Proceedings of the Regional Workshop on Role of REDD+ in Supporting SDGs and NDCs

Nay Pyi Taw, Myanmar, 21-22 February 2018

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Acknowledgements

There have been a lot of efforts in this report, **"Proceedings of the Regional Workshop on Role of REDD+ in supporting SDGs and NDCs"**. I sincerely thanks whoever taking part in this workshop and report writing. My heartfelt thanks also go to Dr. Nyi Nyi Kyaw, Director General of Forest Department, Ministry of Natural Resources and Environmental Conservation. It would have been impossible without his kind supports and guidance I would also like to extend my sincere thanks to ICIMOD and GIZ for their technical and financial supports. Last but not least, special thank should be given to our colleagues and REDD+ core unit members of Forest Department for the active participation and cooperation in this work.

Thaung Naing Oo Ph.D.
(Project Manager)
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Background

Myanmar has the largest remaining forest area in continental Southeast Asia and 42.92% of the total land surface is endowed with forests. In 2015, Myanmar became the country with the third highest rate of deforestation in the world. Recognizing the rapid rate of deforestation and forest degradation in the country, the government of Myanmar (GoM) has committed to set aside the 30% of the total country area as reserved forests and protected public forests, and another 10% as the Protected Areas to meet Nationally Determined Contributions (NDCs). Those NDCs will have to be fulfilled by the year 2030. However, the GoM needs to find a mechanism for checking the rapid rate of deforestation and forest degradation, and save the remaining forests of the country in order to fulfil Sustainable Development Goals (SDGs) and to achieve sustainable development of the country.

REDD+, with its economic incentives for the conservation of forests, is a mechanism that could contribute to sustainable management of forests, provided the mechanism is carefully designed. Myanmar joined the UNREDD programme in 2011 and is also implementing the REDD+ Himalaya project supported by the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMU). REDD+ Readiness Roadmap, a foundation for further REDD+ activities in Myanmar, was completed in 2013. The country is still in the REDD+ readiness phase and is expected to finalize REDD+ strategies by 2018.

Rationale

Both the SDGs and REDD+, either in part or as a whole, intend to achieve sustainable management of natural resources and to mitigate climate change and its impacts. REDD+ activities are directly linked to some SDGs while other SDGs are also indirectly addressed. However, despite the synergy between REDD+, SDGs and NDCs, there is a risk that REDD+ activities are uncoordinated and stand parallel to those of the SDGs and NDCs.

Therefore, REDD+ in Myanmar needs to be embedded within the broader concept of sustainable development and international frameworks such as NDCs and SDGs. Against this background, the Regional Workshop on REDD+ supported by ICIMOD was organized at Forest Research Institute, Nay Pyi Taw of Myanmar. The theme of the workshop was "Role of REDD+ in supporting SDGs and NDC" and the workshop aimed to identify possible ways to fulfil the potential of REDD+ and support broader SDGs and NDCs of the country. The workshop was attended by REDD+ practitioners and experts from the region.

Objectives

The objectives of the regional workshop were:
- To identify possible ways to nest REDD+ within broader SDGs and NDCs;
- To share experiences related to progress and challenges in REDD+ readiness phase in the region through south-south cooperation;
- To get feedback and suggestions from the regional REDD experts to synchronize REDD+ with SDGs and NDCs.

Agenda

The workshop included seven sessions with different themes:
- Session I: Opening session
- Session II: Role of REDD+ in supporting SDGs and NDCs
- Session III: Experience sharing among regional countries on role of REDD+ in supporting SDGs and NDC
- Session IV: REDD+, SFM, biodiversity and stakeholders' participation
- Session V: REDD+, CF and safeguards
- Session VI: Panel discussion
- Closing session

The detailed agenda of the workshop is provided in Annex 1.

Session I: Opening Session

Opening speech by Director General of Forest Department, Myanmar

The workshop was formally inaugurated after the opening speech of **Dr Nyi Nyi Kyaw**, Director General of the Forest Department. He said that it was a timely workshop that complemented ongoing global efforts to combat climate change impacts and achieve Sustainable Development Goals through implementation of NDCs. He briefly recounted the history of collaboration between ICIMOD and Myanmar's Forest Department. He highlighted current activities and projects carried out in coordination with ICIMOD. He talked about the current REDD+ implementation in Myanmar and the organizations supporting the process. He explained that Myanmar has submitted its NDCs to the UNFCCC along with a list of activities that the Forest Department plans to carry out to meet those targets. He also mentioned the importance of SDGs for Myanmar. He added that Myanmar would be able to get valuable ideas and recommendations from the workshop for successful implementation of Myanmar's REDD+ Roadmap.

Dr Nyi Nyi Kyaw, Director General of the Forest Department

He concluded his speech by expressing his gratitude to GIZ and ICIMOD for helping organize the workshop and all resource persons and participants from all international organizations, NGOs and line ministries for their contributions and active participation. Lastly, he encouraged all participants to make utmost efforts and hold constructive discussions for the success of the workshop.

Congratulatory remarks by Dr Bhaskar Karky, Programme Coordinator, REDD+ Initiative, ICIMOD, Nepal

Firstly, **Dr Bhaskar Singh Karky**, Programme Coordinator, Regional REDD+ Initiative of ICIMOD, expressed his sincere thanks to GIZ for financing the regional workshop. He also extended his gratitude to the Forest Department and the Forest Research Institute for hosting the workshop and all participants for joining the workshop. He briefly explained the importance of relating REDD+ to SDGs and NDCs and the significance of the regional workshop.

Dr Bhaskar Sing Karky, Programme Coordinator, REDD+ Initiative, ICIMOD, Nepal

Session II. Role of REDD+ in supporting SDGs and NDCs

The session was chaired by **Mr. Kyaw Kyaw Lwin**, Deputy Director General of the Forest Department, Myanmar. The session covered the following topics:

1. Climate change policy, strategy and action plans to contribute to NDCs and SDGs by Mr. Min Myat Aung, Assistant Director, Environmental Conservation Department, Myanmar
2. Development of REDD+ in the frame of SDGs and NDCs by Tim Boyle, Chief Technical Advisor of the UN-REDD programme, Myanmar
3. REDD+ linking to NDCs and SDGs by Dr Thaung Naing Oo, Director of the Forest Research Institute, Forest Department, Myanmar.

Mr. Kyaw Kyaw Lwin, Deputy Director General of the Forest Department, Myanmar

Climate change policy, strategy and action plans to contribute to NDCs and SDGs

Mr. Min Myat Aung, Assistant Director at the Environmental Conservation Department, gave a presentation on climate change policy, strategy and action plans in Myanmar. He first talked about the environmental challenges in Myanmar including climate change, deforestation, loss of biodiversity and extreme weather events, etc. He then explained the impacts of climate change in Myanmar and environmental mainstreaming towards sustainable development. He gave a detailed overview of Myanmar's National Climate Change Policy, Strategy and Action Plans (2017-2030). In the plan, he pointed out priority sectors relevant to sustainable natural resource management. He also explained the integrated approach to implementing the action plan for achieving SDGs and NDCs. He concluded the presentation by highlighting the way forward, through activities for sustainable economic development and environmental sustainability.

Mr. Min Myat Aung, Assistant Director at the Environmental Conservation Department

Development of REDD+ in the frame of SDGs and NDCs

Mr. Tim Boyle, Chief Technical Advisor of the UN-REDD programme, Myanmar, gave a presentation on the development of REDD+ within the frame of SDGs and NDCs. He began by explaining why forests are important in NDCs and climate change adaptation. Then he provided information on the cost of deforestation from a global perspective. He

Mr. Tim Boyle, Chief Technical Advisor of the UN-REDD programme, Myanmar

clearly explained the linkage between forests and SDGs. He discussed REDD+ in light of the concept of SDGs and NDCs and explained how they fit each other. Lastly he gave a quick overview of national REDD+ implementation in Myanmar.

Linking REDD+ to NDCs and SDGs

Dr Thaung Naing Oo, Director of Forest Research Institute, Forest Department, gave a presentation on REDD+, linking it to NDCs and SDGs in the context of Myanmar. He discussed the country profile, policies, laws and regulations of the forestry and environment sectors and the status of forest resources in Myanmar. He highlighted the forest cover change in Myanmar during the period 2010–2015, noting the rapid decrease in forest cover. He added that the country is facing the problem of deforestation and forest degradation and Myanmar has the third highest deforestation rate in the world. He mentioned the direct and indirect drivers of deforestation in Myanmar.

He went on to provide an overview of REDD+ in Myanmar including REDD+ development since 2013. He highlighted the linkage of REDD+ to NDCs of Myanmar and SDGs, and pointed out the main SDGs related to REDD+ in Myanmar. He briefly explained REDD+ in Green Development Strategy and reforms in the forestry sector over the last three years. He concluded his presentation with key lessons learnt from REDD+ implementation experiences in Myanmar.

Session III. Experience sharing among regional countries on role of REDD+ in supporting SDGs and NDCs

The session was chaired by **Dr Bhaskar Singh Karky**, Program Coordinator, Regional REDD+ Initiative at ICIMOD. The session covered three topics:

1. Nepal's experience in REDD+ supporting SDGs and NDCs by Mr. Hari Krishna Laudari, Assistant Forest Officer, Ministry of Forests and Soil Conservation, Nepal
2. India's experience in REDD+ supporting SDGs and NDCs by Dr R.S.C Jayaraj, Director of Rain Forest Research Institute, India
3. Nepal's Community Forestry (CF) and its contribution to NDCs, REDD+ and Sustainable Development Goals by Mr. Prakash Lamsal, Community Forestry Development Officer, Ministry of Forests and Soil Conservation, Nepal

Nepal's experience in REDD+ supporting SDGs and NDCs

Mr. Hari Krishna Laudari, Assistant Forest Officer, Ministry of Forests and Environment (MoFE), Nepal presented on "Nepal's REDD+, and SDGs and NDCs". First of all, he explained the changes in forest cover based on the time series, and noted that 9.4% of GDP is contributed by the forest sector. He said that the new Constitution (2015) will bring about major transformations in Nepal. The new state structure comprises federal, provincial (7) and local (753) governments. The responsibility for forest management is to be carried out at the local level. Provincial and local governments can develop their

Mr. Hari Krishna Laudari, Assistant Forest Officer, Ministry of Forests and Environment (MoFE), Nepal

own policies, laws and regulations and can raise taxes. Mr Laudari described the institutional arrangement and cost/benefit sharing in the process of REDD+, as well as Nepal's REDD+ approaches. Currently, they apply the Participatory and Multi-stakeholder Engagement Approach, Community-based Forest Management Approach, Multi-stage (Scale) Approach and Multiple Programmes Approach in the implementation of REDD+. He talked about the REDD+ Milestone in Nepal and the Emission Reduction Programme that will be implemented over 10 years. The total cost of implementing the Emission Reduction Programme (domestic contribution, ODA, CBFM co-

financing and ER sale) will be USD 176.5 million. He also explained the linkage between REDD+ and SDGs and highlighted the gaps. The gaps are: the forestry sector is not recognized in CC adaptation and the National REDD+ Strategy covers a limited geographical area. Nepal's NDCs, submitted in October 2016, are more ambitious than its Intended Nationally Determined Contributions (INDCs) submitted earlier this year. While the INDCs contained a list of ten targets, Nepal has added four more targets to its NDCs. But Nepal's NDCs don't have clear targets. Mr Laudari also explained the linkage between REDD+ and NDCs and described the gaps, which are related to benefit sharing mechanism, sustainable financing, and capacity building of stakeholders at the sub-national level. He concluded his presentation by discussing the way forward in Nepal's REDD+ programme in accordance with SDGs 13 and 15 and persisting institutional gaps in policy making and benefits sharing. REDD+ programme coverage in Nepal should be increased. Safeguard Information System (SIS) is required to make the REDD+ programme agreeable and sustainable, and also for monitoring protocols to track REDD activities in achieving SDGs and NDCs.

After the presentation, Mr Laudari answered questions from the participants.

India's experience in REDD+ supporting SDGs and NDCs

Dr R.S.C Jayaraj, Director of Rain Forest Research Institute, India

Dr R.S.C Jayaraj, Director of Rain Forest Research Institute, shared India's experience in REDD+ supporting SDGs and NDCs. He explained India's focus on SDGs, which was identified by a high-level political forum of India, and India's progress in achieving SDGs. He mentioned activities targeted at each of the SDGs and went on to describe India's Nationally Determined Contributions and its targets. He talked about strategies for mitigation and adaptation including funding sources and policies aimed at meeting the targets of INDCs. He then highlighted India's GHG profile and changes in carbon stock in forests during 2011-2017. Lastly, he pointed out synergies among SDGs, REDD+ and NDCs of India.

Nepal's Community Forestry (CF) and its contribution to NDCs, REDD+ and Sustainable Development Goals

Mr. Prakash Lamsal, Community Forestry Development Officer, MoFE, Nepal, in his presentation, explained Nepal's current status in terms of population, governance and major geographic regions. He provided some facts on the forestry sector. Forest cover in Nepal is about 44.74% of the total land area. Of this, 40.36% comprises forests and 04.38% is other wooded land (OWL). Mr Lamsal also mentioned how much forest cover is included in each geographic region of Nepal. The country is rich in biodiversity: genetic, species and ecosystems. He also discussed the different forest management regimes in Nepal; they include National Forests, Protected Areas, forests in private and public land. 23.39% of the country's area and 18% of the forest area are demarcated as Protected Areas. He then went on to explain the planning process and governance in community forestry (CF). CF planning includes 11 steps; the initial step being the identification of national forests suitable for CF and its subsequent implementation being the final step. Mr Lamsal also talked about the DFO's input and community's input in community forest plans, the role of NGOs, CBOs, and multi-stakeholder participation. He discussed both the content and process involved in ensuring CF sustainability. The content element includes community institutions, the CF operational plan, policy and legislation including Forest Act 1991, Forest Regulation 1995, Forest Policy 2014, CF Development Guidelines 2014 for harvesting and selling, CFUG Financial Guideline and Inventory Guideline 2005. Regular meetings, assemblies, regular monitoring, reporting, response and feedback, review and revision of development of operational plans, regular facilitation and regulatory report, these all are included in the

process element. He mentioned that the achievement of CBFM is 94% for Community Forests, 2% for Leasehold Forests and 4% for Collaborative Forests. He also shed light on CF's achievements and the role of CF in the face of climate change. Community forests contribute to NDCs and REDD+ by promoting good governance, inclusive participation and strengthened actions through CFUGs. CF, NDCs and REDD+ are not only compatible but also fully complement each other; they should hence move forward in harmony. He also explained how CBFM contributes to social life (SDGs 1, 2, 5), the environment (SDGs 6, 13), the economy (SDGs 8), life on land (SDGs 15), and enabling institutions (SDGs 16, 17). Likewise, he explained how CBFM contributes directly to 10 SDGs and indirectly to others. He further pointed out CBFM issues and discussed a way forward. At the end of his presentation, he said that CF is not only the best viable regime for SFM but can also contribute in attaining Nepal's NDCs, REDD+, reducing vulnerability and increasing ecosystem and community resilience. Moreover, CF is not free from limitations. Therefore, he recommended policy makers to stay attuned to research, academia and communities to make CF compatible with market forces, enterprise development and job creation.

Session IV: REDD+, SFM, biodiversity and stakeholders participation

The session was chaired by **Dr Thaung Naing Oo**, Director, National REDD+ Focal Person, Forest Department. The session covered the following topics:

1. Biodiversity Monitoring Protocol for REDD+ by Mr. Nabin Bhattarai, Regional REDD Associate, ICIMOD
2. Assessment and Monitoring Flora and Fauna in Pindaya, Shan State by Dr Mu Mu Aung, Research Officer from Forest Research Institute
3. National Forest Monitoring Systems and Forest Reference Emission Level in Myanmar by Mr. Khaing Zaw Win, Staff Officer, Forest Department from Myanmar

Dr Thaung Naing Oo, Director, National REDD+ Focal Person, Forest Department

Biodiversity monitoring protocol for REDD+

Mr. Nabin Bhattarai, Regional REDD+ Associate at ICIMOD, Nepal, gave a presentation titled **"Biodiversity Monitoring Protocol for REDD+"**. First he talked about the role of REDD+. REDD+ offers expectations for biodiversity conservation, as a co-benefit of forest conservation. Nepal, in its submission to UNFCCC in March 2013, recognizes non-carbon benefits when REDD+ activities are implemented with safeguards. They are enhancement of local livelihoods, increase in the value of biodiversity, better ecosystem services for people and the environment, more resilient ecosystems for climate change adaptation, improved governance, institutional setup and policies for natural resource management at the local to national level, and contributions to MEAs. Mr. Bhattarai explained the scope of BMP, in which Cancun safeguards recognize the need for actions to address biodiversity conservation. However, none

Mr. Nabin Bhattarai, Regional REDD Associate at ICIMOD, Nepal

of the standards currently proposed include significant guidance on biodiversity monitoring. There is a need for a rigorous framework and guideline to ensure that the biodiversity concerns are incorporated into national REDD+ projects and the stated goals of biodiversity conservation are met with appropriate regard to the well-established ecological principles and experiences. Monitoring the biodiversity impact of REDD+ can help ensure that risks are mitigated and benefits achieved. Additionally, the results of monitoring may help in demonstrating compliance with international conventions and agreements. Mr. Bhattarai also described the linkage between REDD+ and SDG 15 (life on land). After that, he talked about different biodiversity levels, areas of interest and key priorities. These levels are landscape level, ecosystem level, species level and genetic level. He also explained the Biodiversity Monitoring Approach. These are: Remote Sensing & Geographic Information System, Participatory Biodiversity Monitoring, Biodiversity Monitoring Using Permanent Plots, and Periodic Biodiversity Monitoring. He described the methods for Floral Diversity Assessment, and Faunal Biodiversity Monitoring Methods for large mammals, small mammals, avian species, butterflies, moths and other insects, and aquatic diversity. He also presented on institutional arrangement for biodiversity monitoring. The overall REDD programme activities are coordinated by the REDD Implementation Centre (RIC). Therefore it is suggested that while RIC is in charge of the overall REDD programme, the biodiversity monitoring aspect can be assigned to the Department of National Parks and Wildlife Conservation (DNPWC). The DNPWC can lead the monitoring work in partnership with other institutions such as NTNC and WWF. In addition, he also expressed quality assurance and quality control. In the end he provided the numbers of birds, butterflies, mammals-bats, reptiles, and amphibians in Rambhori/Bhata, Kamini Daha and Halkhoria area of Parsa National Park.

Assessment and Monitoring Flora and Fauna, Pyintaya, Shan State

Dr Mu Mu Aung, Assistant Director, Forest Research Institute, Myanmar, presented on the "Assessment and Monitoring of Flora and Fauna in Pindaya Area". First of all, she explained the background of Myanmar, the purpose of the research, floristic information and phytogeographic view of Myanmar and its surrounding regions. Then she discussed the background and vegetation of Pindaya, which is located in Southern Shan State of Myanmar. This study is done in one of the self-administrative zones called Danu. It has Pwe Hla Lake, Shauk Pin Monastery Forest Area, Nan Kone Community Forest, and Shar Pyar Community Forest. Livelihood sources of local communities are crop cultivation, wages from employment in land based occupations and livestock husbandry. The research objectives were to generate knowledge on species diversity and make a checklist of the flora and fauna of Pindaya area, to understand the vegetation and its

Dr Mu Mu Aung, Assistant Director, FRI, Myanmar

habitat in the study area, to investigate ecological interrelationships within and among species, and to assess the contributions of the study area to the livelihood of the local people. Dr Aung described a standardized belt-transect method to record all vascular plants within 100×5 m, and to record Height and DBH for trees above 4 m tall. She presented the vegetation sampling and diversity analysis. She explained the equations used for diversity analysis in detail. She identified and described flora species and medicinal plants used by local people and the methodology for bird and butterfly survey. She also talked about the identification of fauna species, bird diversity and butterfly diversity, and about the conservation of Nan Kone Community Forest and Shauk Pin Monastery Forest. These forests are conserved and protected by monks, village tracts and local community. They don't allow anyone to cut trees or kill animals and have internal rules for conserving the forest and protecting animals. However, they allow people to cut trees for social affairs (donation, wedding, etc.). They give punishment to those who collect/cut trees for other purposes or hunt animals. In addition, she talked about biodiversity conservation in Shar Pyar Community Forest and Pwe Hla Community Forest. These forests are conserved and protected by villager tracts and local community.

The villagers don't have awareness about fauna conservation. They have internal rules for conserving the forest, especially water resources, and give punishment to those found collecting/cutting trees. She described the expected outputs of the research. At the end of her presentation, she said that flora and fauna survey should be done in three seasons, especially in winter and summer. The research also needs to scale up and take into consideration the conservation of rare and endangered flora and fauna species. There is need to increase the involvement of youth in biodiversity conservation. It is expected that many new species will be recorded in the study area. There is a need to carry out further seasonal inventories and generate accurate knowledge on species diversity that can be used as reliable baseline information. Continuous fieldwork will strengthen the process of documenting the flora and fauna of Myanmar.

Current status of NFMS and initial FREL of Myanmar

Mr. Khine Zaw Win, Staff Officer, shared the current status of the National Forest Monitoring System (NFMS) and Forest Reference Emission Level (FREL) of Myanmar. He introduced the forest management levels in Myanmar ranging from the district to national level. Then he explained the current status of NFMIS and the methodology used for calculating the activity data and inventory data. He then linked NFMS to REDD+, as mentioned in REDD+ readiness roadmap. He highlighted the Initial Forest Reference Emission Level (FREL of Myanmar) recently submitted to UNFCCC. He gave the definition, objectives, scale and scope of FREL in Myanmar's context. He presented the limitations of working on forest cover data, the resulted estimate FREL and targeted FREL enhancement. He concluded his presentation by outlining the challenges in forest resource monitoring and a way forward for Myanmar's REDD+ MRV system.

Session V: REDD+, CF and Safeguards

The session was chaired by **Dr Tek Maraseni**, Associate Professor, University of Southern Queensland, Australia, and co-chaired by Dr Bhaskar Singh Karky, Programme Coordinator, REDD+ Initiative, ICIMOD, Nepal. The following topics were presented under the session.

Dr Tek Maraseni, Associate Professor, University of Southern Queensland, Australia

1. Drivers of Deforestation and Forest Degradation in Shan State, Myanmar by Mr Aung Aung Myint, National Consultant, Myanmar
2. An assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in the Hindu Kush Himalayan region by Dr Tek Maraseni, Associate Professor, University of Southern Queensland, Australia
3. Building Timber Value Chains for REDD+: The timber value chain in Myanmar & its compatibility with REDD+ by Dr Bhaskar Singh Karky, Programme Coordinator, REDD+ Initiative, International Centre for Integrated Mountain Development, Kathmandu, Nepal
4. Contribution of Community Forestry; SuCom for Project Research to SDGs and NDCs by Ms Khin Thiri Htun, Monitoring and Evaluation Consultant, RECOFTC Myanmar Country Programme
5. Indigenous Rights and Safeguards in REDD+ by Ms Naw Ei Ei Min, Promotion of Indigenous and Nature Together (POINT)
6. Mapping natural capital in Myanmar: Strengthening the argument for conservation by Ms Hanna Hersingen
7. Gap Analysis in line with the National REDD+ Readiness Process in Shan State by Ms. Su Mon San, Range Officer, Forest Research Institute

Divers of Deforestation and Forest Degradation in Shan State, Myanmar

Mr Aung Aung Myint, National Consultant, Myanmar presented on Drivers of Deforestation and Forest Degradation in Shan State, Myanmar. At the beginning of his presentation, he mentioned the objectives of the study: mainly focus on direct and indirect drivers and agents of deforestation and forest degradation, challenges for sustainable forest management, strategic options and key interventions for REDD+ policies and measures. He highlighted land use changes of Shan State between 2005 and 2015 by dividing them into 4–6 categories. Rate of conversion from forest to non-forest is higher in southern and northern Shan State than in the eastern part, whereas the rate of conversion from non-forest

Mr Aung Aung Myint, National Consultant, Myanmar presented on Drivers of Deforestation and Forest Degradation in Shan State, Myanmar

to forest is lower in the southern and northern parts. He calculated the carbon emission in Shan State by using NDVI values where it is 6.86 mt/yr from 2005 to 2015. He cited overexploitation of timber (legal and illegal logging), fuelwood consumption and forest fire as direct drivers of deforestation and forest degradation; and population growth, economic growth, weak law enforcement, poverty and subsistence, conflicting policies, language barriers, land tenure uncertainty and inadequate natural resources planning and monitoring as indirect drivers, and explained these in detail using bar charts. He compared actual production and AAC production of teak and other hardwoods. At the end of his presentation, he discussed detailed strategic options for addressing deforestation and forest degradation and SWOT analysis for the most prioritized Strategic Options.

An assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in the Hindu Kush Himalayan region

Dr Tek Maraseni, Associate Professor at the University of Southern Queensland, Australia, presented an assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in the Hindu Kush Himalayan region. In his presentation, he first introduced REDD+ as a potential way to address climate change problem, especially in developing countries. Several REDD+ pilot projects are being carried out in community forests to provide guidance for policy makers. A lot of surveys about these pilot projects were conducted where it was found that every project/programme has various structures and processes (governance). He talked about the deeply normative framework of principles, criteria and indicators for evaluating governance quality. The results of the governance study in Nepal, Bhutan, India and Myanmar showed that Myanmar and Bhutan have the best performance at the local level; Nepal and India have relatively similar scores for local and national levels. At the end of the presentation, he made the following recommendations:

- There is huge variation in perceptions/scores of governance quality among the countries.
- Even within the same country, different levels have different scores.
- At Indicator level, in all countries, 'Resources' received the lowest score whereas "Durability" received the highest score.
- In each country, various levels have different priorities for 'Indicators'. For M&R social and environmental safeguards, highest-ranked indicators should not be missed.
- If resources are not enough to cover all indicators, select only those indicators which are important at that level.
- For consistency reasons, if we want to cover whole countries with the same indicators, select 4 or 5 highest ranked indicators.

Building Timber Value Chains for REDD+: The timber value chain in Myanmar & its compatibility with REDD+

Dr Bhaskar Singh Karky, Programme Coordinator, REDD+ Initiative, International Centre for Integrated Mountain Development, Kathmandu, Nepal presenting on "Building Timber Value Chains for REDD+: The timber value chain in Myanmar and its compatibility with REDD+"

In his presentation, he mentioned the objective of the study: to assess the compatibility of the timber value chain with REDD+ in Myanmar through a classic approach to value chain analysis. In Myanmar, all teak comes from the Permanent Forest Estate managed by the Forest Department using the MSS; Myanmar Timber Enterprise (MTE) extracts and allocates timber; the value chain is export oriented ($\approx$ 70–80% goes to the international market). He thoroughly explained the distribution pattern of teak timber and determination and decomposition of consumer price benefits. Regarding value chain governance, he pointed out that both legislative and judicial governance roles are performed by MTE, which is the most powerful and influential actor in the value chain and takes all decisions on timber trade. He highlighted facts relevant to REDD+ and the weaknesses, opportunities and threats relating to the timber value chain. His concluding points were:

- The timber value chain is export-oriented/dominated by export traders.
- Hierarchical and relational characteristics are exhibited.
- Policy measures and reforms for sustainability, efficiency, equity and REDD+ compatibility are needed.

Contribution of Community Forestry; SuComFor Project Research on SDGs and NDCs

Ms. Khin Thiri Htun, Project Assistant, RECOFTC

Ms. Khin Thiri Htun, Project Assistant, RECOFTC, Myanmar Country Programme, presented on the contribution of community forestry; SuComFor Project Research on SDGs and NDCs. At first she introduced the project objective: to make institutions more effective and create resources for scaling up community forestry in Myanmar. She then outlined the project outcomes: 1) legally approved and adequately trained CF groups; 2) CF groups successfully conserving forest areas and maintaining environmental services; 3) CF groups producing and sharing livelihood benefits from forests; 4) exercising operational CF networks and policy influence and knowledge sharing; and 5) fully aligning CF policy with relevant national strategies. The SuComFor Project has five components: 1) CF training programme, 2) CF development, 3) CF information management and communication, 4) CF networks and learning groups, and 5) CF policy and legal framework development. She concluded by highlighting CF's role in achieving SDGs and NDCs.

Indigenous Rights and Safeguards in REDD+; Promotion of Indigenous and Nature Together (POINT)

Ms Naw Ei Ei Min, Promotion of Indigenous and Nature Together (POINT), gave a presentation on indigenous rights and safeguards in REDD+. She began by highlighting social and environmental safeguards for the REDD+ programme in Myanmar. Countries are encouraged to promote and support these safeguards and are responsible for establishing a national safeguard information system (SIS) that will document the process in a transparent manner. Countries must also periodically report their status on respecting the safeguards to the UNFCCC. She explained the role of indigenous peoples in achieving SDGs and what they want and IP rights in NDCs. In her conclusion, she gave the following recommendations for equitable and effective implementation of Myanmar's NDCs in line with the Paris Agreement:

- Include commitments in the NDC to recognize the rights of indigenous peoples and local communities, women and other vulnerable or marginalized groups in all climate change mitigation and adaptation actions.
- Ensure the full and effective participation of these groups, including indigenous peoples, local communities, and women, in the development and implementation of the NDC.
- Establish a national-level platform for local communities and indigenous people to share knowledge, skills, and technology, to help shape the development and implementation of NDCs, and to coordinate with the equivalent UNFCCC international platform that was established in COP21.

Ms Naw Ei Ei Min, Promotion of Indigenous and Nature Together (POINT)

- Coordinate targets, strategies, and mechanisms within the forest sector (including REDD+, EITI, and FLEGT), the energy sector, and across sectors.

Mapping natural capital in Myanmar: Strengthening the argument for conservation

Ms Hanna Hersingen, Programme Manager, WWF, gave a presentation titled "Mapping natural capital in Myanmar: Strengthening the argument for conservation." She said that natural habitats provide clean drinking water and reduce the risk of flood; natural areas provide many benefits to people and habitat for wildlife, so it is particularly important to conserve these areas. She highlighted the correlation between the distance to the road and the area deforested. It was found that one third of all deforestation in Myanmar occurred within 5 km of a road, affecting natural capital along roads. She suggested that upland landscapes and ecosystems reduce flood risk by slowing or reducing water flows from surrounding land and can impact BRI roads. She concluded by outlining upstream challenges: 1) use the information on ecosystem services and biodiversity as the basis for development planning; 2) carry out infrastructure and other development in areas less damaging to people, nature and economy; 3) development benefits people, economy and nature; and 4) Myanmar's forests should be protected and valued.

Ms Hanna Hersingen, Programme Manager, WWF

Gap Analysis in Line with the National REDD+ Readiness Process in Shan State

Ms. Su Mon San, Range Officer from Forest Research Institute, gave a presentation titled "Gap Analysis in Line with the National REDD+ Readiness Process in Shan State". She began by explaining the rationale, objectives and methodology of the study. She said that the relevant strategies, policies and laws and institutions were reviewed to identify gaps in REDD+ implementation at the sub-national level and the gaps

Ms. Su Mon San, Range Officer from Forest Research Institute

were discussed though a series of consultation meetings. She mentioned the selected strategies, policies and laws and pointed out the gaps for REDD+ implementation. She concluded by highlighting the key findings of the gap analysis research.

Session VI: Panel discussion

The way forward for development of REDD+ in the context of supporting SDGs and NDCs

The panel discussion was moderated by **Bhaskar Karky.** Panelists included **Dr Thuang**, **Mr Tim Boyle**, **Ms Hanna Hersingen**, **Dr Myat Su Mon** and **Prof. Tek Maraseni**.

The moderator briefly highlighted the links among REDD+, SDGs and NDCs and asked the panellists to share what they learned during the two-day workshops with the audience.

Mr. Boyle said that it is very important to understand how to link REDD+ with SDGs and NDCs. He has been working on determining how much emission is being reduced from countries involved in REDD+. He said the task force from the UNREDD programme is responsible for determining what constituencies exist for REDD+ in Myanmar and for overseeing REDD+ related project implementation and making related decisions. Myanmar is at a very high risk of aggressive inflation rate and conflict level. So he emphasized the need to realize how important REDD+ is and how challenging REDD+ implementation is, especially to ensure that all human resources, financial resources and energies we put are utilized in an effective and efficient way.

Dr Karky summarized Mr. Boyle's key points and solicited Dr Myat Su Mon's opinion on integration of NDCs, SDGs and REDD+ and the best way to coordinate among line ministries and agencies to meet those targets.

Dr Myat Su Mon said that from the perspective of MRV, REDD+ is closely linked to sustainable forest management. She mentioned that Myanmar recently submitted its FREL and held its second national communication, which is an important step towards meeting global targets. She explained that implementing NDCs is one of the targets of the forestry sector and how REDD+ MRV and SNC are in line with NDCs. She said: "In REDD+, the performance and achievement of every activity at the national as well as sub-national level should be focused. The forestry sector already has a well-established management system at different levels. Implementing together will be beneficial as they are all linked. In Myanmar, line departments are implementing based on different TORs although they all have the same goal of climate change mitigation and adaptation. Therefore, clear TORs for each department should be developed for effective implementation. To highlight, REDD+ activities need to be implemented to achieve sustainable development."

Dr Karky then requested Dr Thaung Naing Oo to explain how important research development and national strategy is for REDD+ implementation and NDCs based in the context of REDD+ in Myanmar.

In response, Dr Thaung Naing Oo said: "In case of NDCs, to achieve NDCs in the forestry sector, Reserved Forest (RF), Protected Public Forest (PPF) under Permanent Forest Estates are targeted to be expanded. For e.g., reservation of PPF and RF, we have settlement procedures, one is to get the consent of communities in the proposed area, we need facilitation and communication, we have lots of human related issues. We need research on how to solve

those issues as it is very hard to achieve the target without research." He further said: "We can't give quantitative commitment for NDCs as we have limited data related to emission. The Environmental Conservation Department is coordinating to receive information on emission. In that case, too, we need research to gather reliable data on GHG, emission from land use change and deforestation and forest degradation." He highlighted that many SDGs are related to the forestry sector and Myanmar still lacks a comprehensive roadmap or plan for achieving SDGs as well as NDCs.

Dr Karky asked Ms Hersingen how, in the context of safeguard information systems such as environmental safeguards and social safeguards, biodiversity conservation can complement SDGs, CBD, NDC and REDD+ in order to meet international standards and requirements.

In response, Ms Hersingen said that through the workshop, she realized that lots of activities are going on and trying to achieve the same goal. However, she perceived that the activities need more alignment in terms of strategies and should operate with better coordination. There is still limited consideration of values to be derived from biodiversity conservation and ecosystem services. She suggested developing strategies and plans that also consider such values while implementing SDGs, NDCs and REDD+ together and in a comprehensive way. In her view, the recently circulated sustainable development plan is an opportunity to align different policies. Although it is challenging to implement as an integrated approach, she assumes that there will be more coordination opportunities in the future.

Dr Karky asked Prof Maraseni how he gauges the significance of governance changes in the forestry sector of partner countries in the region and how it affects REDD+ and how important it is for REDD+, SDGs, and NDCs. Dr Maraseni gave a response from a global perspective. He cited the example of China and explained the benefits of overseeing the larger goals and implementing as an integrated approach. He encouraged each country to implement REDD+ as an integrated approach in order to achieve SDGs and NDCs.

Dr Karky then opened the floor for the audience.

- Mr. Aung Nay Lin said only MoNREC cannot implement REDD+ activities. In Myanmar, coordination and collaboration is important. How can it be increased?
- Dr Thaung Naing Oo responded to this question by explaining the importance of coordination among line departments while implementing REDD+ activities. Furthermore, he highlighted the need of international support for financing REDD+ activities.
- Ms. Naw Ei Ei Min asked about the importance of peace, especially in the border areas, in REDD+ implementation.
- Mr. Boyle responded by explaining the REDD+ strategy in relation to drivers of deforestation and forest degradation at the national as well as sub-national level and how to stop those drivers for the whole country. He explained the importance of understanding conflicts in REDD+ implementation and mentioned that negotiation with local authorities or groups in natural resources management for REDD+ has already been initiated.
- Ms Hersingen added that it is important to ensure peace by implementing nationwide ceasefire in order to achieve REDD+, SDGs and NDCs.
- Ms. Khin Moe Kyi asked the following questions to the panelists: How to improve governance of forest at the community level for successful REDD+ implementation? And apart from CF, is there any mechanism to ensure customary land rights in REDD+ strategy?
- Mr. Hari Krishna Laudari, Assistant Forest Officer from the Ministry of Forests and Soil Conservation, Nepal asked how to enhance the bargaining power of REDD+ countries on carbon.
- Mr. Boyle explained the nature of community forestry in relation to results-based payment of REDD+, based on global experiences. He highlighted that Myanmar still needs to develop a mechanism for distributing benefits of results-based payment of REDD+ to the community.
- Dr RSC Jayaraj, Director of Rain Forest Research Institute, India, commented that in view of the variation in contribution of REDD+ to the SDGs & NDC targets, sub-national Action Plans need to be prepared for REDD+ in India for those states/areas which are useful and where the contribution to REDD+ and SDGs/NDCs is substantial. Following this, many small REDD+ projects with homogenous groups/villages/communities need to be prepared and implemented.

Session VII: Closing Ceremony

The workshop ended with closing remarks from Dr Thaung Naing Oo, Director of Forest Research Institute of the Forest Department, Ministry of Natural Resources and Environmental Conservation. He extended his warmest greetings and thanks to distinguished colleagues from ICIMOD, Nepal, India, Australia, UN-REDD programme, POINT, RECOFTC, WWF, universities, academic institutions and line ministries for their full and effective participation, and constructive and fruitful discussion at the "Regional Workshop on the Role of REDD+ in supporting NDCs and SDGs." He talked about how Myanmar's REDD+ programme can be scaled up linking it to other global initiatives like SDGs and landscape restoration.

"Nowadays Myanmar, one of the developing countries, faces so many challenges related to environmental and natural resource sectors," he said. "Though our country has already formulated a legal framework, policies and long-term and short-term plans, it still has many weaknesses related to technical capacity, finance and coordination among related stakeholders including government and non-government institutions. Myanmar faces many issues that affect natural resource management, such as governance. However, we are trying to fulfil the requirements of the country in line with global needs like SDGs. The government cannot do it alone and needs a good strategy: organizing the private sector, CSOs, NGOs to achieve relevant goals in order to achieve sustainable development goals. SDGs have very good targets, criteria, indicators and principles but for developing countries, they are difficult to follow and hard to achieve. We need to strengthen, work together and coordinate with each other not only for SDGs and NDCs but also for REDD+ and other natural resource management systems. For REDD+, we are trying our best to expand our communication and working networks to achieve our targets – not only carbon credit but also co-benefits and ecosystem services. For these cases, we have drafted some strategies. We will fully implement the strategies, policy and measures at the national level." On behalf of the Director General, he thanked all resource persons, participants and GIZ for making the workshop a great success.

Annex 1: Agenda of Regional Workshop on "Role of REDD+ in supporting SDGs and NDCs"

Day 1: 21 February 2018

Time	Session	
Time	**Session**	
08:00-08:30	Registration	
08:30-10:00	**Session I: Opening Session**	
	Opening speech	Dr. Nyi Nyi Kyaw, Director General, Forest Department MONREC
	Congratulatory remark	Dr. Bhaskar Karky, Programme Coordinator, REDD+ Initiative, ICIMOD, Nepal
10:00-10:30	Group photo session & refreshment	
	Session II: Role of REDD+ in supporting SDGs and NDC	**Chair** – Mr. Kyaw Kyaw Lwin, Deputy Director General, Forest Department
10:30-11:00	Climate Change Policy, Strategy and Action Plans to to Contribute SDGs and NDC Discussion	Mr. Min Myat Aung, Assistant Director, Environmental Conservation Department
11:00-11:30	Development of REDD+ in the frame of SDGs and NDC Discussion	Mr. Timothy Boyle, Chief Technical Advisor UN-REDD Programme
11:30-12:00	Myanmar experience in REDD+ supporting SDGs and NDC Discussion	Dr. Thaung Naing Oo Director, National REDD+ Focal, Forest Department
12:00-13:00	Lunch	
	Session III: Experience sharing of Regional countries on Role of REDD+ in supporting SDGs and NDC	**Chair** – Dr. Bhaskar Singh Karky, Program Coordinator, REDD+ Initiative, ICIMOD
13:00-13:30	Nepal's REDD+ and SDGs & NDC Discussion	Mr. Hari Krishna Laudari, Assistant Forest Officer, Ministry of Forests and Soil Conservation, Nepal
13:30-14:00	India experience in REDD+ supporting SDGs and NDC Discussion	Dr. RSC Jayaraj, Director, Rain Forest Research Institute, India
14:00-14:30	Nepal experience in Community Forestry & its contribution to NDC and SDGs Discussion	Mr. Prakash Lamsal, Community Forestry Development Officer, Ministry of Forests and Soil Conservation, Nepal
14:30-15:00	Refreshment	
	Session IV: REDD+ , SFM, biodiversity and stakeholders participation	**Chair** – Dr. Thaung Naing Oo Director, National REDD+ Focal, Forest Department
15:00-15:30	Biodiversity Monitoring Protocol for REDD+ Discussion	Mr. Nabin Bhattarai, Regional REDD Associate, ICIMOD

15:30-16:00	Assessment and Monitoring Flora and Fauna in Pindaya, Shan State Discussion	Dr. Mu Mu Aung Research Officer Forest Research Institute
16:00-16:30	National Forest Monitoring Systems and Forest Reference Emission Level in Myanmar Discussion	Mr. U Khaing Zaw Win, Staff Officer, Forest Department
18:00-20:30	**Welcome Dinner for Speakers and International Participants**	

Day 2: 22 February 2018

	Session V: REDD+ , CF and Safeguards	**Chair** – Dr. Tek Maraseni, Associate Professor, University of Southern Queensland, Australia.
09:00-09:30	Drivers of deforestation and forest degradation in Shan State, Myanmar in the context of REDD+ Discussion	Mr. Aung Aung Myint Consultant FRI, ICIMOD's REDD+ Himalaya Project
09:30-10:00	An assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in Hindu Kush Himalayas Region Discussion	Dr. Tek Maraseni, Associate Professor, University of Southern Queensland, Australia
10:00-10:15	Refreshment	
10:15-1045	Building Timber Value Chains for REDD+; The timber value chain in Myanmar & its compatibility with REDD+ Discussion	Dr. Bhaskar Karky, Programme Coordinator, REDD+ Initiative, ICIMOD
10:45-11:15	Contribution of CF; SuComFor Project Research to SDGs and NDC Discussion	Ms. Khin Thiri Tun M&E Consultant RECOFTC
11:15-11:45	Indigenous Rights and Safeguards in REDD+ Discussion	Ms. Naw Ei Ei Min Director POINT
11:45-12:15	REDD+ and Enhancing Natural Capital Discussion	Ms Hanna Hersingen Manager WWF
12:15-13:15	Lunch	
13:15-13:45	Gap analysis of REDD+ in Myanmar Discussion	Ms. Su Mon San, Range Officer, Forest Research Institute
13:45-15:00	**Session VI: Panel Discussion**	
	The way forward for development of REDD+ in the context of supporting SDGs and NDC	**Moderator**: Dr. Bhaskar Karky Panelists: ▪ Mr. Timothy Boyle, UNREDD Programme ▪ Dr. Thaung Naing Oo, FD ▪ Dr. Myat Su Mon, FD ▪ Dr. Tek Maraseni,
15:00-15:30	**Session VII: Closing Session**	
	Closing Remarks	Dr. Nyi Nyi Kyaw Director General, FD Forest Department
	Congratulatory remarks	Dr. Bhaskar Karky

Annex 2: Regional Workshop on Role of REDD+ in Supporting SDGs and NDC Participant List

No	Name	Position	Department
1.	Dr. Thaung Naing Oo	Director	Forest Research Institute
2.	Ms. Hanna Hersingen	Manager	WWF
3.	Dr. Bhaskar Karky	Programme Coordinator	ICIMOD
4.	Mr. Timothy Boyle	Chief Techanical Advisor	UN REDD Programme
5.	Mr. Hari Krishna Laudari	Assistant Forest Officer	Ministry of Forests and siol Conservation, Nepal
6.	Dr. R.S.C Jayaraj	Director	Rain Forest Research Institute, India
7.	Mr. Prakash Lamsal	Community Forestry Development Officer	Ministry of Forests and Soil Conservation, Nepal
8.	Mr. Nabin Bhattarai	Regional REDD+ Associate	ICIMOD
9.	Dr. Tek Maraseni	Associate Professor	University of Southern Queensland, Australia
10.	Mr. Ko Ko Hlaing	Assistant Director	Ministry of Home Affair
11.	Mr. Tin Myo Aung	Staff Officer	Dry Zone Greening Department
12.	Mr. Mg Mg Latt	Assistant Director	Survey Department
13.	Mr. Than Naing Win	Staff Officer	Forest Department
14.	Mr. Ngwe Thee	Assistant Director	Forest Department
15.	Mr. Khine Zaw Wynn	Staff Officer	Forest Department
16.	Ms. Hlaing Yamin Khin	Range Officer	Forest Department
17.	Dr. Mu Mu Aung	Research Officer	Forest Research Institute
18.	Ms. Ei Thinzar Aung	Programme Assistant	BANCA
19.	Ms. War War Tun	Assistant Director	Department of Agriculture
20.	Ms. Aye Sandar Aung	Assistant Staff Officer	Department of Agriculture
21.	Mr. Pyae Phyo Maung	Programme Assistant	Point
22.	Mr. Ling Houng	Programme Coordinator	Point
23.	Dr. Phyu Phyu Lwin	Staff Officer	Forest Research Institute
24.	Mr. Phyo Zin Mon Naing	Assistant Director	Forest Department
25.	Mr. Thein Zaw Win	Communication Officer	UNREDD
26.	Mr. Naing Linn Oo	Programme Assistant	FREDA
27.	Dr. Nyein Chan	Lecturer	UFES
28.	Mr. Min Myat Aung	Assistant Director	Environmental Conservation Department
29.	Mr. Hnin Aung San	Assistant Director	Forest Department
30.	Mr. Zaw Oo	Programme Officer	ECCDI
31.	Ms. Naw Ei Ei Minn	Director	POINT
32.	Mr. Myo Ko Ko	Programme Manager	POINT
33.	Mr. Nyein Chan-2	Staff Officer	Forest Department
34.	Dr. Shwe Mar Than	Deputy Director	Yezin Agriculture University
35.	Ms. Shwe Lone	Research Assistant-3	Forest Research Institute
36.	Mr. Aung Nay Lin	Manager	Myanma Timber Enterprise
37.	Mr. Win Oo Naing	Assistant Research Officer	Forest Research Institute
38.	Mr. Aung Aung Myint	Consultant	FRI: ICIMOD's REDD+ Himalaya Project
39.	Mr. Aye Chan Maung	Range Officer	Forest Research Institute

No	Name	Position	Department
40.	Dr. Cho Cho Myint	Research Assistant-2	Forest Research Institute
41.	Mr. Mg Mg Lwin	Deputy Director	Forest Department
42.	Ms. Thin Thitsar Kyaw	Project Assistant	UNREDD/FAO
43.	Ms. May Thet Htoo	Range Officer	Forest Department
44.	Ms. Phyu Phyu Swe	Research Assistant -2	Forest Research Institute
45.	Ms. Swe Swe Tun	Assistant Research Officer	Forest Research Institute
46.	Mr. Pyae Phyo Maung	Range Officer	Forest Department
47.	Ms. Khin Moe Kyi	Training Coordinator	RECOFTC
48.	Ms. Khin Thiri Htun	M & E Consultant	RECOFTC
49.	Mr. Thein Saung	Staff Officer	Forest Research Institute
50.	Mr. Zaw Min Aye	Range Officer	Forest Research Institute
51.	Mr. Sitt Nyein Oo	Project Assistant	FRI: ICIMOD's REDD+ Himalaya Project
52.	Ms. Ei Wah Wah Thet	Project Assistant	FRI: ICIMOD's REDD+ Himalaya Project
53.	Mr. Moe Myint Thu	Research Assistant-3	Forest Research Institute
54.	Mr. Htet Hnaung Khant	Research Assistant-3	Forest Research Institute

Annex 3: Opening Speech to be delivered by Dr. Nyi Nyi Kyaw, Director General

21-2-2018 (08:30 AM)
Forest Research Institute, Yezin

- Representatives from ICIMOD, Nepal, India and Australia,
- Officials from Forest Department and line Ministries,
- Representatives from CSOs and NGOs,
- Distinguished Guests, Ladies and Gentlemen,

A Very Good Morning,

First of all, I would like to extend my warmest welcome to you all. I am also wishing you all physical and spiritual well-being. It is indeed my great honour and pleasure to deliver an opening speech for this occasion on "Regional Workshop on Role of REDD+ in supporting SDGs - Sustainable Development Goals and NDC- Nationally Determined Contributions" organized by the Forest Department and ICIMOD in collaboration with regional countries, Nepal, Bhutan and India, under REDD+ Himalaya's Project.

I am delighted that this workshop has come to be in line with global efforts to combat climate change impacts, to meet the Sustainable Development Goals, through the implementation of Nationally Determined Contributions.

Ladies and gentlemen,

Taking this opportunity, I would like to briefly touch upon cooperation between our ministry and ICIMOD - International Centre for Integrated Mountain Development. In Myanmar, a substantial part of the country is mountainous and covers roughly 42% of the land area. More than 12 million people or 24% of the total population are living in the mountains. The Hindu Kush Himalaya is the widest mountain chain in the world and located in areas of Afghanistan, Bangladesh, Bhutan, China, India, Myanmar Nepal and Pakistan. Thus Myanmar joined ICIMOD in 1990 as a member country and the Forest Department under the Ministry of Natural Resources and Environmental Conservation is represented in its Board of Governors as a focal agency of Myanmar. Since then, we have jointly carried out activities under the thematic areas of Biodiversity Conversation and Management, Land cover, REDD and Forest management and Capacity building training in order to support the development of an economically and environmentally sound ecosystem and to promote the livelihood and welfare of the mountain populations.

The ongoing ICIMOD REDD+ Project started in March 2016 aiming to strengthen the capacity of the government staff as well as other relevant stakeholders and to develop instruments in preparation for REDD+ Readiness by undertaking and identifying gaps in the readiness phase.

The main activities are capacity building, awareness raising and identifying gaps regarding REDD+ implementation in Myanmar. On the other hand, the project is also designed to improve the capacity of local communities in forest governance by setting up a demonstration site at Pindaya Township in Shan State.

Ladies and gentlemen,

According to the FAO Forest Resources Assessment 2015, Myanmar has the third highest rate of deforestation in the world and has lost 1.3 million acres of forests between 2010 and 2015. In this regard, the IPCC report (2007) estimated that greenhouse gas emissions from the forestry sector as a result of deforestation and forest degradation was 17.4% of the total emissions from all sectors. It is apparent that deforestation and depletion of forest resources have direct impact on global climate change.

Recognizing the rapid rate of deforestation and forest degradation in the country, the government of Myanmar has committed to set aside 30% of the total country area as reserved forests and protected public forests, and another 10% as Protected Areas. Those Nationally Determined Contributions (NDCs) will have to be fulfilled by the year 2030.

Moreover, in order for Myanmar to fulfil the Sustainable Development Goals (SDGs) and to achieve sustainable development of the country, it needs to restructure the economy and find out sustainable routes to economic development. On the other hand, such a mechanism should also encourage sustainable development of the country without any hindrance to the rapidly growing economy.

Ladies and gentlemen,

REDD+, with its economic incentives for the conservation of forests, is a mechanism that seeks to create financial value for carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.

Recognizing the REDD+ as an innovative approach, Myanmar joined the UN-REDD Programme in December 2011. Since then, REDD+ activities have accelerated with momentum and we were able to develop the REDD+ Readiness Roadmap in June 2013 with the support of the Norwegian government and the UN-REDD Programme.

Now, we have been implementing the REDD+ Readiness Roadmap with the support of the UN-REDD Programme at the national level. At the same time, we have also been implementing pilot projects in cooperation with ICIMOD, ITTO, Korea Forest Service, FFPRI-Forest and Forest Product Research Institute, Japan, Asia Air Survey Co. Ltd and other development partners.

Ladies and gentlemen,

In this context, the role of forests is becoming increasingly important in global climate change agenda and REDD+ activities are also recognized as an important component of climate change mitigation options. For example, REDD+ related issues are considered an important agenda of UNFCCC as well as global climate change summits.

The New York Declaration on Forests, which was declared during the United Nations Climate Summit held on 23 September 2014 in New York, stated that reducing emissions from deforestation and increasing forest restoration will be extremely important in limiting global warming to 2°C. For this, at least 50% of the rate of global deforestation will have to be reduced by 2020 and efforts are needed to end natural forest loss by 2030.

Nowadays, the Government of Myanmar has been promoting Green Economy Green Growth for the sustainable development of the country. Myanmar Climate Change Alliance (MCCA) was formed in October 2013 in order to handle climate change related issues effectively. Therefore, it is very important to take this opportunity for scaling up the REDD+ as a Green Growth approach at the national level.

In line with the national reform process, our ministry has also been transforming extractive industry into service economy. At this juncture, we should pay more attention to our tasks for smooth and effective transition towards achieving green economy in the forestry sector.

As you are all aware, forests represent one of the largest and most cost-effective climate solutions available today. Sustainably managed and restored forests can contribute to climate change mitigation, economic growth, poverty alleviation, food security, climate resilience and biodiversity conservation. It can also help secure respect for the rights of forest dependent indigenous peoples, while promoting their participation in decision making. Since REDD+ is a cross-sectoral mechanism, all line ministries, NGOs, CSOs and relevant stakeholders are strongly encouraged to work together in order to achieve not only climate change benefits but also other ecosystem services.

In this context, this regional workshop aims to identify possible ways to nest REDD+ within broader SDGs and NDCs, to exchange experiences on progress and challenges in REDD+ readiness phase in the region through south-south cooperation and to get feedback and suggestions from regional REDD experts to synchronize REDD+ with SDGs and NDCs.

Experts from international organizations, government ministries, UN agencies and NGOs will be presenting a wide range of subjects related to REDD+ and Sustainable Development Goals and Nationally Determined Contributions. I firmly believe that this regional workshop will provide invaluable recommendations and outcomes to support the successful implementation of Myanmar's REDD+ Roadmap in supporting Myanmar's SDGs and NDCs.

Ladies and gentlemen,

In conclusion, I would like to express my sincere appreciation for GIZ for their financial support and Dr Bhaskar Karky from ICIMOD for his continuous support and facilitation for the successful organizing of this regional workshop. I am also very grateful to all resource persons and participants from all international organizations, NGOs and line ministries for their contributions and active participation. With this, I would like to encourage all participants to make utmost efforts and hold constructive discussions for the success of this workshop.

I wish this workshop every success.

Thank you very much.

Annex: 4 - Presented papers

1. Linkage of Nepal's REDD+ to SDGs and NDC

Hari Kumar Laudari, REDD+ IC, Ministry of Forest and Environment, Nepal, hklaudar@gmail.com

Abstract

Nepal has adopted inclusive, community-based and multi-stage approaches to REDD+. In addition, the country has developed multi-level REDD+ institutions, policy framework, and programmes for ensuring robustness and legitimacy of REDD+ decisions/processes. Nepal has also incorporated a range of emissions reduction programmes in its national and sub-national REDD+ programme, including ERPD, FIP, and REDD+ Himalaya. These REDD+ policy and measures complement many of SDGs and targets of NDC. However, there still remain gaps in REDD+ policy and measures, which will likely worsen synergies between REDD and SDGs & NDC. Many REDD+ related policy and measures, which are prerequisites for the REDD+ process, are limited in terms of theme and coverage. To secure strong synergy between the REDD+ programme and SDGs & NDC, the country needs to upscale the REDD+ programme to the entire country with an adequate financing mechanism. Moreover, restructuring the REDD+ institutional framework and developing a benefit sharing mechanism and Safeguard Information System are also equally important to achieve SDGs and NDC.

Background

Deforestation and forest degradation (D and FD) is one of the major sources of green house gases (GHGs) emissions in the world. To address the D and FD problem, the COP 13 of the United Nations Framework Convention on Climate Change (UNFCCC) held at Bali in 2007 established the REDD+ mechanism. REDD+ is a type of mechanism that provides readiness finance and conditional results-based payments to developing countries to reduce their GHGs emissions from deforestation and forest degradation (Bastos Lima et al., 2017).

Nepal's approaches to REDD+

Nepal showed interest in REDD+ by submitting Readiness Plan Idea Note (R-PIN) to Forest Carbon Partnership Facility (FCPF) of the World Bank in 2008. The country has adopted a number of approaches for the REDD+ process. For example, it has not only embraced an inclusive and participatory approach in REDD+, but also established vertical and horizontal institutions (Figure 1) for ensuring robustness and legitimacy of REDD+ decisions in the country (Poudel et al., 2014).

In addition, the country has developed and implemented multiple REDD+ policies and measures at all levels, which are built on the community-based model, including Community Forestry, Leasehold Forestry, Collaborative Forest, Religious Forest and Protected Forest. Some notable REDD+ policy instruments and frameworks that are developed at the national level are National REDD+ Strategy, National Forest Reference Level, and National Forest Information System. At the sub-national level, the Emission Reduction Programme Document (ERPD) along with its Forest Reference Level and Forest Investment Plan (FIP) has been developed. The major programmes envisioned in ERPD and FIP are: Sustainable Forest Management (SFM), Alternative energy including Biogas and Improved cooking stove (ICS), Private and Leasehold forest development, an incentive programme for the private sector, Nature-based tourism, and promotion of forest-based enterprise. Nearly 176 million USD is required to implement all the activities envisioned in the ERPD programme, which will in turn reduce 29 MtCO2e emissions within a ten-year period. Out of it, 14 $MtCO_2e$ emissions reduction will be sold to the FCFP's carbon fund. The FIP, on the other hand, is a complementary programme to REDD+ (and partly linked with the ER programme), which has potential to reduce 1.5 $MtCO_2e$ emissions over eight years (from 2018 to 2025). Nearly 15 $MtCO_2e$ and 1.5 $MtCO_2e$ emissions reduction respectively from ERP and FIP will be used as emissions reduction contribution to Nationally Determined Contribution (NDC) of the country.

Figure 1: **REDD+ institution in Nepal**
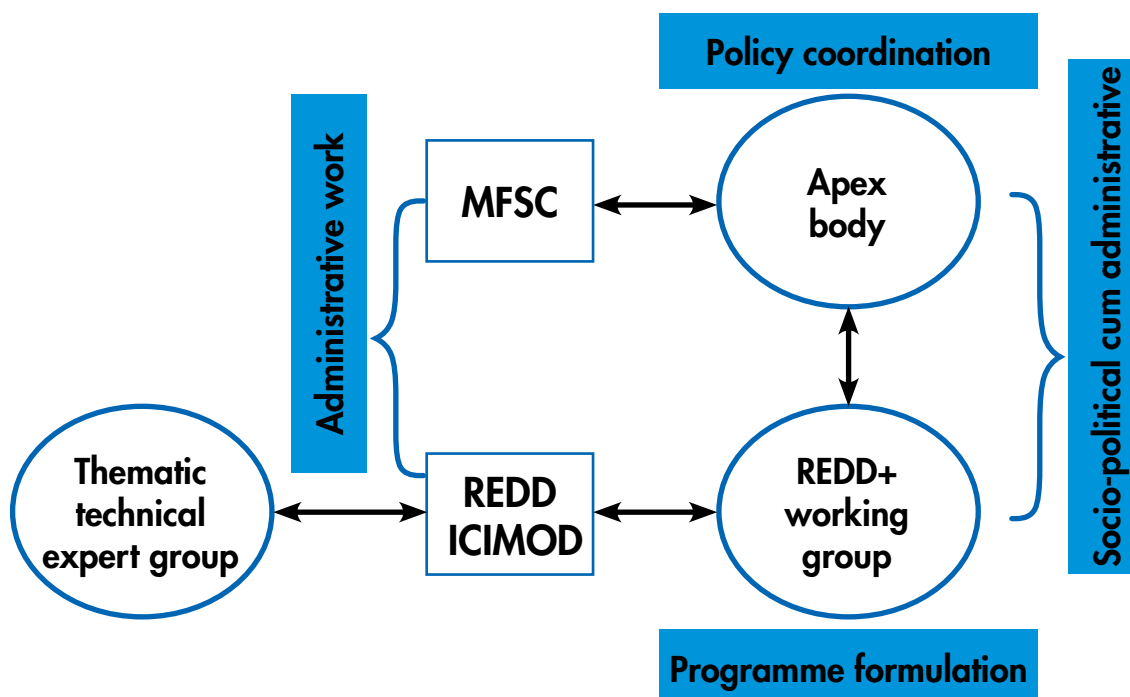
In addition to national and sub-national REDD+ activities, Nepal has also institutionalized the REDD+ process at the local level by implementing a number of REDD+ intervention packages. REDD+ Himalaya Project (funded by ICIMOD) has been able both to enhance the capacities of stakeholders on REDD+ and to set up REDD+ institutions – district REDD+ working group at the local level.

Linkage of Nepal's REDD+ to SDGs

The UN developed 17 sustainable development goals (SDGs) in late 2015 to provide a strategic framework for the world's development activities. Every SDG is intertwined with other SDGs, meaning that achievement of a particular SDG helps to achieve another one. In this perspective, we can't explicitly say that a particular REDD+ activity of the country helps in achieving only one SDG; rather it has multiple effects. For example, integration of GESI activities in REDD+ (including inclusive decision-making process and capacity development of women) not only helps in achieving SDG 5 but also creates strong synergies with SDGs 10 and 16.

Out of the 17 SDGs, Nepal's REDD+ programmes have core synergies with SDGs 5, 7, 10, 13, and 15. And REDD+ activities (of the country), if assessed against each target of SDGs, are found to be compatible with almost all targets of SDGs 13 and 15 (Dhungana, 2017). On the other hand, implementation of the country's REDD+ programmes also brings complementary synergies (foreseen co-benefits) to SDGs 1, 2, 6, 8, 12, 16 and 17. The detailed activities embedded in Nepal's REDD+ programme and its linkage and synergies to SDGs have been highlighted in Table 1.

Although the country's REDD+ initiative (process and programme) is in line with most of the SDGs, its impact on SDGs is likely to be minimal, because Nepal's REDD+ initiative is limited only to a handful of themes and confined to a few areas. For example, REDD+ programmes are being implemented only in 21% of the total districts of the country. Similarly, programmes related to biodiversity conservation, wetland mountain and rangeland ecosystem, and controlling of invasive species & illegal trade of flora and fauna have not adequately been incorporated in REDD+ programmes (Dhungana, 2017). On the other hand, many REDD+ related policy instruments, which are a prerequisite for the REDD+ process, are half-baked. For instance, a benefit-sharing framework for carbon and non-carbon benefits, the National REDD+ Policy, and the Safeguard Information System (for addressing grievances of REDD+ stakeholders) have not yet been finalized. Poor recognition of climate change adaptation programme and the private sector in REDD+ related programme planning may further widen the gaps between REDD+ programmes and SDGs in the coming days.

Table 1: **Linkage of Nepal's REDD+ programme/process to SDGs**

SDGs	Embedded activities in Nepal's REDD+ programme/process	Synergies
End poverty	Private Forest and promotion of forest-based industries	Complementary
End hunger and achieve food security		
5. Gender inequality	Inclusive REDD+ decision making process (Apex body, REDD working group and district REDD working group), Social safeguards, and Integration of GESI programmes	Core
10. Reduce inequality		
6. Clean water and sanitation	Management of watershed programme and Environmental safeguards system	Complementary
7. Clean and affordable energy	Alternative energy (biogas and ICS)	Core
8. Decent work and economic growth	Sustainable Forest Management, Private Forest, Promotion of Forest-based industries	Complementary
12. Sustainable production and consumption patterns	SFM based on silvicultural system	Complementary
13. Climate change mitigation and adaptation	REDD+ Awareness raising and capacity development programme, National REDD+ Strategy, integration of climate-smart and GESI friendly programme, Afforestation and reforestation, SFM, alternative energy (biogas and ICS), agroforestry and private forest	Core
15. Protect, restore and sustainable use of terrestrial ecosystem	SFM, afforestation/reforestation, land use planning, nature-based ecotourism, watershed management, Biodiversity monitoring protocol for REDD+	Core
16. Peace, justice and strong institution	Participatory and Inclusive decision making; Grievances redress mechanism has been integrated in the Safeguard Information System and National Forest Information System.	Complementary
17. Partnerships for SDGs	Country's REDD+ initiative (ERPD and FIP) has attracted GCF, CIF and FCPF	Complementary

Modified from Dhungana, 2017.

Linkage of Nepal's REDD+ to NDC

Nepal ratified the Paris Agreement in October 2016. As a party to the agreement, the country submitted NDC to UNFCCC in the same month to achieve climate-related goals. As the country does not emit significant amount of GHGs, it has intended to undertake several thematic activities to limit temperature rise to safest levels (MoPE, 2016). Out of it, nearly 21% of total intended activities of NDCs are related to REDD+. The country's community-based approach for forest resource management (major building block of REDD+) and REDD+ interventions envisioned in ERPD help in achieving the targets of NDC. The details of REDD+ interventions that are embedded in NDC are highlighted below (Table 2).

Table 2: **Linkage of Nepal's REDD+ programme to NDC**

Targets of NDC	REDD+ related Programme/activities
Maintain 40% forest cover	REDD+ programme adopts CBFM approach to deal with deforestation and forest degradation
Increase forest productivity and products	Sustainable Forest Management and Private Forest (have been envisioned in ERPD and FIP)
Pilot sub-national level ER project to reduce 14 MtCO$_2$-eq by 2020	Emission Reduction Programme has been developed for 13 districts of TAL area to reduce 14 MtCO$_2$-eq.
1,31,200 biogas plant and 4,74,000 ICS	ERPD's target is to establish 60,000 biogas plant and 24,000 ICS.

REDD+ activities (for example, SFM, promotion of biogas and ICS, and maintaining 40% forest cover) that are embedded in NDC require a sustainable financing mechanism underpinned by institutional reform and human resource development measures. However, in the present context, there are still some gaps, particularly on the finance and human resources fronts.

Conclusion and a way forward

Community-based and multi-stage approaches of Nepal's REDD+ initiative have been able to create strong synergies with SDGs and NDC. However, some gaps remain, for example, narrow coverage of the REDD+ programme, financial constraints and inadequate technical human resources to translate policy/plans into action. These shortcomings may worsen the synergy between REDD+ and SDGs & NDC in the coming years. Up-scaling the REDD+ programme at all levels, restructuring the institutional framework, and developing a benefit sharing mechanism (as provisioned in the new Constitution) & Safeguard Information System (for addressing grievances of REDD+ stakeholders) may boost synergies and eventually make the REDD+ programme sustainable.

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2. India's experience in REDD+ supporting SDGs and NDCs

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Introduction

REDD+ includes "reducing emissions from deforestation and forest degradation" plus "conservation, sustainable management of forests and enhancement of forest carbon stock in developing countries". In India the forest and tree cover has steadily been increasing over the last many years, owing to large-scale afforestation and plantation programmes both from the government and private sector. The latest biennial report of the Forest Survey of India, the India State of Forest Report, 2017 has reported 7,08,723 sq.km. of forest cover covering 21.54% of geographic area and 93,815 sq.km. of tree cover forming 2.85% of geographic area. Though there is increase in forest and tree cover, mainly in the southern states, there is loss of forest cover and degradation in the north-eastern region, which has nearly one-fourth of the natural forests of the country. There are nearly 300 million people dependent on forests for their livelihood and income. Thus there is great potential for REDD+ in India, which can reduce emissions from deforestation and degradation in the forested regions, and also take up reforestation and enhancement of carbon stocks in the areas deficient in forests.

In India REDD+ projects are in various stages of implementation, mostly at the pilot level. The National REDD+ Policy is in place and the National REDD+ Strategy is in the final draft stage. Though India has progressed greatly in achieving the Sustainable Development Goals (SDGs) and in the Nationally Determined Contributions (NDCs), the contribution of REDD+ objectives in achieving them and their commonality is less understood. India's experience in REDD+ supporting the SDGs and NDCs is detailed below.

India's focus on SDGs

A High Level Political Forum had identified the focus areas among the SDGs for the Voluntary National Review in 2017, and the SDGs are 1, 2, 3, 5, 9, 14 and 17. Though all the goals are interlinked, those directly linked to climate change and forestry are just SDGs 13 and 15, and though they are not the focus of the current Voluntary Review, are quite important, especially with reference to the socio-economic development of the forest dwelling and dependent communities.

If SDG 1 "End poverty in all forms everywhere" is considered, poverty levels have been falling steadily since 1991. As per the report of the Reserve Bank of India in 2012, the national average of poverty stood at 21.92%. However, the World Bank has estimated that in 2011, India had 23.6% of the population below the poverty line, based on purchasing power parity. As per the revised USD 1.90 a day poverty measure, in 2013, 30% of the population in India live below the international poverty line, according to the World Bank. Though there are disputes on the level of poverty, there is no dispute that poverty levels have been declining rapidly. As per Government of India's estimates, annual average decline of poverty was 2.2% between 2004/05 and 2011/12. This poverty decline is associated with significant increase in labour earnings, steep rise in wages for unskilled labour, and diversification from farm to non-farm sources of income in rural areas (Balcazar et al., 2016). The decline in rural poverty has been largely attributed to the Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), a 100-day guaranteed employment scheme, though there are regional variations and certain drawbacks (Breitkreuz et al., 2017). The scheme generated nearly 2 billion person-days of employment a year and had positive impact on forest conservation in two ways, firstly, through directly giving sufficient purchasing power and diverting local population from forest based livelihood like fuelwood cutting and selling and other unsustainable use of forest produce and secondly through soil and moisture conservation works and plantations, which had a positive impact on the forest and tree cover. Under the Prime Minister's Ujjwala Yojana, 22 million households were provided LPG connections between 2005 and 2016, and thus households with clean fuel increased from 25.5% to 43.8%. This has a direct

bearing on deforestation, as India is the largest producer and consumer of fuelwood in the world. Indian women spend 374 hours per year on fuelwood collection; now they can save that time for education or other productive work. It is estimated that out of nearly 216 million tonnes of fuelwood used every year, 27% comes from forests (FSI, 2011). Reduction in fuelwood use thus indirectly contributes to forest conservation. It has been estimated that national fuelwood displaced due to increased LPG access was approximately 7.2 million tonnes with an estimated net emission reduction of 6.73 $MtCO_2e$ (Singh et al., 2017).

With reference to SDG 2: "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture", sustainable forest management can increase the availability of food from forests. This is especially relevant for the communities living in and around forests. Forests in India are a direct source of fruits, vegetables, nuts, mushrooms, fodder and forage, animal source foods, etc., and provide a safety net in times of seasonal scarcity. Indirectly, forests are a source of genetic resources, home of pollinators and regulate water supply for agriculture. Soil resources are also regulated and erosion is controlled by the forests (Vira et al., 2015). In India between 2005 and 2016, stunting among children less than 5 years has declined from 48% to 38.4%. The percentage of underweight children has also declined from 42.5% to 35.7%. More than 800 million people are covered by the Public Distribution System under which food articles are provided at subsidized rates and about 100 million children are covered by the mid-day meal scheme under which nutritious meals are provided in schools. To make the agriculture climate adaptive, 62 million Soil Health cards have been issued to farmers, so that they can rationalize the use of fertilizers, especially those that contribute to greenhouse gas emissions. There is also a move to promote organic farming. India has plans to double the farmers' income by 2022. All these activities are also related to the REDD+ objectives.

SDG 3 - "Ensure healthy lives and promote well-being for all at all ages", is linked to many other goals. In India between 2005 and 2016, the prominent indicators of health improved. For instance, infant mortality rate declined from 57 to 41 per 1000; Under-5 mortality declined from 74 to 50 per 1000; institutional deliveries increased from 38.7% to 78.9%. The National Health Policy, 2017 talks of Universal Primary Health Care, complete immunization by 2020 and health insurance of up to INR 1 lakh to all poor families. SDG-5 on Gender equality and empowerment has shown impressive progress. Between 2005 and 2016 female literacy increased from 55.1% to 68.4%. Women using bank accounts increased from 15.1% to 53%. SDG-9 on resilient infrastructure, inclusive and sustainable industrialization and fostering of innovation, has close links with NDCs and REDD+. Between 2012 and 2017 the installed capacity in non-fossil fuel sectors has grown by 51.3% and more than doubled in renewable energy sector. REDD+, through sustainable forest management, can cater to the energy needs by supplying biomass.

SDG-14 on Life below water - deals also with mangroves, and in India there has been a net increase in mangrove cover by plantation and protection; the mangrove area has increased between 1995 and 2017 from 4533 km2 to 4921 km2. SDG-17 on Global partnership is linked to all the other goals. The other SDGs, though not emphasized in the Voluntary Review, have linkages with all the other goals. As far as REDD+ is concerned, SDG-13 and SDG-15 are directly related to Climate Change and Forests respectively.

India's Nationally Determined Contributions (NDCs)

The NDCs related to REDD+ objectives are many. There is a proposal to create additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent through forest and tree cover by 2030. This is directly relevant to REDD+ objectives of sustainable forest management and enhancement of forest carbon stock. There is also a commitment to reduce emission intensity of GDP by 33 to 35% by 2030 from the 2005 level. As a result of measures taken in this direction, the emission intensity of GDP decreased by 12% between 2005 and 2010. It decreased from 18.16 goe (grams of oil equivalent) per Rupee of GDP in 2005 to 15.02 goe per Rupee GDP in 2012, a decline of over 2.5% per annum. It is also proposed that 40% of cumulative electric power installed capacity will be achieved from non fossil fuel based energy sources by 2030.

The NDC strategies related to mitigation include generation of green energy and its increase from 35 GW in 2015 to 175 GW in 2022; increase in solar power from 20 GW to 100 GW by 2022; establishment of smart grids and green energy corridors; energy conservation by 10% by 2018-19; use of 5% biodiesel in locomotives, and

implementation of Green Highways Policy. As part of adaptation, there is introduction of soil health card scheme, organic farming, efficient irrigation, National Mission for Clean Ganga, reduction of subsidy on LPG and creation of the National Adaptation Fund of INR 3,500 million.

Enhancing the carbon sink by 2.5 to 3 billion tonnes of CO2 equivalent through forest and tree cover involves increase of carbon stock of about 680 to 817 million tonnes. It is proposed that this will be achieved through the implementation of the Green India Mission, establishment of tree-line along both the sides of national highways of 1,40,000 km length; and plantation along rivers. If we look at the Green House Gas (GHG) profile of India, we see that the only sector that has been showing a negative share of emission over time is Land Use, Land Use Change and Forestry (LULUCF). While LULUCF contributed 1.16% of emissions in 1994, it dropped to (-)17% in 2000 and to (-)12% in 2010. The carbon stock in forests is showing a steady increase. It was 6621 million tonnes in 2005, increased to 6941 tonnes in 2011 and to 7082 tonnes in 2015.

Synergy among SDGs, REDD+ and INDCs

At least 12 of the 17 Sustainable Development Goals have direct or indirect connection with the NDCs and REDD+ objectives. Formulation and implementation of suitable REDD+ projects in areas where forests are getting lost or degraded can not only restore the green cover, but also greatly contribute to achieving the SDGs and NDCs. The linkages among the three are shown in the table below.

SDG	REDD+ objective	NDC targets
1. End poverty	REDD+ to be implemented in the context of sustainable development and reducing poverty	
2. End hunger/ food security and sustainable agriculture	Forest foods, agroforestry, organic farming, improved shifting cultivation	
6. Water and sanitation	Conservation of ecosystem services, Watershed management, river conservation, river cleaning	
7. Affordable, reliable, sustainable and modern energy for all	Reduction in fuelwood use	40% of installed capacity of power generation from non fossil fuel
9. Resilient infrastructure, sustainable industrialization	Increase in the capacity of non fossil fuel based energy production	
10. Reduce inequality within and among countries	Bilateral and multilateral collaborations	
12 Sustainable consumption and production patterns	Reducing pressure on forests	Sustainable way of living
13. Combat climate change	Reducing emissions and degradation; enhancing carbon stocks and addressing drivers of deforestation	Reduction in emission intensity of GDP by 33-35% by 2030 (from 2005 level)
14. Conserve marine resources	Afforestation in mangrove areas	
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and biodiversity loss	All REDD+ objectives directly related	Creation of 2.5 to 3 billion tonnes of CO_2 equivalent – additional carbon sink through forest and tree cover by 2030
16. Peaceful and inclusive societies for sustainable development	MRV and SIS are participatory	
17. Global partnership for sustainable development	Finance, technology transfer, capacity building	Capacity building of climate change technology and collaborative R&D. Domestic funds and additional external funds

Conclusion

The way forward for India would involve formulating strategic plans for implementation of REDD+ on a regional or landscape scale, and implement REDD+ projects at the grassroots level, with active involvement of communities. REDD+ can contribute to achieving a large number of SDGs. While SDG 13 on Climate Change and SDG 15 on Life on Land directly address the objective of REDD+, many others are influenced indirectly. The SDGs and the related REDD+ objectives have been compiled and discussed elaborately (Lima et al., 2017). The contribution of REDD+ in meeting the NDC targets will help in mobilizing international funds as well as the National Adaptation Fund.

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3 Current Status of NFMS and Initial FREL of Myanmar

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In Myanmar, forest resources play a critical role for the livelihood of people and the national economy as well as in providing environmental services and addressing climate change. The country's total population is 51 million and 75% of them is living in rural areas (2014 Population Census). In Myanmar, there are over 100 ethnic groups and they have different cultures, customs and traditions related to natural resource uses.

Forest monitoring is necessary in national and international environmental and developmental policy processes. A sound forest monitoring system and reliable and updated forest resource information is crucial for sustainable development.

On the other hand, the Government of Myanmar is fully aware of the causes and potential impacts of climate change. Myanmar actively participated in global climate change mitigation efforts as a non-Annex 1 party. Nationally Determined Contribution (NDC) was submitted in 2016. Under the NDC, forestry is a key sector and quantitative targets are likely to be included. Currently, Myanmar views REDD+ initiatives as a contribution to the green development of Myanmar as well as a way to support the mitigation of, and adaptation to, climate change.

Following the suggestion of Decision 12/CP.17, Myanmar prepared its FREL using a stepwise approach. In January 2018, Myanmar submitted an initial FREL as a benchmark for assessing its performance in implementing REDD+ activities for climate change mitigation. Myanmar FREL is undertaken at the national level. This submission follows the IPCC Good Practice Guidance and Uncertainty Management of National Greenhouse Gas Inventories. Specific activities are either planned or ongoing for improvement of AD and EF, especially strengthening of the national forest monitoring and information system and in order to provide more qualified data and information for future FREL/FRL submissions.

4. Biodiversity Monitoring Protocol for REDD+

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Background

REDD+ is a policy aimed at reversing the historic trends of increasing deforestation and greenhouse gas emissions from forested landscapes. An instrument under the UNFCCC, REDD+ serves as a climate change mitigation mechanism where developing countries can participate voluntarily. This instrument is based on an incentive mechanism where developing countries receive financial payments for undertaking any one or combination of the following activities (1/CP.16, paragraph 70):

- Reducing emissions from deforestation;
- Reducing emissions from forest degradation;
- Conservation of forest carbon stocks;
- Sustainable management of forests;
- Enhancement of forest carbon stocks

Due to the nature of the REDD activities, there is a need to synchronize the three multi-lateral environment agreements of the Rio Convention namely the UNFCCC, CBD and UNCCD. All land-based activities must contribute in fulfilling the goals set by these global conventions. REDD+ offers expectations for biodiversity conservation, as a co-benefit of conserving forests in order to reduce carbon emissions (Strassburg et al., 2010; Venter et al., 2009).

In reality biodiversity conservation and forest resource management are core activities and benefits generated from reduced CO_2 emission has come up as co-benefits. Although the anticipated impact of REDD+ on biodiversity conservation in most forests is positive, such an impact cannot be guaranteed. Poorly designed REDD+ efforts (e.g., projects focusing solely on carbon for obtaining Certified Emission Reduction (CER) credits) could damage forest biodiversity, and in the process threaten the continued provision of ecosystem services for human well-being (CBD, 2011)

Scope of Biodiversity Monitoring Protocol

Cancun safeguard recognizes the need for safeguards to address biodiversity conservation. However, none of the standards currently proposed include significant guidance on biodiversity monitoring. There is a need for a rigorous framework and guideline to ensure that biodiversity concerns are incorporated into national REDD+ projects and the stated goals of biodiversity conservation are met with appropriate regard to the well-established ecological principles and experiences (Gardner et al., 2011; Waldon et al., 2011).

REDD+ has the potential to benefit biodiversity, but there are also several potential risks. Monitoring the biodiversity impact of REDD+ can help ensure that risks are mitigated and benefits achieved. Additionally, the results of monitoring may help in demonstrating compliance with international conventions and agreements.

Prioritizing Biodiversity Monitoring for REDD+

The term 'biodiversity' includes all biological forms and hence monitoring of biodiversity can become a herculean task unless we focus on a specific area of interest. Unless prioritization is done monitoring of biodiversity can become vague and complex in the context where REDD+ projects have limited human and financial resources available for biodiversity monitoring. Identification and classification of forest according to their conservation value can be a beginning step for prioritization of biodiversity monitoring activities. The conservation value of the forest can be assessed using secondary sources, literature and survey data, particularly the environmental and socio-

economic baseline survey and be classified into six specific forest values as adopted by Forest Stewardship Council. Identification and categorization of the sites as HCVF should be done with adequate expert and field consultation. The following table shows the area of interest and key priorities at different levels of biodiversity that should be kept in mind during biodiversity monitoring for REDD+.

Biodiversity monitoring approach

Remote Sensing & Geographic Information System: Remote sensing and GIS along with Google Earth can be used to gather preliminary information about the study area and layout of the study plots. Information on wildlife population, their habitats and movements combined with the remotely sensed data can provide useful information for long-term research. Additionally, use of tracking collars for wildlife has also proven to be a very effective tool for monitoring their movements and behaviours that could give clue to their home range sizes, daily movements, behaviour and diet. Particularly, Very High Frequency (VHF) collars and Global Positioning System (GPS) Collars have been used in Nepal. Conservation drones – miniature unmanned aircrafts – can also be used to remotely capture real time images and videos for monitoring species and habitat.

Participatory Biodiversity Monitoring: Rapid assessment of biodiversity can be done using participatory tools like Resource Inventory, Transect Walk, Focus Group Discussion, household survey, Key Informant Survey, participatory socio-resource mapping, enterprise and forest user groups' records, photo monitoring, and experimental plots. This is an effective method that engages stakeholders at various levels and can provide us a preliminary idea about the status of biodiversity and its distribution in the area.

Biodiversity Monitoring Using Permanent Plots: This approach is useful for REDD+ projects that have long-term implementation models and that last over a longer period (>10 years). Monitoring the flora, fauna and other variables using permanent plots can be one of the best ways of long-term biodiversity monitoring. Permanent plots can be located in different areas of interest like areas with significance for biodiversity, areas sensitive or resistant to changes in climate and land use.

Periodic Biodiversity Monitoring: As every biodiversity assessment requires adequate time and resources, regular monitoring might not always be possible; in such cases periodic monitoring might be the best way. Such monitoring can be done once a year, every alternate year or at a fixed time like every four or five years. Conducting such periodic monitoring in a systematic manner contributes to long-term biodiversity monitoring. Periodic monitoring provides valuable information on the trends and changes in the status of biodiversity of time and space.

Methods for Floral diversity assessment

Various tools such as resource inventory transect walk and photo monitoring can be used to monitor changes in vegetation diversity of the area. These vegetation assessments can be carried out in both rectangular and circular plots. Nevertheless, circular samples are recommended because they are relatively easy to establish. Methods of measurement and resource assessment vary according to forest product and ecosystem services that are intended to be assessed or geographical area. Sequential process for floral assessment includes:
- Laying out the sample plots on the ground
- Collection of plot information
- Collection of data and information on shrubs /or scrubs
- Herb and grasses measurement
- Seedling measurement
- Sapling and pole measurement
- Tree DBH and height measurement
- Measuring of NTFPs

Methods for faunal diversity assessment

A comprehensive monitoring would entail general fauna survey methods such as those used regularly in environmental impact assessments (Hyder, Dell et al. 2010). A range of methods is available for monitoring different taxa and species within those taxa. Since monitoring all the species is complex and time consuming, it is advisable to identify the key indicator or keystone species and monitor the species. Monitoring of faunal biodiversity is particularly important in high conservation value forests including PAs. This assessment in combination with floral assessment supplements the assessment of forest health. Methods that can be used for faunal diversity assessment are as follows:

- Large Mammals: Reconnaissance (Recce) transects, Transect survey, Fecal counts, Camera trapping
- Small Mammals: Camera traps, Pitfall traps, Sherman traps and Snare traps
- Season: Summer
- Avian Species: Transect Method and Point count method
- Reptiles and Amphibian: Visual Encounter survey
- Butterflies, Moths and other insects: Pollard Walk Method and light traps
- Aquatic diversity: Direct Visual count, catch and release, Traps and nets and Hydro acoustic counts

Institutional arrangement for BMP for REDD+

The institutional arrangement for biodiversity monitoring for REDD projects needs to be established. In Nepal, the central government coordinates the PAs and carbon through the RIC and DNPWC as per prevailing policy and the Constitution of Nepal.

The overall REDD programmes are coordinated by the REDD Implementation Centre (RIC) whereas the expertise for conducting biodiversity monitoring lies with DNPWC, a government authority for management of protected areas, and the DoF, the authority for forest management outside PAs, with support from NGOs like the National Trust for Nature Conservation (NTNC), World Wide Fund for Nature (WWF) Nepal, Zoological Society of London-Nepal and Friends of Nature. Therefore it is suggested that while the RIC takes charge of the overall REDD programme, the biodiversity monitoring component be assigned to the DNPWC, which could lead the monitoring work in partnership with other institutions such as NTNC and WWF.

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5. Analysis of Drivers of Deforestation and Forest Degradation in Shan State

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This study aims to contribute to Myanmar's REDD+ readiness programme. It is especially to identify, analyze and document the driver of deforestation and forest degradation of the whole Shan State. Moreover, it is also need to determine co-relation between them and also to make the assessment of strategic options for addressing deforestation and forest degradation.

During the study, stakeholder consultation, interview participatory approach and general observation were emphasized. Socio-economic survey was conducted only in 9 villages of serious hotspot areas depending on available time budget and security condition.

Two sources (primary and secondary) of data collection were used. To know the history of forest cover change, spatial analysis using three sets (2005, 2010 and 2015) of satellite remote sensing data had been performed. As a counter checking, NDVI analysis and Hansen and Global Forest Watch data were also used. According to the spatial analysis of 2005, 2010 and 2015 Landsat imageries, Forest Cover of Shan State decreased from 52.38% in 2005 to 41.45% in 2010, but a little bit increased from 41.45% in 2010 up to 48.14% in 2015, indicating an increase of 6.69% during the 5 years period (2010 to 2015).

In addition, according to the group homogenous matrix of NDVI values 2005 and 2015, Young Regeneration Forest (YRF) and Low Density Forest (LDF) are getting increased in 2015. High Density Forests are apparently decreased. That means forest cover of Shan State has been obviously deforestation and degraded between 2005 and 2015 period. Other lands reduced and scrub lands are getting high. That means some bare lands are getting covered with tree canopies. That is result of rubber plantations. All in all, that NDVI result is resembled with the spatial analysis results of Landsat imageries. Another indication is that there is hardly any High Density Forest (HDF/intact forests) left in Shan State.

According to Global Forest Watch data, in 2012, Shan State Forest Cover is still good in compare with forest cover of other Regions and States, but dense forest or intact forest is lower than Kachin State. Moreover, annual forest loss was highest in year around 2010. That coincided with the result of special analysis. And also annual forest loss of Shan State is higher than other Regions and States. This study finding is consistent with FAO FRA reports and Global Forest Watch data.

According to result of the result of "Forest Cover and Carbon Mapping in Greater Mekong Sub-region and Malaysia Project" under APFNet program, the estimated carbon stock of Shan State was 700.93 million tons. According to FRA 2010 and FRA 2015, estimated carbon stock of Shan State was 791.40 mt in 2005, 754.71 mt in 2010 and 722.83 mt in 2015, respectively. That is why, In terms of carbon emission from deforestation and forest degradation, 6.86 million tons per year of carbon emitted between 2005 to 2015 period in Shan State.

The main drivers of deforestation and forest degradation in Shan State can be divided into two types, namely direct and indirect drivers. Direct/Proximate drivers are direct human activities that affect forest cover. Indirect/Underlying drivers are complex interactions of fundamental, social, economic, political, cultural and technological processes that affect direct drivers. Indirect drivers include processes such as changing markets and commodity prices, population growth, national policies and governance, and dynamics of subsistence and poverty.

The study findings showed that direct drivers in Shan State that were associated with deforestation were Agricultural expansion, Shifting Cultivation, Infrastructure development and Mining while associated with forest degradation were Overexploitation of timber, Fuelwood consumption (including charcoal) and Forest fire. In indirect or underlying terms, drivers include population growth, Economic growth (International and national), weak in law enforcement, Poverty and subsistence, Conflicting policy, Language barriers, Land tenure uncertainties and Inadequate Natural Resources planning and monitoring. Those will be associated with not only deforestation but also forest degradation.

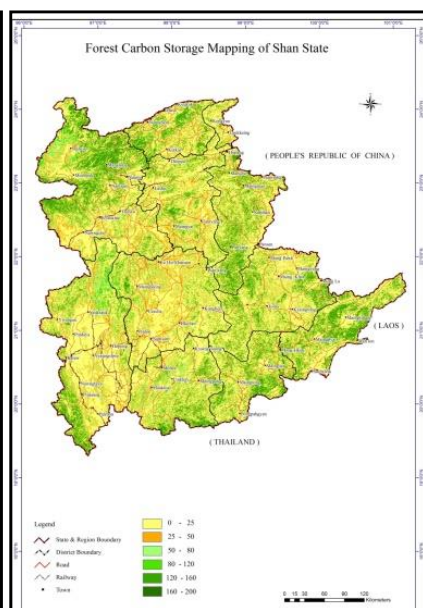Figure 1: **Change Assess Map (2005-15)**   Figure 2: **NDVI Map of Shan State**   Figure 3: **Carbon Storage Map of Shan State**
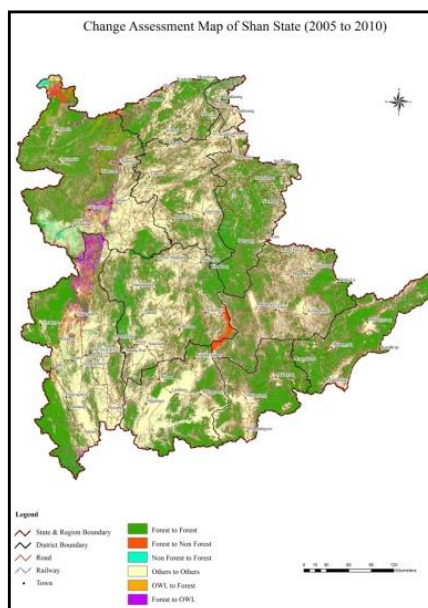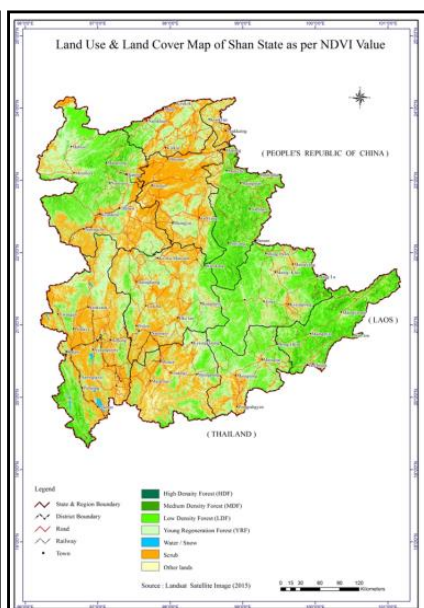
In some part of the study area, parts of the forest areas have been converted to agricultural lands where part of forest land have been cleared for rubber plantation and food production especially maize, water melons, beans and potatoes. Agricultural expansion for commercial and subsistence purposes have been reported as major drivers across Shan State. In terms of shifting cultivation, if it has evolved into shorter fallow period system and changed to agribusiness region, it will seriously damage the environment and creates soil erosion and degradation. Especially rubber plantation areas of northeastern and eastern Shan State have been drier than ever.

All in all, in Shan State, Agricultural Expansion, Agribusiness Plantations, Shifting Cultivation, Rubber Plantations, Opium Poppy Plantations, and Poverty are main drivers of deforestation and they are interrelated to each other. Population growth and economic growth are the same. These drivers are the very important drivers of deforestation and forest degradation in Shan State. Mining, Infrastructure Development including urban expansion and Forest fire are also important but less prominent in Shan State.

The priority order of Strategic Options for addressing deforestation and forest degradation is the outcomes of stakeholder consultation and validation workshop organized in Taunggyi. Overall comments on Strategic Options are:

1. Encourage and Promote Nationwide Ceasefire Agreement - NCA and Myanmar's Peace Process which is linked to good governance and security for sustainable development.
2. Promote financial, facilities and human resources to implement effectively forestry activities and monitoring.
3. Facilitate arm guards and built capacity within the department to monitor effectively.
4. Making the National Land Use Policy effective across the country
5. State land management system and customary land management system should have good integration.
6. Promote coordination between Government Organizations with overlapping mandate.
7. Practice with least environment impact techniques with EIA/SIA before starting the project.
8. Electricity and Energy sector development with respect to Sustainable fuelwood and charcoal consumption.
9. Awareness raising and law enforcement within local communities.
10. Timber extraction must be practiced according to the instruction of Reduce Impact Logging of Code of harvesting.
11. Determined the AAC based on the need of the changing socio-economic, environmental and silvicultural considerations and limited harvesting of timber of all species to the specified AAC.
12. Introducing Agro-forestry practice with the support of perennial crop seedlings.
13. Introduce high-yielding variety crops and farming systems and disseminate higher-yielding variety seeds and seedlings.

SWOT analysis of the priority options identified the various drivers related to deforestation and forest degradation was also applied with the consent of the stakeholder consultation meeting.

The Government of Myanmar is trying to formulate a new land law which is being developed in order to harmonize existing laws related to land. Under this law, a National Land Use Council will be set up. Some other rules and regulations are also amended to be in line with the current saturations. To overcome deforestation and forest degradation, Ministry of Natural Resources and Environmental Conservation (MONREC) has developed a ten-year Restoration and Rehabilitation Programme (2017-2027) in cooperation with related stakeholders, building on past experiences and lessons learned.

Sooner or later, we will have to recognize that the Earth has rights, too, to live without pollution. What mankind must know is that human beings cannot live without Mother Earth, but the planet can live without humans (Evo Morales). That is why we should find the way as Dr. Albert Einstein said.

"We cannot solve our problems with the same thinking we used when we created them."
– Albert Einstein

6. An assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in the Hindu Kush Region

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During 2010-2015, approximately 7.6 million hectares of forests—about 11% and 50% of the size of Myanmar and Nepal, respectively— disappeared from the earth annually (FAO, 2015). Deforestation and forest degradation account for about 10-18% of total global anthropogenic greenhouse gas (GHG) emissions. Without reducing emissions from deforestation and forest degradation, conservation and enhancement of forest carbon stocks and sustainable management of forests (REDD+), the 1.5–2°C climate change target, as proposed by the Paris Agreement (United Nations, 2015), cannot be realized. The effective implementation of REDD+ could transform the forestry sector from a climate change problem to a climate change solution. Therefore, billions of dollars have been channelled into developing countries for REDD+. However, weak governance and high levels of illegality pose major challenges in these countries. Using a normative framework of principles, criteria and indicators (PC&I), this study assesses governance quality and develop "verifiers" for eleven indicators for community based forest management systems (CBFMSs) at local, sub-national and national levels in four countries—Nepal, Bhutan, India (Mizoram) and Myanmar.

There is huge variation in perceptions/scores of governance quality among the countries. However, higher total scores may not mean that they are better than others as this may reflect the level of understanding and duration of CBFMS in these areas. Even within the same country, different levels have different scores: (1) Myanmar and Bhutan have very high scores at local levels compared to other levels. This is because Myanmar is in the early stages of CBFMS (and may be the excitement factor), while Bhutan has large areas of forests and local people are enjoying the benefits of CBFMS. Nepal and India have a relatively similar score for each level. CBMFS is more mature and has long history in these countries; therefore, different levels have a common understanding about the CBFMS.

Among the indicators, in all countries "Resources" received the lowest score whereas "Durability" received the highest score. Similarly, at a criterion level, "implementation" received the highest score, suggesting that CBFMS has the ability to change behaviour, solve problems and ensure its sustainability/durability.

In each country, various levels have different priorities of importance for 'indicators'. Whilst developing verifiers for each indicator, if resources are not enough to cover all indicators, they can select those indicators which are most important at that level. However, for consistency reasons, if they want to cover the whole country with the same set of indicators, they can select the highest-ranked four or five indicators.

Due to limitation of resources, this study could not include all relevant stakeholders and the standards development process is limited to the "verifiers" level. Further work is needed in three areas: (1) in each country, there are several stakeholders in the CBFMSs at multiple levels; therefore, more research across a larger number of stakeholders and sample sizes is required to determine if these results are indicative of broader perceptions; (2) to develop "means of verification" for each verifier so that there is a complete set of "standards"; and (3) the outcomes of the consultation processes revealed a high level of interest amongst stakeholders for applying a governance framework to REDD+; as all countries are active in REDD+, replicating the method to REDD+ could useful in setting benchmarks.

Acknowledgement

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7. Building Timber Value Chains for REDD+: the timber value in Myanmar and its compatibility with REDD+

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Abstract

Efficient and sustainable forest products value chains are important for sustainable forest management, rural livelihoods and poverty alleviation. However, in most tropical developing countries, these value chains are not well-developed and governed effectively to ensure equitable distribution of income and benefits from the trade of timber; thus providing less incentive for sustainable forest management. Inefficiencies and inequitable distribution of benefits in timber value chains can contribute to forest degradation. Timber value chains that are well-developed and sustainable are thus important for the objectives of market-based climate governance mechanisms such as the REDD+, and as such, REDD+ initiatives can provide pathways and direct interventions for developing equitable and sustainable timber value chains. This, however, this requires a clear understanding of the functioning and distribution of benefits in the value chain. Thus, this study assesses the teak timber value chain in Myanmar with the aim of identifying bottlenecks that require interventions for REDD+ compatibility.

Using focus group discussions and individual interviews with MTE and FD officials in timber extraction sites, as well as, timber traders in two urban markets, the study finds that the teak timber value chain has both positives and weaknesses that are important for REDD+ compatibility. The strengths of the value chain which are found mostly in the timber production and extraction stages include: the use of scientific forest management (MSS) for timber production and reduced impact logging (RIL) method in timber extraction. In terms of policy on timber trade, the decentralization of the auction system and the log export ban are seen as positives measures.

However, there are several weaknesses and threats that need to be addressed for value chain sustainability and REDD+ compatibility. The weaknesses include: illegal timber trade; export orientation and inadequate supply of timber for domestic market; little in-country value addition; lack of globally recognized certification scheme; barriers in institutional environment and value chain governance; state monopoly over timber trade; lack of diversity in timber supply sources; and the inability of local people to benefit from timber trade. The threat to the timber value chain a REDD+ compatibility include: insurgency and political/ethnic conflicts; illegal logging; increasing trend of timber prices; and natural forest loss and low investment in community forest and smallholder teak plantations.

There are some opportunities that can be leveraged for policy option and interventions for a sustainable timber value in the country including: the democratization of the country and efforts to reform forest policy; the VPA negotiation process; increasing interest of private sector; and high potential of community forest enterprises across multiple products. As a matter of concern, the following recommendations are necessary for a sustainable and REDD+ compatible timber value chain:
- Promoting community forest enterprises, smallholder plantations and private commercial teak plantations to ensure diversity in timber production and supply
- Tackling illegal timber logging and trade through better law enforcement and market-driven timber pricing/trade policies
- Promoting forest-based SMEs participation in the value chain by increasing allocation of timber for domestic trade and simplifying the auction processes and requirements for SMEs participation in tenders
- Deregulating timber trade by corporatizing MTE. Giving the MTE autonomous status and corporatizing it to run as a business enterprise will increase its efficiency and effectiveness in delivering the necessary profits.
- Promoting in-country value addition by encouraging further processing which will help create jobs and increase the contribution of the forest sector to the economy
- Improving and quickening progress and efforts in timber certification in the country.
- Review of forest policy and regulations to give commercial forest rights (including teak) to private individuals, smallholders and local communities

- Finding lasting solution to insurgency and ethnic/political conflicts through dialogue and other mediation process is important for sustainable forest management and timber supply in the country

8. Gap Analysis in Line with the National REDD+ Readiness Process in Shan State

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Background

Subnational level REDD+ implementation is an important stage which creates a link between project level and national level REDD+ implementation. As of now Myanmar has limited experience and knowledge for REDD+ at the sub-national level. Hence, the Gap Analysis studied the feasibility and needs of REDD+ implementation in Shan State to kick-start the subnational level REDD+ processes. The research was conducted with financial support from ICIMOD's Himalayan REDD+ Project, Myanmar.

Objectives

The specific objectives of the study are:

- To comprehensively review forest related legislation and institutional arrangements
- To compile information on activities being undertaken by government agencies, NGOs and civil society in Shan State
- To analyse and identify gaps and provide recommendations on how to fill in those gaps across the process of REDD+ readiness in Shan State (based on information compiled for the above two objectives)
- To estimate the time and financial resources required to fill each identified gap

Methodology

A core group or research team was first formed from the REDD+ Core Unit of the Forest Department and the Project Management Unit (PMU) of the Himalayan REDD+ Project. **Secondary data collection, desk study, field observations and interviews** with key stakeholders were carried out in order to achieve the set objectives. **Series of consultative meetings** were held to provide advice and comments on the findings of the Core Group. The gap analysis includes key elements of existing policies, laws, plans and institutional arrangements of REDD+ readiness process. The following policies, laws and regulations relevant to REDD+ implementation were analyzed to find gaps:

- Forest policy
- Environmental conservation policy
- Climate change policy
- Land use policy
- Agricultural policy
- National energy policy
- Forest law
- Forest rules
- Environmental conservation law
- Environmental conservation rules
- Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law
- Vacant, fallow and virgin land management act
- Farm land law and farm land rules

In addition, gaps from the following strategies and action plans for implementation of REDD+ were analyzed. Those include:

- REDD+ Strategies (draft)
- NBSAP (2016)
- (Intended) Nationally Determined Contributions (NDC)
- 10-year MRRP
- 30-year Forest Management Plan
- National Strategy and Action Plan
- NSAP for Mangrove (2016)
- National Climate Change Strategy & Action Plans (2016-2030)

Key findings

From the law and policy angle:

- The concept of REDD+ is not specifically embedded yet.
- Lack of strong legal framework for REDD+ activities
- Lack of clear rules and regulations for related departments for implementing REDD+ activities
- Sectoral policy for emission reduction and REDD+ is missing.
- Weak coordination among line ministries
- Lack of funding mechanisms
- Legal support for a benefit sharing mechanism is needed.
- Land tenure and rights in unclassified forests are insecure.

Strategies and action plans:

- Insecure financial investment scenario
- No strategy/action plan for subnational level
- Developed plans need to be integrated (with REDD+)
- Limited resources and capacities

Institutional arrangement:

- No REDD+ institutional arrangement for sub-national level
- Existing organized units at the national level are not interacting or coordinating with REDD+ unit or each other or with subnational stakeholders.
- Coordination among different vertical and horizontal levels is needed.

Further steps

Findings will be revised and validated through a consultation/validation workshop with key stakeholders. Key priority gaps will be ranked and the time and funding required for potential solutions will be estimated.

Annex 5: Presentations

Biodiversity Monitoring Protocol for REDD+

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Ministry of Natural Resources and Environmental Conservation
Forest Department
Forest Research Institute

Assessment and Monitoring Flora and Fauna in Pindaya, Shan State

Mu Mu Aung ,PhD

Forest Research Institute
Forest Department

February 21, 2018

Current Status of NFMS
and
Initial FREL of Myanmar

Myat Su Mon, Khine Zaw Wynn, and Nay Lin Tun
Forest Department, Myanmar

ICIMOD   gíz

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Aung Aung Myint, NC.
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An assessment of governance quality and development of "verifiers" for key governance indicators for community based forest management regimes in Hindu Kush Himalayan Region

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Building Timber Value Chains for REDD+:
The timber value chain in Myanmar & its compatibility with REDD+

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