

Workshop
Land-use Related Choices under the Kyoto Protocol
Obligations, Options and Methodologies for Defining “Forest”
and
Selecting Activities under Kyoto Protocol Article 3.4

BOG: Forest / Forest Management

Participants:

<i>Emil</i>	<i>Cienciala</i>	Czech Rep.
<i>Matthias</i>	<i>Dees</i>	Germany
<i>Snjezana</i>	<i>Fijan-Parlov</i>	Croatia
<i>Wojtek</i>	<i>Galinski</i>	Austria
<i>Shigehiro</i>	<i>Ishizuka</i>	Japan
<i>Art</i>	<i>Jaques</i>	Canada
<i>Miko</i>	<i>Kirschbaum</i>	Australia
<i>Werner</i>	<i>Kurz</i>	Canada
<i>Tuija</i>	<i>Lapveteläinen</i>	Finland
<i>Mattias</i>	<i>Lundblad</i>	Sweden
<i>Jozef</i>	<i>Mindas</i>	Slovakia
<i>Hans</i>	<i>Nilsgard</i>	Sweden
<i>Michela</i>	<i>Nocetti</i>	Italy
<i>Walter</i>	<i>Oyhantcabal</i>	Uruguay
<i>Klaus</i>	<i>Radunsky</i>	Austria
<i>Olga</i>	<i>Renda</i>	Italy
<i>Hubertus</i>	<i>Schmidtke</i>	Switzerland
<i>Dieter</i>	<i>Schoene</i>	FAO
<i>Rupert</i>	<i>Seidl</i>	Austria
<i>Primož</i>	<i>Simončič</i>	Slovenia
<i>Piotr</i>	<i>Skolud</i>	Poland
<i>Göran</i>	<i>Stahl</i>	Sweden
<i>Peter</i>	<i>Stephens</i>	New Zealand
<i>Jacek</i>	<i>Stocki</i>	Poland
<i>Lars</i>	<i>Vesterdal</i>	Denmark
<i>Marina</i>	<i>Vitullo</i>	Italy

The BOG Report

1. Introduction

The Breakout group (BOG) on Forest / Forest Management met on 3 and 4 May at the meeting “Land-use Related Choices under the Kyoto Protocol, Selecting Activities under Kyoto Protocol Article 3.4” in Graz, Austria, 2-4 May, 2005.

This report summarises the outcome of discussions based on a series of questions related to FM (implementation and practical issues) posed in the workshop materials. The subjects are discussed under the following main sections:

- Implications of the election of forest management as an activity to be accounted under the Kyoto Protocol
- Future obligations resulting from election of forest management
- Data needs and practices of reporting

2. Implications of the election of forest management as an activity to be accounted under the Kyoto Protocol

2.1. *Election of Forest Management under Art. 3.4*

Election of forest management allows the counting of all net forest carbon stock increments over the whole area covered by managed forests (up to a country's cap). If forest management is elected it must include all managed forests. If a country expects that the increments are small or difficult and costly to document then the country may choose not to elect forest management, especially when the potential liability during the first and possibly future commitment periods is large.

Efforts for accounting should be commensurate with expected carbon gains to be claimed, especially when expected credits would be greater than a country's cap. The efforts need to be larger if there is the possibility that a country's forests may be either a source or a sink, or if forestry credits were to make a large contribution to a country's total greenhouse gas balance.

Additional carbon benefits from specific carbon-management initiatives are usually small because of the slow responses of forest systems and relative small incremental responses to possible management changes. On the other hand, financial inputs related to C accounting may create opportunities for better forest management.

2.2. *Selection of C pools*

The Marrakesh Accord and the Good Practice Guidance for LULUCF leave little room for flexibility with regards to the definition of carbon pools.

On a national scale, it may be difficult to exclude any (of the five defined) pools because it would be difficult to make a general case that a pool is not a source. On a project scale, or for specific region-activity combinations, however, it may be possible to exclude some pools based on literature, models or ‘sound knowledge’. This may influence countries’ choices for selecting the size and extent of geographically specific reporting units.

If forest management is elected, non-CO₂ greenhouse gases also must be accounted, and that may be methodologically difficult. Default values may often be used, which usually leads to increased uncertainties.

2.3. Risks if Forest Management has been elected

Countries need to be aware that there is the risk that the forest sector happens to be a net GHG source during the commitment period due to stochastic events, such as fire or storm damage. Some risks can be reduced through forest management and activities outside the forestry sector (e.g. biofuel use of salvaged wood after storm damage) while others cannot be reduced easily. Hence, electing forest management should take into account national conditions within and beyond the forest sector and possible interactions among sectors in extreme situations.

Inclusion of wood products in C accounting would help reduce influence of fluctuation of C storage in forests on national GHG inventories and thus mitigate part of the risk for the carbon balance of a country due to stochastic events. However, that would require a change to the international accounting rules with respect to the treatment of wood products and does not present an option under current rules.

2.4. Article 3.7

For countries to assess whether their land-use change and forestry sector was a net source (under Art. 3.7) in the 1990 base year, it requires detailed accounting of deforestation for extended periods prior to 1990 because of their on-going carbon impacts during 1990. If such detailed accounting has been initiated, it will need to be carried through into the Commitment Period.

The 1990 baseline will have to be finalised by 2006 without scope for further revisions.

2.5. Summary of pros and cons for countries to consider in their decision making

Pros

- Incentive for using forests for climate-change mitigation
- Payment for the environmental service of carbon sequestration, which makes this environmental service more explicit and better recognized
- Early income stream for forest management activities
- Triggers better monitoring of forests and forest activities
- Enables countries to cost-effectively meet their commitments
- Increases awareness of the role of forests in the carbon cycle
- Offers benefits for building up carbon stocks that can in future be used for biofuels
- Provides certain benefits for biodiversity (recognising that maximising carbon stocks in a landscape is not always synonymous with optimising goals of biodiversity protection)

Cons

- It might delay mitigation action in the fossil-fuel sector
- Poses a risk that the forestry sector might become a source, even if it is a sink at present (before the Commitment Period)

- Imposes significant costs for inventory work (although they may not be so large if inventory systems are already in place and if other co-benefits are taken into account)
- Maximises carbon stocks in forests may undermine other forest management goals, such as maximising biofuel supply or certain aspects of biodiversity protection

3. Future obligations

If forest management is included for the first commitment period it is unlikely that countries will have the option to exclude it in future unless there is a complete change in the approach towards biospheric accounting. However, details of accounting for future commitments have not yet been decided, and it is likely that those future commitments will either exclude accounting for all of the biosphere or that it will require all biosphere management of all kinds to be included.

Election of forest management must be understood as a long-term commitment with both risks and opportunities.

4. In-country accounting systems

Countries need to carefully consider the total costs and benefits of establishing a monitoring and reporting system. A system that includes process modelling has the additional advantage that it allows policy analysis and forecasting. The legal requirements of the Kyoto Protocol mean that countries are required to establish an adequate system by 2006.

Best practice typically involves a combination of remote sensing, ground sampling and modelling. The greatest uncertainty is generally in the dynamics of carbon in dead organic matter and soils.

It is preferable to use functional relationships between biomass components rather than single biomass expansion factors for relating biomass carbon to stemwood volume. The use of single biomass expansion factors is particularly problematic for use of stock increments.

Interpolation, extrapolation and use of averaging periods for both carbon stocks and activity data is generally acceptable for national inventories if it is done transparently, and if there is a good and methodologically consistent justification for the use of that approach.

4.1. Formal Accounting Issues

Kyoto accounting demands that the GHG inventory books will be closed after 2014, using the best efforts, data and methodologies available up to that time. There is no scope of revision after the end of the review period.

Annual reports are required and will be annually reviewed. The Marrakesh Accord states that reported numbers are usually fixed in the year of the review unless new information or identified problems require a re-evaluation. After 2014, changes are no longer possible.

Parties are encouraged to participate in the voluntary reporting under the Kyoto guidelines to gain experience in the reporting system. Such a trial period is currently offered by SBSTA for 2007.

4.2. Accounting and reporting details

Higher tiers should be used for key categories, but there are no hard rules. Review teams may demand higher tiers to be used when a country is understood to have access to required information for a higher tier and yet chooses to use a lower tier. If information is not available for use of higher tiers in key categories, then a process should be initiated to develop the systems for higher tiers. There should be an annual key category analysis.

Monitoring and reporting is an expensive exercise and, to date, many countries have not yet addressed it adequately. Additional benefit can be gained if the reporting system can also generate information that can be used for other purposes, such as for forest and biodiversity management and other aspects of sustainable resource use. The most cost effective monitoring and reporting system is generally one that is based on modification and extension of an existing national system of data collection in the forest sector.

Existing systems were not generally designed with for the aim of collecting data for the purpose of compiling national GHG inventories. As a result, there may be a need for future advances in forest measuring and monitoring techniques.

There is insufficient information exchange between countries on systems already operating. However, new initiatives have been proposed (e.g. COST E43). New systems could be developed more cost-effectively if new systems were based on, or even copied and adapted those already existing. Resources on many relevant data exist and are available through a number of publicly accessible data bases (e.g. FAO, IPCC, Metla, ICP Forest).

4.3. Sampling issues

It is methodologically difficult to sample rare events such as deforestation. A problem is the remaining high uncertainty attached to reported rates. However, measurement techniques based on a system of sample plots may yield biased results as well. It may be equally problematic to have small rates with a high relative uncertainty as it is to have higher rates with a smaller relative uncertainty. Uncertainty assessment is often difficult to carry out because the error distribution of the underlying data sources is often not precisely known.