

<General review comments on First Order Draft of Wetlands Supplement>

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|-------|--------------------------------|------------------|------------|----------|-------------|---|-------------------------|------------------------|
| 10548 | Pipatti, Riitta | general | | | | Terminology varies from chapter to chapter and should be unified. The same applies to units used in the supplement. Also the order in which issues are addressed should be the same in all chapters. | | Accept |
| 21289 | Eve, Marlen D | general | | | | OVERALL COMMENT: I reviewed Chs 2, 3, 5 and 6. Overall the chapters are well written. It was difficult at times to follow how these chapters mesh with the 2006 guidance. It may be useful to add a graphic or table to the front section of each chapter that explicitly describes the relationship between this guidance and the 2006 guidance. Figure 6.3 does a nice job of this for that section, but I believe this should be included for each chapter. The same could be accomplished with a table listing sources, methods and which guidance document addresses that source (2006 or current). I believe this kind of clarification could greatly enhance the implementation. | | Accept |
| G0001 | Gyldenkarne, Steen | General | 1 | 1 | | First of all, thanks to all authors for a good FOD. My comments should be seen in that light, although the critical remarks is only given here. Some of them maybe because I have not been down in all the details and thus not correct. I have not made comments on spacing errors and checked the reference lists. | | Noted |
| G0002 | Gyldenkarne, Steen | General | 1 | 1 | | A check for the outline in the equations should be made so they are more uniform. This include: naming conventions, upper or lower characters, underscore versus strokes | | Accept |

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| G0003 | Gyldenkarne, Steen | General | 1 | 1 | | Despite the recommendation for nomenclature for units there should be a comprehensive cheking, especially in Constructed Wetlands where it is often given as emission/year and not as emisssion yr-1. This include also the naming, eg. "year" is named both as y, Y, YR, yr and year in the equations. Tonnes are also confusing and given in both t, ton, Mg and tonnes. | | Accept |
| G0004 | Gyldenkarne, Steen | General | 1 | 1 | | A general recommendation for the authors is probably needed so that, unless it is really important, to avoid m2 (or m-2) and only use hectares, only use ton and not kg etc. | | Accept |
| G0005 | Gyldenkarne, Steen | General | 1 | 1 | | I think the normal way of writing equations are in C and not in CO2, in CH4 and in N2O. Conversion factors are therefore only included in N2O equations (44/28). All equations which include C should therefore be given in C and not in CO2 if I'm correct. However, by comparing the main chapters of the 2006 GL and the wetlands chapter it is obvious that the wetland chapter are using the CO2-C in the formulation. Is it then nescessary to write CO2-C in the equations? Is it possible to streamline? | | Accept with modification. The chapters should be as consistent as practical. |
| G0006 | Gyldenkarne, Steen | General | 1 | 1 | | When giving reference to climate there are some differences. Should it only be clima, should it be Domain (tropical, sub..) and ecological zone (moist,dry). Streamlining with the 2006 GL is recommended. | | Accept |

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| G0007 | Freibauer, Annette | General | General | | | the definition of "wetlands" is used inconsistently across chapters, in particular whether chapters 3, 4, 5 refer to sub-categories of "wetlands" as defined in the 2006 GL or to wet soils in all land-use categories. This must be consistent in all chapters. The priority is that the land use category allocation used by countries so far remains unchanged. This would imply that drainage and rewetting do not automatically lead to land-use change but can also mean that the sub-category within a major land-use category changes. Implement the guidance from Table 7.3. everywhere in the Supplement. | | Accept |
| G0008 | Rock, Joachim | General | General | | | Please include a glossary or a box where it is exactly defined what constitutes a "bog", "fen" or "mire" with regard to this guidance. This might not be clear to non-native speakers or people not in-depth familiar with wetlands science, but as there are different emission factors given in this guidance it should be made sure the correct ones are applied. | | Accept |
| G0009 | Rock, Joachim | General | General | | | all tables: please include references or add references below tables. | | Accept |
| G0010 | Bedard-Haughn, Angela | General | | | | I have commented on a few typographic errors in my specific comments, but there were many small items to be corrected throughout that have not been commented on here (e.g., missing spaces between words, forgotten subscripts in CO ₂ , and capitalization of C and CO ₂). | | Noted |

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| G0011 | da Rocha Campos, José Ricardo | General | | | | The work is excellent. I don't have relevant suggestions for improving the work. Congratulation! | | Noted |
| G0012 | FEDERICI, Sandro | general | | | | General comment: the all chapters needs to be revised by making them consistent within the chapter, consistent each other, consistent with the IPCC 2006 Guidelines, and consistent with the general structur of guidelines e.g. Land use vs land use changes, anagement changes within land remaining in the land use, methods - activity data - default factors - choice of tier - uncertainties. | | Accept |

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| G0013 | Freibauer, Annette | General | | | | My main concerns are: - the use of wetlands - whether as soil characteristic (mineral inland, organic) or land use type is inconsistent between the chapters, in the chapters and with the existing guidelines. Best example is chapter 7 while chapters 1 and 3 are particularly confounded. A very clear and strict approach is to be taken so that a consistent land use matrix and time series can be constructed. If you want I could try to get one with all relevant new wetlands categories for Germany to use it as national case study. All authors must understand the process and agree with it – this seems not yet to be the case. – I have not payed attention everywhere, but most pronounced is chapter 3, CO2 emission factors: the carbon pools (nonwoody) vegetation, dead organic matter and soil are merged. This will create problems of consistency and omissions/double counting in the inventory and in the CRF tables and implicitly assumes that no harvest takes place on these lands. I think this is impractical and wrong although scientifically justified for the cases in which rewetting leads to non-use of the created wetland. - transition times suggested range from 5, 10, 20 to 40 years for different gases and wetland types. This will be a nightmare for consistent reporting. Given all the uncertainties and simplifications I strongly advocate for using the 20 years period as default everywhere. - guidance on activity data is generally weak. | | Accept. The chapters should be as consistent as practical and user friendly. |
| G0014 | Kabo-Bah, Amos Tierayangn | General | | | | Authors are highly commended for the hard work of putting together this document on wetlands. | | Noted |

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| G0015 | ORR, Harriet | general | | | | chapters 1-3: It was helpful to me to see where knowledge and information are helping to set guidance and where they are not. I have been reading this as an interested 'end user' as much as an expert. I have managed some work in this area but am not an organic soils specialist so please bear this in mind. | | Noted |
| G0016 | Somogyi, Zoltan | General | | | | This guidance is, in general, very well written, congratulations. | | Noted |
| G0017 | Sookun, Anand | General | | | | IS BACKFILLING OF WETLANDS ALSO CONDIDERED, TOGETHER WITH ITS CHANGES IN EMISSIONS? | | Accept |
| G0018 | Woodall, Christopher | General | | | | As my expertise is more aligned with forest ecosystems, I will pass along one general comment. I feel that this document is a tremendous improvement over previous reporting guidelines. During revisions I would suggest better enabling tier 1 guidelines. The refined resolution of wetland categories (such as drained, re-wetted, and etc) seems to conflict with the latter reporting tiers (e.g., tier 3). If a nation lacks detailed delineation among all the wetland categories (areal estimates) then I would expect it not to have tier 3 capability. If other words, it seems incongruous to have tier 1 for such refined wetland categories. I don't know how you would do it, but it seems like the the wetland categories should have also have tiers...or at least some sort of diagram at the outset to help nations decide which reporting tier/wetland delineation scheme to follow. | | Accept |

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| G0019 | ORR, Harriet | general | | | | <p>chapters 1-3: But I wonder if the levels of confidence in the proposed methodologies/approaches could be presented more clearly - or perhaps summarised in each chapter. At the moment there seems to be a great deal of repetition of similar material in the various chapters which just adds to the density of the report. It could be easier to use, perhaps more user guidance would be helpful or some more consideration of the user experience. At the moment it looks like a hard to navigate document.</p> | | Accept |
| G0020 | WINDHAM-MYERS, Lisamarie | general | | | | <p>I am heartened to see such progress in the development of a supplement that broadens the range of wetland categories subject to guidelines for reporting greenhouse gas emissions. The chapter structure of this first order draft (FOD) is sufficiently flexible to account for the reporting conditions necessary for the wide variety of wetlands distributed globally.</p> | | Noted |

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| G0021 | Tanabe, Kiyoto | General | | | | Off-site emissions of CO2 associated with dissolved organic carbon (DOC) is referred to as "indirect CO2 emissions" in some chapters (e.g., Chapter1, Chapter 2). The word "indirect emissions" should be avoided for CO2 as it is carefully avoided in the 2006 IPCC Guidelines. (CO2 generated through atmospheric oxidation of CO or CH4 is sometimes referred to as "indirect CO2 emissions" in general, but it is carefully avoided in the 2006 IPCC Guidelines. Sometimes "indirect CO2 emissions" is also used for those from electricity use, etc. In this Supplement, "off-site CO2 emissions" may be used instead of "indirect CO2 emissions". | | Accept |
| G0022 | Tanabe, Kiyoto | General | | | | Harmonization of level of details may need to be considered in defining Tier 1 methods throughout Chapters 2-5, particularly between Chapters 2 & 3 and between Chapters 4 & 5. Harmonization might be already well achieved (taking different nature of each chapter into account) as it stands, but it would be worth giving thoughts once more. For example, default CO2 EFs are given by land-use category, climate zone (including nutrient status) in Chapter 2, while they are given by climate zone (without nutrient status) and peat(land) type in Chapter 3. Does this mean CO2 emissions from rewetted organic soils do not vary by land-use category, while they do in the context of Chapter 2? | | Accept |

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| G0023 | Tanabe, Kiyoto | General | | | | Terms should be consistently used throughout the report. For example, "Climate zone", "Climate type", "Temperate regime" and "Region" are used in a similar context. Also, "peat type" and "peatland type" are used without clear differentiation. | | Accept |
| G0024 | Tanabe, Kiyoto | General | | | | Consistency between Chapters 2-6 and Chapter 7 with regard to key category analysis should be ensured. According to Chapter 7, coastal wetlands, inland mineral soils wetlands, constructed wetlands are considered as possible "significant" subcategories in key category analysis. (These subcategories will be assessed whether it is significant or not after its upper category (e.g., "Wetlands remaining wetlands") is identified as key.) In the decision trees in Chapters 4-6, this is not clearly mentioned and the relevant question simply asks "Is this a key category?" This is not a major problem, but it would be clearer and better to mention how these particular categories will be assessed in key category analysis, may be in a footnote to the decision tree, referring to Chapter 7. | | Accept |
| G0025 | Troxler, Tiffany | general | | | | there should be fundamental consistency in general methods across chapters 2, 3, 4 and 5 with added methods to address activities where needed | | Accept. The chapters should be as consistent as practical. |