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Outline of work plan for WG3 of Cost Action E43

Background and objectives

The national forest inventories (NFIs) were designed to mainly assess the productive functions of forests. During the last decades (especially since the Rio Earth Summit in 1992) there has been increased demand and needs for information on other non-productive forest functions. The assessment of current state and changes in the forest biodiversity is one of these information needs. NFIs are performed in many European countries and may contribute to describe aspects of forest biodiversity. The large scale NFIs have already the advantage to provide information from key components of forest ecosystems.

Silvicultural practices are developing towards sustainable management in many European countries, towards close-to-nature and continuous cover forest systems. This may affect the design of permanent forest resource assessment but also the assessment of biodiversity due to the increased variability of the population. This may require higher sampling fractions to obtain a desired precision. This calls for adoption of new sets of attributes, their nomenclature and measurement rules but also the development of new survey concepts for the assessment and monitoring of the non-productive function of forests.

The work under the Working Group 3 of the COST Action E43 will focus on definitions and measurement practices in the European NFIs regarding the basis for the reporting on the state and changes in key components of biodiversity. Output from work within WG3 will be a synthesis of current practices and definitions used in different countries as well as recommendations for harmonisation principles in order to make the reporting from different countries truly comparable.

To integrate the assessment of forest biodiversity indicators in the national forest inventories is a challenging task. Many research projects and studies have been performed in Europe over the last years exploring possible indicators and estimation procedures of biodiversity in forests. The working group will build upon the work, knowledge, suggestions from the many current initiatives e.g. BEAR project, Cost Action E27, Forest Focus and ICP-Forests initiatives, as well as current developments in many countries to fulfil the requirements of the TBFRA reporting and the MCPFE process.

Draft work plan

A final work plan will be developed jointly within WG3 once the participants have been nominated and work started. The rudimentary draft outlined below is meant to serve mainly as a basis for further discussions.

Formation of the working group (WG3)

Working plan

- Preparation of the working plan for the period July 2004- June 2008
- Refinement after the 1st workshop

1st Workshop

- Discussion and final agreement of a working plan for the next 4 years of the WG3 based on the present outline
- Identification of relevant variables which can be used to assess forest biodiversity in large scale surveys: one group is variables already assessed in the NFIS and another group of variables are variables new to the inventories
- Discussion, development and submission of questionnaire together with the other WGs of COST E43
- Clarification of definitions: keys components of ecosystems and vegetation zones

Questionnaire

- Preparation of a draft questionnaire
- Compilation of results from the questionnaire.
- Report on questionnaire results for the biodiversity part (together with WG1 and WG2 ?)

Biodiversity within the NFIs

- State-of- the art
- Country reports on current practices/national initiatives within the monitoring of aspects of forest biodiversity (June 2005)
- Compilation of already assessed variables of and relevant variables within the existing NFIs based on the questionnaire and the country reports
- Comparisons of terminology and definitions
- Discussion and adoption of common terminology and definitions of relevance to biodiversity (together with WG1 and WG2)
- Proposed bridges to harmonise the reporting of these variables
- Proposed variables e.g. tree species composition, large trees, dead wood, stand structure, ground vegetation surveys
- Discussion of needed sampling design for assessment of these variables and how it fits with the existing NFIs: discussion and if possible preliminary analysis of the consequences of using different definitions and procedures for the reporting (working with the main harmonisation options identified)

Biodiversity and other projects

- Initial interaction with other projects in the field so that Cost Action E43 can serve as an implementation link from, e.g., Cost Action E27 and initiatives from the EEA, Forest Focus
- State-of-the art
- Compilation of forest biodiversity indicators of relevance to large scale surveys, criteria for selection of new variables

- Identification of potential indicators of forest biodiversity
- Clarification of definitions, agreement on units
- Discussion of needed sampling design for assessment of these variables and how it fits with the existing NFIs: discussion and if possible preliminary analysis of the consequences of using different definitions and procedures for the reporting (working with the main harmonisation options identified)
- Compilation of methodologies for the selected indicators to be used in the NFIs
- Proposition of common reporting of biodiversity in Europe

Report version 1

- First draft state of the art and future strategies for assessment of forest biodiversity at European level based on the work within and ‘outside’ the NFIs, including suggestions for harmonised reporting and definition, methodologies and reporting of new variables
- Country-level studies on the possibilities of different countries to adapt to the suggested propositions of the above-mentioned report (a STSM ?)

Report version 2

- Include the results of the country level studies in the report
- Continued work on country-level harmonisation details
- Development of plan for implementation in NFIs
- Workshop
- Final discussions

Final report

Strategy for monitoring and reporting some aspects of biodiversity at the European level

A timetable is set up in another file (WG3 timetable)

Suggestions for “short term scientific missions”:

Compilation of results from the questionnaire

Synthesising recommendations from other projects

Compilation of country reports

Country-level studies on the possibilities of different countries to adapt to the suggested propositions of the abovementioned report (a STSM ?)

Training courses

Denmark is willing to host and send a senior/junior scientist to training courses. We shall suggest a course/seminar on sampling design/data analysis in multi-ressource surveys
field training in assessment of ‘new’ biodiversity variables to be used in large scale surveys