intends to harmonize with existing district plans
- DRAP works with entities that have potential for emission reduction to address D&D
- DRAP is a methodology that follows FPIC principles- participatory & inclusive
- It goes beyond forestry
- It has a monitoring system

ICFRE Initiatives on REDD+



Dr. T.P. Singh

Assistant Director-General
Biodiversity and Climate Change
Indian Council of Forestry Research and Education,
30th August 2016
Dehradun

REDD +

- Decision 1/CP.16 (2009) of **Cancun Agreement** defines Scope of REDD+
 - (a) Reducing emissions from deforestation
 - (b) Reducing emissions from forest degradation
 - (c) **Conservation of forest carbon stocks**
 - (d) **Sustainable management of forests**
 - (e) **Enhancement of forest carbon stocks**



Environmental and Social Safeguards to be ensured

- Finalized under **Paris Agreement** on Post 2020 Climate Change Scenario

Status of ICFRE REDD+ Projects

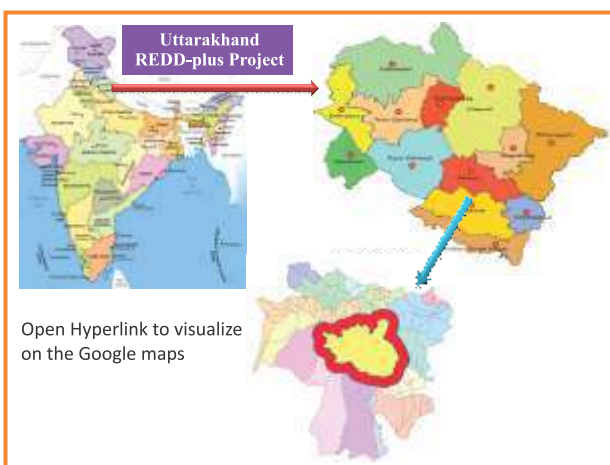
ICFRE is implementing two pilot projects

- Uttarakhand REDD+ by ICFRE
 - 60,000 Ha. in Nainital District
 - VCS and CCB Standards
 - Huge data generated – for Carbon and Safeguards
- Trans-boundary Himalayas ICFRE-ICIMOD (N-E)
 - International Project
 - South-south cooperation and capacity building
 - Focus on shifting cultivation and Bamboo promotion

ICFRE Project in Uttarakhand

The Project is implemented in 60,000 Ha. of *Nainital District* with funding from CAMPA, Uttarakhand Forest Department

Kosi Watershed – Kalsa Gola sub-watershed



Methodology for the Project

- From Voluntary market Standards
 - Verified Carbon Standard (VCS)
 - Carbon, Community and Biodiversity (CCB)
- VCS + CCB methodology followed
 - Captures both carbon and safeguards information
 - Credits fetch high value in C-market



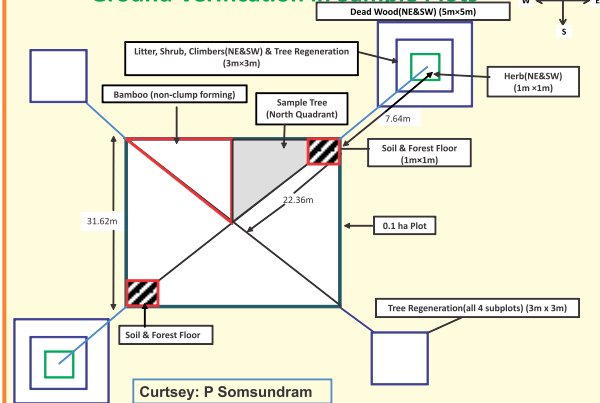
Specific Methodology within VCS

VCS - VM0006	Carbon accounting for Mosaic and landscape scale REDD Projects
CCB Standard	As a value addition to VCS Projects for ensuring social and biodiversity safeguards

LANDSAT Data used

Data/Task	VM0006
Remote Sensing imagery/resolution	≤ 30m
Remote Sensing/ imagery	Imagery from three time points used from the period 0-15 years prior to project start (2001, 2008 and 2015)

Ground Verification in Sample Plots



Carbon Stock Status in Project Area : Kalsa Gola Sub Watershed

Forest Type	Mean Carbon Stock Density (t/ha)	Area (ha)	Carbon Stock (tonnes)	No of plots
Banj Oak Forest	191.89	12,763.70	2,449,165.72	36
Himalayan Chir Pine Forest	160.85	26,096.26	4,197,480.63	73
Kharsu Oak Forest	210.65	1.38	290.70	2
Moist Deodar Forest	157.92	158.52	25,033.76	2
Moist Siwalik Sal Forest	248.30	1,849.02	459,116.20	7
Moist Temperate Deciduous Forest	230.91	116.41	26,879.75	3

Socio-Economic Survey at village Sheelalekh



Drivers of Degradation at Project Site

- Collection of fuelwood is for cooking and source of energy for heating during winter months.
- Fodder collection for animals.
- Cattle Grazing in the Forest.
- Fire
- Collection of Understorey vegetation for livestock bedding and manuring.
- Encroachment in the forest.
- Illegal felling.

Fuel wood Collection

Parameter	Winter Season Mean \pm Standard Error	Summer Season Mean \pm Standard Error
Quantity of Collection (Kg) / HH / Day	28.33 \pm 0.50	24.26 \pm 0.60
Time Spent (hr)	3.77 \pm 0.07	3.41 \pm 0.09
Distance Travelled (Km)	3.30 \pm 0.12	3.00 \pm 0.12



Collection of Fuelwood

Annual fuelwood consumption and carbon emission

Fuel wood Biomass consumption per HH/day	Total no. of HH in the project area	Estimated biomass consumption/ year in the project area (Million Tonnes)	Total carbon loss due to fuel wood burning/year
26.29kg	18458	26.29*18458 *365= 0.1771 Million Tonnes	0.1771*0.5 = 0.0885 Million Tonnes = 88,000 Tonnes / year = 1.5 Tonnes/ Ha/yr

Fodder Collection

Parameter	Winter Season	Summer Season
	Mean \pm Standard Error	Mean \pm Standard Error
Quantity of Collection (Kg) / HH	26 \pm 0.58	25.19 \pm 0.60
Time Spent (hr)	3.20 \pm 0.08	3.27 \pm 0.21
Distance Travelled (Km)	2.84 \pm 0.13	2.68 \pm 0.11



Logging

Lopping of Oak Tree

Leaf Litter collection

Parameters	Winter Season	Summer Season
	Mean \pm Standard Error	Mean \pm Standard Error
Quantity of Collection (Kg/HH)	22.22 \pm 0.59	21.23 \pm 0.63
Time Spent (hr/d)	2.69 \pm 0.07	2.97 \pm 0.08
Distance Travelled (Km/day)	2.62 \pm 0.09	2.67 \pm 0.10

Fuelwood + Fodder + Leaf Litter = Carbon Loss of around 4 Tonnes / Ha / year

Measures to Address the Drivers of Degradation

- Plantation of fodder grasses.
- *Pirul* collection contributes reduction in fire incidence.
- Small water reservoirs can be prepared to store the rain water.
- Check Dam construction to control the flow of water and soil erosion.
- Appropriate Tool/implements can be provided to Van Panchayats to control the fire occurrence.
- Improved Cook Stove and LPG can be provided to the community to reduce the usage of fuelwood hence addressing forest degradation.

Next Steps in Project

- Preparation of PDD
 - as per VCS and CCB Guidelines
- Registration of the Project
- Validation
- Capacity Building of Department and communities
- Actual Activities in the field

ICIMOD-ICFRE REDD+ Project

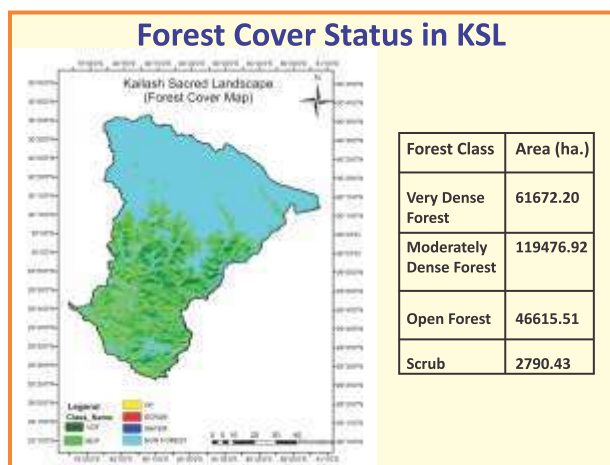
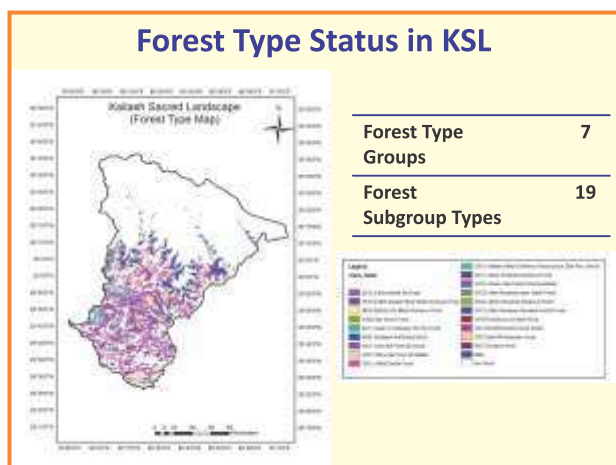
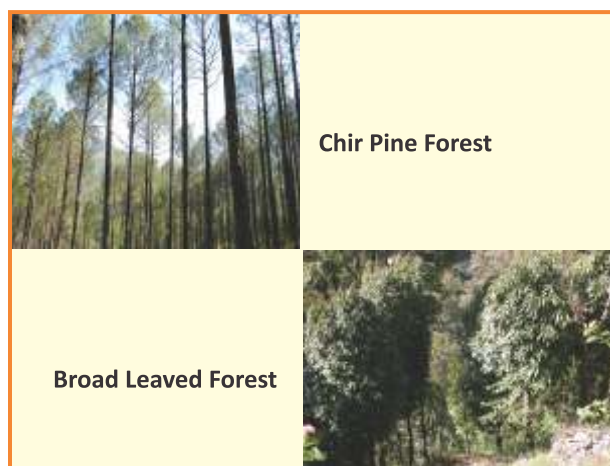
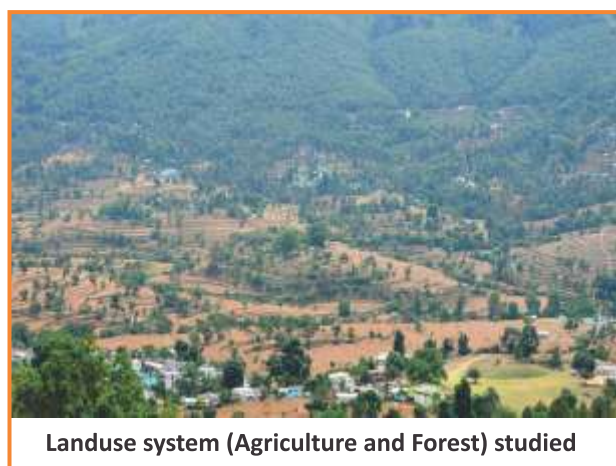
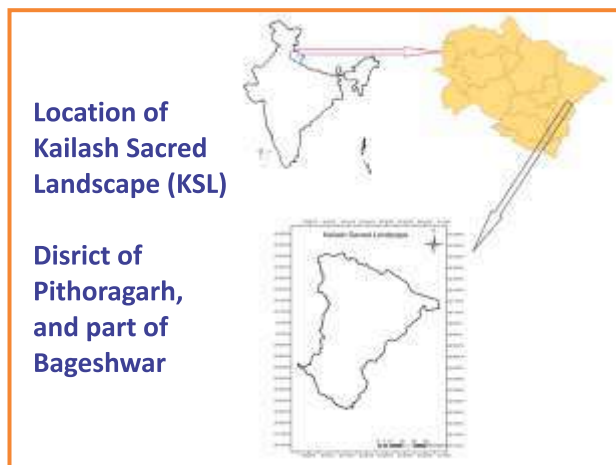
- Part of Trans-boundary REDD+ Programme of ICIMOD in 4 countries
- Contiguous with other three countries: Nepal, Bhutan and Myanmar
- Improve capacity on REDD+ understanding in N-E Indian Himalayas
- Activities specifically focused on Mizoram

Specific Project Objectives

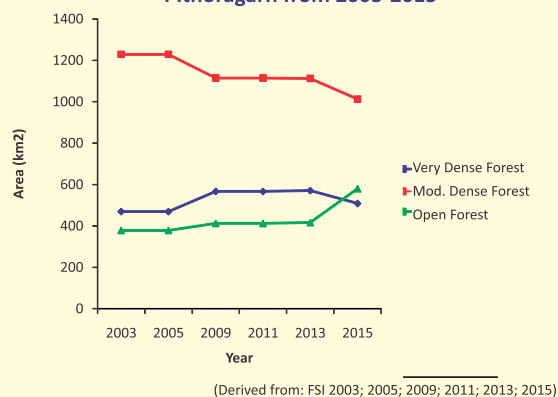
- Establishment of South-south cooperation
- Exchange of experience and mutual learning for other three countries
 - MRV, SIS, Reference Levels (Regional)
- Development of Methods for calculating, modelling and forecasting carbon sequestration
- Preparation for REDD+ Readiness in North-Eastern India

Activities completed so far

- Two side events at CoP-21 in Paris (Dec 2015)
- Inception Workshop at Aizawl (28-29 Jan.)
 - Preliminary Site selection in Mizoram
- Stock taking review to understand REDD+ implementation in country
- Scoping study of REDD+ in Kailash Landscape of Uttarakhand Himalayas



Change in area (km²) by each forest class wise in Pithoragarh from 2003-2015



Carbon Stock Estimation in KSL

Forest Type Major Group	Density	Carbon Stock (t/ha)	Total area forest cover wise	Total Carbon (tonnes)
Tropical Moist Deciduous Forest	VDF	99.95	1320.09	131942.64
	MDF	82.53	1090.01	89958.72
	OF	55.34	730.90	40448.08
Tropical Dry Deciduous Forest	VDF	167.53	3849.52	644909.55
	MDF	152.64	3507.37	535365.45
	OF	66.59	1530.11	101890.02
Subtropical Pine Forest	VDF	155.76	16902.47	2632729.16
	MDF	120.57	13083.79	1577512.57
	OF	91.56	9935.74	909716.09
Montane Moist Temperate Forest	VDF	172.83	60646.09	10481463.97
	MDF	138.34	48543.54	6715513.53
	OF	94.27	33079.37	3118391.94
Subalpine & Dry Temperate Forest	VDF	181.34	7899.72	1432534.92
	MDF	152.69	6651.64	1015638.57
	OF	103.52	4509.64	466838.34
Alpine Scrub	VDF	202.34	4.02	812.75
	MDF	84.37	1.67	141.31
	OF	65.91	1.31	86.24

Consultation at GBPNIHESD, Almora



Consultation with local community at Village Naukina, Pithoragarh



Driver of Deforestation and Forest Degradation

- Fuel wood Collection
- Grazing
- Forest Fires
- Litter Collection
- Encroachment and Illegal Felling
- Collection of Medicinal Plants
- Invasive Species



Fuel Wood Collection



Pine Needle (Pirul) Collection

Interventions/ Activities to address the drivers of Deforestation and Forest Degradation

- Improved Cook Stoves and Alternative Sources of Clean Energy.
- Grazing Control: Fodder Plantation
- Forest Fire Control: Participation of local youth
- Litter Collection: Encouragement of Vermicomposting
- Agricultural Practices: Improved variety, implements etc
- Cultivation of Medicinal Plants
- Eradication of Invasive Species
- Strengthening of *Van Panchayats*

Scoping Study submitted to ICIMOD



Activities planned till Dec '16

- Scoping study of promoting Bamboo plantation in addressing REDD+ Objectives (Mizoram)
 - Interface with National Bamboo Mission Project
- Provision of Solar Dryer for community based Turmeric grower SHGs
- Starting preparation of State REDD+ Action Plan for Mizoram and Uttarakhand
 - Experience of Uttarakhand REDD+ to be utilised

Activities planned contd..

- Development of Training Manuals
- Formation of REDD+ Working Group with members from all N-E States and Uttarakhand
- Side Event on REDD+ Trans-boundary Project in India Pavillion at CoP-22 in Marrakesh, Morocco
 - In association with ICIMOD

Conclusion

- REDD+ offers is an innovative way to mitigate climate change in post 2020 scenario
- India needs to finalize REDD+ Strategy
- Pilot Programmes are offering good, and they need to be synergized
- Capacity building of stakeholders holds the key to successful implementation at all levels



Thanks



Financial Mechanism for REDD+ and GCF

National REDD+ Strategy and Action Plan for India: Issues and Challenges At ICFRE Dehradun (30th August, 2016)

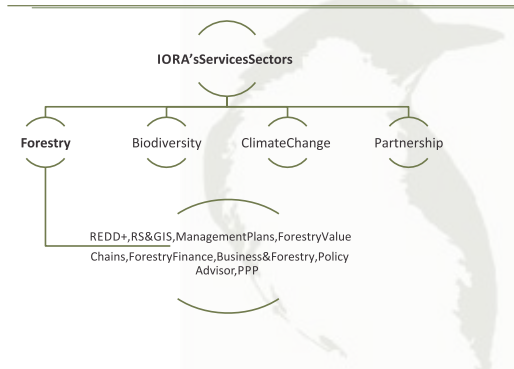
Swapan Mehra, CEO
IORA Ecological Solutions

Our Impact

- 1746 FOREST PERSONNEL TRAINED**
Improved land use management, remote sensing based analysis and forest carbon analysis
- 9.63 MILLION HECTARES COVERED**
by IORA's forest management projects
- \$ 1.5 MILLION RESOURCES LEVERAGED**
from public and private sources towards improvement in forest management and afforestation
- 5 NATIONAL LEVEL POLICIES**
Sanctioned Significantly by IORA's Contribution
- \$ 3.8 MILLION CARBON FINANCE GENERATED**
from global markets for India's sellers

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Our Services Sectors



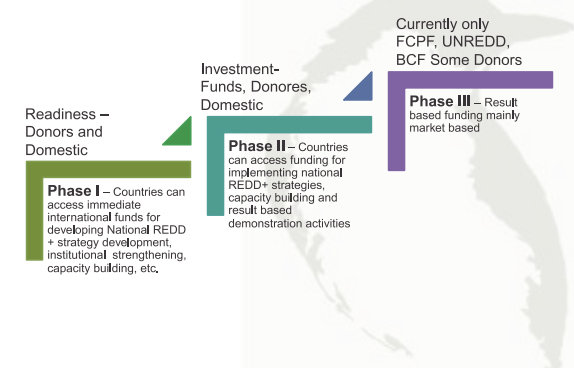
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IORAs REDD+ Activities

Project	Scope
Forest-PLUS	Develop 4 PREDD+ Project, MRV System, RS Protocols
Garohills REDD+	Developed Project concept
REDD+ Assessment in NE	Identify potential projects in all NE states in partnership with RCNAEB
REDD+ Project in Assam	Developing District level REDD+ Project in Assam
National REDD+ Reference Document and Policy	Co-authored by IORA
REDD+ Manual for Field Practitioners	Co-authored with IIFM and FSI
REDD+ Institutional Framework for Indonesia	Co-developed with UNORCID
REDD+ Feasibility assessment in Dodamarg, Maharashtra	Being carried out by IORA in partnership with WRCS and Maharashtra FD
New VCS REDD+ Methodology for India	Suited to Indian data sets (FSI, State data) and conditions

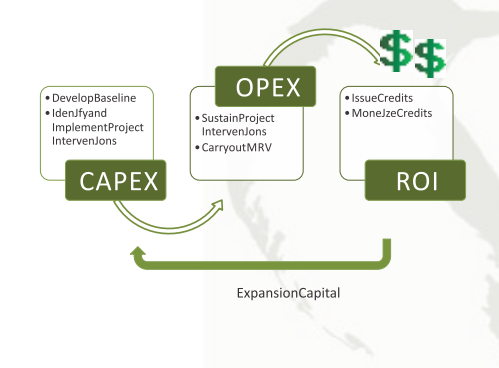
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Phased approach for REDD+ financing



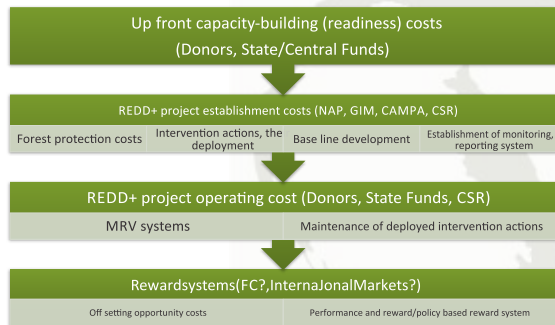
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REDD+ finance cycle



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Financing REDD+: India



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Major COP decision in REDD+ Financing Context

Copenhagen 2009 COP 15, REDD+ mechanism that would aid in mobilizing financial resources from developed countries

Cancun 2010 COP 16, GCF was established to be designated as an operating entity of the financial mechanism of the Convention under Article 11 and REDD+ supported

Durban 2011 COP 17, result based payment for developing countries was agreed

Doha 2012 COP 18, both market and non-market based financing for REDD+ was discussed

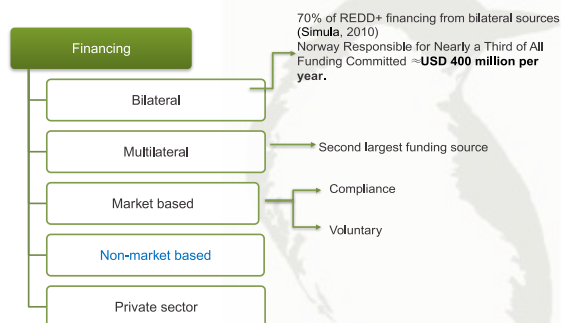
Warsaw 2013 COP 19, produced :
• funding under this instrument would be results-based
• reaffirms that REDD+ finance can come from public and private, bilateral and multilateral, and alternative sources,
• Scaling up the financial support

Paris 2015 COP 21, recognizes importance of adequate and predictable financial flow which shall be result based. Finance may come from public, private, bilateral, or multilateral sources. But no commitment to finance REDD+

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REDD+ Financing Sources



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Multilateral Funding

Funds	Administrating organization	Purpose	Geographical focus	Current Pledged funding
FCPF Readiness Fund	Funded by WB. Become operational in 2008	to build REDD strategies, MRV systems, and national baselines. Includes knowledge sharing among members in developing countries	All developing countries	369 million USD
FCPF Carbon Fund	Funded by WB. Become operational in 2011	To support only to the developing countries that have progressed towards REDD+ Readiness will be eligible	All developing countries	702 million USD
UN-REDD	UNEP, UNDP and FAO	to support development of national REDD+ Readiness in developing countries	All developing countries	271 million USD
BioCarbon Fund	Administered by WB. Contributing Participants: Germany, Norway, UK, US. Operational from 2013	reduced greenhouse gas emissions from the land use sector including REDD+	All developing countries	360 million USD

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Multilateral Funding

Forest Investment Program (FIP)	WB is the Trustee and Administering Unit. Implementing agencies are WB Group, the African Development Bank, the ADB, the EDB, and the Inter-American Development Bank. Established in 2009	To support developing countries' REDD efforts and promote sustainable forest management	All developing countries	639 million USD
Global Environment Facility (GEF) –	WB is the trustee, implementing agencies are UNDP, UNEP, IFAD, FAO, WB and others. Established in 1991	To help countries achieving UNFCCC objective	All developing countries	GEF 6 – 2014-18 = 431 million USD
Congo Basin Forest Fund	Established in 2008 and managed by African Development Bank	To tackle forest loss in Congo Basin	For Congo Basin	186 million USD
Green Climate Fund	UNFCCC. Governed by 24 members of the UNFCCC secretariat (from both developed and developing countries). Established in 2010, governing instrument adopted in 2011	To support developing countries in climate change mitigation and adaptation projects	All developing countries	10300 million USD

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Bilateral Funding

Donor	Multilateral agencies	Activities	Geographical focus	Current funding	Targeted Phase
Norwegian Agency for Development Cooperation	FCPF, FIP, UN-REDD, Congo Basin Forest Fund (CBFF) and GEF	REDD+	Africa, Asia-Pacific, Latin America and Middle East	400 million USD every year until 2020	I, II and III
Australian Aid	FCPF, FIP, GEF	Reduce tropical deforestation and promote trade in responsibly harvested and manufactured wood products	Asia-Pacific region	6 million USD, 2015 – 18	I and II
Canadian International Development Agency	FCPF and GEF	MRV and institutional capacity building and knowledge sharing	Developing countries	--	I
Danish Development Cooperation	FIP, FCPF, UNREDD and GEF (include 30% of Danish Aid)	Help increase in forest cover and reduce forest loss – REDD, JFM, etc	Africa Asia Latin America The Middle East The EU's neighbors	--	I

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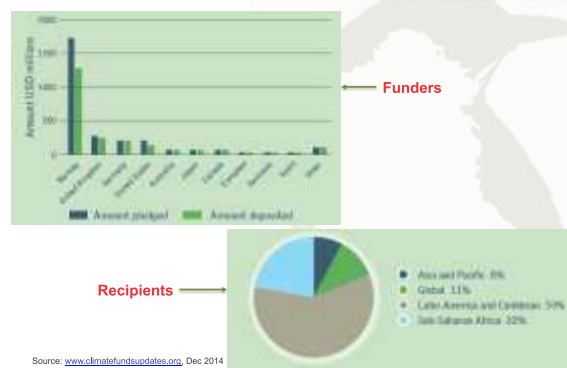
Bilateral Funding

Donor	Multilateral agencies	Activities	Geographical focus	Current funding	Targeted Phase
USAID	FCPF, FIP and GEF	Forestry activities included wide range of readiness activities throughout the world	Asia, Oceania, Africa, Europe, Latin America and Caribbean and Middle East	USD 800 million annually by 2020	I and II
Swedish International Development Cooperation Agency (SIDA)	GEF	forest governance, REDD readiness, land use planning	Asia, Africa, Europe and Latin America	Insufficient public data	I
Japan International Cooperation Agency	FCPF, FIP and GEF	Capacity building in MRV methods and technology exchange	Africa, Asia, Latin America, Middle East, Europe and Oceania	10600 million USD in Climate Financing for 2020 for developing countries	I
Germany (KfW, BMU, GIZ and BMZ)	FCPF and GEF	Wide range of activities including technical forestry assistance and institutional capacity building	Africa, Asia, North Central & South America, Europe and Germany		I

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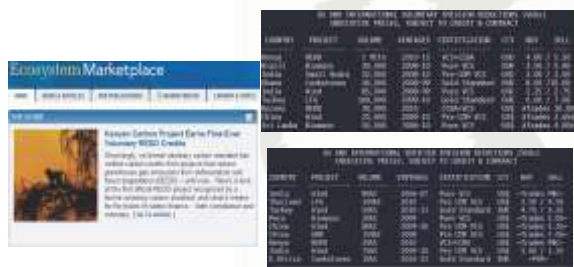
Major REDD+ funding countries and regions receiving REDD+ funds



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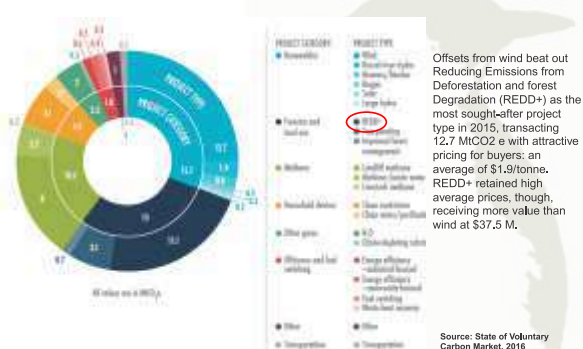
Voluntary REDD+ "Kickstarted"



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Voluntary Market Transacted Volume by Project Type



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GCF

Background

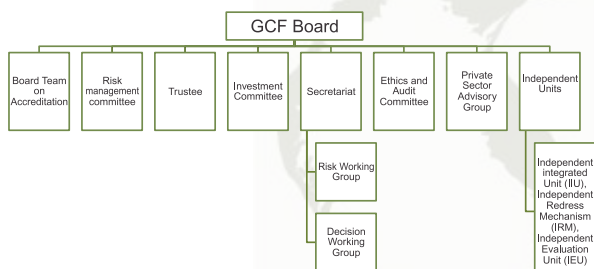
- A long term finance source established under UNFCCC in COP 16, Cancun.
- Aims developing low-emission and climate resilient pathways.
- Supports projects, programs, policies on CC adaptation and mitigation in developing countries that are party to the UNFCCC.
- Accountable to and function under the guidance of the COP.
- A legally independent body hosted by South Korea.
- WB serves as an interim trustee and fund is governed by the GCF Board (24 members both from developing and developed countries)
- Funds maintain 50:50 balance between mitigation and adaptation
- COP 21 at Paris recognizes GCF as key provider of predictable financial resources in the post 2020.
- GCF could be important source for NDC implementation.
- HQ in Songdo, South Korea.

1 - Mr. Dinesh Sharma (India), Department of Economic Affairs, Ministry of Finance, represent Asia Pacific is one of the board member of the GCF

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Structure of GCF



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The GCF Fund criteria

Impact potential	The proposed project/program shall contribute to the fund's objective and impact area
Paradigm shift potential	Degree to which the proposed activity can catalyze impact beyond a one-off project or programme investment
Sustainable development potential	Social, environmental and economic benefit for long term benefit
Responsive to recipient	Vulnerability and financing needs of the beneficiary country and population in the target group
Promote country ownership	Beneficiary country ownership of / capacity to implement a funded project or programme (policies, climate strategies and institutions)
Efficiency and effectiveness	Economic / financial soundness of the programme / project

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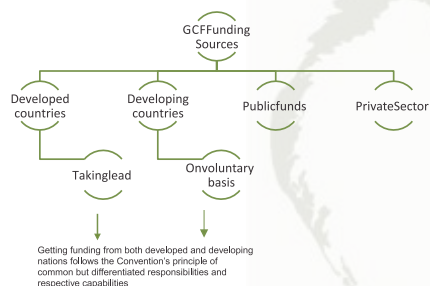
Condition and Eligibility for GCF

- Recipient countries can submit proposal only through NDA
- Access to GCF funding can be through accredited national, sub-national and regional implementing entities and any other organizations or intermediaries
 - NABARD is the only accredited entity of GCF in India
- Entities seeking accreditation shall meet funds fiduciary and environmental standards
- GCF funds can also be accessed through multilateral implementing entities
- All developing countries are eligible to receive GCF funds
- In case of REDD+, GCF recognizes the value of incorporating results based financing

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Sources of Funding for GCF



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Some common questions on how funding is decided in GCF

How are proposals developed	Any organization can come up with an idea, but the proposal must be submitted with an accredited entity of GCF
What activities are funded	At least meet one of the fund priority area
How a proposal can be submitted	Accredited entities submit the proposals which must have the no objection certificate from the NDA
Who approve the proposals	GCF Board
When one can generate proposal	Anytime

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Thank You

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Developing Reference Levels for REDD+



REDD+ Unit
Forest Survey of India

Forest Reference Emission Levels or Forest Reference Levels

- ❖ No explicit difference between FREL and FRL
- ❖ Common understanding is that a FREL includes only emissions, and a FRL includes removals as well
- ❖ Thus comprising activities that enhance forest carbon stocks.
- ❖ The Conference of Parties (COP) FREL/FRLs are: "...benchmarks for assessing each country's performance in implementing [REDD+] activities" (decision 12/CP. 17),

Key Elements of REDD+ and UNFCCC Decisions



Purpose of forest reference levels

- ❖ It is relevant to assess country **performance** in contributing to mitigation of climate change through **actions related to their forests**.
- ❖ Results-based **payments** require an assessed forest reference level
(Decision 9/CP.19, paragraph 3 and Decision 13/CP.19, paragraph 2)
- ❖ Country may wish to assess progress on the outcomes of the **policies and measures** taken to mitigate climate change in the forestry sector for domestic reasons
(UNFCCC does not require)

Guidance on FREL/FRL construction

- ❖ Be expressed in tonnes of carbon dioxide equivalent per year (Decision 12/CP.17, paragraph 7).
- ❖ Maintain consistency with national **GHG inventories** (Decision 12/CP.17, paragraph 8). In terms of
 - ❖ forest definition,
 - ❖ sources of data used (for the activity and the emission factors) and
 - ❖ C pools/GHG gases included for construction of FRLs.
- ❖ using the IPCC guidance and guidelines for National GHG Inventories as a basis for estimating forest-related GHG emissions by sources and removals by sinks.

Guidance on FREL/FRL construction

- ❖ Be **established transparently**, providing information and rationale of FRL development.
- ❖ Allow for a **step-wise approach** (Decision 12/CP.17, paragraph 10).
 - ❖ The decision enables to **improve FRLs over time** by incorporating
 - ❖ better data,
 - ❖ improved methodologies and,
 - ❖ where appropriate, additional pools.
 - ❖ It also suggests countries should update their FRLs periodically
- ❖ Allow for the use of sub-national FRLs as an interim measure (Decision 12/CP.17, paragraph 11).

FRL information required for UNFCCC submission

- ❖ Once constructed, countries may, on a **voluntary basis**, submit their proposed FRLs to the UNFCCC (Decision 12/CP.17)
- ❖ Information used by Parties in constructing a FRL, including historical data;
- ❖ Transparent, complete, consistent and accurate information, including
 - ❖ methodological information,
 - ❖ a description of
 - ❖ data sets,
 - ❖ approaches, methods, models,
 - ❖ the assumptions used,
 - ❖ descriptions of relevant policies and plans, and
 - ❖ Descriptions of **changes** from previously submitted information;

FRL information required for UNFCCC submission

- ❖ Pools, gases, and activities included in the FRLs
- ❖ The definition of forest used in the construction of the FRLs.

Technical assessment of FREL/FRLs

- ❖ To assess the degree to which the information provided meets the UNFCCC guidelines,
- ❖ The scope of the technical assessment - data, methodologies and procedures,
- ❖ Carried out at Bonn by 2 LULUCF Experts one each from Developing and Developed country.

Key Elements of FRLs

- ❖ **Forest definition:** The forest definition used for the construction of the FRL;
- ❖ **Data:** How **historical data** (Natcoms) taken into account;
- ❖ **Scope:** REDD+ **activities**, pools and gases included FRL;
- ❖ **FRL calculation methodology:** information and rationale on the development of their FRLs. This includes details on national circumstances and how these are considered if adjustments are made;
- ❖ **Scale:** The area covered by the FRL, with due consideration to the development of sub-national FRLs as an interim measure

Forest definition

- ❖ Country has to provide the definition of forest used.
- ❖ If different from the definition of forest used in the national GHG inventory (consequence of different definition?)
- ❖ Why and how the definition used in FRLs was chosen.
- ❖ IPCC guidance provides a description for forest land which states it includes "**all land with woody vegetation consistent with thresholds used to define forest land**"
- ❖ Thresholds of description of forest land concern:
 - ❖ Minimum crown cover,
 - ❖ Minimum tree height,
 - ❖ Minimum area.

Scope of Activities, Pools and Gases to be included

Activities	Pools	Gases
<ul style="list-style-type: none"> • Reducing emissions from deforestation • Reducing emissions from forest degradation • Conservation of forest carbon stocks • Sustainable management of forests • Enhancement of forest carbon stocks 	<ul style="list-style-type: none"> • Above ground Biomass • Below-ground Biomass • Soil • Litter • Dead wood 	<ul style="list-style-type: none"> • CO₂

Scope guiding questions

- ❖ Which REDD+ activities contribute most for mitigation?
- ❖ Are increased emissions expected from **omitted activities** in the future?
- ❖ Is the omission of pool/gas/activity conservative, i.e. are emissions from the omitted pool/gas/activity expected to reduce with REDD+ implementation?
- ❖ Are there other national objectives that favor the inclusion of certain activities, pools and gases that are not key contributors to emission in the sector
- ❖ Can estimates of accounted mitigation for these significant REDD+ activities be produced with reasonable accuracy?
- ❖ Which carbon pools and gases are subjected to significant change in these activities?
- ❖ Can estimates for these significant pools and gases be produced with a reasonable accuracy?

Basic Input information requirement

GHG inventories require information

- **Activity data** on extent of an emission or removal category
- **Emission factors** GHG per unit of area (removal of CO₂ per ha of added forest area)

Note: carbon stock is measured in metric tons of carbon (generally, t C ha⁻¹)

Approaches for activity data

Three different approaches are given in the IPCC GPG

Approach1: Total area of each land-use category but no information on conversions (only net changes)

Approach2: Tracking of conversions between land-use categories (only between 2 points in time)

Approach3: Spatially explicit tracking of land-use conversions over time

Preparing for REDD+ ? only Approach 3

Available Activity data

1. Forest Cover Map for the years
 - a. 1994
 - b. 2000
 - c. 2002
 - d. 2004
 - e. 2008
2. Forest Type Maps of above years.
3. What is to be done to improve FCMs & FTMs
 - a. Improve by incorporating changes due to Errors identified during successive Cycles of FCM

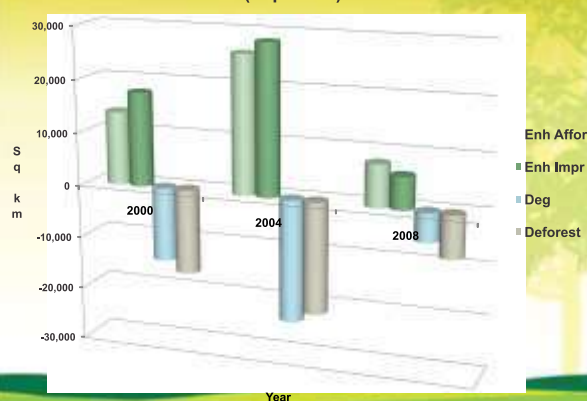
Land Transition Matrix (FSI's CHANGE MATRIX)

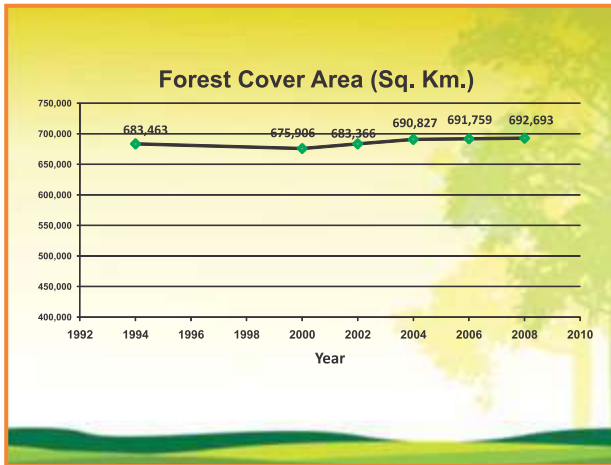
To (2010)		IPCC category: Forest land			Grassland	Shrubland	Wetlands	Settlements	Other land	Total (2000)
From (2000)	High carbon content forest	Medium carbon content forest	Low carbon content forest							
	High carbon content forest	Medium carbon content forest	Low carbon content forest							
	High carbon content forest	Medium carbon content forest	Low carbon content forest							
	High carbon content forest	Medium carbon content forest	Low carbon content forest							
IPCC category: Forest land	High carbon content forest	1300	100	10	0	0	0	0	0	1410
	Medium carbon content forest	0	700	10	0	0	0	0	0	710
	Low carbon content forest	0	0	2000	0	0	0	0	0	2000
	Grassland	0	0	0	1000	100	10	0	0	1110
Shrubland	0	0	0	0	800	0	0	0	800	
Wetlands	0	0	0	0	0	400	0	0	400	
Settlements	0	0	0	0	0	0	80	0	80	
Other land	0	0	0	0	0	0	0	70	70	
Total (2010)		1300	800	2010	1000	900	90	80	70	3380

Forest Cover Change Matrix (km²) depicts

Class	VDF	MDF	OF	Scrub	Non Forest	Total Forest Cover 2011
Very Dense Forest	83,065	255	45	0	106	83,471
Moderately Dense Forest	433	317,010	1786	2	1,505	320,736
Open Forest	4	820	285,084	60	1,852	287,820
Scrub	0	3	606	40,871	696	42,177
Non Forest	0	657	8,130	450	2543,823	2553,059
Total Forest Cover 2013	83,502	318,745	295,651	41,383	2547,982	GA=3287,263
Net change	31	-1,991	7831	-793	-5078	
Degradation	Deforestation	Enhancement	Afforestation			

Activity-wise Annual change in forest cover (Improved)





Tiers that are used for the emission factors

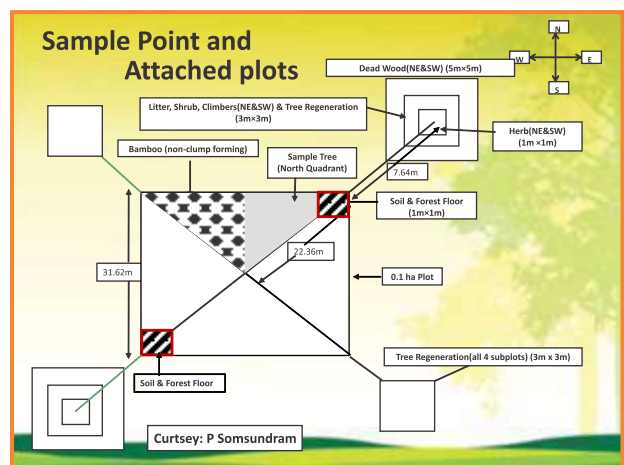
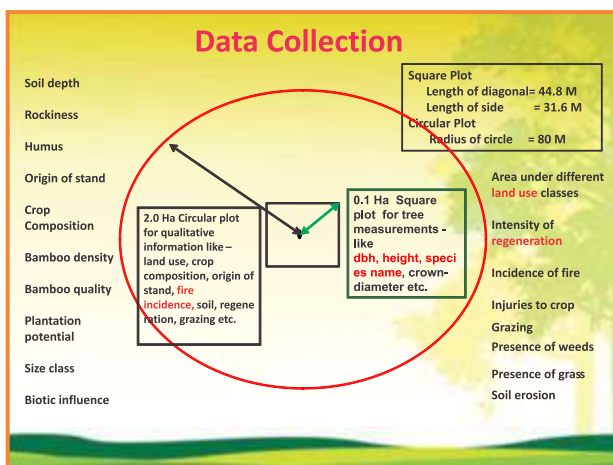
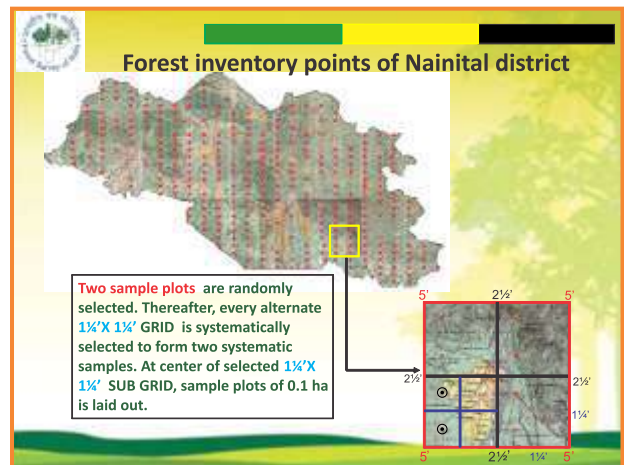
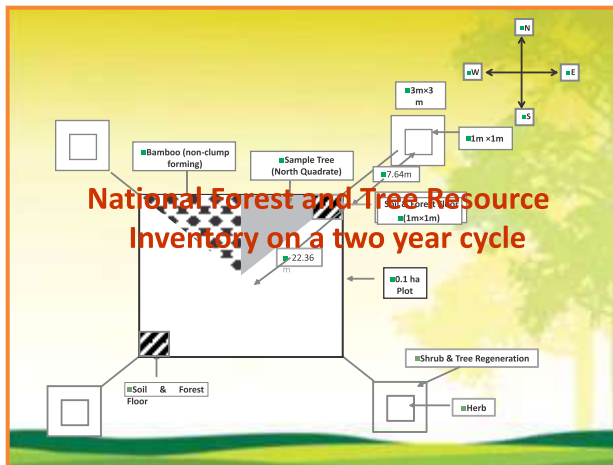
Tiers for emission factors: change in Carbon stocks

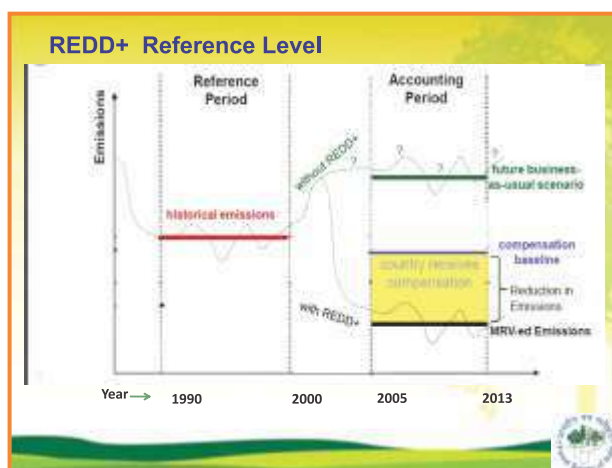
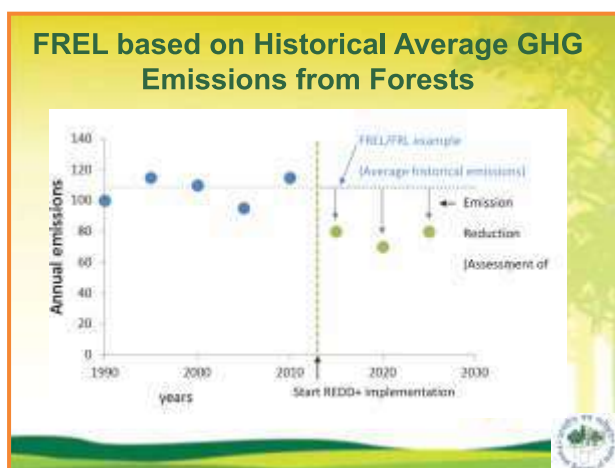
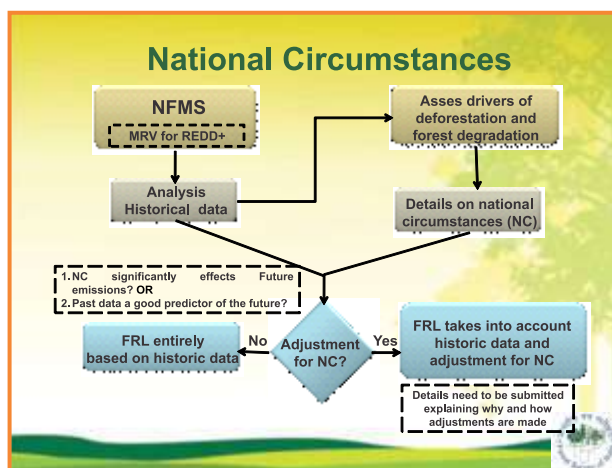
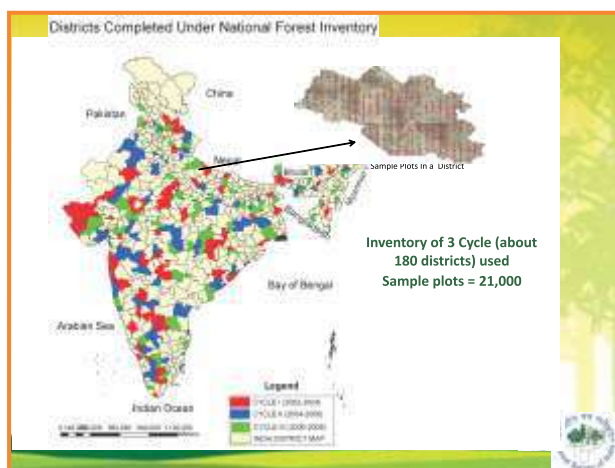
Tiers 1: IPCC default values

Tiers 2: Country specific data for key factors

Tiers 3: Detailed national inventory for key C stocks, repeated measurement for key stocks through time or modeling

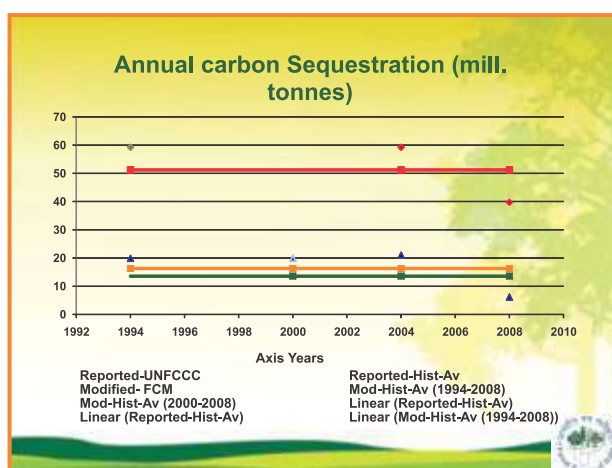
Preparing for REDD+? Only tier 3 may play.



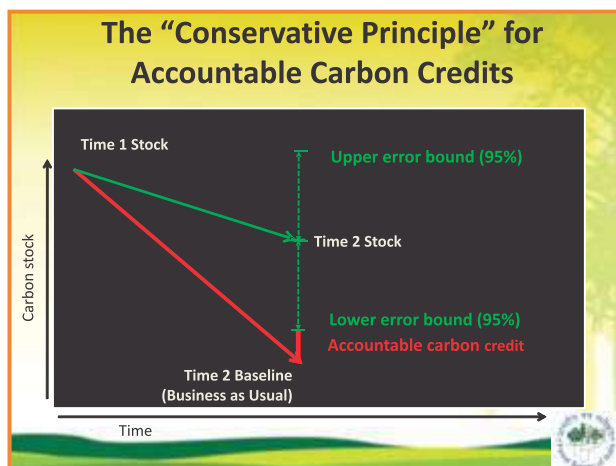
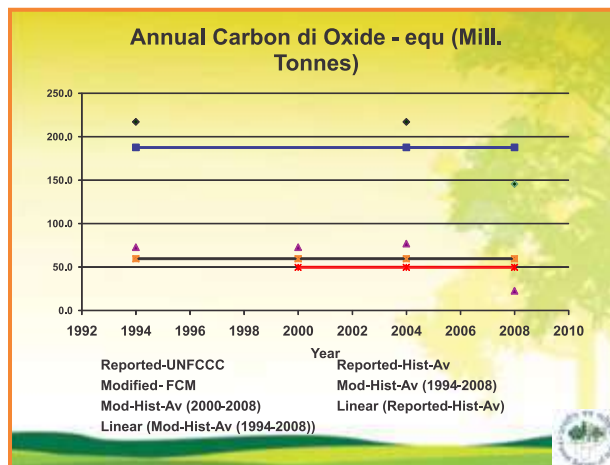


Annual Carbon Sequestration (Mill. Tonnes)

Year	Reported UNFCCC	Reported Hist-Av	Modified FCM	Mod - Hist-Av (1994 - 2008)	Mod - Hist-Av (2000 - 2008)
1994	59.2	51.2	19.8	16.2	-
2000	-	-	19.8	16.2	13.6
2004	59.2	51.2	21.0	16.2	13.6
2008	39.7	51.2	6.2	16.2	13.6



Annual Carbon di Oxide - equivalent (Mill. Tonnes)					
Year	Reported-UNFCCC	Reported-Hist-Av	Modified-FCM	Mod-Hist-Av (1994-2008)	Mod-Hist-Av (2000-2008)
1994	217.1	187.6	72.7	59.6	-
2000	-	-	72.7	59.6	49.7
2004	217.1	187.6	76.8	59.6	49.7
2008	145.6	187.6	22.6	59.6	49.7



REDD+ : the Meghalaya Experience



Dr Subhash Ashutosh
Addl PCCF (CC, R&T)
Meghalaya

30th Aug/16

REDD +

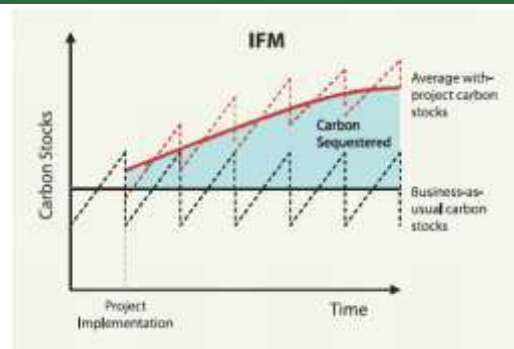
- is a mitigation mechanism involving Forestry Sector
- works on the principle of performance based financial incentive
- works in the project mode
- project has to demonstrate that there is additional carbon mitigation than the business as usual (BAU)
 - by additional investment and effort additional mitigation of carbon is achieved and the project is economically viable – additionality
- has evolved since 2005 (COP 11) under UNFCCC
- REDD+ under UNFCCC is still under negotiation but is being transacted in voluntary market since 2006
- "Warsaw Framework on REDD-plus" at COP19 in December 2013 is considered as major breakthrough towards operationalising performance based finance for REDD+

REDD+ (Reduction of Emission from Deforestation and Degradation +)

Five Components of REDD +

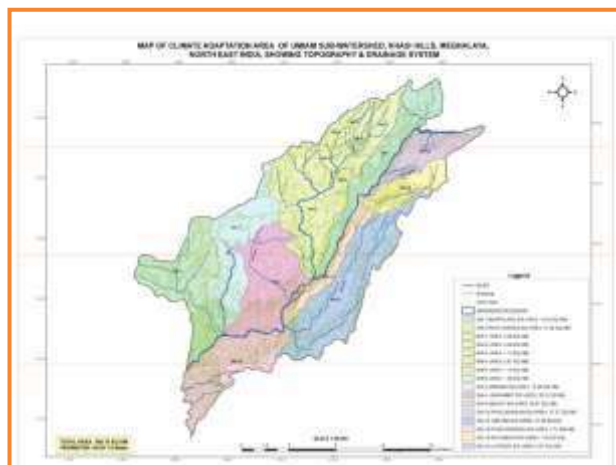
- reducing emission from deforestation
- reducing emission from forest degradation
- conservation of forest carbon stocks
- sustainable management of forests
- enhancement of forest carbon stocks

Reference Level: Sustainable Management of Forests



UMIAM SUB-WATERSHED REDD+ PROJECT, MEGHALAYA, INDIA





Land Cover Types

LAND COVER	AREA 2010 (ha)
Dense forest	9,270
Open forest	5,947
Barren or fallow	6,330
Agriculture	4,777
Other (shadow/water/no data)	814
Total Area	27,139

Local tree species – Khasi pine, *Q. griffithi* and Chestnut

Project Overview

Total Project Area = 17,052 ha

- Total Forest Cover = 8106 ha, of which 3652 ha is Dense forest and 4454 ha is Open forest
- The Net CO₂ additionality per year on account of Avoided Deforestation and Degradation and Afforestation in the Project Area works out as under:

- Gross 27,246 mt. CO₂

Reduction at 50% level of Gross	16,348 mt. CO ₂
Subtract Leakage 30%	4994 mt. CO ₂
Net CO ₂	11,444 mt. CO ₂

Project Design Process

- The time line of the processes that influenced the design activities stipulated in the Project were as under:

2002 – 2004: Project Identification Phase – Social Appraisal through Intensive Case Studies of selected areas in all the North Eastern States. Formation of a Community Forestry Working Group for North East India and the Selection of 2 villages in Hima Mawphlang, East Khasi Hills for Payment for Environmental Services (PES) Pilot Project Implementation.

2005 - 2006: Project Design Phase – Based on dialogue with Indigenous Inhabitants, the main drivers of deforestation were identified and mitigation activities agreed upon in a Conservation Resolution adopted by the Community members.

2007 – 2009: Project Implementation Phase – Based on the Identified Drivers of Deforestation and degradation and required Mitigation Activities, a Forest Landscape Restoration Scheme (FLRS) was drawn up for implementation in Lyngkien Sunei and Lyngkien Ramkhang villages of Hima Mawphlang. The Project covered an area of 1198.64 ha.

2010 - : Data collection and preparation of a Draft Khasi Hills Community Forestry REDD Project – Search for Early Implementation Financing.

The main Drivers of Deforestation and Degradation and Mitigating measures undertaken to protect forests and biodiversity:

- | Main Drivers | Mitigating Measures |
|---|--|
| <ul style="list-style-type: none"> Forest Fires Fuelwood collection Quarrying Grazing Erosion & loss of biomass Destruction of endangered species habitat | <ul style="list-style-type: none"> FireLines/Watchers Fuel efficient stoves Total ban Animal exchange & Stall feeding Vegetative check dams & afforestation Rehabilitation & protection of habitats of rare-orchids & amphibians |

Assisted Natural Regeneration



BEFORE (2007)

AFTER (2009)

Artificially Created Amphibian Habitat



Community training, project technician start writing Plan Vivo with community and evaluating their viability



Project Activities

contd...

- REDD
- Forest fire control (*21 km fire line & fire watchers*)
- Sustainable firewood (*Fuelwood plantation on periphery*)
- Regulation of grazing (*Shifting to pigs & broilers*)
- Agricultural containment (*Organic cultivation & Orchards*)
- Alternatives to charcoal making (*Alternate livelihoods*)
- ANR
- Advanced closure (*Initial phase-absolute protection*)
 - Fire
 - Grazing
 - Fuelwood collection
- ANR treatment (*Second phase*)
 - Weeding, thinning & enrichment planting

Project Timelines

- Pilot activity – 2006-2010 (*For GS assessment & estimating trends of degradation*)
- Project design & preparation – 2010-2012
- Ist implementation phase – 2012-2016
- IInd implementation phase – 2017-2021
- REDD base line – *Status of C-pools in 2010 and trends of degradation as per BAU.*
- Project scenario – *Reduced degradation & ANR*
- C-Pools (*for estimating carbon benefits*)
 - Above Ground Biomass

Annual REDD and ANR Benefits

(Difference between base line & project scenario)

YEAR	REDD BENEFIT (TCO2E)	ANR BENEFIT (TCO2E)	TOTAL (TCO2E)
2012	19,767	2,038	21,805
2013	20,364	6,114	26,479
2014	20,908	12,228	33,137
2015	21,404	20,381	41,785
2016	21,857	30,571	52,428
2017	22,273	41,928	64,201
2018	22,656	54,451	77,107
2019	23,010	68,140	91,150
2020	23,340	82,996	106,336
2021	23,650	99,018	122,668

REDD-plus Project Benefits

- 1st certification in 2013 – 21,805 tCO2 C-certificates issued
- By 2013 end, 5193 tCO2 sold @US\$6-7/tCO2
- Federation received US\$ 25,947
- Remaining certificates are being sold
- "Umiyam Watershed Trust Fund" being established
- C-revenue utilized in
 - Project management & monitoring
 - Awareness raising
 - Establishment of 21 community nurseries
 - Support to Women micro-finance groups & farmer's clubs
 - Forest restoration activities

REDD+ Pilot Project at Umket Raid

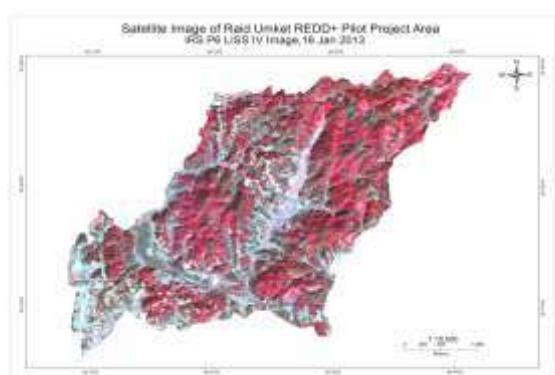
Salient Features

- A project of CO₂ mitigation by sustainable management of forests involving communities in participatory approach
- Performance linked financial Incentive in the form of carbon credits
- Determination of carbon credits by assessing net increase in forest carbon (following IPCC framework of forest carbon accounting)
- Integrated approach of sustainable natural resource management and livelihood promotion
- Project Design Document (PDD) based on scientific methodologies involving use of remote sensing and GIS based resource assessment and participatory rural appraisal (PRA)

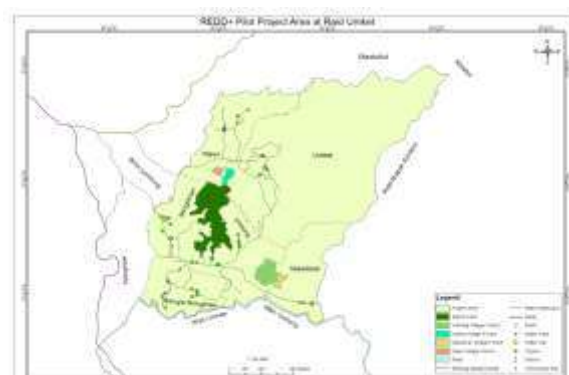
Contd

- under the funding support from State Government (TFC)
- initiated and steered by the Forest Department
- activities supported under the project
- first payment of carbon credits from the project itself
- after measurement and verification
- after preparing the PDD, Plan Vivo and other Voluntary Carbon organizations would be approached for registry
- based on the standards/methodology of the organisation, the PDD will be accordingly modified (already in talk with CFI)

Raid Umket



Map Showing Community Forests



• Area

Total Project Area in Raid Umket - 1089.83 Ha

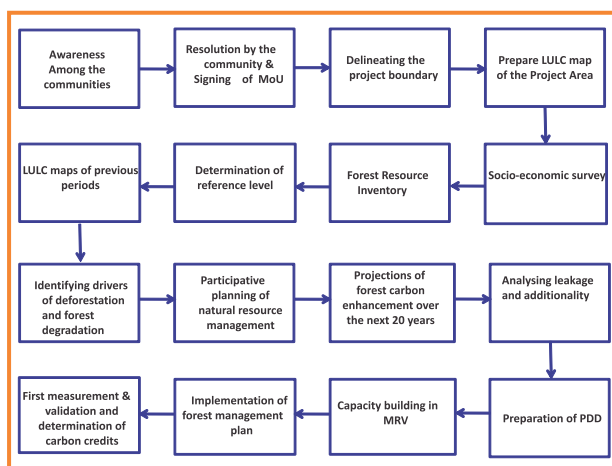
• Forest Area (Community Owned)

Village and Community Forest	Area (in Ha)
Raid (community) Forest	39.614
Umtung Village Forest	10.417
Umket Village Forest	2.634
Mawdwar Village Forest-	2.174
Palwi Village Forest-	1.421
Total Area	56.26

- Area of Private Forest - 759.49 Ha

Steps

- creating awareness about REDD+ in the community
- resolution, signing of MoU between SFD & the community
- creating a project boundary
- preparation of Land Use Land Cover map of the village – baseline
- LULC maps of previous periods
- determination of reference level
- Forest Resource Inventory
- forest carbon assessment
- socio-economic survey
- identifying drivers of deforestation and forest degradation
- participative planning of natural resource management
 - addressing livelihood issues
 - addressing drivers of deforestation and forest degradation
 - identifying actions under improved forest management
- projections of forest carbon enhancement over the next 20 years
- analysing leakage and additionality
- preparation of PDD
- implementation of forest management plan
- capacity building in MRV
- first measurement and validation



Approach for Forest Carbon Assessment and Projection

- using stratified random sampling - forest inventory design for forest growing stock assessment
- selection of carbon pools
 - above ground biomass
 - below ground biomass
- using forest type specific biomass expansion factors (BEF) for assessing other components of biomass
- calculating forest carbon in the project area
- using tree growth equations, Von Montel formula and expert knowledge for making projections for growth of biomass and forest carbon in selected pools for 20 years

Forest Management Interventions

- Management prior to Project
 - Jhum practice was prevalent
 - Unsustainable collection of firewood
 - Frequent Forest fire
 - Unauthorised cutting of trees for Charcoal Making
 - No planting activity
- Forest Management under the project
 - Improving stocking of forest by planting in blank areas
 - Assisted Natural Regeneration
 - Fire protection
 - Prevention of unauthorized removal of trees
 - Eradication of invasive species
 - Bamboo plantation

Annual Increment in Forest Carbon

Forest Management Intervention	Estimated Forest Carbon Enhancement per annum (tonnes/year)
Natural Growth under SFM	117
Reduced fuel wood collection	288
Fire Protection	72
Tree Plantation- improved stocking	87
Bamboo Plantation	79
ANR	44
Total	687

Other interventions



- Smokeless Chullahs
- Livelihood and enterprise promotion
 - Apiculture
 - Multipurpose reservoir
 - Sericulture
 - Eco tourism
 - Community nursery



Thank You

ICFRE-ICIMOD Workshop: 30 August 2016

Draft National REDD+ Policy and Strategy: Gap analysis

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Where do we stand in terms of REDD+ implementation at national level?

1. National strategy or Action Plan: Only draft stage for last two years
2. Safeguard Information System (SIS) ???
3. Reference Level (REL/RL): FSI developed not yet finalised
4. National Forest Monitoring system: FSI but needs to be prepared in accordance with UNFCCC guidelines

Modalities for forest reference emission levels and forest reference levels (REL/RL)

forest reference emission levels and/or forest reference levels expressed in **tonnes of CO₂ eq per year**, are benchmarks for assessing each country's performance in implementing the REDD+ activities

Parties to submit information and rationale on the development of their forest RL including details of national circumstances

Countries that submitted a proposed forest reference emission level and/or forest reference level

- | | |
|--------------|---------------|
| 1. Brazil | 2. Chile |
| 3. Colombia | 4. Costa Rica |
| 5. Congo | 6. Ecuador |
| 7. Ethiopia | 8. Guyana |
| 9. Indonesia | 10. Malaysia |
| 11. Mexico | 12. Paraguay |
| 13. Peru | 14. Viet Nam |
| 15. Zambia | |

Submission of safeguard Information System

Item	Actions
Timing and frequency of submission of summary of information on how Safeguards are addressed and respected (Decision 12/CP.19)	<p>(i) Parties should provide a summary of information on how all of the safeguards are being addressed and respected throughout the implementation of the REDD+ activities.</p> <p>(ii) The information to be provided periodically and be included in NATCOM, or communication channels agreed by the COP.</p> <p>(iii) Parties should start providing the summary of information in their NATCOM or other communication channel after the start of the of REDD+</p>

Technical assessment of Reference level

Item	Actions
Guidance and procedure for technical assessment of Reference Emission levels/ Reference Levels submitted by Parties (Decision 13/CP.19)	<p>UNFCCC Secretariat to prepare a synthesis report on the technical assessment process</p> <p>Parties and relevant international organizations were invited to support capacity-building in relation to the development and assessment of forest reference emission levels and/or forest reference levels.</p>

Addressing drivers of deforestation and forest degradation

Addressing drivers of deforestation and forest degradation (Decision 15/CP.19)	The COP, encourages parties, organizations and the private sector to take action to reduce the drivers of deforestation and forest degradation, and to continue their work to address the drivers of deforestation and forest degradation and share the results of their work
--	---

- Preamble:
 - REDD+ a brief historical perspective (Up to Warsaw 2013)
 - India and REDD+:
 - State of forests:
 - Livelihoods and sustenance from forests:
 - Scope of forests for mitigation of Climate Change
 - 3.2 Present Policy Framework and REDD+
 - 3.3 Current State of REDD+ readiness: (Poorly drafted)
 - 3.4 Towards implementing REDD+: challenges for implementing REDD+ on the ground, building technical capacities for MRV, institutional coordination, safeguards, financing and robust institutional mechanism and ensuring effective people's involvement etc.
- Public and private funding including Program/ Project based approach and a possible market based mechanism in the future after establishing a robust readiness phase. Advantage in view of scientific and technical capacity and institutional strength India has strong forest conservation policies robust remote sensing

4. Objectives of National REDD+ Policy: (A very long list of objectives, too broad) The Policy which will apply to all types of forests areas irrespective of ownerships, aims at reducing loss of forest carbon by addressing drivers of forest degradation and arresting deforestation are as under:
- to create REDD+ architecture at National and Sub-National levels
 - to develop an appropriate REDD+ strategy and implementation frameworks
 - to develop a national REL/RL
 - Institutional capacity for a robust and transparent National Forest Carbon Accounting
 - improving and enhancing supply of forest products and ecological and environmental services,
 - incentivize local communities for their role in conservation and safeguard their rights and interests
 - appropriate mechanism for channelizing REDD+ funding from various sources.....
 - strengthen coordination among sectors and stakeholders
 - emphasis on achieving various thematic elements of SMF and help in developing action plans to address the drivers of deforestation and forest degradation, afforestation of degraded areas, adequate protection measures, forest governance and gender considerations etc. while implementing the REDD+ programmes,
 - provide adequate technical and financial resources to implement various REDD+ phases
 - to build resilience and adaptation to projected climate change impacts to sustain the carbon sinks under REDD+ and to ensure conservation of biodiversity and ecosystem services.

National REDD+ Strategy:

The REDD+ Strategy guided by the National REDD+ Policy

The important programmes areas identified for REDD+ implementation are as under:

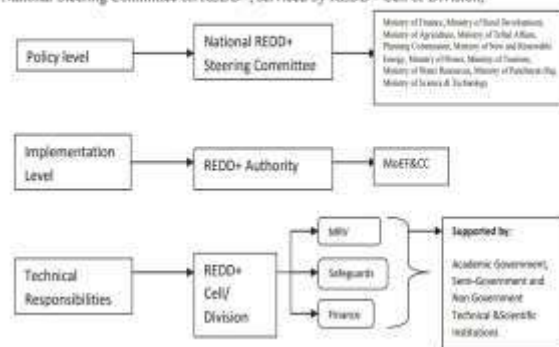
- Developing a National Forest Monitoring System:
- Setting up of National REDD+ Architecture and Governance:
- Creation of a Platform for Stakeholder engagement:
- National REDD+ information system including *National Forest Carbon Accounting And Monitoring System (NFCAMS)*:
- System for managing data on valuation and equitable sharing of multiple benefits of forests:
- Transparent, equitable and accountable management :
- Capacity Building:
- Developing institutions and technical capacity for modeling landuse change, deforestation rates, carbon stock changes and carbon sequestration rates.

2.Strategy proposed for operationalising REDD+ Policy

- to build a critical mass of **technical and institutional capacities** of various stakeholders including SFDs, local communities, other related government agencies,
- to carry out **periodic assessment of non-carbon and carbon** variables relevant to reporting and financing under REDD+;
- to have a mechanism for **Stakeholder participation**
- to **enhancing cross-sectoral coordination** within multiple government agencies including forestry and environmental authorities, land management authorities
- to analyse **gaps in capacity and data by all REDD+ stakeholders** and ensure that readiness activities promote a comprehensive and integrated approach and develop a transparent and accountable systems for REDD+ implementation;
- to develop appropriate **Management Information System (MIS)** for sharing of relevant information/ data related to REDD+ with all stakeholders;

4. REDD+ FRAMEWORK: Essential elements of REDD+ Framework:

(I) **National Level:** Establishing **National REDD+ Authority** in the MoEF&CC under a **National Steering Committee on REDD+**, serviced by REDD+ Cell or Division;



3. REDD+ FRAMEWORK: Essential elements of REDD+ Framework:

- **National Level:** Establishing **National REDD+ Authority** in the MoEF&CC under a National Steering Committee on REDD+, serviced by REDD+ Cell

Supporting Institutions: FSI, ICFRE, IIFM, IISc, WII and others working in the field of REDD+; Concerned Ministries (long list).

i. Functions of National REDD+ Authority and REDD+ Cell

- REDD+ Cell/ Division will assist the National REDD+ Authority
- FSI as Nodal Agency for National Level MRV for REDD+
- ICFRE along with other scientific institutions and SFDs to take up capacity building activities of various stakeholders.
- IISc for carbon inventory methods, model development and capacity building and for developing adaptation strategy to climate change.

(II) **State (Sub National) Level:** A REDD+ cell at State Level, under State Forests Departments with representation from other relevant organizations.

(III) **Local/ District Level:** Forest Divisions, other line departments, NGOs / Civil society Organizations, Gram Sabha (JFMC supported by Gram Sabha or Eco Development Committee)

5. Funding for strengthening Institutional mechanism

The strategy is to channelize funds from all possible sources through:

- Budgetary support for REDD+ Cell.
- International funding from bilateral, Multilateral funding agencies
- Projects based funding.
- Domestic funding from PSUs/ corporate sector under CSR
- Budgetary support under climate change scheme

Develop mechanism for flow of incentives to communities.

Time Frame: REDD+ Readiness to be achieved in 2 years.

7. Strengthening stakeholders' participation for addressing forest degradation: (Not talking about deforestation)

drivers of degradation are outside the domain of forests, require specific action

- alternative cheap cooking fuel supply, promoting non-conventional energy sources,
- agro-forestry for meeting demands of fuelwood and fodder
- education / skills to children, effective use of modern communication
- improved silvicultural operations for improving site specific productivity, small timber, fuelwood and NTFPs
- quick and effective insect and disease control mechanism
- Building capacities of youth and women in villages in forestry activities for controlling forest fires,
- Forest fire prediction and control mechanism etc.
- non natural resources based economic activities for diverting unsustainable pressure from forests.
- addressing shifting cultivation.

India's draft National REDD+ Policy (NRRP)

MoEF &CC a Constitute Committee in 2015

Draft in May 2015

Not web hosted for public comments

Fate of this draft ????

7 Chapters: (24 pages)

1. Overall objective and intent
2. Implementation principles
3. Compatibility with UNFCCC decisions
4. National Laws
5. Coverage
6. Benefits of REDD+ implementation
7. Operationalization of REDD+ Policy:

Mainly a Policy document lacks strategy, time line, action plan and deliverables

Overall objective and intent

1. Objective:

Overarching objective of the policy is to facilitate implementation of REDD+ in conformity with relevant decisions of UNFCCC, and the national legislative framework

REDD+ is to be community driven,

i.e., local communities partners and stakeholders in steering the implementation of REDD+ at the grassroots level.

The policy clearly spells out the financial incentives the local communities.

The Policy ensures the protection, conservation of all natural resources including forests and other tree resources

Overall objective and intent

The policy devolves major responsibility for REDD+ activities and measurement of their performance on the **State Forest Departments (SFDs)**

It places high priority on capacity building of the local communities, all levels of the SFD, and staff of other line departments with a view to facilitating implementation of REDD+, and creating awareness about its benefits to the community, and sustainable management of natural resource of forests

Overall objective and intent

NRPP will give equal importance to all the ecosystem services flowing from the forests, which are traditionally harvested or enjoyed by the local communities, and will treat carbon as one such important service.

Local communities, wherever they are managing or co-managing forest or tree resources will have first right over the financial incentives accruing as a result of REDD+ performance in the country.

2. Implementation principles:

The National REDD+ Policy aims to provide roadmap for India's REDD+ preparedness and lays down the broad principles for developing and implementing REDD+ requisites and activities, and at the same time create financial incentives for local communities involved in conservation of forests.

2. Implementation principles: Major stake holders identified

Central Government- of Environment, Forests and Climate
National REDD plus Authority
State/UT Forest Department
State REDD- Cell
Local communities/JFM Committees
Other Central Government Ministries and Departments: Ministries of Tribal Affairs, Finance, Social Welfare, Rural Development Water Resources (Watershed Management Authorities), Health (AYUSH), Panchayati Raj, Power (Renewable Energy), Agriculture, Animal Husbandry, Tourism, DONER, etc
State Government Departments: Social and Tribal Welfare, Rural Development, Health, General Administration, Water, Finance, Irrigation, etc
Other National and State Agencies: NBA, State Biodiversity Boards, National Bamboo Mission, National Mission for Sustainable Agriculture, NMPB, National Horticulture Mission, etc,

2. Implementation principles: Major stake holders

National Level Capacity Building, Scientific, Research, and Development Agencies:
ICFRE, FSI, IIFM, IGNFA, WII, IISc

State Level Capacity Building, Scientific, Research, and Development Agencies:
State Forest Department, State Forest Research Institute, Working Plan Wing, State Medicinal Plant Board, etc

District and Sub-district Level Agencies, Gram Sabha:
Forest Division and Ranges, Forest Development Agency, district administration, district tribal/social welfare office, DRDA, watershed management institutions, etc

Forest Development Corporations, Federations, Forest Based Industries, Self Help Groups

2. Implementation principles: Major stake holders

Civil Society/NGOs
Private sector/corporate
Public Representatives MP, MLA, Sarpanch (Village Heads) etc.
Universities and other Educational Institutions
Media
UNFCCC, IPCC
UNREDD, World Bank (FCPF),
UNFF, FAO and CPF UNDP, UNEP, GEF
Bilateral agencies, USAID, DFID, GIZ, NORAD, etc.

3. Compatibility with UNFCCC decisions

Bali, Copenhagen, Cancun, Durban, and Warsaw

4. National Laws

- Environment Protection Act, 1984
- FC Act, 1980
- Water Act and Air Act
- Wild Life Protection Act
- Tribal Act, 2006
- NFP, 1988
- NEP, 2006

Various provisions of the Policies and Acts are in tune with the elements of REDD-plus. Further, the people centric approach adopted in the management of forests for almost over three decades supports the core element of REDD-plus that natural resources are to be conserved and protected for enhancement of ecosystem

5. Coverage:

- Forests (Definition adopted by FSI)
- ToF
- Grasslands (future)
- Blue carbon- mangroves, coastal sea grasslands (future)
- Any other photosynthetic source or sink (future)

Benefit sharing mechanism with States and participating communities:

REDD-plus incentives will be transmitted from the Centre to State Governments and then to district level.

The State Government and district level authorities will plan and manage the flows further down to the local communities.

Broad guidelines for flow of incentives from the Government of India (GOI) to State Governments will be developed by the MoEF&CC

Potential role of Private sector in REDD-plus mechanism

7. Operationalization of REDD-plus Policy

- **National strategy:** (1 para 8 lines)
 - ✓ Aims at enhancing and improving forest and tree cover, ecosystem services
 - ✓ carbon service from forests co-benefit not the sole benefit,
 - ✓ Various programmes (GIM, NAP, Agro-forestry) to add 1 mha forest/tree cover annually
- **Reference document for REDD+ in India:**

Reference document for REDD+ in India:

Reference document for REDD+ in India: (Jan 2015)

Government of India (MoEF&CC) has adopted a Reference document to operationalize REDD+ in the country.

The document based on the existing knowledge available on the subject and roles and responsibilities of different departments, institutions, civil society and local communities to facilitate institutionalization and implementation of REDD+ in the country.

Consists of 9 chapters on necessary guidance and framework for REDD+ implementation, covering important elements like:

- Construction of national forest reference level,
- Safeguards,
- Governance,
- MRV mechanism,
- Capacity building, and
- Identification of research gaps in REDD+ in India.



Could serve as REDD+ Strategy need further refinement

7. Operationalization of REDD-plus Policy

- **Institutional mechanism for REDD+ at national level:**
REDD-plus Cell having the task of coordinating and guiding REDD-plus related actions, SFDs, Guiding, collaborating, Funding,
(All REDD+ related tasks have been assigned to the Cell)

What is required for a National REDD+ Strategy

- It is one of the elements to be developed for implementing REDD+ activities
- It is highly dependent upon national circumstances
- During the development and implementation of national strategies or action plans, countries should address, inter alia:
 - the drivers of deforestation and forest degradation,
 - land tenure issues,
 - forest governance issues, gender considerations and
 - the REDD+ Safeguards (full and effective participation of relevant stakeholders, inter alia IPs and LCs)

At the same time, the COP recognized the importance and necessity of adequate and predictable financial and technology support for developing the national strategy or action plan.

What India needs to do to implement REDD+ at national level

1. **National strategy or Action Plan:** implementation with a deliverable time line/action line, (Reference document for REDD+ can be beginning point)
 2. **Safeguard Information System (SIS)**
 3. **Finalise our Reference Level (REL/RL):**
 4. **National Forest Monitoring system:**
- Needs to be prepared in accordance with UNFCCC guidelines

Capacity building, MRV, performance based payment, carbon right, land tenure, performance based payments Quantification of REDD plus benefit and sharing mechanism with REDD+ Communities, Finance for REDD Plus actions

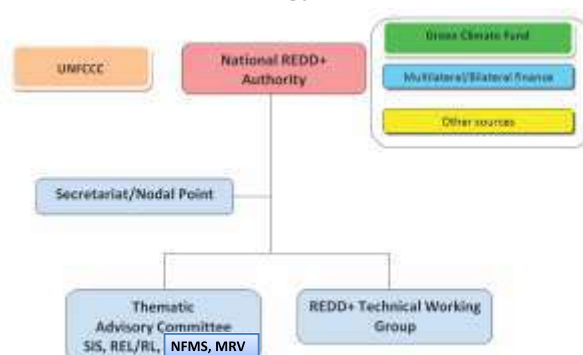
Implementation approach

REDD plus activities to be implemented in **three phases**:

1. beginning with the **development** of national strategies or action plans, policies and measures, and capacity-building,
2. followed by the **implementation** of national policies and measures and national strategies or action plans, technology development and transfer and **results-based demonstration activities**,
3. and evolving into **results-based actions** that should be fully measured, reported and verified (MRVable).

Recently India has joined UN-REDD: can tap finance for phase 1 (Strategy, Capacity building) or 2 of Pilots, REDD+,

National REDD+ Strategy Governance Structure



Currently there is Forestry subgroup on climate change

National REDD+ Strategies

Brazil:
Context
Elements
Objectives
Governance structure
Action lines
Time table
Annex

ENREDD+
National REDD+ Strategy



Nepal:
National Circumstances
Guiding Principles
Strategy: Institutional Framework
N Forest Monitoring system
REL/RL
MRV

Thanks

This was a presentation from ICFRE
www.icfre.gov.in

For further detail pl Contact:

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Workshop Glimpses





Indian Council of Forestry Research and Education (ICFRE) is an autonomous body of the Ministry of Environment, Forest and Climate Change, Government of India, is the apex organization in the national forestry research system. ICFRE deals with solution based forestry research in tune with emerging issues in the sector, including global concerns such as climate change, conservation of biological diversity combating and desertification. ICFRE is proactive in forest and climate change related issues at national and international level, and contributes in developing Government of India's policy on forest and climate change.

The International Centre for Integrated Mountain Development (ICIMOD) is a regional intergovernmental learning and knowledge sharing centre serving the eight regional member countries of the Hindu Kush Himalayas – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. Overall, ICIMOD is working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream now, and for the future.

For Further Details, contact:

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