



**IPCC NGGIP-LULUCF Programme**

**Second Authors/Experts Meeting on Good Practice Guidance for  
Land-Use, Land-Use Change and Forestry (Task 1)**

**and**

**First Authors/Experts Meeting on Definitions for Direct Human-  
Induced Degradation of Forests and Devegetation of Other  
Vegetation Types, and Methodological Options to  
Inventory and Report Emissions Resulting  
from these Activities (Task 2)**

**Meeting Report**

**Tampere, Finland  
(10 – 12 July 2002)**

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IPCC review and approval process.**

## Acknowledgements

This report was prepared by Riitta Pipatti, Leandro Buendia, Kiyoto Tanabe, Todd Ngara, Kyoko Miwa, and Akiko Kawase of the Technical Support Unit for the IPCC National Greenhouse Gas Inventories Programme. In preparing this report, consultations were made with TFB Co-Chairs: Taka Hiraishi and Thelma Krug, and with the members of the LULUCF Steering Group: Michael Gytarsky, Dina Kruger, and Jim Penman. Contributions were also received from Co-chairs of Breakout Groups: Annette Freibauer, Bill Hohenstein, Samuel Kainja, Timo Karjalainen, Rodel Lasco, Omar Masera, Gert-Jan Nabuurs, Ian Noble, Newton Paciornik, N.H. Ravindranath, Kristin Rypdal, Bernhard Schlamadinger, and Pete Smith. We are also grateful for the contributions from rapporteurs of breakout groups and Renate Christ of the IPCC Secretariat, and all the experts from different countries, including those from international organisations.

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## **EXECUTIVE SUMMARY**

The First Authors/Experts Meeting on Good Practice Guidance for Land-Use, Land-Use Change and Forestry (Task 1) in March 2002, in Eisenach, Germany, accomplished substantive work on Chapters 2 to 5 with an accelerated handling of Chapter 2 (Basis for consistent Representation of Land Areas) to produce the zero-order draft. The meeting discussed the initial draft outline for each chapter of the report, paying special attention to consistency and harmonisation requirements and explored the availability of scientific and other materials. An agreement was reached on the proposed six broad categories of land use for reporting on land areas (i.e. forest land, cropland/arable/tillage, rangelands/pasture land, wetland, settlements, and other land). Authors were assigned to specific tasks and the gaps in required expertise were identified. Timeline for the development of extended outlines for sections and subsections and the preparation of the zero-order drafts for each chapter were set and the contact persons to enhance discussions within and among chapters were named. The meeting came up with a timetable to prepare for the Second Authors/Experts Meeting to be held in Tampere, Finland, in July 2002.

This Second Authors/Experts Meeting on Task 1, 10-12 July 2002, in Tampere, Finland, aimed to advance the drafting of the report with the view to produce a pre-first-order draft of Chapter 2 and zero-order drafts of Chapters 3, 4, and 5. It also aimed to check for consistency among chapters, identify missing parts or issues, and the approach on how to fill the gaps before the Third Authors/Experts Meeting to be held in October, 2002 in Brazil.

A parallel Authors/Experts meeting was held on Definitions for Direct Human-Induced Degradation of Forests and Devegetation of Other Vegetation Types, and Methodological Options to Inventory and Report Emissions Resulting from these Activities (also known as Task 2). This meeting aimed to develop a detailed table of contents for the work, assign authors to specific tasks, set a time schedule for the drafting, as well as preparing for the Second Authors/Experts Meeting to be held in October in Brazil in parallel with the Task 1 Third Authors/Experts meeting referred to above.

The two meetings were held in Tampere Hall, Tampere, Finland and were kindly hosted by Finland's Ministry of Agriculture and Forestry and Ministry of Environment. One hundred-four persons, including ninety-six authors/experts from governments and international organisations, participated in the meetings.

The meeting advanced the drafting of the Task 1 report. All the chapters of Task 1 have now become more cohesive. Cross-cutting issues were discussed and clarified. Consistency among chapters was enhanced. Most grey areas were ironed out and missing gaps or issues were adequately addressed. For Task 2, considerable progress was done to prepare a draft outline and table of contents; elaborate the content of different chapters; identify links to Task 1; and assign authors to do the drafting.

Task 1 and Task 2 authors agreed with the schedules to prepare for the first-order drafts for combined Governments/Experts review to take place between December 2002 and January 2003 (8 weeks). Task 1 group agreed to provide, by 26 July 2002, the summary of major revisions and cross-cutting issues and the list of Contributing Authors in areas or sections lacking expertise. The Task 2 authors agreed to come up with a more detailed outline by the same date. The pre-Brazil drafts for Task 1 Chapters 2 to 5 are expected to be ready by 15 September 2002 while Task 1 Chapter 1(to be drafted by Chapter 1 CLA's) and Task 2 (all

chapters) by 23 September 2002. Overall, the participants are confident that the first-zero order drafts for both tasks will be ready and in complete form before the Brazil meeting in October 2002.

## **IPCC NGGIP-LULUCF Programme**

### **Second Authors/Experts Meeting on Good Practice Guidance for Land-Use, Land-Use Change And Forestry (Task 1) and First Authors/Experts Meeting on Definitions for Direct Human-Induced Degradation of Forests and Devegetation of Other Vegetation Types, and Methodological Options to Inventory and Report Emissions Resulting from these Activities (Task 2)**

**Tampere, Finland, 10-12 July 2002**

## **1 BACKGROUND AND OBJECTIVES**

In accordance with the work programme for the development of Good Practice Guidance for Land-Use, Land-Use Change, and Forestry (also known as Task 1), which was approved at IPCC XVIII, in September 2001, Wembley, UK, the First Authors/Experts Meeting was held on 12-14 March 2002, in Eisenach, Germany.

The Eisenach Meeting accomplished substantive work on chapters two to five with an accelerated handling of Chapter 2 (Basis for consistent Representation of Land areas) to produce the zero-order draft. The meeting discussed the initial draft outline for each chapter of the report, paying special attention to consistency and harmonisation requirements and explored the availability of scientific and other materials. An agreement was reached on the proposed six broad categories of land use for reporting on land areas (i.e. forest land, cropland/arable/tillage, rangelands/pasture land, wetland, settlements, and other land). Authors were assigned to specific tasks and gaps in required expertise were identified. Timeline for the development of extended outlines for sections and subsections and the preparation of the zero-order drafts for each chapter were set and contact persons to enhance discussions within and among chapters were named. The meeting came up with a timetable to prepare for the Second Authors/Expert Meeting in Finland in July 2002.

The IPCC, also in response to the invitation of the UNFCCC, in its decision 11/CP.7 in the Marrakesh Accords, prepared a work plan to develop definitions for direct human-induced degradation of forests and devegetation of other vegetation types, and methodological options to inventory and report emissions resulting from these activities. This task is known as Task 2. The implementation of Task 2 will be done in close cooperation with Task 1 to ensure consistency of methodologies and products.

For Task 1, the meeting aimed to advance the drafting as much as possible by producing a pre-first-order draft of Chapter 2 and zero-order drafts of Chapters 3, 4, and 5. It also aimed to check for consistency among chapters, identify missing parts or issues, and the approach on how to fill the gaps before the Third Authors/Experts Meeting.

For Task 2, the objective was to develop detailed table of contents, assign authors to specific tasks, prepare a timetable for the drafting, as well as to prepare for the Second Authors/Experts Meeting.

## 2 OPENING SESSION AND ORGANISATION OF THE MEETING

The meetings were held in Tampere Hall, Tampere, Finland and were hosted by the Finland's Ministry of Agriculture and Forestry and Ministry of Environment. The Technical Support Unit of the IPCC National Greenhouse Gas Inventories Programme (IPCC-NGGIP-TSU) coordinated the meeting with support from the local organisers.

The Task 1 and Task 2 Authors/Experts meetings were preceded by a CLA (Co-ordinating Lead Authors) meeting, held on 9 July 2002, with members of the LULUCF Steering Group, the Co-chairs of the Task Force Bureau (TFB) and the TSU. The objectives of the meeting were to prepare for the main meetings and to discuss the content of the work, especially the linkages between the Chapters of Task 1, and also between Task 1 and 2. The CLAs also met during the course of the main meetings to discuss how to advance in the work and to be informed of the progress in issues of relevance to all Chapters.

One hundred-four persons, including ninety-six authors/experts from governments and international organisations, participated in the meeting (Attachment A). The meeting was chaired by TFB Co-chairs Taka Hiraishi (who also gave the Opening Remarks) and Thelma Krug. Mr. Timo Kotkasaari, Director General of the Ministry of Agriculture and Forestry of Finland, gave the Welcome Remarks. Riitta Pipatti, Head of the IPCC-NGGIP-TSU, presented the progress of Task 1 drafting since the First Meeting Authors/Experts in March 2002. She gave background information of the Task 2 project and its link to Task 1 and informed the participants about the discussion at the side-event on LULUCF which was held at SBSTA16 in June 2002. She also presented the objectives and expected outputs of the Tampere meeting. Claudio Forner, of the UNFCCC Secretariat, presented the reporting requirements for LULUCF under Article 7 of the Kyoto Protocol (KP) and gave an update on the discussions in the Convention regarding afforestation and reforestation under the Clean Development Mechanism. He also presented briefly some background information for the work on Task 2.

The rest of the morning session was devoted to presentations by Task 1 CLAs on the progress of each chapter:

**Chapter 2 Basis for consistent representation of land areas (Jim Penman, UK)** – There is little advice in the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines)* on estimating and reporting of land areas. Parties to the UNFCCC use different information sources and methods in their calculations (e.g. annual census data, periodic surveys, and remote sensing). The challenges faced by Chapter 2 authors are: 1) how to make best use of this information taking into account the national circumstances and for some Parties the Kyoto Protocol requirements; and 2) the need for flexibility in using the LUCF categories (5A to 5E) in the *IPCC Guidelines* to bring together above- and below-ground biomass. The six broad categories of land use, which were developed at the First Authors/Experts Meeting, are consistent with the *IPCC Guidelines*. These categories are viewed to give flexibility for national circumstances and would provide the link between the above and below ground carbon pools. The categories would allow mapping onto the LUCF categories in the *IPCC Guidelines* and would provide the framework for KP accounting.

The current draft provides the four basic approaches for representing land areas: 1) existing data on an activity by activity basis; 2) existing data on an activity by activity basis extended by an overall check on area balances; 3) land use change matrix; and 4) grid based identification of all land. The areas in the current draft that will be developed further are: more consideration on what is good practice, optimum use of data sources, sampling strategy, sampling and carbon

dynamics, and documentation.

***Issues raised:***

- There is a need to elaborate how the broad categories can contribute to linking the methodologies for above and below ground biomass better together than at present.
- The need to include guidance on documenting or reporting in Chapter 2 was discussed.

**Chapter 3 LUCF Good Practice (Gert-Jan Nabuurs, The Netherlands; supplemented by N. H. Ravindranath, India)** –Chapter 3 will contain most methods to be applied also in Chapter 4 , but will not address which part of the greenhouse gas (GHG) emissions may fall under KP. The current draft has the following structure: the main entrance is the land use type (staying the same or coming from another land use), the next path is the carbon compartment (above ground biomass, soils carbon), and the non-CO<sub>2</sub> emissions are dealt with in a separate subchapter. Decision trees to guide the users to choose appropriate level of detail are included. The draft contains first rough compilation of sections by land use types with much emphasis on forests. More emphasis is needed for the sections of rangelands, settlements, and other lands, and on default data sets. Better linkages between the biomass and soil sections are needed across all tiers, observing consistency with the *IPCC Guidelines*.

The draft of Chapter 3 needs harmonisation of tier levels between vegetation types as well as tier levels between Chapters 3 and 4. More emphasis on lower tiers is needed, but also the text on the higher tiers needs improvement. Inclusion of unmanaged lands to facilitate the work in Chapter 4 will be considered. A lot of redrafting and editorial work needs to be done to transform the draft into a good handbook.

***Issues raised:***

- There are difficulties in interpreting the *IPCC Guidelines*; the challenge is to develop simple and practical guidance;
- There is a need to a balanced approach to the tiers; we cannot just concentrate on Tier 1 and leave out higher tiers; other tiers have to be elaborated; key source categories should use higher tiers;
- The carbon pools are not clearly identified and further clarification is required.

**Chapter 4 Supplementary Methods (Bernhard Schlamadinger, Austria)** – The general approaches in drafting the chapter were to build on Chapter 2, in identifying lands, and to build on Chapter 3 for methodologies in establishing estimates of stock changes on these lands. There are still several issues to be resolved as to reporting and land accounting rules. Land can be in multiple categories during the commitment period and that land can shift from one category to another. Chapter 3 categories refer to current land use while Chapter 4 focuses on combination of past and present land use. While Chapter 3 provides methods for stock-change assessment, Chapter 4's first step is to determine lands under Afforestation, Reforestation, and Deforestation (ARD) in each year.

The current draft needs harmonisation of tiers across activities. It needs to incorporate

uncertainties and the key categories concept, and has to reduce overlap with Chapters 2 and 3. It needs to give more focus on geographical location of boundaries; verifiable information to demonstrate those pools which are not accounted for and are not sources of GHGs; distinction of harvesting/disturbance from deforestation; harvesting on AR lands; and information to demonstrate that GHGs from activities selected under Article 3.4 of KP are not also accounted for under Art 3.3 of the KP.

The draft proposed four methods of identifying AR lands. The Forest Management section has the write-up available for methodological issues, but has to be harmonised with other sections of Chapter 4, as well as other chapters. The sections on non-CO<sub>2</sub> emissions, completeness, and uncertainty assessment need more text. For the sections on Crop Management (CM), Grazing management (GM), and Revegetation (RV), a move from scientific text to good practice guidance type text will be done. These sections will also aim to provide more examples on how to apply the guidance. On the section of LULUCF Projects, there is a need to define the relationship with national GHG accounting. This section needs to develop new methodologies and reporting guidance as the *IPCC Guidelines* do not cover Projects. There is a need to avoid overlaps with other chapters/sections as regards the measurement and monitoring of carbon stocks. More work is needed on non-CO<sub>2</sub> GHG and on uncertainties related to Projects.

***Issues raised:***

- The prioritisation of Article 3.3 before Article 3.4 was discussed;
- Potential overlaps between forest management and agro-forestry have to be addressed in the drafting.

**Chapter 5 Cross-cutting issues (Kristin Rypdal, Norway)** – Chapter 5 subchapters are not yet complete. The key category concept under Methodological Choice, instead of key source, has to be expanded to include sinks. The use of the concept in decision trees on the choice of methods in Chapters 3 and 4 was proposed. The KP issues need to be clarified. On QA/QC and time series consistency, the results from this meeting will be used to assess the practical usefulness to further integrate LUCF specific issues. It was noted that these areas are overlapping and not consistently addressed in Chapters 3 and 4. Much input is needed in the verification section. There is a need to clarify the purpose of the verification text; filter out more political issues; and identify what is practical and consistent with other chapters. The uncertainty assessment has to be part of all methods and require more thinking.

***Issues raised:***

- The term “verification” is also used in the CDM context; the suggestion was to use the term “scientific verification”;
- Clear distinction or definition is needed in using the term “verification” as opposed to “validation”.

The Task 2 issues were not discussed in detail as the authors were only starting to plan the detailed content of the work.

During the days that followed there were schedules for breakout group sessions, CLA meetings

and Plenary Sessions. Participants were grouped into eight main break-out groups (Attachment B) so as to advance the drafting of each chapter, resolve comments on the current draft, identify gaps and cross-cutting issues, harmonise the chapters, and plan for the preparation of the first-order draft for the Brazil meeting in October 2002. Some joint breakout group sessions were held to address overlapping issues and links between chapters.

### **3 ISSUES/OUTCOMES OF BREAKOUT GROUP DISCUSSIONS**

#### **BOG 1 - Degradation and Devegetation Issues (Task 2)**

The group benefited from the presentation of Dieter Schoene, of the United Nations Food and Agriculture Organization (FAO), on the conclusions of the FAO expert meeting on harmonizing forest-related definitions (23-25 January 2002). It elaborated the Table of Contents and a draft outline for each chapter (Attachment C). It discussed the issue of reporting and documentation for areas like harvested wood. It identified the availability of scientific material and possible overlaps and links to Task 1.

For Task 2 Chapter 2, on definitions for degradation of forests and devegetation of other vegetation types, the group provided a general description of activities and addressed regional differences in activities and the scale of their effects. For Task 2 Chapter 3, on methodological options to estimate emissions, the group agreed that the chapter can build on Task 1 Chapter 3, but will emphasize issues which are specific to degradation/devegetation. Task 2 Chapter 4, on implications of different methodological options to accounting under the provisions of Art. 3.4 of the Kyoto Protocol, needs to work closely with authors of Chapter 4 of Task 1. The group assigned writing teams to each chapter and agreed on the timetable for the Task 2 report preparation.

#### **BOG 2 - Basis for Consistent Representation of Land Areas**

The group reviewed the main text and developed guidance on relating land classifications used nationally to the six broad categories. There is a need to take Chapter 3 draft into account when finalising the mapping tables. The KP mapping tables should be detailed and would depend on the outcome of Chapter 4. There is a need to rationalise the six categories by better treatment of “other wooded land”; more clarity on wetlands, and to separate natural lakes and reservoirs. The reporting on savannahs (i.e. to arable land or grassland) also needed clarification.

The use of the word ‘approaches’ was preferred to ‘formats’. Revisions were made on the decision trees and on the description of Approaches 1-4 (see pages 7-8, Chapter 2) for greater clarity on practical procedures. The issue of how Chapter 2 approaches can be related to the tiers in other chapters was discussed. To prepare for the first-order draft, greater precision (less tentative) and simplification (KIS principle) will be observed. The new decision tree will take into account optimal use of data sources. Some elaboration of the text on sampling will be needed. Documentation will be addressed and revised classification and adjustment procedures will be done for transitional classes.

### **BOG 3A - Forest lands, and rangelands/pasture land; and BOG 3B - Cropland, wetland/tundra, urban, and other developed lands**

The two groups started with a joint session to resolve comments by reviewers on the whole of Chapter 3. When needed, the two groups broke out into three sub-groups: biomass, soils, and non-CO<sub>2</sub>. The inclusion of the generic issues in the introductory chapter was proposed to avoid repetition and to shorten the chapters. The generic issues include how to map explicitly back to the *IPCC Guidelines*; harmonise tiers (Section 3.1 was to provide a generic description of the tiers/methods); link biomass with soil carbon, and products; definitions of pools; improve the default values<sup>1</sup>; and how to deal with uncertainty.

There were presentations and discussions on harvested wood, croplands, grazing lands and shrub lands, wetlands, and settlements. There were discussions on the issue of how to link Chapter 4 ARD with Chapter 3; how to treat litters; where peat lands and wetlands should be addressed. A paper on tier definitions was also presented and discussed. The BOG members agreed on the importance of getting appropriate Contributing Authors (CAs) to collect local/regional data/information.

The group identified priorities to work on: concentrate on instructions (cook book); identify new default data; cross-walks to the *IPCC Guidelines* (reporting tables); complete verification, uncertainties, reporting and documentation, and consistency sections with Chapter 5 authors; and incorporate the agreed tiers structures in the flow charts. The group identified and harmonised tier levels taking into account the methodology, parameters/coefficients, activity data, and additional documentation requirements. The time schedule was set for 15 September 2002 to come up with the first-order draft.

### **BOG 4A - Afforestation, Reforestation, and Deforestation (ARD), and Forest Management; BOG 4B - Revegetation, Cropland and Grassland Management; BOG 4C - LULUCF Projects**

On ARD and FM, the group shifted many sections to generic, introductory sections to reduce repetition and to shorten the text. It made progress in classifying lands, but has still to come up with wording and rationale to avoid prioritization of activities under Art. 3.4 of KP. It developed better decision trees, identified remaining gaps, and assigned writing tasks. The issue of disturbances was discussed as well as the issue on “managed forest” versus “forest management”.

On cropland management, grazing land management and revegetation, the main achievement was the alignment of the tier structure with Chapter 3 and the partial revision of the text in accordance with the revised tiers. The next task would be to expand and enhance ‘grazing land’ and ‘revegetation’ sections; to evaluate the *IPCC Guidelines*’ default coefficients with some authors of Chapter 3; and to consider influences on emissions of non-CO<sub>2</sub> gases where they are not explicitly covered in the Agriculture or other chapters of the *IPCC Guidelines*.

On Projects, the section was restructured taking into account the project boundaries,

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<sup>1</sup> A question was raised about criteria for default data to be included in the report. This issue was forwarded to CLA meeting. CLA meeting concluded that the precedent practice should be followed, namely not only the peer-reviewed data but also the data submitted by authors/experts in an appropriate manner may be accepted. The source of the default data should always be supplied.

measurement, link with national inventories, QA/QC, uncertainty, and reporting. Further discussions were made on the issues of Articles 6 and 12 differences; national projects (how much detail; descriptive text on national projects should be avoided); methods (if there is a need for higher requirements and tiers). A proposal to treat the project part of Chapter 4 as a stand alone section was put forward. The links to other chapters were addressed by assigning contact persons to the specific chapters.

### **BOG 5 - Cross-cutting issues**

Substantial progress was made on the subject of completeness and consistency with other chapters. Task 1 Chapters 3 and 4, from which Chapter 5 needs input for drafting, have the same deadline as Chapter 5. This may cause a problem to the drafting of Chapter 5. In addition, the group may need more Contributing Authors to complete the work. The group developed guidance to other chapters on e.g. identifying uncertainties and the overall methods on how to combine uncertainties. The draft paper on “Uncertainties in LULUCF inventories” was distributed to all Task 1 authors. Chapter 5 authors established cooperation with authors of Chapters 2, 3, and 4 and shared expertise in various joint BOG sessions. The group reached an agreement on the proposal for key category analysis. Further work on the description will be done and aggregation level may also need some more work. There are still unresolved issues with regard to the Kyoto Protocol (i.e. on qualitative and quantitative matters). The group will develop two alternatives for comments. On QA/QC time series consistency, the group agreed to give more focus to the Kyoto Protocol issues and to non-annual data. Guidance to other chapters on describing QA/QC (table) will be developed soon. The group will also reflect on Chapter 3 tier structure. On verification, the group revised the outline and gave more focus on the purpose of good practice. The Project section was largely reduced since the estimation methods are common. The group agreed that higher tier methods may also be verification methods (link to Chapter 3).

## **4 CONCLUSION**

By and large, the meeting advanced the drafting of the report. All the chapters of Task 1 were made more cohesive. Cross-cutting issues were discussed and clarified. Consistency among chapters was enhanced. Grey areas were ironed out and missing gaps or issues were adequately addressed. For Task 2, considerable progress was done to elaborate the contents of the different chapters, identify links to Task 1, and assign authors to do the drafting.

Task 1 and Task 2 authors agreed with the schedules (Attachment D) to come up with the first-order draft for combined Governments/Experts Review to take place between December 2002 and January 2003 (8 weeks). By 26 July 2002, the Task 1 group agreed to come up with the summary of major revisions and cross-cutting issues and the list of Contributing Authors in areas or sections lacking expertise. Task 2 authors agreed to come up with a more detailed outline by the same date. The pre-Brazil draft for Task 1 Chapters 2 to 5 will be ready by 15 September 2002 while Task 1 Chapter 1 and Task 2 (all chapters) by 23 September 2002. Overall, the participants are confident that the first-zero order draft for both tasks will be ready and in complete form before the Brazil meeting in October 2002.

## Attachment A

**List of Participants for  
IPCC NGGIP-LULUCF Programme  
Second Authors/Experts Meeting on Good Practice Guidance  
for Land-Use, Land-Use Change and Forestry (Task 1)**

and

**First Authors/Expert Meeting on the issue of "Degradation of Forest and Devegetation of  
Other Vegetation Types" (Task 2)  
Tampere, Finland, 10-12 July 2002**

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IPCC NGGIP-LULUCF Programme  
Second Authors/Experts Meeting on Good Practice Guidance  
for Land-Use, Land-Use Change And Forestry (Task 1)

and

First Authors/Expert Meeting on the issue of “Degradation of Forest and Devegetation of Other  
Vegetation Types” (Task 2)

Tampere, Finland, 10-12 July 2002

Breakout Group Co-chairs, Rapporteurs, and Members,  
and Plenary Rapporteurs

**BOG 1: Task 2 – Degradation and Devegetation Issues**

*Co-Chairs:* (to be decided at the meeting by all Task 2 CLAs; 1 from developed country and 1 from developing country)

LIU Shirong (China)

Gary RICHARDS (Australia)

Samuel KAINJA (Malawi)

Timo KARJALAINEN (Finland)

*Rapporteurs:*

Julius DAKA (Zambia)

Marie BOEHM (Canada)

*Members:*

Juan Ivar ARANA PARDO (Bolivia)

*Absentee:*

Tomas HERNANDEZ (Mexico)

Richard BIRDSEY (US)

Shigeo KOBAYASHI (Japan)

Gyde LUND (US)

Roman MICHALAK (Poland)

Robert SCHOLES (South Africa)

Masamichi TAKAHASHI (Japan)

Andreas SCHULTE (Germany)

Gerald John LAWSON (UK)\*

*IPCC:*

Renate CHRIST

**BOG 2: Task 1-Chap2: Basis for Consistent Representation of Land Areas**

*Co-Chairs:*

Bubu Pateh JALLOW (Gambia)

Jim PENMAN (UK)

*Rapporteurs:*

Ismail BIN HARUN (Malaysia)

Bill IRVING (US) – (also as *Plenary Rapporteur*)

*Members:*

Dominique ARROUAYS (France)

Brian TURNER (Australia)

Peter BEETS (New Zealand)

Julio VARGAS (Ecuador)

Paul DRICHI (Uganda)

Ernesto VIGLIZZO (Argentina)

Ted HUFFMAN (Canada)

Ralph ALIG (US)\*

Michael KOHL (Germany)

LIN Erda (China)

*Absentees:*

Lennart OLSSON (Sweden)

Ronnie MILNE (UK)

Ryosuke SHIBASAKI (Japan)

James HRUBOVCAK (US)

*NGGIP-TSU:*

ToddNGARA

### **BOG 3 - A: Task 1-Chap3: Forest lands and rangelands/pasture land**

*Co-Chairs:*

N.H. RAVINDRANATH (India)

Gert-Jan NABUURS (Netherlands)

*Rapporteurs:*

Harald AALDE (Norway)

Willy MAKUNDI (Tanzania)

*Members:*

Abdelazim Yassin ABDELGADIR  
(Sudan)

Samsudin BIN MUSA (Malaysia)

Dominique BLAIN (Canada)

David Cruz CHOQUE (Bolivia)

Lorenzo CICCARESE (Italy)

Justin FORD-ROBERTSON (New  
Zealand)

Wojciech GALINSKI (Poland)

Michael GYTARSKY (Russia)

Linda HEATH (US)

Bill HOHENSTEIN (US)

Denis LOUSTAU (France)

Kim PINGOUD (Finland)

John RAISON (Australia)

Vladimir SAVCHENKO (Belarus)

Risto SIEVANEN (Finland)

Ken SKOG (US)

XU Deying (China)

Carlos CERRI (Brazil)\*

*Absentee*

James BARTON (New Zealand)

*NGGIP-TSU:*

Kiyoto TANABE

### **BOG 3 – B: Task 1- Chap3: Cropland, wetland/tundra, urban, and other developed lands**

*Co-Chairs:*

Annette FREIBAUER (Germany)

*Rapporteurs:*

Kenneth BYRNE (Ireland)

Tijani MANDOURI (Morocco)

*Members:*

Eric DUCHEMIN (Canada)

Lucien DJA (Ivory Coast)

Jean-Claude GERMON (France)

Hector GINZO (Argentina)

Anwar Sheikhdin Abdu KHALIL  
(Bahrain)

Josef MINDAS (Slovakia)

Keith PAUSTIAN (US)

Keith SMITH (UK)

*Absentee:*

Rizaldi BOER (Indonesia)

*Observer:*

Kathryn BICKEL (US)

*NGGIP-TSU:*

Leandro BUENDIA

**BOG 4 – A: Task 1- Chap4: Afforestation, Reforestation, Deforestation, and Forest Management**

*Co-Chairs:*

Rodel LASCO (Philippines)

Bernhard SCHLAMADINGER (Austria)

*Rapporteurs:*

Kansri BOONPRAGOB (Thailand) – (also as *Plenary Rapporteur*)

Gerome PIGNARD (France)

*Members:*

Sandra BROWN (US)

ZHANG Xiao-Quan (China)

Nagmeldin Gutbi ELSIDDIG (Sudan)

Andreas FISCHLIN (Switzerland)\*

Werner KURZ (Canada)

Mitsuo MATSUMOTO (Japan)

*Observer:*

Alexander NAKHUTIN (Russia)

Dieter SCHOENE (FAO)

Zoltan SOMOGYI (Hungary)

**BOG 4 –B1: Task 1 – Chap4: Cropland and Grassland Management, Revegetation**

*Co-Chair:*

Pete Smith (UK)

*Rapporteur:*

*Members:*

Henry JANZEN (Canada)

*Absentee:*

Peter KUIKMAN (Netherlands)\*

Pascale COLLAS (Canada)

NGGIP-TSU:

Riitta PIPATTI

**BOG 4 - C: Task 1 – Chap4: LULUCF Projects***Co-Chairs:*

Omar MASERA ( Mexico)

Ian NOBLE (Australia)

*Rapporteurs:*

Jenny WONG (Malaysia)

*Members:*

Abdelkader ALLALI (Morocco)

Richard TIPPER (UK)

Vitus AMBLA (Papua New Guinea)

Barbara BRAATZ (US)

Ignacio DEL VALLE (Colombia)\*\*

Markku KANNINEN (Finland) Jorge)

Thelma KRUG (Brazil)

Daniel MARTINO (Uruguay)

*Observer:*

Phamuel OBALLA (Kenya)

Claudio FORNER (UNFCCC)

*TFB Members:*

Taka HIRAISHI (Co-chair, Japan)

**BOG 5: Task 1 – Chap5: Cross-cutting issues (Chapter 5)***Co-Chairs:*

Newton PACIORNIK (Brazil)

Kristin RYPDAL (Norway)

*Rapporteurs:*

Martina van der MERWE (South Africa)

*Members:*

Rainer BARITZ (Germany)

Albertus Johannes DOLMAN

Simon BARRY (Australia)

(Netherlands)\*

Marlen EVE (US)

Bo LIM (UK)\*

Dina KRUGER (US)

Riccardo VALENTINI (Italy)\*

Raisa MAKIPAA (Finland)

Giorgio MATTEUCCI (European  
Commission)*Absentees:*

Toshinori OKUDA (Japan)

Michael GILLENWATER (US)

Keith PORTER (Jamaica)

Mamadou HONADIA (Burkina Faso)

Jose Maria SANZ-SANCHEZ ( Spain)

James SMITH (US)

T.P. SINGH (India)

*Observer:*

Goran STAHL (Sweden)

Roberto ACOSTA (UNFCCC)

*NGGIP-TSU:*

Kyoko MIWA

## **Task 2 Table of Contents (Elaborated)**

### **Chapter 1 Introduction**

### **Chapter 2 Definitions for Degradation of Forests and devegetation of Other Vegetation Types (linked to Task 1- Chapters 2, 3)**

#### ***2.1. Definitions of direct human induced degradation and devegetation***

2.1.1 Definitions & descriptions of ‘direct human induced degradation’ and ‘devegetation’

2.1.2 Description of direct/indirect human induced activities & natural effects which effect degradation & devegetation.

#### ***2.2 Description of Forest Degradation & Devegetation Activities***

##### 2.2.1 General Description of Activities

- description of activities and direct human-induced effects on carbon stocks and GHG emissions (aggregate list applicable to all regions ... e.g. thinning, weeding, ground preparation etc.)
- ‘devegetation’ in the context of ‘converse of revegetation’ or context of all non-forest land’?

##### 2.2.2 Europe

- a) scale of effects of activities on C Stocks  
... literature examples ... case studies .. not all countries .. consider both short-term and longer-term effects .. consider likely geographic scale ..
- b) scale of effects of activities on GHG emissions
- c) impacts on social, economic and biological functions

##### 2.2.2 Asia & Pacific Shigeo Kobayashi, Shirong Liu & Gary Richards

- a) .. c) as above.

##### 2.2.4 Americas

- a) ...c) as above

##### 2.2.6 Africa

- a) ...c) as above.

## 2.2.7 Conclusions on Global scales of effects

# **Chapter 3 Methodological Options to Inventory Emissions from Direct Human Induced Activities**

## ***3.1 Methodologies to estimate emissions from degradation of forest and devegetation of other vegetation types (Building on Task 1 Chapters 3-4, but emphasizing issues particular to degradation/devegetation).***

3.1.1 Estimation of emissions from direct human interventions in degradation of forests, including uncertainties

- b) Changes in biomass
- c) Changes in soil carbon
- d) Harvested wood
- e) Non-CO2 GHGs

3.1.2 Estimation of emissions from devegetation of other vegetation types, including uncertainties

- a) Identification of affected areas
- b) Changes in biomass
- c) Changes in soil carbon
- d) Non-CO2 GHGs

3.1.3 Implications for Full Carbon Accounting & Land Categorisation

## ***3.2 Reporting and documentation***

(providing only guidance)

3.2.1 Tables and Worksheets for computation of emissions .. coordinated with Task 1 Chapter 3,4,5 (including effect of tier)

3.2.2 Tables and Worksheets for reporting of emissions ... coordinated with Task 1 Chapter 4 (including effect of tier)

# **Chapter 4 Implications of different methodological options to accounting under the provisions of Article 3.4 of the Kyoto Protocol**

## ***4.1 Overview of accounting reporting rules in the Kyoto Protocol***

(i.e. Arts 3,5,7,8, 6 (,12?))

## **4.2 Methods & Guidelines**

### 4.2.1 Degradation of Forests

- a Afforestation, Reforestation, Deforestation
- b. Forest Management

### 4.2.2 Devegetation due to human induced

- a. Cropland management,
- b Grazingland management,
- c. Revegetation

### 4.2.3 Devegetation on other lands (need for full carbon accounting & unbalanced Kyoto interpretations)

## **Annexes - Sources of Information & Reporting Templates**

(avoiding pers comm. For grey literature must be reviewed by authors & IPCC needs reference copy.)

**SCHEDULE FOR FIRST-ORDER DRAFTS FOR REVIEW**

26 July	Post Tampere papers Task 1: Summary of major revisions and cross-cutting issues, list of CAs, lacking expertise Task 2: Detailed outline Both: Presentations (final plenary), work plan for Brazil
15 September	Pre-Brazil drafts (Task 1: chapters 2-5)
23 September	Pre-Brazil drafts (Task 1: chapter 1; Task 2)
1-4 October	Brazil meeting
18 October	Post-Brazil drafts from CLAs to TSU/SG
23 October – 1 November	COP8 (Report of progress; Side-event)
18 November	Harmonisation of draft reports by CLAs/ SG/TSU
25-26 November	Final Draft/TFB
1 December – 31 January	Review

**Notes:**

Pre-Brazil draft needs to be near final (all difficult issues resolved) so that Brazil meeting can focus on cross-group discussion

Final First-order drafts to TSU –date need to be early enough to allow time for TSU/SG to finalise draft.