

# COST Action E27

## Protected Forest Areas in Europe - Analysis and Harmonisation (PROFOR)

### Results, Conclusions and Recommendations

## Main Results, Conclusions and Recommendations

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In order to get a reliable and comparable picture of the protection status of forests in European countries, common standards and harmonisation of protection categories with respect to one another are needed. The existing diversity of protected forest areas (PFA) in the different countries also has historical and socio-economic roots which must be understood and respected.

The COST action E27 “Protected forest areas – analysis and harmonisation” (PROFOR, <http://bfw.ac.at/020/profor/>) has aimed to provide a better understanding of national and international distinctions of protected forest areas and tries to explain the reasons for this diversity. The main task of the action was to analyse and harmonise the whole range of PFA categories in Europe in compliance with existing international categories for protected areas (COST, 2001).

Some 100 researchers and experts from 25 European countries participated in the Action. Major emphasis was placed on the cooperation between scientists and managers from both nature conservation and forest administration. Besides the 25 European signatory countries, the international organisations MCPFE and EEA had an official observer status and were fully involved in the work process with open access to all documents and data. COST E27 PROFOR also co-operated directly with the organisations IUCN, PEBLDS and UN-ECE.

### 1. Data and information sources

#### 1.1. Country Reports

A fundamental element of the COST Action E27 were the Country Reports (Latham et al., 2005), which were written with a consistent content and structure to assist comparisons of information between countries. They supply detailed description of national protected area types with their historical and socio-economic backgrounds. The sources of information used consist of both international data (MCPFE, 2003; UN-ECE/FAO, 2000) and national PFA data/information tables. The national PFA tables were collected in conjunction with the production of the PFA Country Reports. National tables include information on the protection category, the PFA type in a landscape context, administration and ownership, PFA type summary statistics, preliminary international classification (IUCN, MCPFE), motivations for protection and existing restrictions.

#### 1.2. An information portal for European protected forest areas

Internet technology allows for the establishment of interactive databases and document handling services,

which can be either open or closed to the public. The COST Action E27 “Protected Forest Areas in Europe” website was established in order to allow essential communication, management and dissemination. The development of a website included (1) interactive databases, (2) diverse and condensed information related to protected forest areas (PFA), and (3) a document handling and access facility. The site includes restricted working group platforms; interactively searchable databases on PFA categories; PFA related literature; PFA related maps; and a PFA photo gallery. All database records are accompanied by metadata which allows the user to get an overview of the information resources at hand. The website can be found on the Internet at <http://www.efi.fi/projects/coste27/>.

### 1.3. EEA Standard Data Bank for designated areas

In 1995, the European Environmental Agency, the Council of Europe and the WCMC began co-ordinating their activities with respect to compiling a database of designated areas. This project is called the “Common Database on Designated Areas” (CDDA), and includes information from national, EU and international designated areas. The aim is to produce a complete database of all protection categories and protected sites in Europe. Data-input is generally co-ordinated by the relevant national authority, which is usually the Ministry of Environment or equivalent.

This CDDA list is an important database as it collates all designation types with national titles, numbers and areas. It contains information on over 50 000 designated areas from 48 countries, covering more than 800 various national designation types. (It is estimated that the total number of all designated areas in Europe amounts to approximately 65 000 to 70 000 sites). However, CDDA does not make any analysis on the harmonisation of national designations. Comparison of protected forests in different countries is extremely difficult according to this CDDA category because of the numerous categories and definitions.

The CDDA list groups the records according to the statutory requirements, but the classification does not make any differentiation between the management rules and strictness of protected areas. More information about the objectives of protection, habitat types, forest distribution and proportions of forests within the areas is needed. On the whole, CDDA is seen positively, if completed and regularly updated. The CDDA designation groups support the MCPFE data collection and reporting.

## 2. Analysis of protected forest areas across Europe

### 2.1. Development of protected forests in Europe

The state of biodiversity of European forests can not be fully understood without taking into consideration both long-term forest succession, and the history of settlement and human impact on forests. In this report, special emphasis was placed on the analysis of the diversity of motivations for the protection of the forest surface in European countries and during historical periods.

A wide diversity of motivations for forest protection can be recognized in almost every European country. Because of its extent and continuity, one of the most important motivations for the protection of wooded land is spirituality and religion, which dates back to ancient times. Hunting has also been a driving force in the protection of forests all over Europe, although its importance has varied over the centuries and has decreased markedly in the 19<sup>th</sup> century. Aesthetic and research motivations were less important across Europe before 1789, as were general protection of wood production and other utilisation, and the protective functions of forests. From the beginning of the 19<sup>th</sup> century, the exploitation of natural phenomena gained more and more importance, also in relation to the exclusion of forests and wooded land from utilisation in the interests of nature observation. Landscape preservation, preservation of habitat in general and particularly of rare species of fauna and flora became an important mission from the beginning of the 20<sup>th</sup> century onwards. During the 1920s and 1930s, even during the wide-ranging economic crisis and the general need for timber and firewood, nature protection became important and gave rise to the publication of the first nature protection laws in Europe. The importance of the nature protection movement increased from the 1970s, and was very much supported and promoted by scientific research. The year 1970 marked the beginning of a new approach in the field of nature protection: protection moved from that of specific natural phenomena and small protected areas to the integrated protection of large areas, and the protection of biodiversity through appropriate forest management.

In Central Europe, the tree species composition and extent of woodland remained quite stable until the early medieval period, from which time onward

much of the original forest cover was cleared for agriculture and human settlement. In the Mediterranean Region widespread clearance and replacement of forests by maquis seems to have occurred around 2000 years ago. Because of the early clearance of almost all forests in the Atlantic region of Europe for agricultural purposes and the efforts to re-afforest during the 19<sup>th</sup> / 20<sup>th</sup> century, the percentage of the forest area that is plantations is the highest in Belgium, Denmark, Ireland, The Netherlands, Portugal and United Kingdom; in Central and Northern Europe semi-natural forests still dominate. Many plantations were of conifers. Thus the percentage of conifers, growing on sites where broadleaved trees form most of the potential natural vegetation is highest in Ireland, United Kingdom and Denmark. In Central and Northern Europe the forest cover was never totally removed and a certain proportion sustained over the centuries. Sweden and Finland have the highest proportion of protected untouched forest remnants in Europe.

## 2.2. A general analysis of protected area types

There is a great variation in typology, restrictions on use and motivation for designation between PFA type and countries, and a superficial analysis of the data records may be misleading. An attempt was made to identify characteristics, similarities and differences between categories of protected forest areas and countries with respect to restrictions and motivation for designation by means of multivariate statistical methods. The analyses shows a clear separation between restrictions which pertain to timber resources and silvicultural management and those relating to non-timber production and public access. These differences are in parallel with the differentiation between North and South: in Northern Europe the restrictions affect the harvesting of timber resources and the forest infrastructure. In the Mediterranean and Atlantic countries this applies to access restrictions and non-forest products (mushrooms, berries, etc.). Countries with a high share of forested areas and relatively low population density have restrictions which aim at the preservation of large protected forest areas. Countries with high population density and low forest cover must limit tourism and the exploitation of non-forest products.

## 2.3. Selection criteria for protected forest areas dedicated to biodiversity conservation

Data collected in the framework of the COST Action E27 show that there are very seldom quantitative conservation targets and that design criteria are often not adequately defined, at least in a perspective of species and habitat conservation. Many existing reserves have been chosen in an ad hoc fashion, without the use of explicit criteria. Though composition issues are often integrated into selection criteria, important spatio-temporal dimensions are only used infrequently by practitioners. In Western and North European countries the majority of forests are owned by families and individual people. Due to the ownership structure the forests and the forest unit distribution are very heterogeneous and scattered, and therefore influence that protected forest area networks are not possible to set according to the optimal biological/ ecological criteria. In many cases, minimum size of protected areas, site connectivity, or forest continuity simply cannot be taken into account. Even the presence of rare or threatened species and habitats, two criteria that are considered as prime importance for the selection of most PFAs, the availability of reliable distribution data prevents adequate design of reserve networks.

In conclusion, it is clear that guidelines and criteria for PFA designation deserve to be improved and sharpened in many European countries. In a general way, structural and spatio-temporal criteria certainly deserve to be better taken into consideration. The integration of such criteria together with the identification of quantitative targets in the designation process should be based on the existing stock of conceptual and methodological studies and should be implemented in the field through a synergy between theoreticians and practitioners. This is the only way to build a functional network of protected forest areas, acting as real sanctuaries for biodiversity and as unique research laboratories.

## 2.4. Organisations responsible for or involved in the establishment and maintenance of protected forest areas

The establishment and management of protected forest areas (PFAs) in each country depend on the structure of actions, agreements and obligations, which may vary for PFA types. There are tasks which

are generally in more national competence (policy and development) and others (executive tasks, local surveillance) where competences are more often on a local level. Besides the obvious responsibilities (such as the establishment and management of PFAs) countries' policies on PFAs depend on certain strategies influenced by international agreements, lobbies and the national social and economic climate. Furthermore, there is a legislative framework, which often incorporates regulations, restrictions and optional subsidy arrangements for PFA types and names the institutions accountable for managing PFAs.

### 2.5. Forest protection in the context of landscape

National delegates of COST Action E27 have highlighted the importance of the human component for the characteristically small-structured and varied cultural landscape within PFAs, and their predominance of semi-natural woodlands. Landscape values concern not only biophysical aspects, but also European societies through their intensive use of forests for centuries. Indeed, this is the reason why the richness and diversity of rural landscapes is such a distinctive feature of the European continent. One significant result however, is that landscape protection in Europe is often not restricted to forests, but frequently concerns a mosaic of land-uses.

### 2.6. The value of protected forest areas

A direct monetary valuation of protected forest areas was not directly a target of COST Action E27, but the material allowed some assessment of direct and indirect benefits, restrictions and compensations differentiated according to the individual stakeholders (forest owners, visitors, hunters, fishermen, scientists, beneficial owners, communities, etc.) Taking into account the expected regional differences it could be shown that the actual beneficiaries of protected forest areas are local although not the forest owners themselves, whereas less strictly protected areas benefit a larger number of people.

Regarding differences between stakeholders in strictly and non strictly protected forest areas it can be stated that scientists and state administration get the largest number of benefits from the strictly protected areas, whilst landowners and visitors get the major number of benefits from the non strictly

protected forest areas. Considering the limitations, landowners and visitors are the groups with most limitations either in strict PFA and in non strict PFA. Compensations are mechanisms more often used in non strict PFA than in strict PFA and when they happen affect landowners.

### 2.7. Identification of key terms, definitions and data flow processes for protected forest areas – a contribution to cross-border communication

Experts use their own special language, consisting of specialised terminologies. The more experts from different countries communicate, the higher are the demands for clarity and accuracy in communication. COST Action E27 members compiled a list of the most important terms that relate to protected forest areas and to identify those that were problematic. All 18 languages of the member countries were included.

Even the definition of forest varies quite considerably between European countries. It makes a clear difference for the assessment of protected forest areas if the national forest definition or the internationally agreed definition is applied. What is even more confusing is the fact that the category of "other wooded land" used in the global context does not exist in most national definitions. For international use of protected forest area statistics it is strongly recommended that the most relevant international definition of forest is used.

Several data sources such as national databases on PFAs, maps, information from systematic strata sampling and short term management planning are involved. National forest inventories (NFIs) have not yet played an important role as they were not specifically adapted to PFAs. Data transmission is a national task of the national ministries; they may involve research institutes. National reporting is made by nationally nominated correspondents.

The accuracy of data on PFAs was, in most national cases, estimated to be precise to good when considered on the national level. However, most correspondents believed that data were not comparable at the international level, as national reporting is dependant on national conditions and interpretations of assessment guidelines.

Ways to improve data quality and reporting were proposed:

1. better guidance from TBFRA and MCPFE teams of specialists in cooperation with the national experts;
2. adaptation of national nature protection designations to European protection categories;
3. better use of new data sources like GIS supported databases to exclude overlaps and double counting;
4. reporting national authorities should release relevant figures and summaries for their countries for public evaluation and discussion;
5. international reporting needs to use synergies between different actions: each item of information must only be requested once at a given date from each country; this means close cooperation especially of TBFRA and MCPFE procedures.

### 3. Classification of Protected Forest Areas

#### 3.1. Classification systems

A common standard is needed to produce reliable and comparable figures on protected forests for the whole of Europe.

In Europe, two international classification systems are used for reporting on protected forests:

1. IUCN developed a set of Protected Area Management Categories for world wide use (IUCN, 1994). It contains six protection categories. TBFRA in Europe has used the IUCN Management Category System for the reporting of protected forests areas in TBFRA 2000 (UN-ECE/FAO, 2000).
2. MCPFE produced figures on protected forest area in its "State of Europe's forests 2003". For this purpose the MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land were developed during 1999 – 2003 and endorsed by national governments during the MCPFE Conference in Vienna in 2003 (Annex 2 to the Vienna Resolution 4) (MCPFE, 2003a, 2003b, 2003c). As far as is possible these MCPFE classes were aligned with the respective Protected Area Management Categories of IUCN.

IUCN categories approach a global view, and include six categories. The IUCN classification has been applied to the description of vast untouched, conti-

nuous and state owned forest areas. IUCN categories include all types of ecosystems, and have not been especially well suited to classifying forest protection, while forests are often only a part of larger protection areas.

Because of the long historical use of forests in Europe which has led to altered forest ecosystems, forest fragmentation into the small, isolated areas inside other land use classes and heterogeneous forest ownership structure, the European concept of forest protection has become more complex and varied than in other continents with huge areas of untouched forests. MCPFE classification is thus adjusted especially for European conditions.

In order to evaluate their possible usefulness for assessment of European Protected Forest Areas, an analysis of both existing international classification systems (i.e. MCPFE and IUCN) and the results derived from these systems is required. The objectives are to analyse the differences in reporting, based on the local background and expertise of the delegates in the COST Action, to point out the sources of divergence and confusion and to propose interpretation guidelines that can be used to provide more harmonised data on protected forests in Europe. COST Action E27 does in no way intend to make direct comparison or valuation between countries, even if differences between countries with similar natural resources and political and administrative frameworks are highly visible.

Both the IUCN system of Management Categories and the MCPFE Assessment Guidelines are considered in the context of classification of protection management intentions. It does not necessarily reflect the activities that are actually performed, allowed or tolerated in practice. Both systems also classify management objectives and restrictions. They do not evaluate the actual quality and conservation value of sites. Hence, a particular Class may include a wide range of forest types, with different degrees of naturalness (i.e. from pristine virgin forests to plantations) and varying biodiversity quality.

#### 3.2. Analysis of MCPFE and IUCN classification systems

Both the IUCN system of Management Categories and the MCPFE Assessment Guidelines are described, and evaluated, by comparing the statistics of TBFRA (using IUCN categories), the MCPFE's State of Europe's forests 2003 (using the Assessment

Guidelines), and through the crucial input from the country experts of the COST-Action E27, gathered by means of questionnaires, country reports and plenary discussions. Results of the comparison between TBFRA (IUCN), MCPFE and personal estimates of the COST Action E27 country delegates showed considerable variation. Even on quite strictly defined protection categories (like strict reserves), reported figures are even sometimes of a different order of magnitude. Therefore, one can state that there exists considerable confusion and, to date, no harmonised and comparable dataset on PFA in Europe is available.

In most countries, the results of the assessment of protected forest areas according to TBFRA (IUCN) and according to the Ministerial Conference for the Protection of Forests in Europe (MCPFE, 2003) differ considerably, and in some cases even extremely. A questionnaire was circulated among COST E27 delegates in order to assess the plausibility of the results. The experts had not doubted the correctness of the data. Slight changes or differences can be explained by new development since data were gathered, i.e. some new protected areas that have been designated and / or expanded.

Also, differences in the delineation of 'forest' are pointed out as an explanatory factor for the variation observed. Some protected areas include both forest and open areas. This results in the differences due to the application of alternative definitions of forest used in European countries, as does the level of detail of the delineation (e.g. satellite data vs. terrestrial surveys). The TBFRA/FAO definition of forest provides a very straightforward but broad interpretation of forest (crown cover > 10%; 5m high), while country definitions are sometimes much more restrictive. Therefore, it should be very clearly stated what definition of forest is used in the reporting procedure, and country correspondents should inform the data-collector on the level of detail and methodology used in the calculations. However, almost all correspondents state differences in interpretation of the classification system as the main reason for the discrepancies observed. Indeed, minor differences in interpretation proved to produce major variation in results.

Ambiguity may arise from individual national forest definitions applying more strict standards than the TBFRA/FAO definition. TBFRA (UN-ECE/FAO, 2000) and MCPFE (2003) data were merged and processed by official institutions. Not all data stem from national forest inventories. The information on

the area is provided by official databases and NGO databases including GIS-Layers. According to the experts, reliability of data and reporting was not the main cause for inconveniences. Even when data are reliable, the definitions of the individual protected forest categories offer a certain scope for interpretation. The aim of COST Action E27 is to find out the reasons for differing interpretations and to elaborate proposals to narrow the scope of interpretation.

#### **4. Recommendations for clarifying Protected Forest Area (PFA) categories for reporting purposes**

Based on the results of the questionnaire among the country delegates on the working group, the comparison of official statistics and best professional judgement, and on subsequent discussions within the Working Group 2 of COST Action E27, a number of recommendations to improve the quality and comparability of the statistics that are produced have been compiled.

The difficulties regarding interpretation exist mainly on two levels:

1. The strictness of "legal basis" and definition of "forest"
2. The strictness of "intervention" and "management restrictions"

The COST Action E27 has produced an extensive document pointing out sources of uncertainty in the existent reporting systems, and formulating concrete suggestions or clarifications that should help reduce the divergence in interpretation, thus leading to more harmonised and comparable datasets (see Vandekerckhove et al., chapter 3.4. in this report). However, as differences in interpretation are so apparent, it is still advisable to include an extensive harmonisation phase in the reporting process, as it is impossible to clear out all imaginable differences in interpretation.

##### **4.1. The IUCN Guidelines for Protected Area Management Categories**

The IUCN Protected Area Management Categories were not specifically developed for the purpose of reporting statistics on Protected Forest Areas in Europe, but to assist governments and others in desi-

gnating protection areas for all existing ecosystems (both aquatic and terrestrial) on a global scale. Therefore, clarification and an interpretative guide are required if this system is to be used for statistical purposes at the European scale.

The COST Action E27 endorses a strict interpretation of the overriding definition, i.e. forests (and in the wider sense all Protected Areas) reported in IUCN-Categories should always have conservation and enhancement of biodiversity / natural values as the primary goal. This should be guaranteed through legally binding, long term commitments, linked to national nature conservation programmes.

Multifunctional forests should not be included in the reporting statistics, even if nature conservation is of equal importance to other functions over the whole area, or even the main function in parts of the area (e.g. key biotopes) as they do not comply with the over-arching definition of IUCN Protected Areas.

Areas set aside under specific certification programmes are not compatible with the over-arching definition set by IUCN (1994). Certification programmes are voluntary and can be revoked at any time. They do not require any long term commitment and therefore do not meet the overall requirement of “legal or other effective means”.

The IUCN definition of a Protected Area loses some of its power and focus by including ‘associated cultural resources’, as this leaves it open to wide interpretation, resulting in the inclusion of all kinds of multi-functional and other site uses (be they traditional or otherwise).

The most important aspect to highlight is that it is quite unclear as to what should be included as ‘legal or other effective means.’ It follows that ‘other means’ need to be indefinite and stipulated in official documents (i.e. management plans, etc.). However, most management plans have a timeframe of 10-20 years, after which management practices and even management objectives may be altered or modified. Moreover, management plans are commonly considered to be ‘supporting technical documents’ that provide guidance to management though may not necessarily include clear and enforceable commitments. Management plans alone are not considered to provide sufficient ‘legal basis’ for inclusion, as they are only an implementation tool toward the conservation objective. Inclusion of management plans can only occur if they are associated with an explicit, legally binding designation.

In many countries conservation objectives are also encouraged through protective ownership, (e.g.

conservation trusts or state and local authorities), conservation management grant schemes, management plans for designated sites, etc. It should be clarified whether these should be included as ‘legal or other effective means’.

A similar situation arises with forests where grant schemes and other state incentives that focus on conservation and enhancement of biodiversity are applicable, provided an agreed management plan is implemented. Although they can be very effective in addressing biodiversity management requirements, they are essentially voluntary in the sense that owners are often not compelled to carry out every action stated in the management plan if they decide not to. Therefore it would be useful for IUCN to produce a document that clearly defines the criteria that must be fulfilled in order to comply with ‘legal or other effective means’.

In the IUCN system it is stated that ‘the areas should be large enough to allow the ecosystem to fully develop’ (IUCN, 1994). However, no guideline size criteria are provided as to the minimal area that should be considered. Potentially, every country may have its own interpretation of what this lower limit should be. This lower limit may not be absolute but dependent on local/ regional features or even site conditions. Moreover, in densely populated areas, where valuable natural sites comprise small fragmented relics, there is little choice as to what the size of a protected site should be. The absence of clear guidelines on ‘minimum size criteria’ for sites is reported to be a major cause of uncertainty on the inclusion of certain national protection categories.

When using the FAO definition of forest (FAO 1998, 2001, 2006) in combination with the IUCN definition of Protected area a strict and straightforward approach is recommended. The reported figures should be the simple intersect between boundaries of the officially Protected Area regimes, and the area of “forest” defined according to the FAO definition. The COST Action E27 rejects firmly the *a posteriori* exclusion or inclusion of certain forests based on qualitative criteria or specific local objectives. Even if a plantation is included in a Protected Area (i.e. as it fulfils the basic requirements of a Protected Area according to IUCN) it should consequently be reported in the statistics.

A detailed identification of issues requiring clarification and concrete recommendations to improve the use of specific IUCN Categories are compiled by Vandekerckhove et al. in chapter 3.4. in this publication.

#### 4.2. The MCPFE Assessment Guidelines for Protected and Protective Forest and Other Wooded Land in Europe

The MCPFE Assessment Guidelines were generally better appreciated than IUCN Guidelines for reporting on PFAs, as it is better adapted to the European situation, and was specifically developed for reporting purposes.

The MCPFE classification system addressed - in a more precise and well-balanced way - the different protection regimes in the countries. For most correspondents, it was easier to assign the different national protection categories to the MCPFE Classes. Although very few countries reported data for all Classes, most Classes are represented in the majority of countries. Class “no active intervention” was most problematic; although many countries reported figures for this Class, it was clearly stated that, if interpreted in the strictest manner, this class does not occur anywhere in Europe.

Explicit designation in the context of the MCPFE Assessment Guidelines (MCPFE 2003a) comprises both designations defining forest and other wooded land within fixed geographical boundaries delineating a specific area as well as designations defining forest and other wooded land not within fixed geographical boundaries, but as specific forest types or vertical and horizontal zones in the landscape. This ‘zonal delineation’ was only relevant to a few countries and depended very much on how it was interpreted. For these countries however, they are considered a very valuable tool to report specific PFAs.

##### 4.2.1. Clarification on General Principles

By assessment of protected/protective areas according to the management objectives all the three general principles agreed in the Annex 2 to Vienna Resolution 4 (legal basis, long term commitment, explicit designation; MCPFE, 2003a) need to be fulfilled simultaneously.

All protected/protective areas must have an official and permanent status of protection: governmental (Federal, State or EU-level) decision by nature conservation act, law or statute, forest act, law or statute or official written contract between state authorities and forest owner. The single protected area (name) or group of areas (protected habitats) should be mentioned in the national/regional legal documents. Other means for protection are to be considered as voluntary contributions for protection.

Legal basis automatically creates long term commitment status as an “ad infinitum” approach. By contract with management commitments the time period is 20 years at minimum in order to be included into the category of official protected/protective areas. Forest management plans are necessary as the maintenance guidelines for protected areas, but they are flexible in their applications and have normally a shorter time span than 20 years in order to achieve long term commitment. Forest management plans are considered to be technical documents. If management plans are used as a basis for classification and delineation of a protected forest area, they must include a clear statement and connection to the long term legal basis of the protection regime.

The prerequisite for inclusion of the area into the designation type with fixed geographical boundaries is the clear delineating made on map. For the designation type without fixed geographical boundaries the prerequisite for inclusion is a strict interpretation as for type with fixed boundaries, which means clear descriptive definition of the vertical or horizontal zones in the landscape.

##### 4.2.2. Additional general remarks

1. The same definitions and terms for forest and other wooded land as used by MCPFE-UNECE/FAO data collection guidelines for national reporting should be used for reporting on the MCPFE classes for protected/protective areas (see Report on the State of Forests and Sustainable Forest Management in Europe 2007. Terms and Definitions for the Enquiry on MCPFE Indicators for SFM, 10 October 2005. MCPFE-UNECE/FAO Data Collection, <http://www.fao.org/forestry/fra2005-terms/eng>, and <http://www.mcpfe.org>). If national definition for forest or various scales are used this deviation from international definitions must be described and illustrated.
2. MCPFE classification is focused on the assessment of management objectives and restrictions to interventions (strictness of management). The classification does not evaluate the management effectiveness or the biodiversity aspects/quality of protected/protective areas. This means that various forest types, characters or naturalness classes can be included in the MCPFE classes. For instance forests undisturbed by man, semi-natural or even plantation forests can be included in the same MCPFE class depending on

the country conditions. On that sense there are no value ranking between the classes MCPFE 1.1 to 1.3, these categories are complementary by evaluation on the amount of forests and other wooded land protected for biodiversity. The biodiversity aspects of forests including protected areas will be described by other biodiversity indicators of MCPFE reporting.

3. Voluntary contributions without legal basis must be reported separately. Those voluntary contributions can include for instance protected forest areas on private land without official statutes, special ecological network areas, short term contracts for biodiversity/groundwater protection, Natura 2000 areas not included into the national protected categories and networks with priority object for biodiversity, cultural objects within multifunctional forests, or biodiversity objects included in landscape ecological planning. Forest areas certified with various schemes should not be included in the reporting, while voluntary, marked driven forest certification as a technical tool is aimed for multifunctional forests. Protected areas included in certified areas can be reported through normal procedure as described in these guidelines.

#### 4.2.3. Explanatory Note to Natura 2000

Natura 2000 is a very important European networking tool, aiming at conservation of habitats and species. Natura 2000 Network is created to ensure the preservation of biodiversity in the area of the European Union. A network of areas is being formed in the Member States according to the EU Habitats and Bird Directives (Habitat Directive 92/43/EEC and Birds Directive 79/409/EEC) with the aim of preserving the most important habitats, natural habitat types and species. Besides forests, the Natura 2000 network also includes other ecosystems, such as waters, fields and meadows, and Alpine areas.

Natura 2000 is not a classification system, and not exclusively focused on protected forest areas, while it also includes areas with multi-purpose use of forests and other ecosystems. Therefore Natura 2000 network is not included as such in MCPFE reporting on protected/protective forests and other wooded land. The legally binding and long term protected areas included in Natura 2000 networks will appear according to the normal assessment rules through these interpretation guidelines into the MCPFE classes. Selected and designated Natura 2000 sites can belong to the MCPFE class 1.1, 1.2, 1.3 or 2

according to the strictness of management. In some circumstances a Natura 2000 site can also locate in multipurpose forests.

In some of the EU countries Nature 2000 network is based mainly on the existing network of protected areas, supported with additional areas nominated especially for Natura 2000 purposes. This nomination can also be made besides nature conservation law on Federal or State level according to other laws such as water conservation law, law on land use restrictions, law on recreation or environmental protection with obligation to guarantee the maintenance of habitats. Any activities that weaken the status of the area in terms of the preservation of important natural habitat types or the habitat of certain species are prohibited. In some countries the Natura 2000 network only includes strictly protected areas, while in some other countries, also multi-purpose landscapes are included, and the continuation of practices like commercial forestry, farming, fishing or hunting is allowed, and sometimes even considered essential for the preservation of the site.

Natura 2000 sites (designated both on the basis of EU Habitat Directive or Birds Directive) are to be counted into the MCPFE classes if individual sites are also protected on the basis of national (Federal or State) legislation. The protection status must fulfil the General Principles of MCPFE classification as described in Annex 2 to Vienna Resolution 4. Because management activities in individual Natura 2000 sites reach from free development without any intervention to intensive restoration measures, the categorisation according to the specific classes must be decided for each individual site by the normal assessment procedure following these guidelines.

#### 4.2.4. Definition of MCPFE Classes

A detailed identification of issues requiring clarification and concrete recommendations to improve the use of the specific MCPFE Categories are compiled by Vandekerckhove et al. in chapter 3.4. in this report.

### 4.3. Recommendations for the data collection and interpretation

On the basis of careful analyses of every single category of IUCN as well as MCPFE classes the COST Action E27 has produced a recommendation proposal for the development and interpretation purposes of PFA classes. The recommendation was sent to IUCN Head quarters for further discussions.

Parallel the recommendation of MCPFE assessment results was sent to the Liaison Unit of MCPFE Warsaw. On that basis an Information Note of MCPFE assessment categories was developed by the Liaison Unit for TBFRA to be used by the TBFRA country correspondents for their data collection.

#### 4.4. The 'habitat quality' and 'management effectiveness' in Protected Forest Areas

Reliable and comparable statistics on the Protected Forest Area are essential as they represent an important quantitative indicator of the efforts on biodiversity conservation in forests. Two other important aspects should also be taken into consideration:

- the qualitative aspects of the PFA and their management
- the 'inclusive' approach on conservation of biodiversity, as an important aspect in multifunctional forestry

COST Action E27 stresses the need for additional but separate reporting on (a) habitat quality and (b) management effectiveness.

Only the distinct and separate assessment of all three aspects area statistics, habitat quality assessment (including aspects of networking and representativeness) and monitoring, and management effectiveness assessment will provide a complete image of the status of Protected Forest Areas.

However it is stressed that they are three distinct elements that are to be assessed separately: every attempt to combine them together will only lead to unsatisfactory, confusing and incomparable data.

### 5. Forest biodiversity conservation within multifunctional forestry

Protected areas as such are only one indicator of biodiversity conservation strategies in Europe. In Europe probably more than in other parts of the world, two approaches are being used for the conservation of biodiversity in forests. A 'segregative' approach, with formally protected areas where the functions 'biodiversity conservation' or 'protective functions' are predominant, and on the other hand an 'integrative' approach, where these functions are integrated in a multifunctional, close to nature silviculture.

Both TBFRA and MCPFE- reporting procedures are restricted to areas that are formally designated as protected/protective areas and do not include other areas protected under statutes and mechanisms such as forest regulations, or multifunctional (commercial) management carried out under certain 'ecological' restrictions, or where incentives for conservation measures are given.

The assessment of the amount of forest that is exclusively or primarily managed for conservation of biodiversity is an important indicator of the 'performance' of countries on this specific indicator of forest biodiversity conservation and should therefore be reported as clearly as possible in the strict sense. At the same time, there is the need for a complementary assessment of the conservation status and ecological management standards that are included in everyday practice in forests outside legally designated protected and protective forests.

As these areas cover at least 80 % of the total forest area, these efforts are crucial to overall forest biodiversity (maybe even more important than the protected areas), and should therefore be also assessed through a clear set of criteria and indicators. The MCPFE indicators already contain some elements in this respect such as statistics on naturalness, tree species composition, landscape pattern, dead wood component, introduced tree species, genetic resources and threatened species. A further elaborated set of indicators covering all aspects of status and policy on forest biodiversity conservation within multifunctional forestry is required.

The COST Action E27 is convinced that the importance of the assessment of PFA as an indicator of the performance of countries on forest biodiversity conservation is very much related to the status/regime of "non protected" forest areas: the better conservation issues are covered in multifunctional, close-to-nature silviculture the less important and essential the protected areas are.

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