

<General review comments by Governments on the Second Order Draft of Wetlands Supplement>

ID	Government	Chapter /Section	Start Line	End Line	Sub-section	Comment	supplementary documents	Authors' Action
G_Ge_0001	Canada	general	0			This report would be easier to read if there was greater consistency in the "look and feel" of each of the Chapters. We understand that it may not be possible for each of the chapters to cover all the same topics/headings, but as it stands the inconsistency in coverage among chapters makes it difficult to carry themes throughout the entire document.		Accept with modification. The entire document has been streamlined to ensure a more user-friendly presentation which included more clearly presented cross-references.
G_Ge_0002	Canada	general	0			There is inconsistency in the degree of science introduction/discussion within each chapter. The Introduction of Chapter 3 (section 3.1) is a particularly good example of setting the science stage in terms of current state of knowledge. The additional details contained within boxes within Chapter 2 are acceptable, although it was inconsistent as to whether science info was contained within the main text of the chapter, in boxes (which no other chapter used to the same degree) or in annexes. Chapter 4 does not provide an idea of the key processes one should be interested in for Coastal Wetlands. Chapter 5 was almost completely lacking in scientific basis. Chapter 7 introduction was nicely done. We realize there is much information that is referred to in the 2006 IPCC Guidelines for National GHG Inventories, and that some of this may be repetitive; however, this report should still be able to be read as a stand alone document to the extent possible.		Accept with modification. The entire document has been streamlined to ensure a more user-friendly presentation. Chapters 4 and 5 revised some text to clarify the important elements of the guidance presented.

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G_Ge_0003	Canada	General	0			<p>The treatment of uncertainty in this document does not correspond with the current IPCC guidance on the consistent treatment of uncertainties. We understand that guidance was developed specifically for use by the WGs for the AR5, so may be less relevant for this Wetlands Supplement. However, there are some statements throughout this Supplement that use words such as “likely”, and some of these could be understood to be uncertainty assessments (an example is found at line 351 in Chapter 5). It would be helpful if such assessments did follow the protocols laid out in the guidance on uncertainties or if the Supplement as a whole could avoid using known uncertainty terminology like “likely” and “confident” to the extent possible so that confusion about the interpretation of such terms can be avoided.</p>		<p>Reject. The comment is appreciated but the TFI methodology reports provide data and uncertainty estimates, largely in the form of 95% CI, and do not follow the WG assessments of uncertainty. Uncertainties are also addressed in Chapter 7.</p>

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G_Ge_0004	China	General	0			<p>The XXX government is of the view that the 2013 Supplement to 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands (Guidelines for Wetlands for short), which reflects research progress in estimation of emission from wetlands made in recent years as a supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 Guidelines for short), will provide countries with references for estimation and reporting of wetland related GHG emission.</p> <p>The XXX government was pleased to have the opportunity to review the Guidelines for Wetlands with the hope that its comments can be reflected therein.</p> <p>1. National greenhouse gas inventories are intended to estimate GHG emissions due to human activities. Methodologies described in the Guidelines for Wetlands should focus on the estimation of the altered emission from wetlands due to human reasons. However, the available methodologies fail to define the natural and human-induced wetland emissions in clear terms. Thus, an appropriate clarification is suggested to be made in this connection.</p> <p>2. The GHG emission from the wetland drainage and rewetting process should be further divided into several periods, the default values of the emission factors for each period should be provided, in order to facilitate a more reasonable estimation of the altered emission from wetlands due to anthropogenic factors.</p> <p>3. Being a supplement to the 2006 Guidelines, the</p>		Accept with modification. 1. the guidance focuses only on anthropogenic emissions and removals. 2. wetland drainage and rewetting were disaggregated to the extent possible. 3. More clarity and cross-references are provided and new methods identified and cross-references to 2006 IPCC GLs to avoid duplication.

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G_Ge_0005	Germany	General	0	0		<p>General Remarks:</p> <p>In order to ensure clarity and usefulness for those responsible for reporting, we suggest several general revisions:</p> <p>1. Revision of titles to ensure use by the targeted reporting areas.</p> <p>We suggest rephrasing the Wetland Supplement title to the following: “2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands and Organic Soils related to FOLU and Waste Management”. This is to make it clear that these Guidelines are not just for land categorized as wetlands. Otherwise, for example, those conducting reporting in the Waste Management Sector might not realize that there are new Guidelines affecting them. This is furthermore important, since some countries may have land classified as cropland, grassland and forestland, where wetlands or drained wetlands are being managed, but they have not categorized any of their land as wetlands. Regardless of categorization, it is obviously good practice to use these guidelines for the other land use categories where wetlands or organic soils occur. Reading the current title may not make this clear.</p> <p>2. Modification in the sequence of chapters.</p> <p>It would be more logical if Chapter 5, titled “inland wetland mineral soils” were to be placed before Chapter 2 “Drained Inland Organic Soils”. This would keep inland soils together (currently split by coastal wetlands), while still avoiding splitting the chapters on drained organic</p>		<p>1. Accept with modification. Title has been revised to better reflect the coverage of the supplement. 2. Reject. Thank you for the comment, but the structure is retained. 3. Accept. 4. Reject. This is UNFCCC reporting. 5. Accept with modification. This was clarified and revised as appropriate</p>

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G_Ge_0006	Finland	General				Overall the new and updated guidelines included in the Wetlands Supplement are a welcome addition to the 2006 IPCC Guidelines. However, some parts of the Wetlands Supplement address sources/sinks where the science is not yet mature for inventory reporting. Also, there may not be activity data available in most countries to prepare estimates for some of the sources/sinks at the level suggested in the methodologies. These areas are highlighted in more detail in the chapter-specific comments below.		Noted.
G_Ge_0007	Finland	General				The 2006 IPCC Guidelines introduce a systematic tiers structure. This structure is not consistently followed in the Wetlands Supplement where Tier 2 methods sometimes are a mix of Tier 2 and Tier 3. The descriptions should be changed to be consistent with the general guidance on tiers in the 2006 IPCC GLs. This issue is addressed in detail in the chapter-specific comments.		Noted.

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G_Ge_0008	Finland	General				There are some places in the Wetlands Supplements that state "it is good practice" or "countries should" develop country-specific methods or country-specific emission factors when IPCC is not able to provide methods/default factors. We believe IPCC should only "encourage" countries to do this. When IPCC cannot provide methods/factors, it is unrealistic to assume that all countries in which these sources/sinks exist could do it within the timeframe these guidelines are expected to be used.		Accept.
G_Ge_0009	Finland	General				The Wetlands Supplement addresses sources and sinks where establishing good inventory practices will require significant resources. Therefore, more detailed and practical guidance on how to get activity data (consistent time series back to 1990) and country-specific emission/removal factors for reporting by 2015 would be needed. Otherwise there is a risk that the implementation of the guidelines will be delayed.		Noted.

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G_Ge_0010	Finland	General				In case of new and updated EFs, description on how different default factors/emission factors have been derived/calculated should be included to increase the transparency and to provide countries opportunity to evaluate their own factors and methodologies against default factors. List of references used is not enough to be transparent .Some emission factors given for boreal regions are erroneous.		Accept.
G_Ge_0011	Australia	general				The Wetlands supplement is far too long. Authors need to consider ways to remove duplication and ensure clarity of language. There are many very long paragraphs. Please consider greater use of dot points to communicate key information.		Accept with modification. Authors have streamlined text as far as possible. (I don't think we can simply accept that the document is too long)

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G_Ge_0012	Australia	general				<p>The supplement uses the term wetland as both a Land-Use Category and an ecosystem type under multiple Land-Use Categories. This results in some possible convoluted language and may cause result in confusion, particularly in explaining methods in the context of the land-use remaining land-use and land conversion categories. As the allocation of the wetland ecosystems to the different land-use categories is determined by national criteria the Authors need to consider where it may be less confusing to readers to remove the land remaining and land conversion separation in the presentations of the methods (suggestion along these lines have be provided for the coastal wetland chapter).</p> <p>The term wetland is also being use to describe soils types. To avoid possible confusion between Wetland as a land-use category, as an ecosystem type and as a soil type perhaps the supplement should consistently refer to Wetland mineral and organic soils as "wet mineral and wet organic soils" as used in the guidance on the decision tree in chapter 1.</p>		Accept
G_Ge_0013	Australia	general				<p>Recommend including clear statement up front on what is changing in relation to reporting. Ie it is proposed that countries would be required to report on four soil types not two for all land-use categories. And that all land-use categories would now potentially include wetland ecosystems.</p>		Accept

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G_Ge_0014	Spain	general				It would be helpful if, at the begining of every chapter, a very simple table is provided on what type of wetlands, what activities and what GHG and pools are considered.		Accept with modification. Chapters 2-6 provide either a clearly identified paragraph, bulleted list, or table of this information.
G_Ge_0015	Sweden	general				The report is comprehensive, well written and balanced and it seems to nclude relevant references. However, it is a bit disturbing that you have to go back to the guidelines for details.		Noted. The intention of the document is to be a companion guide to the 2006 IPCC Guidelines. Because some methods draw directly from the 2006 IPCC GLs, it was decided not to repeat the guidance provided there, also in the interest of reducing the length of the document.
G_Ge_0016	Sweden	general				Even though natural lakes, coastal- and sea areas are not included in human induced reporting, secondary effects on these systems from antropogenic changes in the surronding landscape might be important to assess.		Noted.

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G_Ge_0017	USA	general				<p>One area in which the XXX Government has considerable concerns deals with the emissions factors from drained tropical peatlands provisionally proposed in Appendix 2a.2. The range of values presented in this appendix does not appear to reflect the most recent scientific publications on this topic. In addition to comments specific to Appendix 2a.2, we provide a number of comments on other sections of the report that are intended to improve the document.</p> <p>The XXX greatly appreciates the enormous amount of time and effort that has gone into the preparation of this report. We feel that addressing the general and detailed comments provided will improve the final product's accuracy and usefulness to the policy and greenhouse gas inventory community.</p>		Noted
G_Ge_0018	Australia	general				<p>This is an ambitious project and, overall, while there has been some really good work done up to this point we think there might be a bit more to be done before the text is ready to go to Governments for approval.</p> <p>In particular we will need more clarity about what is in and what is out of scope of the Guidance. Some of the definitions need more work. We have made some suggestions for text which we hope will be helpful.</p>		Noted

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G_Ge_0019	Chile	General				<p>We suggest including information on bacteria. that affect the metabolism of wetland</p> <p>Microbial communities, particularly in the case of wetlands, are those which have been "trapped" by sediments into overlying deposits due to growth and metabolic activity of similar or higher organisms (evolutionarily speaking). Cyanobacteria, geologically, represent the first signs of life on earth. They were the first living beings responsible for oxygenating the atmosphere. Many of them still fulfill this important role, especially in the waters of the arid zones.</p> <p>These bacteria have developed survival strategies from aerobic environments to those deeper anaerobic because they being linked to habitats with large fluctuations (wet and dry).</p> <p>This activity can be detected with the naked eye by the changing colors of the sediments on the banks (pink, red, yellow, black) and the strong, pungent smell of hydrogen sulfide (H₂S). It has been analyzed using spectrophotometers for SO₂, NO₂, NH₄ or turbidity. (1)</p> <p>There are numerous springs and their respective hydrogeochemical studies to describe these environments incised by bacterial activity, being highly specialized researchers can properly interpret the role of these organisms in the metabolism of wetlands. The production of hydrogen sulfide was detected (in some wetlands) from 2.0 to 20.0 mm deep by the activity of the species (Desulfovibrio bacter)</p> <p>Bibliography</p> <p>1. B. G. ... 1985 ... M. G. ...</p>		Reject. Unclear how this information could be incorporated in practical methods

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G_Ge_0020	Chile	general				My comments are editorial. All along the texts there are particles of latin words meaning e.g. (exempli gratia), i.e. (id est), cf. (conferre) and others, they shoul written in italic letters; just like et al. (et alter) which, consistently along the texts, are italic style. I painted with yellow those words I found, perhaps I overlooked some of them.		Accept
G_Ge_0021	Chile	General				subscripts on chemical formulas need to be corrected throughout		Accept
G_Ge_0022	Chile	General				italics on latin abbreviations need to be correct throughout (e.g., c.f., et al., i.e.,)		Accept
G_Ge_0023	USA	General				Deep ecology (ecocentric) perspective is largely missing. Much of the rhetoric in the introduction is geared toward human (economic, social) costs of climate change.		Reject. It is not missing; the focus of the document is anthropogenic emissions and removals.

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G_Ge_0024	USA	General				The 2013 Wetland Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories makes significant improvements over the simplistic approach used in the 2006 Guidelines by accounting for inherent differences in the nature organic soils over space and land management practices. The defined protocols are still subject to substantial error and uncertainty, however, owing to the paucity of data available to provide locally specific emission factors for all global lands. The authors have done a credible job with available information, but the only solution to achieving better emission factors for the various land use categories will be to make significant investments in empirical research appropriate to a variety of land use categories.		Noted.
G_Ge_0025	USA	General				Many of the land use categories already included in IPCC good practice guidance have wetland components. We appreciate that the authors of this supplement have attempted to make those linkages. However, the authors should re-check the crosswalk, overlaps and potential double counting issues that could be raised by adding this wetlands guidance to the existing sector guidance. To support this, we suggest that the authors work through a national inventory process in order to ensure that any potential conflicts or inconsistencies are identified and resolved.		Accept with modification. The entire document has been streamlined to ensure a more user-friendly presentation which included more clearly presented cross-references.

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G_Ge_0026	USA	General				Before the wetlands supplement becomes a part of good practice guidance to be implemented in national inventory and accounting, care must be taken to ensure that the methods and data requirements are not overly onerous. Many of the managed wetlands are already accounted for in other sectors under the 2006 guidance and a concern is that an attempt to make wetland accounting more complete may result in difficulty of implementation, increases in error and issues around available data.		Noted
G_Ge_0027	USA	General				Overall, we found the Supplement to an informative and practical guide to quantifying emissions of greenhouse gases from wetlands. The authors did a good job in addressing uncertainties and in providing a 3-tiered system for accounting for these fluxes (consistent with IPCC 2006 Report) at potentially different levels of uncertainties. Also, we appreciated the effort involved in distilling a diverse body of literature into a common numerical framework for quantifying emissions in natural, disturbed, and recovering wetlands.		Noted
G_Ge_0028	Chile	General (not specified)				Some chemical formulas have error, some of them should be with subindex style. Also y painted with yellow.		Accept

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G_Ge_0029	Finland	General				A clear, concise and well-written chapter - especially Annexed 3A.1 to 3A.3 are exemplary in explaining how the default Efs have been derived and will be useful to countries developing their country-specific emissions/removal factors. Similar information should be provided in all chapters.		Noted.