

UN-REDD-Workshop monitoring, assessment and verification

meeting report

UN-REDD PROGRAMME

Washington, 16-17 september 2008







The UN-REDD Programme, implemented by FAO, UNDP and UNEP, has two components: (i) assisting developing countries prepare and implement national REDD strategies and mechanisms; (ii) supporting the development of normative solutions and standardized approaches based on sound science for a REDD instrument linked with the UNFCCC. The programme helps empower countries to manage their REDD processes and will facilitate access to financial and technical assistance tailored to the specific needs of the countries.

The application of UNDP, UNEP and FAO rights-based and participatory approaches will also help ensure the rights of indigenous and forest-dwelling people are protected and the active involvement of local communities and relevant stakeholders and institutions in the design and implementation of REDD plans.

The programme is implemented through the UN Joint Programmes modalities, enabling rapid initiation of programme implementation and channeling of funds for REDD efforts, building on the in-country presence of UN agencies as a crucial support structure for countries. The UN-REDD Programme encourage coordinated and collaborative UN support to countries, thus maximizing efficiencies and effectiveness of the organizations' collective input, consistent with the "One UN" approach advocated by UN members.

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The MRV Working Paper Series provides an important forum for the rapid release of information related to the UN-REDD Programme. Should readers find any errors in the documents or would like to provide comments for improving their quality, they are encouraged to get in touch with one of the above contacts.

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Acronyms

CBD Convention on biological diversity
CDM Clean Development mechanism

COP 15 United Nations Climate Change Conference 2009,

DEFRA Department of Environment Food and Rural Affairs

FAO Food and Agriculture Organization

FCPF Forest Carbon Partnership Facility

GEF Global Environmental Facility

GEO Group on Earth Observations

GEOSS Global Earth Observation System of Systems

GHG Greenhouse gas

GOFC-GOLD Global Observation of Forest and Land Cover Dynamics

GPG Good Practice Guidelines
GRO Gasoline Range Organic

IPCC Inter Governmental Panel on Climate Change

NASA National Aeronautic Space Administration

REDD Reduction of Emission from Forest Deforestation and Degradation

REL Reference emission level

UN United Nations

UNDRIP United Nations Declaration for Rights of Indigenous PeopleUNFCCC United Nations Framework Convention on Climate Change

UNDP United Nations Development ProgrammeUNEP United Nations Environmental Programme

WB World Bank

WHRC World Health Research Centre
WRI World Resources Institute
WWF World Wildlife Foundation

1. Introduction

There is high attention and expectation for the development of a mechanism on reducing emissions from deforestation and forest degradation (REDD) as part of a post-Kyoto arrangement under the UN Framework Convention on Climate Change (UNFCCC). There is now less than 16 months before the Fifteenth Conference of Parties to the UNFCCC (COP-15) in Copenhagen to elaborate upon viable options and implications of a REDD mechanism and provide information to the Parties. In this regard, this workshop on monitoring, assessment and verification for REDD was intended to facilitate dialogue, generate information, and work towards consensus on REDD monitoring and verification needs and methods that will be of assistance to the UNFCCC negotiators, national stakeholders and the international community as a whole.

The specific objectives of the workshop were to develop a roadmap with activities regarding monitoring and verification based on identified information and methodological gaps and needs and to initiate a process that ensures that the wide body of knowledge and initiatives related to REDD contribute to a coordinated framework or guidelines for REDD monitoring, assessment and verification systems that are able to support any agreed international REDD approach.

Sixty eight participants attended the workshop, of which 7 were coming from developing countries, 11 from UN bodies, 9 from international NGOs, 6 from academics, 35 from civil society and indigenous groups. A total of 13 participants were women. Participants received a background paper, literature review, and bibliography one week before the meeting.

2. Opening remarks and background to the workshop and the UN-REDD programme (Plenary)

The workshop started with an opening session led by Tim Kasten (UN-REDD Programme/UNEP). He welcomed all participants and highlighted the importance of this REDD workshop and its interactive, informal nature complementing the recent Tokyo workshop and Accra meeting under UNFCCC.

Melinda Kimble (UN Foundation) warmly welcomed the participants to the building of the UN Foundation, emphasized the interest of the organisation in climate change issues and REDD and acknowledged the One-UN approach taken by the UN-REDD Programme. She wished all participants two productive days.

Participants were requested to introduce themselves.

Subsequently Charles McNeill (UN-REDD Programme/UNDP) presented the UN-REDD Programme. He emphasized that the core of the UN-REDD programme are country-led integrated programmes at the national level with international support. The programme has

two main components, assisting developing countries to prepare and implement REDD national strategies, and support the development of normative solutions, and standardized approaches, based on sound science for a REDD instrument liked to the UNFCCC. The ultimate REDD programme goal is that with technical and financial support, countries will be able to plan and implement their national REDD programmes. He briefly outlined the current status of the Programme including the selection of 6 to 9 pilot countries and the established multi-donor trust fund.

Tim Kasten outlined the background and purpose of the workshop and mentioned that the elaboration of a roadmap for REDD monitoring and verification activities is an important outcome of the workshop as an agreed way forward. He also noted that the workshop is a first activity in a series of planned actions to be taken by UN-REDD Programme, bringing the REDD community together and facilitate progress towards Copenhagen in December 2009.

Rex Raimond (Meridian Institute) was introduced as lead facilitator. He outlined briefly the work of the Meridian Institute before guiding the participants through the workshop agenda, objectives and expected outputs.

Peter Holmgren (UN-REDD Programme/FAO) presented key elements of the workshop background paper and the literature review on REDD monitoring and verification. He emphasized among others the importance of forest degradation (second D of REDD) which seems to be often neglected in the discussion and scientific literature.

Afterwards participants were encouraged to highlight relevant aspects to be addressed in the workshop and which may not have been presented in the background paper.

The major discussion points are summarized as follows:

- IPCC Good Practice Guidance was hardly mentioned in the background paper although it is a crucial starting point regarding REDD monitoring and reporting methodologies.
- It was highlighted the long experience of Annex-I countries in reporting on IPCC guidance but recognized limitations due to the current UNFCCC requirements.
- It was pointed out that the crucial question is how to develop new rules based on the existing system.
- It was acknowledged that forest degradation is an important issue which needs to be addressed more, and it was also highlighted the question of periodicity and the implications of annual reporting would be on this issue.
- It was stressed the need to keep discussions flexible, for example it was noted that peatlands should be included and systems should at least be capable of considering other lands than forests. A participant highlighted the high conservation value of biodiversity systems and urged to focus in particular on such systems.

Several participants pointed out that the methods for national REDD monitoring are available but that access, availability and efficient use of data are not adequate. In particular lack of capacity to collect and use the data with appropriate methods at country level need to be addressed.

Several participants denied data availability as critical issue because IPCC GPG Tier levels and the conservative approach can address this. But it was emphasized the need for uncertainty analysis and the conservativeness principle to deliver transparent and reliable estimates, and the difficulties to communicate uncertainties to policy makers.

It was reminded to the participants that the monitoring systems have to be owned by countries and was urged that local communities should be involved in data collection and drew attention to the need for independent monitoring.

It was also stressed the lack of motivation at national level to adjust monitoring systems to REDD and that technical issues may be solved but implementation is a major issue which requires more attention including awareness raising for REDD.

It was mentioned that there are new national inventory systems that do not have to follow the costly traditional inventory systems of many Annex-I countries but can build on new means. The importance to establish national accounting systems was highlighted. It was also expressed the feeling that the background paper downplays the role of remote sensing which will play a key role in monitoring in a mix of technologies. The importance of free access to remote sensing data is a crucial issue. It was stressed the need to include economic and social issues in the determination of reference remission levels (REL) and urged not to forget the important role of policies for a successful REDD mechanism.

It was added the need for broader monitoring beyond forest carbon and requested workshop participants to keep the focus broad. It was also stated the need to clarify which approaches are tested enough to become usable at reasonable costs at national level and find ways to inform negotiators adequately.

In this context it was suggested not to exaggerate methodological problems and to inform negotiators in particular on the vast methodological areas the scientific community agrees on.

3. Breakout groups

Three breakout groups of about 20 people each were formed considering geographical and gender balance and diverse expertise from various stakeholders. On the morning of the second day breakout groups reported back to the plenary to allow comparison with other groups and to identify overlaps in themes and potential gaps in the discussions. In the afternoon, breakout groups presented their roadmap to the plenary.

The following summary provides an overview of the general outcomes of the group discussions. Each group developed much more detailed suggestions for specific actions and tools to meet specific needs. These detailed products will be consolidated into a more detailed roadmap, which will be shared with participants for comments and finalization, in late October. The roadmap will be a dynamic document that will be posted in UN-REDD programme internet portal (under construction) for follow up and continues updating.

Group 1: Estimating area and carbon stock changes to support the establishment of reference emission levels

First the purpose and ownership of the roadmap was discussed and it was clarified that the UN-REDD Programme does not own the roadmap but rather acts as a facilitator for the processes and suggested actions. The difference in focus between group 1 and 2 was also clarified.

By going through a set of questions prepared by the UN-REDD Programme, the group identified a number of needs for estimating emissions from deforestation. The issue of land tenure was raised and reported to the plenary. It was noted that building monitoring capacity will provide the foundation for establishing REL. The group agreed that national-level activities can start right away building upon existing methodologies, i.e. described in the IPCC good practice guidelines and the GOFC-GOLD REDD sourcebook.

On the second day, participants mainly discussed gaps corresponding to the needs and action items to fill the gaps for deforestation REL, and forest degradation REL. It was pointed out that further clarification on incremental changes in carbon stocks is required on how to include them in the negotiations from Parties and the UNFCCC. Co-benefits were discussed referring to relevant multilateral environmental agreements.

By the end of breakout sessions, major needs were identified as:

- 1. Independent international review process on national emissions and carbon stocks;
- 2. Coordinated approach for capacity building at national level for government and civil society on (i) training on existing methodologies and data, (ii) tools to raise capacity such as manuals and standards, (iii) making best use of existing data;
- 3. Guidance on interpreting historical trends with particular attention to identification and monitoring of drivers and availability of historical data periods;
- Demonstration projects for establishing and testing forest degradation emission factors, including examination of cost implications, accuracy, and different causes of degradation;
- 5. Estimating past levels of degradation at the national level by combining remote sensing areas affected by human activities and ground observation of carbon density;

Proposed actions related to needs presented above can be summarized as follows:

- 1. Review existing experience with CDM and in Annex I countries for lessons learned to inform the development of an international review process.
- Develop training materials and implement training, and continued international coordination and cooperation between major technical players such as FAO, IPCC, GOFC-GOLD, etc;
- Report by a recognized commissioned by UN-REDD Programme on REL options based on current knowledge activities including examples of applying them at pilot countries (UN-REDD/FCPF), and another report on review and synthesis of existing forest degradation studies;
- Conduct a review and synthesis of existing forest degradation studies, develop case studies at pilot countries to quantify emission factors by testing IPCC Guidelines and suggest improvements to IPCC;
- 5. Conduct feasibility studies of estimating past forest degradation activities, provide input to the UNFCCC workshop on degradation (to be held in October 2008), and encourage follow up actions to address the needs and opportunities identified during the October 2008 UNFCCC workshop on forest degradation.

Group 2: Future monitoring of deforestation and forest degradation

At the beginning of the session, the group discussed a number of conceptual considerations raised in the background paper, in particular the need for synergy and capacity building with remote sensing and field sampling, and the important role of co-benefits such as biodiversity protection and poverty alleviation. Several questions and opinions were raised on whether or not co-benefits should be part of a monitoring system and if so, at which stage of development and implementation of the REDD mechanism.

After identifying major needs and gaps regarding future REDD monitoring and verification the discussion about required needs/gaps focused mainly on the following topics:

- Access to remote sensing data and tools for developing countries;
- Capacity building and technical infrastructure for REDD;
- Methodological needs regarding monitoring forest degradation and uncertainty assessment;
- Improvement of IPCC Good Practice Guidance;
- Increased on-the-ground coordination and communication amongst existing and future projects;
- Complementarities of data from field sampling and remote sensing and synergies with other monitoring needs; and
- Independent verification.

A wide range of past, planned and additional future activities related to REDD monitoring were identified involving a wide range of actors from research institutes (e.g. WHRC, South Dakota

State University, WRI, Carnegie Institution, NASA), initiatives (e.g. GOFC- GOLD), international agencies (e.g. FAO, GEO WB, UNFCCC) and donors (e.g. Australia, Germany).

Proposed actions beyond already planned activities can be summarized as follows:

- Review lessons learned from a) monitoring in CDM projects, b) existing efforts to monitor deforestation and forest degradation, c) verification/review process in the context of UNFCCC process;
- Conduct studies on a) options to monitor cobenefits, b) ways to incorporate REDD needs in UNFCCC review process for GHG inventories, c) successful examples effectively combining field sampling and remote sensing and develop guidelines for suitable inventory designs (expert meeting);
- Establish a consistent REDD capacity building programme at regional and national level including REDD awareness workshops and trainings on GHG inventories, remote sensing and field sampling for REDD; and improve required infrastructure;
- Improve access to data and tools through a) comprehensive website with links to
 existing databases for REDD fed into UNFCCC site, b) creation of a free REDD remote
 sensing toolbox, c) aggregation of remote sensing data needs of several countries for
 negotiations with data providers;
- Conduct an in-depth assessment of available tools and methods for monitoring forest degradation and identify needs for further development (e.g. disturbance emission factors), but also test applicability of existing methodologies more broadly in the field; and
- Establish independent datasets for verification and create a transparent, multistakeholder process.
- Improve communication with NGO's, local communities and indigenous people through a national multi-stakeholder process, and guarantee that these groups are involved on the collection data, monitoring and verification and not just as data users.

Group 3: Implementation at national level

Breakout group 3 began by assessing the discussion questions that had been prepared in advance of the workshop. In reaction to the questions and the task of creating a road map to national monitoring and verification systems, discussions focused on the difficulty of this task given that the ultimate outcome of the Copenhagen negotiation process is yet unknown. It was suggested that under this condition of uncertainty the group should try to identify scenarios this alternative approach was recommended and adopted. A matrix was created that arrayed a spectrum of basic to premium elements that would characterize potential political outcomes.

The group then worked to fill in the cells that would enable decision-makers to see what the baseline technical and systemic requirements would necessitate under each option. A subset of people committed to complete this form, which was viewed broadly as having great value for negotiators in that it depicts key technical and systemic requirements tied to the array of known potential political outcomes.

The group identified three broad scenarios:

- 1) Status quo a fragmented approach, with different countries undertaking different initiatives at different levels,
- 2) Agreement in Copenhagen that international community will establish some sort of good practice built from existing activities,
- 3) Agreement in Copenhagen for a pro-active REDD mechanism.

In building the roadmap table, the group then discussed the requirements for national monitoring and verification system for REDD under the different scenarios beginning with a basic REDD programme and assessing needs for "premium" aspects of a REDD monitoring and verification system. For example the group considered what would be required for a system that addresses deforestation versus one that assesses deforestation and forest degradation, for different methods of accounting and payment, for the inclusion of biodiversity and livelihood co-benefits, and for different levels of participation by indigenous peoples.

Based on this discussion, the group subdivided and while one subgroup worked to populate the blank cells in the negotiation tool, another worked to generate a comprehensive list of needs for the implementation of monitoring and verification systems for REDD at the national level. These included:

- 1. Establish/strengthen national data management infrastructure:
 - Political commitment (such that financing and resources are made available), legislative mandate, institutional arrangements;
 - Forest carbon/ terrestrial carbon accounting systems infrastructure;
 - Assess and clarify land tenure issues in line with international norms;
 - Strengthen links between regional systems, national systems and intergovernmental body for data supply, capacity building and standards;
 - Develop/establish national registry;
 - Develop or strengthen a system that will house all information gathered e.g., forest resource information system;
 - Linking national data management infrastructure to forest law enforcement including legal and regulatory instruments;
 - Transparency/accountability strengthen public access to data and information services, mainstream forest monitoring information in national statistics services.
- 2. Address data supply requirements both remote sensing and inventory; and deforestation and degradation
 - Document/map biomes;
 - Ensure ability to track land area change (data readiness);
 - Consider stratification;
 - Identify carbon pools;
 - Study the effect of various kinds of forest land use management approaches on carbon stocks;
 - Map co-benefits;

- Map, identify, define role of local stakeholders (e.g. land ownership, income other variables necessary to establish baseline).
- 3. Capacity building for monitoring and verification
 - Training on IPCC GHG and others;
 - Carbon accounting;
 - Policy setting;
 - Institutional strengthening;
 - Law enforcement and cooperation and coordination between national agencies and links to regional and international enforcement bodies;
 - Local communities and indigenous institutions, and NGO's;
 - For both national and sub regional level, remote sensing and field inventories, information management and analysis, and statistics services;
 - Training for governments on implementation of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) (e.g. prior informed consent, resource rights etc).

4. Establish stakeholder processes

- To inform/shape monitoring and verification in the broader REDD context;
- Awareness (e.g. traditional knowledge) and information;
- Constituency/confidence building;
- Roles and responsibilities;
- Consider payment structures;
- Create mechanism/process to link policy makers, resource users/dependents, and scientists/experts to address nationally specific questions and commission relevant studies (e.g. linking land tenure, land management and monitoring, participatory measurement);
- Explore establishment of national REDD consultation groups;
- Inter-sectoral cooperation landscape planning;
- Further opportunities for linking research and policymaking regarding forest degradation.
- Guarantee over-arching actions, including support implementation of a third party monitoring and verification process, at national and international level, to achieve transparency of the process.

5. Next steps for donors/partners in supporting national implementation

- Country missions to scope monitoring and verification needs;
- National planning guidance for monitoring and verification;
- Coordination with existing initiatives/methodologies.

Final discussion on the roadmap and way forward (Plenary)

Tim Kasten expressed great appreciation for the hard work and the very useful results of the breakout groups. The groups generated valuable information for the roadmaps. The UN-REDD Programme will aggregate and refine the roadmap and prioritize activities and then circulate the edited roadmap to participants for comments and involve key experts that were not able to attend the workshop. He stressed that the development of the roadmap must be seen as a first step of the UN-REDD Programme and highlights the need for further work.

Several participants congratulated the UN-REDD Programme for organizing a productive workshop with rich discussions with lots of expertise. It was suggested to establish a small, informal advisory group for the UN-REDD Programme containing the whole range of stakeholders which could facilitate the further development of the roadmap and the follow-up on the identified priority actions. Charles McNeill welcomed this proposal and encouraged interested workshop participants to contact UN-REDD programme by e-mail.

Looking back to their expectations at the beginning of the workshop, some participants suggested the need for more detailed discussions on how to build on IPCC GPG, how to address co-benefits including indigenous rights and knowledge in monitoring and verification and how to communicate results of methodological discussions to local communities and policy makers.

It was stressed that methods for REDD monitoring, assessment and verification need to consider the country efficiency on data collection, analysis and use of the information. National capacity building is a key component to guarantee success results. Costly inventories should be avoided. Economic and social issues should be incorporated in the proposed REDD methods for the determination of REL. Local communities, indigenous groups, and natural resources dependent communities should be included on the methodological design of the REDD method for collection of data, data analysis, and need to be recognized as key actors for the implementation of the REDD programme in countries.

Several participants welcomed the UN-REDD Programme and reiterated their commitment to collaborate. They also urged UN-REDD Programme and FCPF to work closely together and build one forum. The UN-REDD Programme and the World Bank reconfirmed their commitment to collaborate closely and act as one at national level and noted a meeting the day after the workshop to further discuss ways of collaboration between both initiatives. A participant reiterated the need to demonstrate before COP15 in Copenhagen that a number of countries have substantially moved forward towards implementing a possible REDD mechanism to confirm that REDD is feasible in a Post-Kyoto period.

It was underlined the need for a coordinated approach of UN-REDD Programme, FCPF, GEF and other present actors at the country level (e.g. Papua New Guinea) to maximize the benefits of country support. Considering the short time left before Copenhagen it was suggested that new

REDD activities at country level may focus on the chosen pilot countries of FCPF and UN-REDD Programme to make sure that substantive progress is achieved before COP15.

In his closing remarks Charles McNeil thanked the UN Foundation for its great support and provision of space for the workshop. Further he acknowledged the significant contributions of the Packard Foundation and the Meridian Institute to make this workshop a success. He also expressed gratitude to the government of Norway for their generous support to the UN system and the UN-REDD programme in particular. Additionally, he thanked his UN-REDD Programme colleagues, in particular from FAO and UNEP, for their central role in organizing this workshop. Last but not least, he extended special thanks to all workshop participants, in particular country representatives, for their great efforts and their commitment to tackle the complex issues related to forests and climate change.

Outcomes from the three breakout groups will be consolidated into a draft REDD monitoring and verification roadmap and be distributed to participants for final comments and suggestions. The roadmap will be then available at the UN-REDD internet portal for monitoring and continuous updating.

Annex 1: Agenda

REDD: MONITORING, ASSESSMENT AND VERIFICATION

Workshop convened by the UN-REDD Programme*

16 - 17 September 2008

United Nations Foundation 1800 Massachusetts Avenue, NW, Suite 400 Washington, D.C. 20036

Introduction

There is high attention and expectation for the development of a REDD mechanism as part of a post-Kyoto arrangement under the UN Framework Convention on Climate Change (UNFCCC). There is now less than 16 months before the Fifteenth Conference of Parties to the UNFCCC in Copenhagen to elaborate upon viable options and implications of a REDD mechanism and provide information to the Parties. In this regard, this workshop is intended to facilitate dialogue, generate information, and work towards consensus on REDD monitoring and verification needs and methods that will be of assistance to the UNFCCC negotiators, national stakeholders and the international community as a whole.

Objectives

The objectives of the workshop are to develop a roadmap and initiate a process to ensure that the wide body of knowledge and initiatives related to REDD contribute to a coordinated framework or guidelines for REDD monitoring, assessment and verification systems that are able to support any agreed international REDD approach.

Expected Outcomes

Following a conversation on key definitions and conceptual considerations, a roadmap will be developed that consists of the following elements:

- Identification of information and methodological needs and gaps;
- Identification of approaches to monitoring, assessment, and verification; and
- Activities by the international community to fill these gaps in support of the negotiations of the UNFCCC.

*The workshop is convened and chaired by the FAO, UNDP and UNEP Collaborative Programme on REDD (UN-REDD Programme). The Meridian Institute will facilitate the workshop in support to the UN-REDD Programme.

Provisional Workshop Schedule:

DAY 1:	Tuesday, 16 September	
	Opening remarks and introductions, Tim Kasten, UN-REDD Programme	
9.00 – 9.45	 Welcoming remarks, Melinda Kimble, UN Foundation 	
	Participant introductions	
	 Presentation of UN-REDD Programme, Charles McNeill, UN- REDD Programme 	
9.45 – 10.00	Background and purpose of the workshop – Tim Kasten, UN-REDD Programme	
10.00 – 10.30	Presentation of background paper and literature review – Peter Holmgren, UN-REDD Programme	
10.30 – 11.00	Discussion/Questions on Background Paper	
11.00 – 11.20	Introduction to break-out sessions	
11.20 – 11.40	Coffee break	
11.40 – 12.45	Three break-out sessions begin ¹	
	Estimating forest area and carbon stock changes to support reference emission levels	
	Monitoring and verification of deforestation and forest degradation	
	3. Implementation at the national level	
12.45 – 13.45	Lunch	
13.45 – 17.00	Break-out sessions continue	
	*Although there are no formally scheduled coffee breaks, refreshments will be available throughout the day for breaks from sessions.	
17.30 – 19.00	Reception at UN Foundation	

¹ Each group will have a facilitator, a note-taker, and a resource person. Detailed guidance for each group will be provided.

DAY 2:	Wednesday, 17 September
8.30 – 9.10	Short Plenary: Progress report from break-out sessions
9.10 – 12.30	Break-out sessions continue
12.30 – 14.00	Lunch
14.00 – 16.00	Break-out Session Reporting and Developing the Monitoring and Verification Roadmap to Copenhagen
16.00 – 16.15	Coffee Break
16.15 – 16.45	Wrap up of discussion on the Roadmap and Way Forward
16.45 – 17.00	Concluding remarks and comments
17.00	End of Workshop

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Workshop UN-REDD: Monitoring, assessment and verification 16-17 September 2008				
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