

2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands

Reports of Review Editors Compilation

Note by Technical Support Unit for the IPCC Task Force on National Greenhouse Gas Inventories (28 February 2014):

As defined in the Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports, the role of the Review Editors in production of an IPCC Report is, among others, to ensure that all substantive expert and government review comments are afforded appropriate consideration, advise lead authors on how to handle contentious/controversial issues and ensure genuine controversies are reflected adequately in the text of the Report.

This document is a compilation of reports submitted by the Review Editors of the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)* in accordance with the IPCC Procedures. The signatures of Review Editors have been removed in this document for data protection reasons.

The Review Editors' reports are part of the quality control of the review process of the IPCC Report. They are not intended to be additional reviews of the content of the drafts of the *Wetlands Supplement*.

Report by Review Editors of Overview Chapter of *Wetlands Supplement to the IPCC*

We acted as Review Editors for Overview Chapter of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. Overview Chapter of the *Wetlands Supplement* received 96 comments from expert reviewers and 79 from governments that underwent review by Governments and Experts as mandated by the IPCC principles and procedures. Also, there were 127 other comments from expert reviewers and 47 other comments from governments that are relevant to the entire *Wetlands Supplement*¹.

We assisted in the process of handling of comments by the authors of Overview Chapter in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors on handling contentious/controversial issues. We are satisfied that the Lead Authors of Overview Chapter of *Wetlands Supplement* have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

We understand that a table containing all the comments received and proposed responses by the authors will be made available on the IPCC website by the final publication of the Report.

The following are some of the important features of the review comments on Overview Chapter:

- a) Most of the comments were on editorial issues
- b) Almost all substantive issues were accepted
- c) Those who were not accepted were in general on explanations which were covered in following chapters in the *Wetlands Supplement*

The Lead Authors addressed the abovementioned appropriately in the text of the Final Draft of *Wetlands Supplement*.

[signature removed]

Erda Lin

[signature removed]

Steen Gyldenkærne

¹ These review comments include those on Glossary as well as general comments on the entire *Wetlands Supplement*.

Report by Review Editors of Chapter 1 of the *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 1 of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. This Chapter received 900 comments from expert reviewers and 148 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 1 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 1 on handling contentious/controversial issues. We are satisfied that the Lead Authors of Chapter 1 have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC website by the final publication of the Report.

The following are some of the important features of the review comments on Chapter 1:

- a) For FOD of Chapter 1, there were about 638 comments, of which 457, 42, and 139 were accepted and/or accepted but addressed differently, noted and rejected, respectively. The major issues in Chapter 1 were related to (1) the definitions of wetland, peatland, peat, peat soils, and wet/dry/organic/mineral soils, (2) what is or is not covered in this Wetlands Supplement in relation to the 2006 IPCC Guidelines, and (3) the ease of use of Chapter 1 to refer inventory compilers to appropriate chapters. Task allocation among authors, discussions, and responding to reviewer comments were realized successfully to complete FOD of Chapter 1. Reasons for rejection of some comments were mostly related to different definitions adopted, redundancy of text additions already incorporated in other chapters, scientific issues on which no agreements exist, and out-of-scope issues.

The high number of comments in Chapter 1 is mainly due to many spelling errors, differences in naming, lack of consistency etc. among the Chapters. A better coordination and timing among the different chapters could have avoided much of this.

- b) After FOD, the revised version of Chapter 1 has improved significantly. Cross-cutting issues such as harmonization, consistency, and practicality, and an internal re-organization of titles and subtitles of Chapter 1 were addressed. The content of Chapter 1 was shortened to avoid redundancy for a better flow. Decision tree and Fig. 1.3 have been improved on so as to meet needs of each chapter. A better link

between management activities and land use categories was provided in Chapter 1. Section 1.7.2 aimed at provision of what is contained in each chapter of the supplement. Confusion over how an inventory compiler would use the Wetlands Supplement in conjunction with the 2006 IPCC Guidelines was overcome through the improvement of decision tree in Chapter 1. All text that is not essential to “cook-book guidance” to inventory compilers on how to use this supplement for the estimation of emissions/removals from wetlands was removed.

- c) Definitions and wording in the *Wetlands Supplement* have created many comments and discussions during the process as there are many different definitions worldwide of wet land and soils with raised content of organic matter. Soils which are covered in the *Wetlands Supplement*. Chapter 1 will very likely in the future raise questions on the definitions used in the *Wetland Supplement*. It is our impression that the Lead Authors have made their utmost to make the definitions as clear as possible.

Having completed SOD, Chapter 1 has been refined to its final version in accordance with both the accepted and rejected comments. All the comments have been taken into account and addressed satisfactorily in accordance with related scientific literature. Therefore, the REs have agreed on the final version of Chapter 1 to be submitted for consideration of publication in the *Wetlands Supplement*.

[signature removed]

Fatih Evrendilek

[signature removed]

Steen Gyldenkærne

Report by Review Editors of Chapter 2 of the *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 2 of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. This Chapter received 2603 comments from expert reviewers and 154 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 2 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 2 on handling contentious/controversial issues. We are satisfied that the Lead Authors of Chapter 2 have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC website by the final publication of the Report.

The following are some of the important features of the review comments on Chapter 2:

- a) The updating from the 2006 guidelines of the estimates of CO₂ emission factors for drained tropical organic soils generated numerous comments. The scientific literature for tropical ecosystems does not provide as complete a picture of the ecosystem carbon exchange with the atmosphere as that found for temperate and boreal systems. These systems are highly complex and most studies were not undertaken with the objective to estimate net C emissions or removals. In addition, very few Eddy Covariance Flux measurements, useful to close carbon budgets, or studies comparing methodologies were available for these conditions. In Chapter 2, two methods were considered (flux and subsidence methods) similarly to the approach that was used for other land-use types and other climate zones when studies were available. Both methods are prone to a wide range of potential methodological issues and uncertainties which are discussed in the main text and in the appendix. The authors have included as much as possible of the pertinent literature to provide a wide temporal and geographical coverage. The methodological approach that was used to come up with a single emission factor per land use type is described both in the main text and in the appendices. The consensus that was reached took into consideration major sources of uncertainties. The final estimates that were produced showed wide confidence intervals indicating that as knowledge matures, consideration of higher tier levels when possible would reduce uncertainty and increase accuracy. Nevertheless, given the current state of knowledge, the approach that was used is considered balanced and robust.
- b) The report provided for the first time guidance and emission factors for CH₄ emissions from drainage ditches, for off-site CO₂ emissions originating from dissolved organic carbon and for GHG emissions from peat fire, all of which generated comments mostly aimed at clarifying the methodologies used to derive these new emission factors. The author's team was rigorous in taking into consideration these comments and in making the new methodologies transparent. The new emission factors can be considered rigorous. Again

sources of uncertainties are discussed in the text and provide insights for future improvements.

In conclusion, the Lead Authors addressed the comments that were made during the review rounds appropriately in the text of the Final Draft of Chapter 2 of the *Wetlands Supplement*.

[signature removed]

David Paré

[signature removed]

Iman Rusmana

Bernard Siska

Report by Review Editors of Chapter 3 of the *Wetlands Supplement* to the IPCC

We acted as Review Editors for Chapter 3 of the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands* (*Wetlands Supplement*). The chapter received 1070 comments from expert reviewers and 88 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 3 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 3 on handling contentious/controversial issues. We are satisfied that the Lead Authors of Chapter 3 have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

The Lead Authors addressed the abovementioned appropriately in the text of the Final Draft of Chapter 3 of the *Wetlands Supplement*.

[signature removed]

Jens Leifeld

[signature removed]

María José Sanz Sánchez

Report by Review Editors of Chapter 4 of *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 4 of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. Chapter 4 of the *Wetlands Supplement* received 1615 comments from expert reviewers and 209 from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 4 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 4 on handling contentious/controversial issues.

We are satisfied that the Lead Authors of Chapter 4 of *Wetlands Supplement* have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the view for a clear document used as guide for inventory compilers. Most of the comments have been accepted by the Lead Authors Comment and are addressed in the final text.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC website along with the final publication of the Report.

The following are some of the important features of the review comments on Chapter 4:

- a) Chapter 4 is guidance in a new area and addresses several different activities taking place in the coastal wetlands. The document is rather sophisticated and causes certain concern (mainly in governmental comments) if it will be easy to apply by the inventory compilers. The problem will arise mainly in countries with small expert capacity. The Lead Authors made the best to overcome these difficulties.
- b) Some of the comments pointed at that the documents needs consistent definitions and precision in the terminology. The text was corrected in this direction.
- c) Several comments paid attention to apply remote sensing technologies in the inventory process.

[signature removed]

[NuriaMarbaBordalba]

[signature removed]

[GeorgiHiebaum]

Report by Review Editors of Chapter 5 of the *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 5 of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. This Chapter received 528 comments from expert reviewers and 74 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 5 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 5 on handling contentious/controversial issues. We are satisfied that the Lead Authors of Chapter 5 have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC website by the final publication of the Report.

The following are some of the important features of the review comments on Chapter 5:

- a) discussions of definitions (such as: inland wet mineral soil);
- b) cross references, and the harmonization of terms and definitions used in other chapters and glossary;
- c) discussion of inclusion the N₂O emissions;
- d) verification and inclusion values of emission rates and carbon stocks found in the literature and databases.

The Lead Authors addressed the above mentioned appropriately in the text of the Final Draft of Chapter 5 of the *Wetlands Supplement*.

[signature removed]

Michelle Garneau

[signature removed]

Irineu Bianchini Jr.

Report by Review Editors : Chapter 6 of the *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 6 of the “2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands” (*Wetlands Supplement*). The chapter received 561 comments from expert reviewers and 38 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 6 in order to ensure that all substantive expert and government review comments were afforded appropriate consideration as well as to advise Lead Authors of Chapter 6 on the handling of contentious/controversial issues.

We are satisfied that the Lead Authors of Chapter 6 have given appropriate consideration to all the comments received in the review process and have produced a balanced text that reflects the range of views and comments on the topic covered.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC website by the time of the final publication of the Report.

The following are some of the important elements of the expert and government review comments on Chapter 6:

- a) Remove duplication in and ensure consistency with the methodologies and general guidelines of the 2006 IPCC document on National Greenhouse Gas Inventories: Wetlands;
- b) Provide the comprehensive argumentation, to the general and expert comments, based on the most recent scientific publications;
- c) Update and modify the chapter with references checked in order to improve its accuracy and completeness.

The Lead Authors have addressed the abovementioned appropriately in the text of the Final Draft of Chapter 6 of the *Wetlands Supplement*.

[signature removed]

Detelina Petrova

[signature removed]

Chris Gordon

Report by Review Editors of Chapter 7 of the *Wetlands Supplement to the IPCC*

We acted as Review Editors for Chapter 7 of the *2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (Wetlands Supplement)*. This Chapter received 382 comments from expert reviewers and 31 comments from governments over the two rounds of review as mandated by the IPCC principles and procedures.

We assisted in the process of handling of comments by the authors of Chapter 7 in order to ensure that all substantive expert and government review comments are afforded appropriate consideration as well as to advise Lead Authors of Chapter 7 on handling contentious/controversial issues. We are satisfied that the Lead Authors of Chapter 7 have given appropriate consideration to all the comments received in the review process to produce a balanced text that reflects the range of views on the topics covered.

We understand that a table containing all the comments received and responses by the authors will be made available on the IPCC web site by the final publication of the Report.

The Lead Authors addressed the comments appropriately in the text of the Final Draft of Chapter 7 of the *Wetlands Supplement*.

[signature removed]

Erda, Lin

[signature removed]

Werner Leo Kutsch