

Minutes Cost E43, WG1 Thursday 14.4.2005 and Friday 15.4.2005 in Vienna

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Thursday 14.4.2005

1A: Timetable for WG1

a step by step approach to go through the single questions in the questionnaire based on reports from STSM in Birmensdorf

For each question the following issues are discussed

description of question

definition of core variables

discussion of questionnaire

discussion of reference level

complementary elements of the questionnaire

follow-up of the work

1B: Report from the STSM in Birmensdorf

Adrian Lanz, Lucio Di Cosmo, Nicolas Robert, Thomas Gschwantner

A report is on the way – last questionnaires have been submitted during the last week. Some questionnaires have to be reviewed by each countries.

Some conclusions can be made and some weaknesses have been indentified in the questionnaire.

STSM – questionnaire:

19 countries – now 23 countries

Presentation of raw data presentation of the questionnaire results by Adrian Lanz

Participants are encouraged to check their questionnaire to ensure that the answers are correctly entered. The presentation resulted in identification of some issues for control and also clarification.

1C: Discussion on the results of the questionnaire and the need for revision

Forest definition (Questionnaire A)

Presented by Lucio Di Cosmo

Country and Forest Area:

A problem – the questionnaire did not ask for the total country area, and there are different estimates available. For the analysis the data are retrieved from FAO's total country area.

Complementary element: Total country area

FAO definition:

Some countries are not using the FAO definition, 8 by forest law/act, 4 by technical choices and 3 by law and/or well-established national definitions. Some countries have both a national and the FAO definition. This is a way to establish bridges between different definitions. E.g. in Norway the national forest definition is based on production capacity, with a minimum of 1 m³/ha. Based on ground cover national estimates have been recalculated to match the FAO definition. From this year adjustments are made to the inventory to better to mach the FAO definition. In practice data are collected on 3 categories: forest according to FAO, difference between FAO and national definition and OWL area. Finland and Sweden can already estimate both national and FAO definition based on the field data, as the needed data are collected. A short note describing how the nordic countries handle the problem of operating with two alternative definitions area requested for the final report, as inspiration for the countries currently only recording forest area by national definitions.

Minimal area is an issue in a number of countries, where the minimum forest area is 0.1 ha whereas FAO operates with 0.5 ha.

Complementary element:

Are there significant differences between national and FAO forest definition?

Give a short description of what the differences are.

Can you give an estimate of the difference between the two estimates?

How are forest defined?

Crown coverage, minimum extension and minimum width are frequently used, minimum height are less often used.

If borders are wider than FAO definition it would be an advantage to ensure collection of data allowing for subsequent calculation of the FAO forest area.

Forest is in some countries area classified with crown cover > 50%.

When is a new forest – forest?

Relation to Kyoto protocol.

Complementary information:

Why is an alternative definition used?

Shortly describe differences and utilised for national purposes.

Do you consider productive forest and similarly protective forests and productive forests for timber production?

How do you handle land use changes? e.g. abandoned agricultural land.

What is included and what is not? Productive forest, protective forest plantations for timber production, parks, seed orchards etc.

Minimum tree height at maturity in forest definition

from n/a to 7 meters.

Complementary information:

Why utilising a national minimum height or explanation for not using maximum attainable height as criteria for defining forest area.

Forest cover

Reference level 10% crown cover

2. session

Tree definition and Volume estimation (Questionnaire B and C)

Presented by Thomas Gschwantner

Tree compartments above ground:

stump above ground

stem

tree top

bark

branches

Most countries can not provide all data, but most can provide at least 3 of the compartments. Different methods are used for different inventories. The questionnaire intended to reflect the method used to calculate the overall volume estimates based on single tree estimates.

Threshold for diameter at breast height of trees included in the volume estimation:

There is a large span between the countries – from 0 to 10 cm. Suggestion to take 0 as common value and make corrections (??) based on analyses. There are no clear common value.

Complementary information:

Variables for volume prediction on subsample trees:

It's a difficult question and no clear picture is visible on the methods used.

Different combinations of collected data, data models and volume functions. Much of this is related to the different available volume functions in the countries.

It will be possible to draw more information from the questionnaire.

Complementary information:

Model types ? Do we need a list of models or type of models?

Explanatory variables?

Accuracy of volume estimation:

Data check by: Plausibility checks and control surveys.

How is the reliability of predicted values?

NEFIS project have worked on this issue from a metadata point of view. Maybe some inspiration can be obtained from there.

Complementary information:

Mean squared errors

Residuals

Other measures of accuracy or quality of data?

Friday 15.4.2005

2.A: Inventory methods – 3rd part of Questionnaire (D and E)

Presented by Nicolas Robert

Inventory period

Typically NFI results are updated every 5-10 years.

Inventory campaigns

There has been a huge development in the number of countries implementing NFI's in recent years, especially since 2000. In the period from 1975 and up to then there was some development.

Pre-stratification basis

When used typically a combination of ecological and administrative stratification is used.

Sampling intensity:

typically more than 0.01 plot pr. ha

12 countries have a grid compatible with the 16x16 km grid – a systematic grid and can accommodate a 16x16 km grid.

Sampling grid:

No common grid – range from 1x0.5 km to 10x10 km grid

Plot design:

circular plots – 14 countries

angle counts - 2 countries

both – 4 countries

high localisation precision – all < 14 m

Statistical precision

precision typically less than 3 % on area

precision typically less than 3 % on volume

Conclusion

Methods are different – but converging

forest definition – needs enhancement

volume functions and sampling design parts need re-check

Work ahead

2B: Reference levels

Can we agree on some reference levels?

And can we establish bridges for those countries who have a national definition?

If a country don't use the reference level then answer the following questions:

- Why not use the reference level?

- Can you provide an assessment of the difference?

Inventory period – common reference level:

FAO – every 5 year – 2005 and next 2010.

Kyoto – 2008-2012

MCPFE – 2003 – how did countries establish these data?

How to update or interpolate inventory data?

Conclusion:

It was accepted to utilise the FRA 2005 reports to describe updating procedures.

Countries can supply information if they intend to change the methods used to those described in the FRA 2005 report. Especially also changes in the basic NFI procedures related to the Kyoto reporting.

A. Forest definition

Crown cover of forest definition: 10%

problems: eg Austria – cover given by law, alpine region with 10-30 % cover are difficult to assess

Minimum size of forest area: 0.5 ha

possible exception for linear structures

- others describe the criteria and make estimate for harmonised result

Minimum width of forest area: 20 m

- need a clarifying question if both min. area and min. width criteria is applied

- Germany: water courses less than 5 m do not "break" continuity of forest

- Note: this question was not in the Excel-file

Minimum height: 5 m

Complementary question

- which categories are included: a key list will be given for countries to reply

B Volume

Tree components

- too early to discuss reference level

- a complementary, reformulated questionnaire on volume functions will be delivered

- note that there might be different functions in use when estimating for wood production and when estimating for biomass

Minimum diameter

Minimum diameter: 0 cm for biomass

Minimum diameter: X for growing stock and for commercial stock – national X! should be described

- first step:

- countries with 0 limit give results with both 0 and 10 limit

- countries with higher limit than 0 estimate importance

- countries are asked to deliver volume functions for small trees to be distributed

Variables for volume prediction (subsample trees)

- upper diameter & crown length not core variables

- precision of volume functions is a core variable, not on the list of variables?

- if information from some countries is available or will become available we could add in the report?

- Heino: this is not important for our Action

- Species list: could we have a limited list of species having individual volume functions

Decision: In the December seminar there could be a presentation on this issue, but not included in the questionnaire or analyses

2C: Propose:

Bilateral discussions on the questionnaire to remove errors/misunderstandings.

A help to do this, a list of how the STSM team has interpreted the questionnaire will be returned to the participating countries as basis for the improvements. Each country will check the results. Some countries will receive supplementary questions. An email discussion to speed up the process.

Estimated timeframe for this process:

- First part of checking – forest definition are sent out end of April 2005.
- One month for answers – return date 31.5.2005.
- Second part of the checking - volume and sampling are sent out end of May 2005.
- One month for answers – return date 30.6.2005.

STSM

Revised questionnaire are analysed in STSM in end July/early August 2005.

JWG/MC – September 2005

Results of STSM are presented on the JWG/MC meeting in Freiburg, 19-20. September 2005.

JWG/MC – December 2005

Possibly also a meeting of the WG on 1-2 December 2005:

Focus on country presentations on issues related to new issues, e.g. quality assessment, error budgets (Sweden, Switzerland, Lithuania, Belgium, others ??). The volunteers divide the session in terms of subjects and coordinate the form. It is possible to invite an expert to present a related talk.

Another possible focus: presentation of FRA 2005 for some countries.

State of the art report

The contribution from WG1 to the 'state of the art' report to be finished by end of 2005 is not clear at the present time.

Meting closed.