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Executive summary

The European forest types - Categories and types for sustainable forest management reporting and policy presents the findings of a study carried out by an international consortium of experts aimed at providing the Ministerial Conference on the Protection of Forests in Europe (MCPFE) with an user-friendly forest types classification. The primary goal of the scheme is to improve the MCPFE

reporting on sustainable forest management (SFM) in Europe, with special regard to forest type based SFM indicators.

The document is divided into seven chapters plus a reference chapter, the main contents of the first seven chapters are summarised below.

1. Reporting on sustainable forest management in Europe introduces the forest type issue within the overall political framework of the MCPFE process. The seven MCPFE sustainable forest management (SFM) indicators to be reported by forest types are presented (forest area, growing stock, age structure/diameter distribution, forest damage, tree species composition, naturalness, deadwood). Definition and requirements of forest types for the MCPFE indicator reporting are provided and the key-factor concept for forest types delineation is introduced: a suitable forest type classification for MCPFE reporting should identify and reflect those, natural and anthropogenic, sources of variation of forest condition that cause major shifts in state of forest type based indicators. In this respect, limitations of the forest type categorisation currently applied for MCPFE reporting (coniferous forest, broadleaved forest, mixed coniferous and broadleaved forest) are discussed.

2. The diversity of European forests outlines the main (historical and present) natural and anthropogenic factors that help in explaining the variety of forests conditions (structural, compositional) found nowadays throughout Europe.

3. Current and potential forest vegetation in Europe: an assessment seeks to give a quantitative evaluation of the anthropogenic footprint on forest physiognomy, through a cross-analysis of potential and current forest vegetation maps. Detailed statistics on the current extent and physiognomy of European forests by potential forest types

are presented.

This technical chapter is mainly designed to provide readers with specific interest in

this issue with updated figures on the major differences between current and potential forest

vegetation in Europe.

4. European forest types: the classification system deals with the presentation of the main features

of the scheme of European forest types proposed for MCPFE reporting.

Limitations of alternative

forest classification schemes are discussed.

The methodological approach used for the

development of the classification is outlined. The hierarchical classification scheme consisting of

14 categories further subdivided into 76 types is introduced. Criteria applied for the delineation

of categories and types are given, which could be synthesized in the principle of increasing

similarity in the natural conditions and levels of anthropogenic modification affecting the values

taken by forest type based MCPFE indicators.

As most compilation of national data on MCPFE indicators use National forest inventories (NFIs)

ground plot information, the use of types is recommended for stratifying NFIs plots and of

the fourteen categories for reporting data on forest type based indicators.

5. Key to the classification contains a classification key built upon criteria diagrams and additional

explanatory notes accompanying each 'decision box' (cf. also Appendix II). The classification key

is mainly intended to provide end-users (MCPFE national correspondents) with classification

rules to stratify data sources - mainly ground plots - used to assess MCPFE forest type

based indicators according to categories and types. Rules are based on information

commonly assessed in a forest inventory, i.e. tree species basal area. In this way, each country

can reclassify ground plots according to the European forest types nomenclature

and report

data on indicators by the categories found in its own territory.

Furthermore, a rough evaluation of the relative frequency of categories for some European

countries is provided with an overview map of their distribution. The evaluation is based on a

European forest types test carried out on ICP-Level I plots. The main

goal of the test is to give a reasonable idea of the possible increase in the MCPFE reporting

burden, that would derive from the application of the proposed categorisation.

The number of

categories found at country level ranges from 1 to 12 and is on average 6.

6. European forest types nomenclature: category and types descriptions

presents the

nomenclature of the proposed classification scheme, i.e. a descriptive frame allowing a

comprehensive characterisation of the 14 categories and 76 types. The nomenclature

strictly relates to the classification key (Chapter 5).

Categories and types are described and documented using a descriptive frame including:

i) class definition: key to the identification of the category; it is a general description of the

category in terms of dominant forest species and biogeographical/ecological factors determining

its appearance; ii) geographical distribution: present distribution of the category in relation

to European biogeographical regions or to other relevant environmental references; iii)

types: list and description of the most important forest ecosystems covered by the category,

the descriptions include a delineation of the geographical/ecological distribution of the type,

tree species composition and other structural and functional characteristics, including

silviculture and past and actual human impact; iv) cross-links with Annex I Habitat Directive

and EUNIS Habitat Classification, established at the type level.

Descriptions are integrated with photos to further document the characteristic

features

of each category. In addition, a synopsis of the unique interplay of ecological conditions and

anthropogenic influences affecting the variation of the MCPFE forest type based indicators, at the

category level is presented.

7. Conclusions and perspectives concludes with remarks on the potential of the forest type

classification for the MCPFE reporting and future desirable efforts needed to fully exploit it.

Tartalóm:

Acknowledgements

Executive summary

1 Reporting on sustainable forest management in Europe

1.1 Political framework

1.2 Forest types and forest biodiversity assessment

1.3 Forest types: definition and requirements for MCPFE reporting

2 The diversity of European forests

2.1 Natural determinants

2.2 The anthropogenic footprint

3 Current and potential forest vegetation in Europe: an assessment

3.1 Forest cover maps

3.2 Cross-analysis of forest vegetation maps

4 European forest types: the classification system

4.1 Limitations of earlier forest classifications

4.2 European forest types: the classification scheme

4.2.1 Development of the classification

4.2.2 Classification structure

4.3 Criteria of the classification

5 Key to the classification

6 European forest types nomenclature: category and types descriptions

6.1 Boreal forest

6.1.1 Spruce-dominated boreal forest

6.1.2 Pine-dominated boreal forest

6.2 Hemiboreal forest and nemoral coniferous and mixed broadleaved-coniferous forest

6.2.1 Hemiboreal forest

6.2.2 Nemoral Scots pine forest

6.2.3 Nemoral spruce forest

- 6.2.4 Nemoral Black pine forest
- 6.2.5 Mixed Scots pine-birch forest
- 6.2.6 Mixed Scots pine-pedunculate oak forest
- 6.3 Alpine coniferous forest
 - 6.3.1 Subalpine larch-arolla pine and dwarf pine forest
 - 6.3.2 Subalpine and mountainous spruce and mountainous mixed spruce-silver fir forest
 - 6.3.3 Alpine Scots pine and Black pine forest
- 6.4 Acidophilous oak and oak-birch forest
 - 6.4.1 Acidophylous oakwood
 - 6.4.2 Oak-birch forest
- 6.5 Mesophytic deciduous forest
 - 6.5.1 Pedunculate oak-hornbeam forest
 - 6.5.2 Sessile oak-hornbeam forest
 - 6.5.3 Ashwood and oak-ash forest
 - 6.5.4 Maple-oak forest
 - 6.5.5 Lime-oak forest
 - 6.5.6 Maple-lime forest
 - 6.5.7 Lime forest
 - 6.5.8 Ravine and slope forest
 - 6.5.9 Other mesophytic deciduous forests
- 6.6 Beech forest
 - 6.6.1 Lowland beech forest of southern Scandinavia and north central Europe
 - 6.6.2 Atlantic and subatlantic lowland beech forest
 - 6.6.3 Subatlantic submountainous beech forest
 - 6.6.4 Central European submountainous beech forest
 - 6.6.5 Carpathian submountainous beech forest
 - 6.6.6 Illyrian submountainous beech forest
 - 6.6.7 Moesian submountainous beech forest
- 6.7 Mountainous beech forest
 - 6.7.1 South western European mountainous beech forest (Cantabrians, Pyrenees, central Massif, south western Alps)
 - 6.7.2 Central European mountainous beech forest
 - 6.7.3 Apennine-Corsican mountainous beech forest
 - 6.7.4 Illyrian mountainous beech forest
 - 6.7.5 Carpathian mountainous beech forest
 - 6.7.6 Moesian mountainous beech forest
 - 6.7.7 Crimean mountainous beech forest
 - 6.7.8 Oriental beech and hornbeam-oriental beech forest
- 6.8 Thermophilous deciduous forest

- 6.8.1 Downy oak forest
- 6.8.2 Turkey oak, Hungarian oak and Sessile oak forest
- 6.8.3 Pyrenean oak forest
- 6.8.4 Portuguese oak and Mirbeck's oak Iberian forest
- 6.8.5 Macedonian oak forest
- 6.8.6 Valonia oak forest
- 6.8.7 Chestnut forest
- 6.8.8 Other thermophilous deciduous forests
- 6.9 Broadleaved evergreen oak forest
 - 6.9.1 Mediterranean evergreen oak forest
 - Cork oak and holm oak forest
 - Kermes and alder-leaved oak forest
 - 6.9.2 Olive-carob forest
 - 6.9.3 Palm groves
 - 6.9.4 Macaronesian laurisilva
 - 6.9.5 Other sclerophyllous forests
- 6.10 Coniferous forest of the Mediterranean, Anatolian and Macaronesian regions
 - 6.10.1 Thermophilous pine forest
 - 6.10.2 Mediterranean and Anatolian Black pine forest
 - 6.10.3 Canarian pine forest
 - 6.10.4 Mediterranean and Anatolian Scots pine forest
 - 6.10.5 Alti-Mediterranean pine forest
 - 6.10.6 Mediterranean and Anatolian fir forest
 - 6.10.7 Juniper forest
 - 6.10.8 Cypress forest
 - 6.10.9 Cedar forest
 - 6.10.10 Tetraclinis articulata stands
 - 6.10.11 Mediterranean yew stands
- 6.11 Mire and swamp forests
 - 6.11.2 Alder swamp forest
 - 6.11.3 Birch swamp forest
 - 6.11.4 Pedunculate oak swamp forest
 - 6.11.5 Aspen swamp forest
- 6.12 Floodplain forest
 - 6.12.1 Riparian forest
 - 6.12.2 Fluvial forest
 - 6.12.3 Mediterranean and Macaronesian riparian forest
- 6.13 Non-riverine alder, birch or aspen forest
 - 6.13.1 Alder forest
 - 6.13.2 Italian alder forest

6.13.3 Mountain birch forest

6.13.4 Other birch forest

6.13.5 Aspen forest

6.14 Plantations and self-sown exotic forest

6.14.1 Plantations of site-native species

6.14.2 Plantations of not-site-native species and self-sown exotic forest

7 Conclusions and perspectives

Acronyms used

References

Appendix I - Cross-analysis of forestvegetation maps - data table

Appendix II - Classification keys

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