ICIMOD

Report on

South-South Learning: The Forest Reference Level (FRL) Assessment Process in Asia and the Pacific

April 2017, Pokhara, Nepal

About ICIMOD

The International Centre for Integrated Mountain Development, ICIMOD, is a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush Himalaya – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. Globalisation and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. We support regional transboundary programmes through partnership with regional partner institutions, facilitate the exchange of experience, and serve as a regional knowledge hub. We strengthen networking among regional and global centres of excellence. Overall, we are working to develop an economically and environmentally sound mountain ecosystem to improve the living standards of mountain populations and to sustain vital ecosystem services for the billions of people living downstream – now, and for the future.

South-South Learning: The Forest Reference Level (FRL) Assessment Process in Asia and the Pacific

April 2017, Pokhara, Nepal

This publication is available in electronic form at www.icimod.org/himaldoc

Contents

Introduction

Background

The United Nations Framework Convention on Climate Change (UNFCCC) has defined forest reference emission levels and/or forest reference levels (FREL/FRLs) as benchmarks for assessing a country's performance in implementing REDD+ activities and mitigating climate change through forest-related actions. Any results-based payment is calculated from a baseline FREL/FRL.

Submitting a national FRL to the UNFCCC is an involved process that requires understanding national circumstances that drive emissions (and removals) and the adoption of reliable and transparent procedures. The development of a national FRL scale requires comprehensive understanding of UNFCCC definitions and guidelines relevant to forests, activities, pools, and gases. In addition, the data and methodology to be adopted and the application of emission factors used in assessing fluxes from deforestation and afforestation — especially from forest enhancement and degradation — are rigorous scientific endeavours that require knowledge of international (IPCC) guidelines. The FRL submission should also report limitations and planned improvements to enable an understanding of the future direction of FRL development.

Considering this complex process, countries were requested to provide future support on FRLs based on their levels of progress and experience at the Forest Monitoring Systems and Forest Reference Levels for REDD+ Regional Workshop in Hanoi, Vietnam in October 2014. The workshop was organized by FAO through the UN-REDD Programme. Accordingly, on 4–5 May 2015, an expert consultation event on FRL development in Asia and the Pacific was held in Siem Reap, Cambodia for countries that were, at that point, intending to submit their FRLs to the UNFCCC in January 2016. The workshop brought together countries to share experiences and to support FRL development in the region. Representatives from Cambodia, Indonesia, Nepal, and Vietnam were joined by representatives from Malaysia, which had already submitted its FRL and was undergoing the technical assessment process. Technical and financial support for the workshop was provided by FAO through UN-REDD targeted support to the government of Cambodia.

The workshop allowed countries to test their readiness for FRL submission and the UNFCCC technical assessment process. Subsequently, Indonesia and Vietnam submitted their FREL/FRL in January 2016 and are currently undergoing the technical assessment process. Cambodia and Nepal re-evaluated their objectives with regard to FRL development, and decided to postpone submission until January 2017, in order to allow for sufficient preparation. The workshop received positive feedback from participants, and it was proposed that the conference be held again the following year.

Accordingly, a second event offering expert consultation on FRL development was held in Pokhara, Nepal for the countries in the region that submitted FRLs to UNFCCC in January 2017. These countries (Cambodia, Nepal, Papua New Guinea, and Sri Lanka) met with representatives from Indonesia and Vietnam who shared their experience in FREL/FRL preparation and participation in the technical assessment process. They were also joined by expert advisors from FAO through UN-REDD targeted support to the government of Nepal. Additional countries (Bhutan, India, Myanmar, and Pakistan) working within ICIMOD's Regional REDD+ Initiative also participated in the conference, titled "South-South Learning: The FRL Assessment Process in Asia and the Pacific". Also included were technical advisors from FAO and ICIMOD, offering expertise in development of activity data for forest cover change and in methodologies for measuring forest degradation. In total, 12 countries from Asia and the Pacific participated in this learning workshop.

Objective and Outputs

This April 2017 workshop in Pokhara, Nepal, was organized by FAO and the International Centre for Integrated Mountain Development (ICIMOD) in order to facilitate connections and conversations between countries regarding the technical assessment process for Forest Reference Emission Levels/Forest Reference Levels (FREL/FRL). Submission of the FREL/FRL is a requirement for participation in REDD+ under the United Nations Framework

Convention on Climate Change (UNFCCC). Workshop sessions also dealt with reporting REDD+ results and the emerging links between FREL/FRLs and REDD+ finance.

The objectives of this event were to:

- provide information and international guidance on designing and constructing a REDD+ FREL/FRL (in accordance with UNFCCC guidelines);
- exchange information on each country's approach to FRL development and design;
- discuss and explore possible resolutions to technical FRL issues encountered;
- discuss emerging lessons from the FRL assessment process under the UNFCCC;
- provide an informal setting for countries to consult with experts and colleagues in countries on strategies for preparing an FRL for the UNFCCC assessment process.

Design and Process

Since the FRL is completed within each country's government, the workshop targeted participation by technical government officers who have been involved in REDD+ readiness — especially in measurement, reporting, and verification (MRV), greenhouse gases (GHG), and national forest inventory (NFI) — and will be involved in preparing the FRL submission to the UNFCCC.

Two to four participants from each country attended this two-day event, which provided an opportunity for countries across the HKH to learn about the FRL process adopted by Asia-Pacific countries.

Workshop Procedures

Inauguration of the Programme

The programme began with a welcome to participants by **Bhaskar Singh Karky** on behalf of ICIMOD.

Dr Sindhu Dhungana, the Chief of REDD Implementation Center (RIC) delivered the workshop's opening remarks. In these remarks he said the 19th Conference of Parties (COP 19) decisions on the Warsaw framework directed the way forward for Forest Reference Levels, which become a prerequisite for performance-based payment. He added that the FRL was the benchmark for sustainable forest management in the region. He also said that the workshop was designed to cultivate knowledge sharing between the Asia Pacific region and the Hindu Kush Himalaya, with countries such as Indonesia and Malaysia having made significant progress with FRLs and sharing their experience. He said that Nepal had postponed its FRL submission from 2016 to 2017 in order to improve the quality of its submission. The workshop made it clear that increased interaction with regional REDD+ experts benefitted everyone in learning from the experiences of each country. For example, Nepal's unique experience within REDD+ lies with its community involvement — a lesson it can share with the rest of the world.

The keynote address was delivered by **Mr Prakash Mathema**, Secretary of the Ministry of Forest and Soil Conservation (MoFSC). In his remarks, he welcomed the delegates to Pokhara, mentioning that it is regarded as one of the world's 35 must-see places, as ranked by the US-based Matador Network. He highlighted the development of the REDD+ process within the UNFCCC, as he was involved in the negotiations for the Cancun safeguards and the Warsaw Framework. REDD+ was finally consolidated at COP 19 through the Warsaw Framework he said. He shared his experience in the negotiations as Chair of the Least Developed Countries (LDC) Group, explaining that Nepal has been making progress in the several aspects of REDD: The country has already established a REDD implementation centre and drafted a National REDD+ Strategy, and it is developing MRV and a National Forest Monitoring System (NFMS). Nepal has also conducted a series of capacity development trainings, including an NFMS training for the Department of Forest Research and Survey (DFRS). Nepal has also developed a sub-national FRL for the Terai Arc Landscape (TAL) and will be submitting a completed Emission Reduction Programme Document (ERPD) in 2017. Supported by FAO and ICIMOD, Nepal submitted its FRL to UNFCCC in January 2017.

Mr Mathema also stated that, in addition to MRV, FREL/FRL, and NFI, non-carbon benefits are a critical component in meaningful implementation of the REDD+ programme. He also mentioned the importance Indonesia and Malaysia sharing their experiences at this workshop, as their insight will be useful in addressing comments on the FRL submitted by Nepal. In turn, the Nepal experience will be useful for other countries, such as Bhutan, India, Myanmar, and Pakistan.

Mr Ben Vickers, representing FAO, gave an overview of FAO's role in assisting countries with their FRLs and explained UNFCCC's state-of-the-art modalities. In 2017, 11 countries submitted FREL/FRLs — including four countries participating in the workshop.

In addition to the FRL, on which this workshop focused, under the UNFCCC, the REDD+ Framework is made up of three additional components: the National Strategy and/or Action Plan; the National Forest Monitoring System (NFMS); and the Safeguard Information System (SIS).

As agreed during COP15, FRLs are benchmarks for assessing each country's performance in implementing REDD+ activities. More broadly, an FRL is used in assessing a country's performance in contributing to mitigation of climate change through actions related to its forests. There are several reasons a country develops an FRL:

- Countries may wish to access results-based payments. According to UNFCCC decisions, results-based payments require a forest reference level of 16.
- Countries may wish to assess progress on the outcomes of policies and measures taken to mitigate climate change in the forestry sector for domestic reasons.
- Countries may wish to contribute to international mitigation through REDD+ actions under the UNFCCC.

There are two approaches to developing an FRL:

- Historical Model: Benchmark is set against historical average
- Adjustment Model: Historical benchmark adjusted according to the countries' circumstances and situations – four countries. Only four countries use this adjustment approach: Vietnam, Congo, Guyana, and Columbia.

FAO is engaged in capacity development on REDD+ FRLs reporting and verification in the following aspects:

- Target the ownership of government partners
- Build on and iteratively improve available capacity
- Serve multiple purposes beyond REDD+ and UNFCCC submissions
- Adapt the approach to each country's circumstances
- Develop functional capacities alongside technical support
- Draw on a variety of approaches

Experiences with FRL Development, by Country

FRL development in Nepal

Nepal's FRL process and results were presented by Dr Mohan Poudel. Nepal's FRL allows the country to be considered eligible for results-based payments and REDD+ activities associated with the implementation of national REDD+ strategies. After stakeholder consultations and technical discussions, it was determined that Nepal's FRL met its national benchmark level, reflecting the historical period 2000–2010. The country will now focus on activities such as deforestation; forest degradation due to fuelwood extraction and grazing; and forest enhancement (afforestation/reforestation). Based on historical and national data availability, consistency, and reliability, the FRL assessments will include only CO_2 and the carbon pools above and below ground biomass.

National forest cover assessment and National Forest Inventory (NFI) data from 2010 served as the fundamental sources of biomass estimates across different forest types and physiographic strata. Remote sensing data of Landsat TM for the period 2000–2010 and visually interpreted sample data (reference data) that was often of higher resolution was used to develop activity data on deforestation and afforestation. A total of 22,040 hectare and 13,510 hectare were estimated to have undergone deforestation and afforestation respectively during 2000–2010.

Due to the absence of data directly measuring degradation, proxy approaches were used to assess degradation by cause, considering both fuelwood and grazing. Degradation due to unsustainable fuelwood collection was estimated by applying the Woodfuel Integrated Supply/Demand Overview Mapping (WISDOM) methodology. Activity data for degradation from fuelwood extraction is based mainly on forest cover change assessment, NFI-based biomass data, and Central Bureau for Statistics (CBS) data from the National Living Standard Survey (NLSS 2010).

An assessment of feed and fodder supply from forest, agriculture, and rangeland resources has been undertaken in order to measure the biomass removed by grazing and browsing animals and the associated impact on forest degradation due overgrazing. The activity data for degradation from grazing is based on NFI plot level data from DFRS as well as on livestock and grasslands statistics from the Government of Nepal's Ministry of Agriculture. Emission factors were provided by the NFI. Degradation by other causes (such as timber extraction or fire) is believed to be of little significance and has not been included in this submission due to the lack of reliable data.

FRL development in Vietnam

The FRL preparation process for Vietnam was presented by Mr Vu Tien Dien, who explained that the country's FRL process began in 2011 using historical forest cover assessment as a reference with support from international organizations. FLR preparation took quite some time, and the first submission to the UNFCCC for technical assessment (TA) was made in January 2016. The assessment process was conducted in March 2016 and Vietnam was asked to address certain issues and resubmit. The modified report was resubmitted in July 2016 and the FRL report will be finalized by end of 2017.

Vietnam is undertaking three of the five activities referred to in decision 1/CP.16, paragraph 70, but all five activities are accounted for. As per discussion with the TA team more information on the following are required:

■ Methodological approach used in construction of the FREL/FRL, e.g. stock change method.

■ Additional information on forest degradation and restoration including transition to other forest types

■ Information on forest types for future submissions

■ Use of remote sensing and geospatial images to enhance accuracy and clarity of submission

Vietnam applied the adjustment methodology to its first FRL submission, but no adjustment was applied to FREL, reflecting the estimated effect various afforestation programmes would have by enhancing removals (for example, by converting non-forest lands to forests).

The areas of improvement in Vietnam's FRL process include the use of methodological tools, such as geospatial images, carbon stock data, and definition of forest degradation. The consistent use of geospatial images interpreted across time is another improvement that can ensure coherent interpretation and enhance accuracy. The FRL is not currently consistent with the GHG inventory in Vietnam's Biennial Update Reports (BUR). Nevertheless, the AT team commended Vietnam for showing a strong commitment to continuous improvement of its FREL and FRL estimates, in line with the step-wise approach. A major lesson learnt is that it would be necessary to enhance technical capacity and strengthen internal coordination for future submissions.

FRL development in Indonesia

Mr Judin Purwanto shared Indonesia's experience in FREL process.

The Forest Reference Emissions Level (FREL) of Indonesia was first submitted on 4 January 2016 and reviewed by a UNFCCC technical assessment (TA) team from February to November 2016 with minimum improvement requested. Indonesia received 43 questions on 14 issues. The modified FREL was accepted by UNFCCC in November 2016.

The resubmitted FREL document was prepared by the Director General of Climate Change under the Ministry of Environment and Forestry (MoEF) with support from national experts from leading research organizations in Indonesia. The initial FREL preparation was prepared by the Indonesian REDD+ Agency in 2013, and the work was continued by the MoEF, as REDD+ Agency was dismantled in 2015. Indonesia provided a legal basis for its FREL technical assessment by officially establishing a decree on FREL technical assessment. The technical team set its own work plan and had an agreed working methodology with the UNFCCC TA team, which included frequent communication via emails and think-tank meetings to discuss the issues raised by the UNFCCC TA team.

Over the course of Indonesia's FREL process, the following areas were identified as areas for improvement:

■ Information on the reference used based on IPCC guidelines

■ Improved data for Indonesia (such as water table data)

■ Transparency and completeness

■ Uncertainty analysis

■ Data on peat-land drainage

The UNFCCC TA team also advised further detail in satellite interpretation and in the mapping process in order to enhance clarity on remote sensing data. Indonesia intends to respond with a comprehensive improvement plan that includes adding 'other carbon pools', such as below-ground biomass, litter, and deadwood. Indonesia will also add 'carbon removal activity' in addition to other REDD+ activities, including carbon-stock enhancement, forest conservation, and SFM (sustainable forest management). The next immediate steps, however, are to come up with sub-national FREL development technical guidance and to continue working on national FREL to update the results to reflect the most recent available data. The Indonesian government will also continue discussions with prospective donors about using the national FREL as a results-based payment baseline. However, the major challenges of data availability, expert consultation, and institutional arrangements remain on the forefront.

FRL development in Malaysia

Mr Till Neeff presented the FRL process for Malaysia on behalf of the Malaysia team, which could not attend this workshop.

Malaysia adopted a unique approach of including only SFM in its proposed FRL while excluding all others. Malaysia prepared its FRL referring to IPCC guidelines based on the four principles of FRL submissions: transparency, accuracy, consistency, and completeness.

The country proposed two accounting periods (2006–2010) and (2011–2015). Malaysia's approach towards REDD+ implementation focuses on permanent reserved forests (PRFs), which are defined under the National Forestry Act (NFA) as "any land constituted or deemed to have been constituted a permanent reserved forest under this Act". It also allows PRFs to be classified into any of the 12 functional classes identified in the NFA to promote sustainable forest management, taking into account the multiple uses of forest.

Of the 12 functional classes, only the production forest will be subject to harvest. Based on the forest management goals, Malaysia proposed a national reference level for sustainable management of forest as a benchmark for results-based payment for REDD+ activity due to its adherence to the 10th Malaysian Plan. All PRFs are managed under sustainable forest management principles, maintaining forest designation in perpetuity, and therefore must be considered in the development of the FRL. Reference levels are commensurate with REDD+ implementation in PRFs, which allows Malaysia to be building on its existing system in these areas. Other forested areas outside of the PRFs are not already managed in a sustainable manner and might be considered for future development activities. The activity data and methods used for calculating the forest management reference levels are consistent with the Malaysia greenhouse gas inventory.

Malaysia considers the technical assessment process very useful for good reporting, which is also important for the country's performance and for its local capacity building. Through the assessment process, Malaysia came to understand that the assemblage of accurate and transparent information is key to construction of the FRL. Malaysia also offers the following observations gleaned from the assessment process, as they may be useful for other countries:

- significant emissions are poorly understood
- sub-national FRL/FREL must demonstrate that displacement of emission does not occur
- Malaysia's activity data is covered at the national level, but it may not cover the whole forest area of the country
- countries need to carefully consider conversion of natural forests into plantation as a safeguard requirement

FRL development in India

Mr Prakash Lakhchaura presented India's progress with its FRL. India has prepared its FRL for the national scale, however, this has not yet been submitted to UNFCCC.

As in Malaysia, sustainable forest management is India's main focus. All state-level forest activities are undertaken as per the 10-year working plan approved by the federal government, and all relevant information and data is available on the Forest Survey of India (FSI) website.

India has a long history of forest-cover mapping, using geospatial images and national forest inventory, which is updated every two years to maintain accurate information. Forest inventory has been carried out regularly since 1987 and continues to date, mostly concerning wood-based information. The inventory covers all carbon pools measured in each plot. India's approach involves the use of multiple maps, assessing each forest type and its forest cover to determine the emission factor of each individual forest type. The same forest-cover assessment methodology is applied consistently to all carbon pools.

The FSI has developed the FRL for India and submitted it to the Ministry of Environment, Forest, and Climate Change, Government of India. Upon ministry approval, the FRL will be submitted to UNFCCC for technical assessment. At the moment, the draft remains with the ministry.

Expert View on FRL Process

Mr Till Neeff

Measurement, reporting, and verification (MRV) encompasses a series of REDD+ procedures for gauging the efficacy of REDD+ activities in reducing emissions of anthropogenic forest-related greenhouse gases (GHG). The entire MRV process must be conducted periodically, legitimately, accurately, comprehensively, consistently, and transparently. Considered a component of the national forest monitoring system, MRV is one of the basic UNFCCC requirements for REDD+ implementation. In other words, MRV is REDD+ reporting as results are gathered in real time.

Brazil was the first country to submit its results report and receive verification by UNFCCC. Colombia, Malaysia, and Ecuador have also submitted reports and are awaiting verification. Since 2014, only six countries have had their FREL verified. Four more countries submitted their FRELs in 2016 and are awaiting the verification process. Submissions can be made at any time, but TA occurs only at scheduled time periods each year.

Activity data in FREL/FRL submission refers to activities during the reference period, and result reporting refers to accounting period. Emissions factors may vary across FREL, which depend entirely on the national circumstances of each individual country. Methodologies used in establishing the reference level in a FREL submission must be the same as in the results report. The only way to include additional available activity data is to revise the reference level submission. Countries must be very cautious of REDD+ Safeguards, as conversion of natural forests to plantations is not incentivized by REDD+ finance. International displacement of emissions is not recognized or addressed under UNFCCC process. So far, among REDD+ countries, Brazil has achieved the highest magnitude of REDD+ results.

Ms Donna Lee

Results-based payment (RBP) is becoming an important tool in the financing landscape. An innovative approach to Official Development Assistance (ODA), the RBP hinges payment on the achievement of particular results. The RBP in REDD+ is contingent upon reduction of GHG emissions from forested landscapes. Instead of financing specific emissions-reduction actions, RBP provides ex-post payment (after results are demonstrated and verified) to incentivize countries to achieve these results.

A successful RBP system requires the following conditions:

- a clear agreement on the definition of the results;
- a robust measurement, reporting, and verification system that shows, with reasonable certainty, results achieved;
- an appropriate institutional arrangement to manage and oversee the implementation of actions and compliance with safeguards.

Countries that receive payments are required to have in place the appropriate capacity and systems supported by a regulatory framework that demonstrates the effectiveness of results-based payments. Countries lacking these conditions do not present an environment conducive to implementing this REDD+ programme.

Accessing RBP requires countries to undergo a three-phase approach to enhancing the success of the REDD+ programme: Readiness Phase; Implementation Phase; and Results Phase.

Readiness Phase: In this phase, countries prepare a national REDD+ strategy and initiate processes to ensure that social and environmental safeguards are met. Countries also must prepare their NFMS and SIS.

Implementation Phase: During this phase, REDD+ countries begin the implementation of strategies and enabling processes, and they undertake policy and legal reforms and the execution of demonstration activities. These activities lead to emissions reduction and, therefore, qualify countries for meeting RBP conditions.

Results Phase: The emissions reductions resulting from the implementation of activities in phase two are submitted to UNFCCC in tCO_2 units. By complying with the RBP conditions, the country becomes eligible to receive RBP.

Countries are required to develop appropriate capacity and to establish the prerequisite systems for the full implementation of REDD+ activities. Many developing countries lack adequate human resources and the necessary activity and emissions-factor data. While taking into account each individual country's national circumstances, methodological guidance on MRV and the FRL is required in order to ensure appropriate interpretation.

RBP is designed as an ex-post payment, whereas the REDD+ programme requires huge upfront costs. Investment is necessary in order to build adequate capacity for interpreting REDD+ objectives; to develop intervention strategies; and to implement policy measures that will result in emission reduction.

Currently, RBP support is from the World Bank under its FCPF Carbon Fund and from Bilateral Finance. In the future, Global Climate Finance (GCF) will also be supporting this programme. All of these investors view the UNFCCC guidelines on RBP as inadequate. As a result, they have come up with their own set of conditions. GCF support is likely to carry its own additional conditions as well. This makes accessing RBP more complex and time consuming for developing countries, adding to the risk of growing REDD+ fatigue.

Summary of Challenges to Countries and Ways Forward in FRL Process

Cambodia

Most challenging issues raised by the Assessment Team (AT)	Why the AT flagged this issue	Addressing the issue / possible solutions	Next step
■ Discrepancy in AGB data provided for Community Forests (CF) and other sites ■ How to handle afforestation in the FRL context and in consideration of the REDD+ safeguards (conversion of natural forests to plantations) ■ The Forest Definition, Cambodia has used the difference MMU for AD-2014 with 5ha, and 2006 and 2010 with MMU-25ha, how CAM handle the consistency with these two definitions	■ Discrepancy in AGB data provided for CF and other sites. ■ How to handle afforestation in the FRL context and in consideration of the REDD+ safeguards (conversion of natural forests to plantations)	■ Discrepancy in AGB data Follow TA recommendations – Possible impact on AD; uncertainties – Could lead to higher FRL – Would discourage policy to increase land for CF Reasons not to follow TA recommendation – Different CF conditions (different types) – CF allocated in lower AGB forest areas (CF not the reason for lower CF AGB) ■ How to handle afforestation – Cambodia must explain its situation regarding existing plantation areas, which are relatively small and well established with designated areas – Consider ways to incorporate restoration activities within very degraded forest without going against safeguards on conversion of natural forest to plantation; introduce a mix of fast-growing and native species through assisted natural generation – Rehabilitated would potentially address drivers such as timber and fuelwood demands	Planning to revise and resubmit

Nepal

Most challenging issues raised by the Assessment Team (AT)	Why the AT flagged this issue	Addressing the issue / possible solutions	Future solution
■ Forest restoration, which was considered a potential area for improvement by Nepal ■ Significant emissions caused by grazing but data is uncertain, lacking robust analysis methodology ■ Non-CO$_2$ emissions from afforestation and forest fires	■ AT suggested not addressing forest restoration as there is no substantial data available on it ■ AT suggested reassessment of data; if result is improved then consider it otherwise put it in the annex	■ Forest restoration – While CF restoration is commonly understood to improve carbon levels, there is a lack of quantitative data (consolidated maps; imaging; CF distribution information) that can be applie d to the FRL – AT suggests providing any available quantitative information as annex it to the main text ■ Grazing – Need further statistical analysis to reduce data uncertainty, making it acceptable to TA. If data remains uncertain, remove from main text and keep it in FRL annex	■ Nepal would like to incorporate forest restoration (enhancement) because of Community Forests in its FRL. ■ Nepal is planning to revise and resubmit – will try to do more robust statistical analysis in time remaining – depending on work progress and results, Nepal might consider keeping grazing data in annex

Sri Lanka

Most challenging issues raised by the Assessment Team (AT)	Why the AT flagged this issue	Addressing the issue / possible solutions	Future solution
■ Accuracy of change ■ Exclusion of soil organic carbon values ■ EF of deforestation ■ Land use versus land cover ■ Selection of non-CO$_2$ gases from forest fire ■ Why outcome of national circumstance were not included	■ Gain has high uncertainty ■ Why IPCC default values were not used ■ Why IPCC default values were used ■ Plantation management safeguards, (reforestation of plantation area after tree failing) ■ Sri Lanka provided estimates for non CO$_2$ gases and percentages ■ Why outcome of national circumstance were not included	■ Development of activity data of Forest loss and Forest Gain ■ Consistency with GHG inventory in Second National Communication	Planning to revise and resubmit

Papua New Guinea

Most challenging issues raised by the Assessment Team (AT)	Why the AT flagged this issue	Addressing the issue / possible solutions	Future solution
■ FRL definition and projection ■ Application of managed land proxy in PNG's FRL ■ Absorptions in degraded forest land	■ PNG proposed linear projection as adjustment based on annual historical emissions but further explanation or justification is necessary ■ Current method with Collect Earth focused on human impact type with logging concession, not natural disturbance ■ Challenges in Activity Data and Remote-Sensing Monitoring as degradation is largely due to selective logging	■ Absorptions in degraded forest land ■ Utilize management data / Digitize logged-over area – PNGFA is trying to improve this issue with JICA support – May not be completed at national level – Prove not significant (infrequent) ■ Consider proxy measure utilizing log-export record	Planning to revise and resubmit

Way forward

This workshop provided a unique opportunity by bringing together HKH countries with countries from the Asia Pacific region to share experiences in the FRL process. ICIMOD's Regional REDD+ Initiative has been hosting a South-South learning platform in the region. This time, in collaboration with the UN-REDD programme, this platform was extended to Asia Pacific countries, which proved to be very valuable.

It was made apparent throughout the workshop that countries are in different stages of the FRL process, from initiating it to addressing comments from the UNFCCC. However, one common need emerged — to train more officials in better understanding the FRL and MRV, which are the basis for results-based payments. ICIMOD and FAO will continue to support the capacity development component for FRL/FREL and MRV.

As a step forward from this workshop, ICIMOD is discussing with ICFRE and FSI the organizing of a 5-day training on MRV for officials from the Hindu Kush Himalaya. Given that FSI is advanced in MRV, workshop participants felt that this would be a valuable capacity-development activity for promoting South-South learning.

Similarly, ICIMOD is conducting train-the-trainer workshops to offer guidance and support materials across a range of REDD+ activities with the aim of enabling HKH countries to further build their capacities.

Annex 1: Participant Views on FREL/FRL Workshop

Rakibul Hasan Mukul

Mr. Rakibul Hasan Mukul, National Project Director, UN-REDD Programme, Bangladesh Forest Department, Bangladesh – "In my experience, the major challenge in getting the results-based mechanism to work is the smaller scope of work in countries with less forest cover, which raises the issue of incentive. Also, there are no clear guidelines for accounting the results-based payments."

Mr. Hossain Mohammad Nishad Conservator of Forests, Bangladesh Forest Department, Bangladesh – "Based on my experience, the major challenge in getting results-based payments to work is in the safeguard commitment not to adopt conversion of natural forest into plantation — especially in Bangladesh, where there is tremendous pressure on natural forest due to industrialization and settlement. Forest land that is already degraded needs to be brought into the plantation program. Another issue in Bangladesh is the displacement of emissions. Do the tree resources outside the forest account for the REDD+ results? If the NFI cycle is five years, then how will we address and report Biennial Update Reports (BUR). The REDD+ financing system should consider challenges the country faces in conserving its forests."

Hossain Mohammad Nishad,

Mr. Lobzang Dorji, Chief Forestry Officer, Department of Forest and Park Services, Ministry of Agriculture and Forests, Bhutan – "This FRL Workshop was/is very informative and useful in my country as we are working on the FRL/FREL. The country presentations and the Technical Assessment was a big learning opportunity and it was followed by technical expertise from Mr Till and Ms Donna — very satisfying and useful for me in preparing the FRL for my country. Very timely and appropriate."

Lobzang Dorji

Uy Kamal, Deputy Director, Ministry of Environment, Cambodia – "In order to improve the accuracy and certainty of FRL, Cambodia should improve its time series data and local EFs. In time series data, we now have only three time intervals: 2006, 2010, and 2014. Cambodia should increase its time series data to five intervals: 2006, 2010, 2014, 2016, and 2018. Secondly, Cambodia needs to improve its local EFs. To that end, NFI shall be implemented extensively. The first cycle of NFI in Cambodia is planned for 2017–2021. In short, improving time series data and fulfillment of NFI are the two key activities to improve the accuracy and certainty of our FRL."

Uy Kamal

Chhun Delux, Forestry Administration, Cambodia – "For the results-based mechanism to work, the major challenges are unclear financial commitments from developed countries. The modality/fund mobilization from GCF is slow, accessing funds is complicated, and the RBP for REDD is small compared to the interest shown by REDD+ countries in RBP. Similarly, the emerging new RBP modality and the emerging modality of FCPF-Carbon Finance, early-mover, and FIP, might affect REDD countries by confusing them. They somehow prefer these near funds because they have more access in comparison to UNFCCC-RBP."

Chhun Delux

Chivin Leng

Chivin Leng, Ministry of Environment, Cambodia – "The most challenging aspect of the FRL is developing the forest definition threshold, as Cambodia already had one in place. Managing the two definitions — and maintaining consistency — was a challenge. Cambodia's existing national forest definition is 10% of land — but the FRL requirement states that tropical countries should have a forest definition threshold ranging from 25–30%. Similarly, the existing national forest definition includes rubber plantation, while the forest definition for REDD+ required the deduction of from accounting."

Noyal Thomas, Ministry of Environment, Forest and Climate Change, India – "The major challenge in making the results-based mechanism work is proper technical assistance for finalization of the FRL, preparation of the finance-based mechanism, and developing the SIS under REDD+. For that, capacity-building is required for the officials of the ministry at policy level, officials of implementing agencies (State Forest Departments), and for the community involved in forest management activities in monitoring and reporting."

Belinda A Margono, Ministry of Environment and Forests, Indonesia – "I see this FRL workshop as a good opportunity to see where we are as a country in the process of moving towards results-based payment under the REDD+ scheme. This workshop is also a good way to remind the country/countries of what would be the next steps and how to see the big picture of working under the REDD+ scheme."

Belinda A Margono

Franz Arnold

Franz Arnold, UN-REDD Programme, Myanmar – "The different approaches by different countries to the development of FREL made for a good learning experience in the FRL Workshop, with some additional ideas and information that can be used for development of the FREL in Myanmar."

Khine Zam Lalym, Myanmar – "To improve the accuracy and certainty of FRL and FREL, one needs to think about the availability of data, check the accuracy as well as transparency of the existing data, and also think about the existing circumstances of the country."

Khine Zam Lalym

Dr Mohan Poudel, REDD Expert, REDD Implementation Centre, Ministry of Forest and Soil Conservation, Nepal – "The major technical and capacity development needs in Nepal are research on degradation due to unsustainable timber harvesting, grazing, and forest fire; research and spatial mapping of community forests distribution across Nepal; contribution enhancement of community based forest management; and capacity building on MRV implementation."

Mohan Poudel

Mr Sagar K. Rimal, Ministry of Forest and Soil Conservation, Nepal – "Based on my experience, the major challenges for the results-based mechanism to work are establishing robust baseline data on forest degradation and deforestation; setting up functional forest management information systems; and establishing credible transparent mechanisms that deal with every aspect of implementation of REDD+ programs across different levels of governance."

Sagar K. Rimal

Dr Raja Muhammad Omer, Deputy Inspector General of Forests, Ministry of Climate Change, Pakistan – "The FRL workshop was quite useful. Basic guiding principles of FRL and international requirements were comprehensively described. The obligations to be fulfilled by countries were explained to benefit those that are in the planning process for FRL, i.e. a) FRL should have robust statistical analysis of data; b) logic behind each decision/methodology has to be described in detail; c) consistency in data collection and analysis generates agreeable results. An overview of replies to TA and updates on what other countries have achieved in the world were useful in understanding the future direction. The essence of the workshop was in-depth understanding of donor requirement for FRL results, i.e. RBP."

Raja Muhammad Omer

Rabbie Lalo, Planning Analyst, PNG Forest authority, Papua New Guinea – "There are three important take-home messages from this FRL Workshop – a) FRL activities selected should be country specific; b) protocols used for data collection should be low-cost, transparent, and repeatable; c) FRL concept currently does not have a legal guideline, thus allowing flexibility to any country to design and report their FRL to the UNFCCC Technical Assessment team to receive, improve, and resubmit."

Rabbie Lalo

Shantha Baminvwalte, MRV National Consultant, UN-REDD Programme, Sri Lanka – "For improvement of accuracy and certainty factors of FRL and FREL, there should be improvement in availability of activity data, which may not be available locally. The forest activity data could be generated by regular forest cover/land use mapping and collection of NFI data. Thus, in this manner, FRL could be improved with time and with the availability of new activity."

Shantha Baminvwalte

Vu Tien Dier

Vu Tien Dier, Forest Inventory and Planning Institute, Vietnam – "I can share the experiences learnt from this workshop with my colleagues and this workshop is very useful for the participants who are now working in FREL/FRL development and construction."

Donna Lee, FAO Consultant, USA – "Some of the major technical bottlenecks for developing the FRL are ability to measure degradation and/or regrowth, Emission Factors for Soil, repeated National Forest Inventories, and emissions from fire (methane; nitrous oxide)."

Donna Lee

Gael Sola

Gael Sola, FAO, Vietnam – "In my opinion, the accuracy and certainty factor of FRL/FREL can be improved by using Robust Scientific Methods; connecting the FRL/FREL design with National Forest Monitoring System to ensure consistency and anticipate methods and data collection; implementing NFI to obtain Carbon stock estimates; harmonizing historical data (in particular, forest inventories) to estimate historical carbon stocks; using tested mapping methods; and focusing on change detection."

Adam Gerrard, FAO, Thailand – "I found this FRL workshop very useful to get an updated status of REDD+ especially across the region, but also some of the information on the global status of REDD+ and FRELs for all the countries."

Adam Gerrard

Annex 2: List of Participants

BANGLADESH

Mr Rakibul Hasan Mukul
Forest Department
lalpiprey@gmail.com

Mr Nishad Hossain
C.F. Social Forestry Circle
hmnishad@gmail.com

Mr Nazmul Islam
FAO-Bangladesh
Nazmul.Islam@fao.org

BHUTAN

Mr Lobzang Dorji
Department of Forest and Park Services
lobsandoj@gmail.com

CAMBODIA

Mr Leng Chivin
Climate Change and Development Authority
lengchivin@gmail.com

Mr Uy Kamal
GDAMCP/ Ministry of Environment
kamaluy@hotmail.com

Mr Pak Chealy
pakchealy@gmail.com

Mr Chhun Delux
chhundelux83@gmail.com

INDIA

Mr Noyal Thomas
MoEF and CC
noyalifs1963@gmail.com

Mr Prakash Lakhchaura
FSI
prakash_293@rediffmail.com

Mr R.S. Rawat
ICFRE
rawatrs@icfre.org

INDONESIA

Dr Belinda Margono Arunawati
MoEF
arunarwati@gmail.com

Mr Judin Purwanto
MoEF
judinpurwanto@gmail.com

MYANMAR

Mr Khine Zaw Wynn
Ministry of Natural Resources and Environmental
Conservation
khinezawwynn2007@gmail.com

NEPAL

Mr Prakash Mathema
MoFSC
prakashmathema@gmail.com

Dr Sindhu Dhungana
MoFSC
sindhungana@gmail.com

Dr Mohan Poudel
MoFSC
mohanprasadpoudel@gmail.com

Mr Hari Pandey
MoFSC
pandeyhp@gmail.com

Mr Hari Laudari
MoFSC
hklaudari@gmail.com

Mr Shiva Khanal
MoFSC
shiva_khanal@hotmail.com

Mr Sagar Rimal
MoFSC
rimalsagar@yahoo.com

Prof. Krishna Raj Tiwari
IoF

Mr Kedar Baral
MoFSC

Mr Nand Lal Raya Yadav
MoFSC

Dr Buddhi Sagar Poudel
MoFSC

Mr Arun Poudyal
FAO-Nepal
Arun.Poudyal@fao.org

Mr Resham Dangi
FAO-Nepal
Resham.Dangi@fao.org

PAKISTAN

Dr Raja Muhammad Omer
Ministry of Climate Change
omerraja07@gmail.com

PAPUA NEW GUINEA

Mr Alfred Rungol
Department of Inspectorate and Law Enforcement
kaferinrin@gmail.com

Mr Morgan Kai
Climate Change and Development Authority
morgan7kai@gmail.com

Mr Gewa Gamoga
PNG Forest Authority
GGamoga@pngfa.gov.pg

Mr Rabbie Lalo
PNG Forest Authority
RLalo@pngfa.gov.pg

SRI LANKA

Mr Kekulandra, Nuwan Sampath Bandara
Climate Change Secretariat
nsbkekulandara@gmail.com

Mr Isuru Jayantha Alwatte Kankanamge
Forest Department
isuruak@gmail.com

MYANMAR

Mr Franz Arnold
Myanmar UN-REDD National Programme franz.
arnold@undp.org

VIETNAM

Mr Vu Tien Dien
FREC
dienfipi@gmail.com

GIZ NEPAL

Mr Kai Windhorst
C/O ICIMOD
Kai.Windhorst@giz.de

UN-REDD/FAO

Mr Ben Vickers
Ben.Vickers@fao.org

Mr Adam Gerrand
adam.gerrand@fao.org

Ms Donna Lee
donnalynettelee@gmail.com

Mr Mathieu VanRijn
Mathieu.VanRijn@fao.org

Mr Till Neeff
Till.Neeff@fao.org

Mr Raushan Kumar
Raushan.Kumar@fao.org

Mr Shanta Baminiwatte
shanthabaminiwattee@gmail.com

Mr Gael Sola
Gael.Sola@fao.org

ICIMOD

Dr Bhaskar Karky
Bhaskar.Karky@icimod.org

Mr Muhammad Sohail
Muhammad.Sohail@icimod.org

Dr Mir Abdul Matin
Mir.Matin@icimod.org

Mr Basant Pant
Basant.Pant@icimod.org

Mr Nabin Bhattarai
Nabin.Bhattarai@icimod.org

Mr Niroj Timalsina
Niroj.Timalsina@icimod.org

Ms Trishna Bhandari
Trishna.Bhandari@icimod.org