GHG emissions from soil, and from lime and fertilizer spreading

uropean Regional Development Fund

GHG emission inventory is a demanding task requiring profound expertice

CENTRAL BALTIC INTERREG IV A PROGRAMME 2007-2013

🕑 Eesti Maaülikool

MTT

- IPCC Quidelines for GHG inventories could be used, but... Look at: http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml
- GHG emissions come from
 - organic matter in soil
 - manure

Energy Positive Farm

- crop residue
- lime and fertilizer spreading

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IPCC Litterature for GHG inventories

2006 IPCC Guidelines for National Greenhouse Gas Inventories



2006 - Edited by Simon Eggelston, Leandro Buendia, Kyoko Miwa, Todd Ngara, Kiyoto Tanabe

Published by the Institute for Global Environmental Strategies (IGES) for the IPCC ISBN 4-88788-032-4

Available from IPCC Secretariat or NGGIP in Arabic, Chinese, English, French, Russian, Spanish Also available on CD ROM

Read it on the NGGIP website

Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories



2000 - J Penman, D Kruger, I Galbally, T Hiraishi, B Nyenzi, S Emmanul, L Buendia, R Hoppaus, T Martinsen, J Meijer, K Miwa and K Tanabe (Eds)

IPCC National Greenhouse Gas Inventories Programme

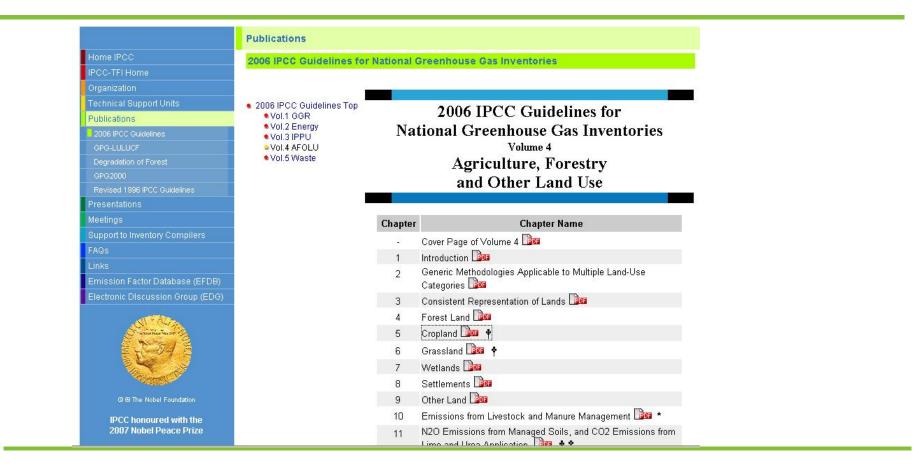
Published for the IPCC by the Institute for Global Environmental Strategies, Japan ISBN 4-88788-000-6

Available from IPCC Secretariat or NGGIP in Arabic, Chinese, English (OUT OF PRINT), French, Russian, Spanish Also available on CD ROM

Read it on the NGGIP website



GHG Guidelines a bit more in detail...



ENPOS Workshop 14.-15.3.2011, Helsinki



Questions

- How deep do we need/want to go into this subject?
- Do have expertice for a thorough analysis?



What parameters we have used

- Emissions from soil have been ignored.
- For N₂O emissions from fertilizer-N and CO2 emissions from lime we have used parameters estimated by VTT
 - 2.55 % of fertilzer-N is converted to N₂O through direct and indirect processes
 - Emission factor for carbonate compounds is 0.431 ton CO₂ per ton carbonate.



This material has been produced in ENPOS project. ENPOS is acronym for *Energy Positive Farm*.

The project partners are

- University of Helsinki, department of Agricultural Sciences Agrotechnology
- MTT Agrifood Research Finland Agricultural Engineering
- Estonian University of Life Sciences

Project home page is at <u>http://enpos.weebly.com/</u>

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