

Modeling carbon stock change of forest mineral soils SC 12

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JRC – Technical workshop on reporting LULUCF
under the Kyoto Protocol



Ispra

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ENFIN

- is a network of National Forest Inventory (NFI) organisations.
 - promotes NFIs as comprehensive monitoring systems by collecting **harmonised** information of the forest ecosystem
- serving a broad spectrum of forest related policies.



Specific Contract 12

Framework contract for the provision of forest data and services in support to the European Forest Data Centre

Reference: 2012/ S 78-127532 of 21/04/2012

- according to the budget and administrative rules of the Framework Contract



LULUCF MRV project

- The purpose is to identify priority actions that could be initiated to:

- Help Member States improving LULUCF Monitoring Reporting Verification following latest IPCC methodological guidance
- Improve the comparability and consistency of LULUCF estimates among Member States



LULUCF MRV project

1. Assess the current MRV capacity in EU MS and the future challenges
2. Develop recommendations to help MS improving LULUCF MRV and start implementing them for select MS
3. Input to improving the comparability in MRV across EU MS

→ Specific Contract 12 will be within task 3



Specific Contract 12

- General objective
 - Provide support to a limited number of Member States on modeling carbon stock change of forest mineral soils
 - The contractors have experience on modeling soil carbon stock changes of forest lands in the context of GHG inventories
- use Yasso07 in their UNFCCC/KP reporting



Specific Contract 12

1. ***Presentations at JRC LULUCF workshop***
2. ***State of the art on forest soil modeling***
3. ***Set up of a forest soil modeling task force***
4. ***Preliminary model runs in the selected Member States***



Specific Contract 12

- ***Set up of a forest soil modeling task force***
 - ***Consists of the contractors (FI, CH, AT, FR) + 4 Member States***
 - willingness/feasibility of the MS to participate to the project
 - availability of country's datasets to calibrate/validate the model
 - availability of relevant human/ financial resources, GHG inventory compilers and soil experts



Specific Contract 12

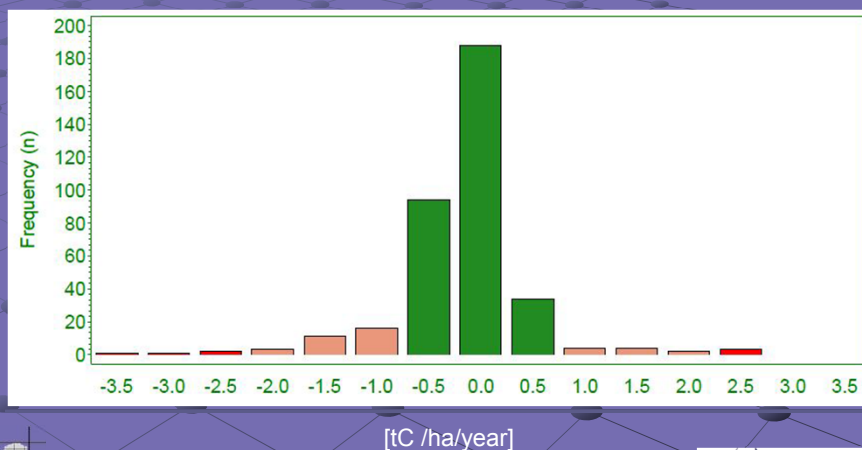
NFI input data on plot level (Austrian case)

- ***Estimates for biomass stock, standing dead wood, and harvests to derive***
 - ***Litterfall of needles, leaves and branches***
 - ***Below-ground input from dead roots***
 - ***Residues from harvest operations***
 - ***Input from standing dead wood***



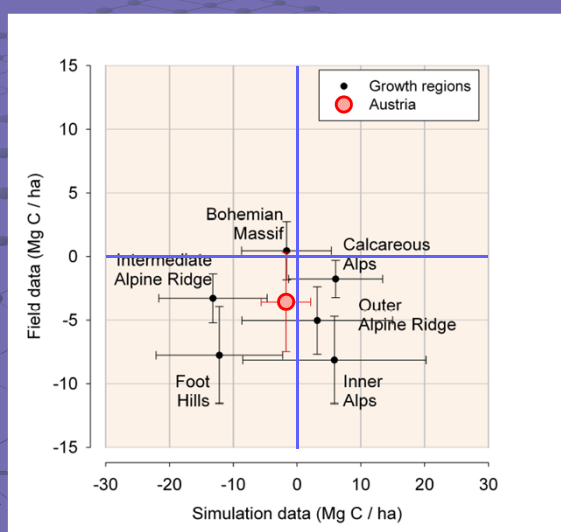
Austrian Example - Results


Carbon Change



Austrian Example - Results

Validation





Thank you for your
attention!



The Austrian NFI as data source for soil carbon estimation

- Input data for the carbon and decomposition model YASSO
- Carbon influx into the soil carbon pool
- Estimates for biomass stock, standing dead wood, and harvests to derive
 - Litterfall of needles, leaves and branches
 - Below-ground input from dead roots
 - Residues from harvest operations
 - Input from standing dead wood

