

Task Force on National Greenhouse Gas Inventories



IPCC Expert Meeting on HWP, Wetlands and Soil N₂O
19-21 October 2010, Geneva

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Wetlands, HWP and Soil N₂O: IPCC response to request from SBSTA,
Side Event, Monday, 29 Nov 2010, Cancun



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Introduction

- In response to the invitation of SBSTA 32, the IPCC held an Expert Meeting in Geneva, (19-21 October 2010) to:

"explore the need and ways to clarify methodological issues related to reporting on harvested wood products, wetlands and nitrous oxide emissions from soils"

(FCCC/SBSTA/2010/L.12)



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Meeting Overview

- The meeting considered the three topics, harvested wood products, wetlands and nitrous oxide emissions from soil.
- The meeting considered that the methodological advice contained in the 2006 IPCC Guidelines still reflects the latest science.
 - ❖ For HWP and Soil N₂O a few editorial issues were noted, and corrigenda or FAQ addressing these will be issued by the TFI.
 - ❖ For Wetlands:
 - the meeting considered that additional guidance for estimating emissions from some wetlands (re-wetting and restoration of peat lands; fires; ditches; waterborne carbon; and constructed wetlands for waste water disposal) could be produced,
 - however, for flooded lands the science is less well developed and further consideration of some underlying issues is needed before these gaps can be filled.



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Meeting outputs

- A full report containing the detailed scientific information and participants discussions will be produced in due course, following a review by participants.
- The Co-chairs' Summary, which was adopted at the expert meeting, gives the key conclusions. These are discussed in the remainder of this presentation.



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Wetlands (1)

- The Wetland chapter (volume 4, chapter 7) of the 2006 IPCC Guidelines identifies gaps which could not be filled at the time the 2006 IPCC Guidelines were compiled. These include rewetting of peatlands and wetland restoration (conversion of land to wetlands, or wetlands remaining wetlands), and CO₂ and CH₄ emissions from reservoirs (flooded lands remaining flooded lands, or lands converted to flooded lands).
- Much new scientific information is now available and *the meeting recommended that the IPCC provide additional methodological guidelines for the rewetting and restoration of peat lands; emissions from fires, ditches and waterborne carbon; and constructed wetlands for waste water disposal, to fill gaps in the existing guidelines.*



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Wetlands (2)

- The meeting also noted that there are now a large number of new EFs measurements and other information available across climate zones for wetlands and drainage addressed in other land use chapters. *The meeting recommended that an expert meeting be held to assess these data and develop emission factors from this information to enable more accurate country- and region-specific estimates to be made. The meeting also recommended that the TFI actively collect such data and add it to the EFDB.*



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Wetlands: Flooded Lands (Reservoirs)

- In the 2006 Guidelines there is only a method for the estimation of CO₂ from the conversion of land to flooded lands. Methods for CH₄ are in appendices "for the development of future methodological guidance" as is a different approach for CO₂ from lands converted to flooded lands.
- The meeting discussed whether there was now sufficient new information available to produce new and additional guidance.
- The participants discussed a range of associated issues, such as the impact of reservoirs on total emissions from watersheds, allocation of emissions to specific drivers and how emissions may be related to specific reservoir typologies.
- *The meeting concluded that there should be an expert meeting to discuss all the new science and issues surrounding the development of new guidelines for reservoirs.*



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Harvested Wood Products

- The meeting agreed that the methodological guidance in the 2006 IPCC Guidelines is correct, but noted that the entire chapter needs to be considered to ensure there are no inconsistencies with other parts of the guidelines. *The participants also noted that the guidance is complex and proposed the development of FAQ (frequently asked questions) that would guide users to the correct, full implementation of the guidelines.*
- The participants noted that to produce estimates for HWP according to the approaches currently being discussed in the UNFCCC AWG-KP negotiations (FCCC/KP/AWG/2010/CRP.3) may require some modification to the existing guidelines.



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Soil N₂O (1)

- The participants agreed that the methods in the 2006 IPCC Guidelines reflect the latest scientific literature, but noted that the emission factors were based mainly on information from temperate regions.
- They agreed that there is no N₂O from the biological nitrogen fixation process itself (this was included in earlier guidelines but removed from the 2006 IPCC Guidelines).
- There has been a lot of work published on N₂O emissions from soils since the 2006 IPCC Guidelines were published and this should allow for the development of more regional or country specific emission factors. This would allow greater stratification by climate, soil, management and leaching. *The meeting proposed an expert meeting to assess recent literature and consider stratified EF1 values for the EFDB.*



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Soil N₂O (2)

- The meeting also noted that the atmospheric N₂O increase is not matched by bottom-up estimates of anthropogenic N₂O emissions but the reasons for this are unclear. Increased measurements of currently under represented systems (e.g. large river deltas) may help resolve this issue. *This meeting proposed a joint expert meeting with IPCC WG I to explore this gap.*



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Summary

- The 2006 IPCC GLs still reflect the latest science,
 - For HWP and Soil N₂O editorial corrigenda and FAQ will be issued.
 - For wetlands, new science is now available for initiating the development of additional guidance.
 - More consideration of flooded lands is needed
 - to produce estimates for HWP according to the approaches currently being discussed in the UNFCCC AWG-KP negotiations may require some modification to the existing guidelines.
- For all three areas,
 - technical clarification guidance will be provided as web-based questions and answers.
 - population of Emission Factor Data Base will be undertaken.



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Thank you



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