Forest Resources Assessment
Working Paper 171

TECHNICAL MEETING ON ASSESSMENT AND MONITORING OF FOREST DEGRADATION

ROME, ITALY
8–10 SEPTEMBER 2009

December, 2009

Sustainably managed forests have multiple environmental and socio-economic functions which are important at the global, national and local scales, and they play a vital part in sustainable development. Reliable and up-to-date information on the state of forest resources - not only on area and area change, but also on such variables as growing stock, wood and non-wood products, carbon, protected areas, use of forests for recreation and other services, biological diversity and forests' contribution to national economies - is crucial to support decision-making for policies and programmes in forestry and sustainable development at all levels.

Under the umbrella of the Global Forest Resources Assessment 2010 (FRA 2010) and together with members of the Collaborative Partnership on Forests (CPF) and other partners, FAO has initiated a special study to identify the elements of forest degradation and the best practices for assessing them. The objectives of the initiative are to help strengthen the capacity of countries to assess, monitor and report on forest degradation by:

- Identifying specific elements and indicators of forest degradation and degraded forests;
- Classifying elements and harmonizing definitions;
- Identifying and describing existing and promising assessment methodologies;
- Developing assessment tools and guidelines

Expected outcomes and benefits of the initiative include:

- Better understanding of the concept and components of forest degradation;
- An analysis of definitions of forest degradation and associated terms;
- Guidelines and effective, cost-efficient tools and techniques to help assess and monitor forest degradation; and
- Enhanced ability to meet current and future reporting requirements on forest degradation.

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www.fao.org/forestry/fra

The coordinators of this work would like to acknowledge the financial contributions made by the Governments of Finland and Norway and by FAO, the GEF BIP programme and ITTO.

Forestry Department
Food and Agriculture Organization of the United Nations

Forest Resources Assessment Working Paper

Technical Meeting on Assessment and Monitoring of Forest Degradation

FAO, Rome 8-10 September 2009

Summary Report

Forest Resources Assessment Programme

Working Paper 171
Rome, Italy, 2009

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Abbreviations and Acronyms

ADG	Assistant Director-General
CBD	Convention on Biological Diversity
COFO	Committee on Forestry
CPF	Collaborative Partnership on Forests
CIFOR	Center for International Forestry Research
CL	Conventional Logging
DRC	Democratic Republic of Congo
FAO	Food and Agriculture Organization of the United Nations
FRA	Forest Resources Assessment
FD	Forest Degradation
FOMD	Forest Assessment, Management and Conservation Division
FLR	Forest Landscape Restoration
GIS	Geographic Information Systems
GOFC-GOLD	Global Observation of Forest and Land Cover Dynamics
IFL	Intact Forest Landscapes
ITTO	International Tropical Timber Organization
IUCN	International Union for the Conservation of Nature
IUFRO	International Union of Forest Research Organizations
LADA	Land Degradation Assessment in Drylands
MA	Millennium Ecosystem Assessment
MAI	Mean Annual Increment
NDVI	Normalized Differential Vegetation Index
NFMA	National Forest Monitoring and Assessments
NTFP	Non Timber Forest Products
R&D	Research and Development
REDD	Reduced Emissions from Deforestation and Degradation
RIL	Reduced Impact Logging
SBSTTA	Subsidiary Body for Scientific and Technological Advice
SFM	Sustainable Forest Management
TOF	Trees Outside Forests
UNDP	United Nations Development Programme
UNEP-WCMC	United Nations Environment Programme – World Conservation Monitoring Centre
UNFF	United Nations Forum on Forests
UNFCCC	United Nations Framework Convention on Climate Change
WFP	Wood Forest Products
WRI	World Resources Institute

Executive summary

The Technical Meeting on "Assessment and Monitoring of Forest Degradation" took place at FAO headquarters in Rome, Italy, from 8 to 10 September 2009.

The objectives of the meeting were to present an analysis of definitions of forest degradation, present the case studies on forest degradation, review the results and recommend actions to improve measurement, assessment and reporting on forest degradation. The meeting provided an opportunity for participants to discuss technical aspects of methodologies for assessing and monitoring forest degradation.

A total of 37 specialists from 15 countries and 12 international forest-related organisations and processes participated in the meeting.

The main conclusions were as follows:

(i) Endorsement of the generic definition of 'forest degradation' as a reduction in the capacity of a forest to provide goods and services;

(ii) The many different aspects of forest degradation should be communicated better to Parties and relevant stakeholders of forest-related international conventions;

(iii) Attention should be focused on harmonization of definitions and methods for monitoring five aspects of forest degradation: stocking level, biological diversity, forest health, level of use/production and forest soil;

(iv) Methodologies do exist to monitor changes in carbon stocks and therefore to include forest degradation in terms of climate change into the proposed REDD mechanism.

There was a call for the development of tools and guidelines for measuring different aspects of forest degradation. The presentations made at the meeting can be found on the CPF site: http://www.fao.org/forestry/cpf/degradation/en/

Introduction

Background on the CPF initiative on Forest Degradation

The Challenge
Rates of deforestation and forest loss are regularly measured. Forest degradation – defined by international forest-related organizations as the reduction of the capacity of a forest to provide goods and services – is similarly important, but more difficult to measure.

Beyond this core definition, perceptions regarding forest degradation are many and varied, depending on the driver of degradation and the main point of interest (e.g., biodiversity conservation, carbon sequestration, wood production, soil conservation, recreation).

In the absence of agreed definitions and assessment methods, few countries are currently able to report on the area of degraded forests or the degree of forest degradation.

The study
Under the umbrella of the Global Forest Resources Assessment 2010 (FRA 2010), and together with members of the Collaborative Partnership on Forests (CPF) and other partners, FAO has initiated a special study to identify the elements of forest degradation and the best practices for assessing them.

The primary objective of the work is to help strengthen the capacity of countries to assess, monitor and report on forest degradation by:
- Identifying specific elements and indicators of forest degradation and degraded forest;
- Classifying elements and harmonizing definitions;
- Identifying and describing existing and promising assessment methodologies;
- Developing assessment tools and guidelines.

Expected outcomes and benefits of the initiative include:
- Better understanding of the concept and components of forest degradation;
- An analysis of definitions of forest degradation and associated terms;
- Guidelines and effective, cost-efficient tools and techniques to help assess and monitor forest degradation; and
- Enhanced ability to meet current and future reporting requirements on forest degradation.

The study has so far undertaken a survey of existing country practices to see what is being measured as well as an analytical study on definitions which provides a framework for the process. A series of case studies describing proven or promising methodologies and tools for assessing different aspects of forest degradation have been undertaken. The Technical Meeting described in this report, provided a forum where the analysis of definitions and case studies on forest degradation were presented, reviewed and discussed. The meeting provided an opportunity for participants to discuss technical aspects of methodologies for assessing and monitoring forest degradation.

Objectives and expected outcomes of this meeting

The objectives of this meeting were to:
- Review an analytical study on definitions of forest degradation
- Review case studies on assessment methodologies for forest degradation

- Discuss possible indicators of forest degradation and how to assess these

The expected outcomes were:

- A better understanding of the concept and components of forest degradation
- A set of possible indicators and promising assessment methodologies
- Recommended actions to improve measurement, assessment and reporting on forest degradation

Meeting participants

A total of 37 specialists participated in the Technical Meeting representing 15 countries and the following international and regional organizations, in addition to FAO: the Convention on Biological Diversity (CBD), Center for International Forestry Research (CIFOR), the International Tropical Timber Organization (ITTO), the International Union for Conservation of Nature (IUCN), International Union of Forest Research Organizations (IUFRO), United Nations Development Programme (UNDP), United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), United Nations Forum on Forests (UNFF), United Nations Framework Convention on Climate Change (UNFCCC), World Resources Institute (WRI). The full list of participants is included in Annex 1.

Organization of the meeting

The Agenda of the meeting can be found in Annex 2. In the opening session, presentations were made on the background to the study and on various activities contributing to the process, the survey of existing country practices and the analytical study on definitions. This set the scene for the presentation of case studies.

Case studies describing methodologies and tools for assessing different aspects of forest degradation were presented in groups of four, relating to one of the themes of Sustainable Forest Management (SFM), followed by an opportunity for discussion. Case studies presentations can be found in Annex 3.

A half day was devoted to a working group session where 3 working groups discussed the best indicators of forest degradation in terms of the following themes:
- Forest extent, condition and health;
- Reduced capacity to provide ecosystem services;
- Reduced capacity to provide goods and economic services.

The results from the working groups were presented on the final afternoon, and can be found in Annex 4.

In preparation for the working group sessions, participants were asked to think about forest degradation in their own country. Using separate cards they then wrote down the three variables that they would measure if they had to assess and report on forest degradation in their own country. These cards were then put up on a large "blue" wall, for all to see and consider. The cards were grouped according to element of Sustainable Forest Management (SFM) to which they were most closely linked. These cards provided a starting point for the working group discussions. A list of the variables can be found in Annex 5.

Key messages and conclusions based on the discussions that had taken place following each of the sessions and the conclusions from the working group discussions were presented and discussed in the final session.