Identifying High Conservation Values at a national level: a practical guide

April 2007

Executive Summary

This guide aims at creating an integral frame for the designation, identification and management of forests with outstanding social, economical and environmental significance.

***The Forestry Code gives the following definition: "any areas larger than 0.25 hectares covered with forest vegetation, are considered forests and are included in the national forestry fund." The forest represents a complex ecosystem, including forestry vegetation as well as rocks, wet areas, peat land, glades or clearings etc*.**

"Forests are complex and vital components of the ecosystems on Terra and through a variety of ecological processes they secure the stability of watersheds, the water protection and the air quality, the conservation of a large variety of gene and habitat funds for flora and fauna." (Valeriu Enescu, 2002)

Forests have extremely varied protection functions, including social functions indispensable for the human communities, therefore they represent multiple values.

Where such values are considered to be of outstanding significance or critical importance, the forest can be defined as **forest with high conservation value**.

The concept of "*High Conservation Values*" was first defined by the Forest Stewardship Council (FSC) for use in forest certification. Now it is increasingly being used in other fields as mapping, nature resource conservation and planning, purchasing policies of those companies that process forestry products etc. Recently the concept has begun to appear in the elaboration of policies of government agencies.

Examples of forests with high conservation value are:

- a forest that protects the sole supply of drinking water to a community;
- a small forest area that houses some rare ecosystem;
- a forest abiding an important archaeological site;
- the whole of a forest management unit, if it represents the habitat of endangered species
- a forest that presents the features of a primary or secondary forest

High Conservation Value Forests need to be appropriately managed in order to maintain or enhance the High Conservation Values identified within.

This guide provides a practical methodology for defining high conservation values and identifying those forests containing such values and can be used by forest managers, landscape planners, certifiers, purchasers of forestry products and any other stakeholders.

In order to facilitate the process of identification of high conservation values, they have been classified in six types of values. Our aim is to provide the methodology capable to offer guidance on the data to be studied, questions to be asked and steps to be taken in order to decide whether a particular forest presents high conservation values. Guidance on the management and monitoring of high conservation values is also provided.

Contents

LEGISLATION REFERENCES:

1. Government Decision / HG 230/2003 concerning biosphere reserves and national and nature parks delineation and administration.

2. Order 552/2003 of the MAPAM (Romanian Ministry of waters, Forests and Environmental Protection) on the Approval of Area Zoning within National and Nature Parks to meet the Need for Biological Diversity Conservation.

3. Law 451/2002 on the ratification of the European Convention on Landscape, Florence, Oct. 20, 2000.

4. Law 462/2001 concerning the Regime of the Protected Natural Areas, the Conservation of Natural Habitats, and of Wild Flora and Fauna

5. Law 89/2000 for the ratification of the Agreement concerning the Conservation of African - Euro - Asian Migratory Birds, Hague, June 16, 1995;

6. Law 90/2000 for the adhesion of Romania to the Agreement concerning Bat Conservation in Europe, London, Dec. 4, 1991;

7. Law 5/2000 concerning the National Territory Management Plan - section III - Protected Areas;

8. Law 13/1998 for the adhesion of Romania to the Convention concerning the Conservation of Migratory Species of Wild Animals, Bonn, June 23, 1979;

9. Law 69/1994 for the adhesion of Romania to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, March 3, 1973 (CITES)

10. Law 58/1994 for the ratification of the Convention concerning the Biological Diversity, signed in Rio de Janeiro on June 5, 1992;

11. Law 13/1993 for the adhesion of Romania to the Convention concerning the Conservation of Wildlife and Natural Habitats in Europe, adopted in Bern, on Sept. 19, 1979;

12. Habitat Directive - Directive of the Council of Europe 92/43 EEC, concerning the conservation of natural habitats and wild fauna and flora, May 21, 1992;

13. Bird Directive - Directive of the Council of Europe 79/404 EEC

14. Law 5/1991 regarding the adhesion of Romania to the Convention on internationally significant wetlands especially as wild birds habitat (Convention RAMSAR);

15. Decree 187/1990 for the acceptance of the Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972

16. Ministerial Conferences in Strasbourg - 1990, Lisbon - 1998 and Vienna - 2003

Terminology:

Biodiversity	Variety and variability of plant and animal species on the planet.
FSC Certifier (for forest management)	Independent organism certified by Forest Stewardship Council for the assessment of the forest management according to FSC approved standards and procedures, and for granting the forest management certificate.
Phylogeny	The development over time of organisms with the modification of the features. It is the historical process of the living matter development lasting over the geological eras and resulting in the distinction of interrelated organism groups.
Ontogeny	The development of an individual from the fertilisation of the ovum (zygote) to the adult stage.
FSC	Forest Stewardship Council – international, independent, non-profit organisation founded in 1993 for the promotion of an ecologically, socially and economically appropriate forest management.
Taxonomic group	General term to designate the different monophyletic groups of organisms defined on distinct system features (genus, family, order etc.)
Ecological monitoring	A system of controlled surveillance of the condition of a natural or anthropogenic ecosystem.
Artificial forest	A forest that suffered essential alterations of the composition and structure because of human interference
Forest with natural structures	A forest over 120 years, with consistency higher or equal to 0.7, having a natural composition and a diversified structure
Forest with diversified structures	A forest that shows age variation of over 30 years and/or dimension variation, even if altered through management
Old-growth forest	A forest with natural structure and composition, without or with low level of human interference that has not caused an essential alteration of the structure (according to Technical Regulations for Forest Management = fundamentally natural forest types not affected by human influence)
Secondary forest	Forest with natural composition (indicated by the fundamental natural forest type, therefore with the composition of the old-growth forest) in which human intervention was applied according to Technical Regulation for Forest Management = fundamental

	natural forest type with human interference)
Forestry landscape	A territory covered by forest combined with other natural and artificial factors, having its own identity given by specific aspects, different from the neighbouring areas and separated from them by natural borders.
Viable population	One of the biocenosis component which, through the population size and the optimum of its population structure, manages to integrate into a defined ecosystem and carry out its role in the matter, energy and information transfer.
Endemic	Living within a limited territory; species with small range. The delineation should use geographical, not administrative elements (e.g. Mt. Pietrosu Mare instead of district Maramures).
Relict	Species now isolated on a diminished territory of its former distribution range.
Extinct (EX)	That species of which the last individual has undoubtedly died.
Extinct In The Wild (EW)	Species that has completely disappeared in the natural ecosystems but survives in captivity (plantations, botanical parks, zoological parks)
Critically Endangered (CR**)**	Species facing extremely high risk of extinction and meeting the criteria A - E (A = reduction in the population size; B = geographic distribution, permanent or occasional; C and D = population size; E = estimation of the probability of extinction) (see IUCN criteria, 2001)
Endangered (EN)	Species facing high risk of extinction and meeting the criteria A - E (A = reduction in the population size; B = geographic distribution, permanent or occasional; C and D = population size; E = estimation of the probability of extinction) (see IUCN criteria, 2001)
Vulnerable (VU)	Species facing the risk of extinction and meeting the criteria A - E (A = reduction in the population size; B = geographic distribution, permanent or occasional; C and D = population size; E = estimation of the probability of extinction) (see IUCN criteria, 2001)
Near Threatened (NT)	Species which, following the evaluation, does not qualify in any of the categories: Critically Endangered, Endangered or Vulnerable but is likely to qualify for a threatened category in the near future.
Taxon	Monophyletic group of organisms with a distinctive feature set, distinct enough to be given a name of its own. Basic categories are species, genus, family, order, class, phylum/division

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1. Introduction

1.1. The concept of High Conservation Value Forests

All forests contain certain environmental and social values, such as wildlife habitat, watershed protection or an archaeological site. As already shown, where these values are considered to be of outstanding significance or critical importance, the forest can be defined as a "High Conservation Value Forest" (HCVF). The key to the concept is the identification of High Conservation Values (HCVs), the definition of which is given in the table below.

Definition of High Conservation Value Forests
HCVFs are those forests that possess one or more of the following attributes:
HCV1 Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).
HCV2 Globally, regionally or nationally significant large landscape level forests, where viable populations of naturally occurring species exist in natural patterns of distribution and abundance.
HCV3 Forest areas that are within or contain rare, threatened or endangered ecosystems.
HCV4 Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).
HCV5 Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health). For Romania, those forests that represent the unique heating source or provide wood/timber and other forest materials required by the traditional crafts and activities.
HCV6 Forest areas critical to local communities' traditional cultural identity, represented, in our case, by those forests significant for the local customs or celebrations traditionally performed within the forest areas or those forest areas placed in close vicinity of religious communities, pilgrimage sites or historical monuments.
Definitions are based on the FSC Principles and Criteria, February 2000

A HCVF may therefore be a smaller or larger forest area, not obligatorily reflecting the administrative boundaries, consisting of landscape units, parts of them or one or several forest management units in their whole.

The concept of High Conservation Value Forests (HCVFs) was developed by the Forest Stewardship Council (FSC) and first published in 1999 (see Appendix 1). According to the FSC approach, (through the requirements of Principle 9), it is important that once the HCVs have been identified, the forest manager should plan and implement management actions in such a way as to **maintain or enhance** the identified HCVs and to put in place a monitoring system in order to check that this is being achieved.

1.2. How the HCVF identification toolkit works

The High Conservation Value Forest (HCVF) Toolkit provides a practical methodology to be used for defining High Conservation Values (HCVs).

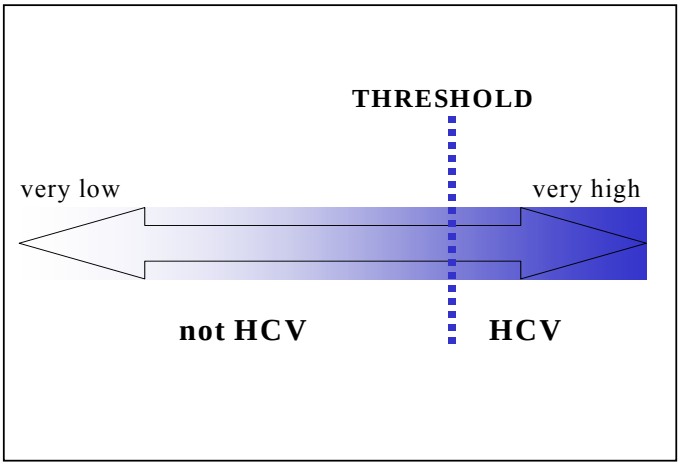
The guide has replaced the generic definitions of conservation values with definitions and elements reflecting the social, economical and environmental particularities of the country.

For each of the six types of High Conservation Value (Table 1.1), the guide identifies those elements that should be considered and provides guidance on how to identify HCVs for each element. Once HCVs have been defined at a national level, forest areas are to be evaluated, to decide upon the presence or absence of the HCVs, in order to identify and delineate HCVFs.

The process of defining HCVs requires two critical steps (Figure 1.1):

- Decide what the *relevant forest values* are, such as forest types, species of critical significance, forest functions, etc.
- For each value, define *thresholds*, namely the level above which the forest attributes can be designated as High Conservation Values. Thresholds are actual levels, expressed for instance in numbers or minimum size of an area (number of species of a particular taxonomic group, a minimum size of a particular forest type, or simply the presence of a particularly important species can constitute thresholds).

Figure 1.1 Deciding the threshold levels for HCVs.



The definition of thresholds is sometimes particularly difficult. Establishing thresholds that are too high will result in inadequate protection for forest values, and thresholds that are too low will undermine the application of the concept.

It is not always possible to mathematically define the threshold or to express it quantitatively, in a number. The aim of this guide is to clearly define thresholds that are easily measurable and comparable in practice, so that the guide should prove useful for the forest manager or the landscape planner.

For the identification of HCVs within a forest area, a two-stage process is suggested (see Figure 1.2)

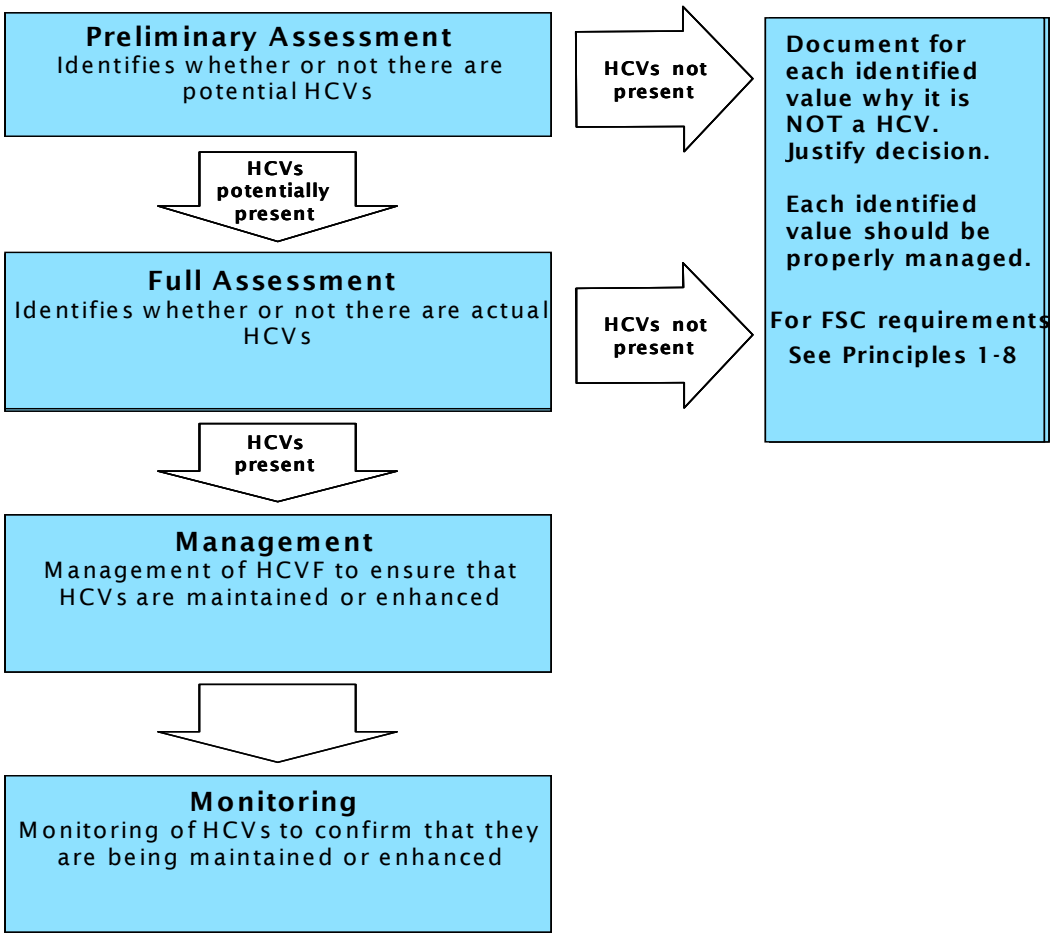
The first stage is the **preliminary assessment**, which acts as a "coarse filter", to rapidly exclude all those forests that definitely do not contain HCVs, and to identify forests that do potentially contain specific HCVs.

A particularly useful tool for preliminary assessments is represented by the maps of those areas that potentially contain HCVs.

The second stage is the **full assessment**. This assessment is applicable in those forests that potentially contain HCVs, to determine whether one or more HCVs are actually present within a particular area of forest.

Once the assessment phase is complete, the process then continues into the management and monitoring phases as shown in Figure 1.2.

Figure 1.2 Methodology for identifying and managing HCVF



1.3. Who can use the HCV Toolkit and how

Once the High Conservation Values have been agreed upon, there are a number of potential uses for this approach:

a Use by forest managers to meet the forest certification standards related to HCVF

Forest managers who intend to develop the management of the forest based on this guide should carry out evaluations on their forest areas to determine whether any of the defined HCVs are present within their forest management unit. Forest managers can integrate HCV identification and management into their overall forest management planning and all activities related to it. In order to fully implement certification requirements relating to HCVF, HCVs should be an important element of baseline information on: data collection, environment reviews, management planning, implementation of specific operations and monitoring.

b Use by certifiers assessing HCVF

The defined national HCVs, together with management guidance, become an integrand part of the National Forest Management Certification Standards.

Certifiers may then make use of the defined national set of HCVs when assessing the level of compliance with certification requirements on specific FMUs.

c Use by landscape planners to establish priorities of different land-uses

Based on information that is already held or is being collated, the defined national or local HCVs can be used to draw up landscape-level plans and maps to show actual or potential HCVF. Such maps could then be used to inform and prioritise land-use planning decisions as well as conservation and management planning.

d Use by purchasers implementing policies to do with HCVF

Purchasers implementing HCVF policies may use the already existing landscape-level information about the presence of HCVs, when setting precautionary purchasing policies.

They can also use the nationally defined sets of HCVs to undertake evaluations for the presence of HCVs in specific forest management units.

Note: it is important to understand the fact that HCVF do not represent strictly protected areas, in which harvesting of wood and non-wood products is forbidden, but forest areas that must be managed in such a way as to maintain the identified High Conservation Values. The appropriate management can be proved by the certification of the forest management through a reliable certification system.

2. Defining High Conservation Values

2.1. Introduction

The six types of HCV are defined in the FSC's Principles and Criteria. The generic definitions have been transformed, through this guide, into definitions that are specific at a national level, providing detailed and relevant information for forest managers or landscape planners to easily apply it.

The guide therefore includes:

- **Introduction** of each HCV. This includes a general discussion, with examples of what is intended to be included (and excluded) within each HCV. It also distinguishes the **elements** that each HCV consists of and explains the importance of each element.

- A **rationale** is given for each element, providing the decisions that have to be taken to define each element at the national or regional level.

- Guidance on how to **define the HCV** for each element. Defining HCVs required two steps. The first is to compile the **information** necessary to identify important values within the country or region. The second step is to set the **threshold** levels for each value, above which the value becomes *a High Conservation Value*.

- Guidance on the **Preliminary and Full Assessment** required for each element, in order to facilitate the HCVF identification process The *preliminary assessment* acts as a coarse filter, to rapidly exclude forests that clearly do not contain a particular value from the time and expense involved in a detailed analysis. This preliminary assessment is clear and simple and does not require the use of complex data or highly technical information, preventing the process from being an unnecessary burden on forest managers.

  Where the preliminary assessment indicates that a HCV is potentially present, a forest manager will need to conduct a *full assessment*, to decide upon the presence or absence of high conservation values. This full assessment process will inevitably require forest managers to engage in long-term processes and sometimes make us of financial resources for biological surveys or community consultation.

  The action of identifying HCV and defining the HCVF involves the carrying out of a process of consultation with the stakeholders. In some cases the co-operation with experts in different fields - biology, sociology, etc - may be necessary.

  Generally the first steps consist of collecting the specific documentation (laws, legal decisions, forest management plans, specialised studies/surveys, maps, etc.) which represent the base for the selection of the areas to be investigated for the HCV presence. For some HCV categories successive assessments may be required, carried out in different times of the year.

2.2. HCV1. Forest areas containing globally, regionally or nationally significant concentration of biodiversity values (e.g. endemic and rare species, endangered species).

2.2.1. Introduction

In HCV1, areas with a high concentration of species, including threatened or endangered species, endemics, unusual assemblages of ecological or taxonomic groups and extraordinary seasonal concentrations of species are included.

Any forest that contains the species identified as HCVs, or which contains habitats that are critical to the continued survival of these species, is a HCVF. This will include forests with large numbers of threatened or endangered species or numerous endemic species (e.g. "Biodiversity hot spots"). Exceptionally, it may even happen that one single species is considered important enough to require that the forest should be included in the category of HCVF.

However, there are many forests that contain rare or endemic species yet they are not HCVFs because they do not show a **globally, regionally or nationally significant concentration of biodiversity.** Of course such forests should be appropriately managed, yet they are not HCVFs.

Populations can be seen as relevant from several points of view:

- protection (conservation)
- endemic for Ro.
- scientific (phylogenetical) significance
- restrained distribution (as habitat)
- indicators, useful in monitoring and defining the ecosystem status
- species that are very important for the existence of the ecosystem

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Since there is a large range of ways in which biodiversity values can be identified, this value has been sub-divided into four elements:

- **HCV1.1 Protected areas:** Protected areas perform many functions, including the conservation of the biodiversity. Protected area networks are a cornerstone of the biodiversity conservation policies and their importance is recognised in the Convention on Biological Diversity (CBD). Many protected areas are vital for the conservation of the regional and global biodiversity values.

- **HCV1.2 Threatened and endangered species:** One of the most important aspects of the biodiversity value is the presence of threatened or endangered species. Forests that contain populations of threatened or endangered species are definitely more important for maintaining biodiversity values than those than do not, simply because these species are more vulnerable to continued habitat loss, hunting, disease etc.

- **HCV1.3 Endemic species:** Endemic species are the ones that are confined to a particular geographic area. When this area is restricted, the species has a particular importance for the conservation process, because a restricted range increases its vulnerability.

- **HCV1.4 Critical seasonal use**: Many species use a variety of habitats at different times or at different stages in their life history. These may be geographically distinct or may be different ecosystems or habitats within the same region. The use of the habitat may be seasonal or the habitat may only be used in extreme years, when, nevertheless, it becomes critical to the survival of the population. This component includes forests that are significant to the maintenance of important concentrations of species that make only occasional use of the forest.

In the following sections, each of these four components is largely considered, and guidance is provided on how to:

- accurately identify the existing values in a national or regional context;
- define the threshold beyond which one value becomes a High Conservation Value;
- undertake a preliminary assessment for a particular forest;
- undertake a full assessment for a particular forest.

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It is to be noted that the lists of species in the appendixes as well as the defined thresholds will periodically be revised and modified, including or reformulating criteria as new data or new laws are issued at national or international level.

For HCV1 and HCV3, particularly, preliminary studies on biodiversity assessment, involving specialised staff, are recommended.

2.2.2. HCV1.1 Protected Areas

2.2.2.1. Rationale

Protected Areas are a vital component of the biodiversity conservation.

According to *Law 462/2001 on protected natural areas, and the conservation of natural habitats and of wild flora and fauna*, a protected area is "that terrestrial, aquatic and/or underground area within a legally delineated territory, which has a particular protection and conservation regime, and containing species of flora and fauna, elements and structures of bio-geographical, landscape, geological, paleontological, speleological nature or of any other type having a particular ecological, scientific or cultural value".

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2.2.2.2. Definition of HCV1.1

Table 1.1 Protected areas

Definition	Threshold	Recommendations on identification, constitution and management
Forest areas included in: - Science reserves; - Nature reserves; - Nature monuments, if forests - Special conservation areas included in Protected Areas as defined by Order 552/2003 of MAPAM - Areas of Special Conservation Interest (ASCIs) - Special Protection Areas (SPA) - Wetland of International Significance - Natura 2000 sites - World Natural Heritage Sites	No thresholds are set for this category; the area of the HCVF equals the protected area identified as HCV and located within the management unit.	**IDENTIFICATION:** ▪ Law 462/2001, concerning the Regime of the Protected Natural Areas, the Conservation of Natural Habitats, and of Wild Flora and Fauna; ▪ Government Decision 230/2003, on the delineation of national and nature parks and biosphere reserves; ▪ Law no. 5/2000 - Law of regional planning ▪ Order of MAPAM 552/2003 ▪ Order of MAPAM 850/2003 ▪ Local and districtual documentation on proposals for designation of reserves, District Councils, IPM (Inspectorates of Environment Protection) **RECOMMENDATIONS FOR MANAGEMENT:** In Protected areas: No interference is accepted in scientific reserves; For the remaining area, according to the specificity of the protected area, treatments of TI, TII, T III type are recommended, depending on the category of the protected area and on the management objectives. In Natura 2000 sites: Management guidelines will focus on the conservation requirements of the species/habitats for which the site was designated. As a result, sivicultural treatments could range from TI to TVI (according to the Romanian guidelines).

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Column 1 in Table 1.2 defines all categories of protected areas that constitute HVC 1.1. For all the remaining categories assessment of inclusion within different HCV categories is recommended.

The protected areas under temporary protection, if they meet the conditions to be included in the categories listed in column1 of table 1.1 will be submitted to full assessment.

For the identification of the HCVs defined in column 1 of the table, only protected areas legally designated as such at the date of the assessment are taken into consideration.

2.2.2.3. Preliminary and Full Assessment

Preliminary assessment

Preliminary assessment is conducted through identification of all areas within an existent or proposed protected area, based on the provisions of the legal documents and documentation listed in Table HCV 1.1 column 3.

Maps of the protected areas shall be considered, to check if the forest management unit contains any protected areas. In this respect the agencies of environment protection shall be contacted, as they have information on the protected areas under their responsibilities.

For those sites proposed for designation as protected areas, careful consideration of the reasons sustaining the proposal shall be given, to decide whether the proposed areas present those attributes that may be considered HCVs.

The forest manager should include in his assessment any protected area within the forest unit he manages but also any other protected areas that are likely to be affected by the management activities developed within the management unit (e.g. tree harvesting within the unit may have a negative impact on wetland - watercourse, lake etc - located downstream, which is not actually within the limits of the forest management unit).

Table 1.1 shows the protected area categories obligatorily defined as HVC 1.1 in our country. Any time sites designated as protected areas according to the specified categories in the table are found within a management unit, the forests in such units shall be designated as HCVFs.

For those categories of protected areas that are not shown in table 1.1 full assessment shall be conducted.

Full assessment

The preliminary assessment should contain details of all protected areas that are HCVFs. Full assessment is required for the temporarily protected areas.

Full assessment shall also be conducted in the case of the protected areas or areas within the national or nature parks that are not listed in column 1 of table 1.1.

The full assessment requires the professional help of biologists.

2.2.3. HCV1.2: Threatened and endangered species

2.2.3.1. Rationale

Forests that contain concentrations of threatened or endangered species are definitely more important for maintaining biodiversity values because these species are more vulnerable to continued habitat loss, hunting, disease etc. FSC Criterion 6.2 deals with rare, threatened or endangered species, and so this component attempts to identify those forests that contain outstanding concentrations of rare and near threatened species.

Consideration shall be given to the fact that some of such species may have critical significance form the following points of view:

- protection (conservation)
- scientific (phylogenetical) significance
- restrained habitat (restrained distribution)
- act as indicators, species useful in monitoring and defining the ecosystem condition
- species that are very important for the existence of the ecosystem

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2.2.3.2. Definition of HCV1.2

HCV 1.2 Species critically endangered, endangered and near threatened

Definition	Threshold	Recommendations for identification, designation and management
HCVF 1.2 – forests which are habitats for the species listed in Appendixes 1 A, B and C	For the **critically endangered** species listed in Appendix I, in accordance with their regime **in Romania**, the **simple presence of the species** represents the threshold. For species included in Appendixes 1A, 1B and 1C, the occurrence of at least three of the species in the table represents the threshold. In such cases the management unit within which the species have been identified constitutes HCVF.	**IDENTIFICATION:** ▪ National Red List (based on IUCN criteria): 216 vertebrates, 55 invertebrates ▪ Red Lists for Plants (Dihoru et. al, Oltean et. al, Boşcaiu et. al) ▪ Law no.13/1993 – Habitat Directive, Bern 1979 ▪ Law no.462/2001 (including – Habitat Directive and Birds Directive) ▪ Law no.103/1996, concerning the game fund and the protection of game, republished 2002 ▪ Law no.58/1994 Rio Convention ▪ Law no.187/1990 Paris Convention ▪ Law no. 5/1991 RAMSAR Convention ▪ Law no.13/1998 Bonn Convention ▪ Law no. 451/2002 Landscape European Convention ▪ Law no. 89/2000 ▪ Law no. 90/2000 concerning Bat Conservation ▪ Natura 2000 ▪ Emerald List - species significant at European level – not ratified ▪ Law no. 69/1994 CITES ▪ SPEC Classification **MANAGEMENT:** For species dependant on aquatic or swamp ecosystems it is recommended that treatments and forestry operations should avoid soil erosion and watercourse pollution (soil, waste, timber waste, etc.). For high conseervation value forests harboring endangered and threatened bird species, it is recommended to maintain the habitat through preserving the vegetation (trees and shrubs) needed by these species. For some of the mammals (bats), hollow trees should be maintained within the

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		stand. In forests that represent a High Conservation Value for bird species critically endangered, endangered or near threatened the habitat condition should be maintained through preservation of the undergrowth.

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Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that shall include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.2.3.3. Preliminary and Full Assessment

Preliminary assessment

Laws and documents that provide the necessary information for preliminary assessment are listed in column 3 of the table HCV 1.2.

Data provided by specialised literature, former assessments of biodiversity in the area, information provided by specialised education and research centres and specialised NGOs that confirm / deny the occurrence of the species are to be checked as well.

The presence of the species only designates HCV 1.2 if the species concentration is large enough to justify specific management measures.

Preliminary assessment begins with checking in the Appendixes 1A, 1B, 1 C the columns that show the species considered as significant for HCV 1.2 and the "Biotope" column, showing where the species occurs. If the forests within the management unit include the biotopes/ the specified forest types, they are considered potential HCVF 1 and a full assessment will be carried out.

To make the identification easier, in some cases geographical location is also provided.

Full assessment

If a forest is in a potential HCVF 1.2, a full assessment is required to find out whether the HCV 1.2 species actually occur. This may be done through biological surveys to determine the presence and the concentration of the species. Such a biological study usually requires specialist support, to be obtained from the institutions listed in Appendix 5. When species are easily identifiable, specialised support need to be provided for setting up the working methods and for the training of the staff. Next step is the identification followed by the mapping of the areas where the species occur. Concurrently with the preparations for the field stage, to determine the occurrence and concentration of the species, the monitoring programme should be designed.

An important aspect is the concentration of the species. There are situations when the mere occurrence of the species is sufficient for designating a HCVF, in the case of very rare species.

For other species, professional adequate support is needed to determine whether their concentrations justify the designation of a forest as HCVF.

2.2.4. HCV1.3: Endemic species

2.2.4.1. Rationale

Endemic species are those species confined to a particular geographic area. When this area is restricted, the species has a particular importance for conservation. For the identification of HCVF only those endemic species that occur exclusively in our country, on restricted areas, have been considered as significant.

Because it rarely happens that biological boundaries reflect political boundaries, some species are included whose range only partially reflects the area the standard applies to (*Peucedanum rochelianum* (Heuff.) is an endemic species, but occurring on both banks of the Danube, not only in Romania. However its range is extremely limited, therefore it is important to have it protected).

As for the fauna, the toolkit includes animal species that are endemic for Romania, omitting those that are regional endemics (e.g. *Zingel streber* occurs within the watershed of Danube and in the Dniester, while *Romanchthys valsanicola* only occurs in Valsan, a tributary of Arges stream). The

species designated as significant form the point of view of the HCV concept in Romania have a particular value from both science and conservation points of view. These species:

- are described only in Romanian fauna, or
- have phylogenetic significance, or
- are relicts, or
- have a very limited distribution range.

The other endemic species, (not included in Appendix 1) identified in Romania are included in the existent protected areas whose conservation value is defined within HCV1.1 category.
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2.2.4.2. Defining the HCV 1.3

HVC 1.3 Endemic species

Definition	Threshold	Recommendation for the identification, designation and management
Forests that represent habitats for the species listed in Appendix A2, B2 of this Guide for the HCVF identification	The **occurrence of the species** is the threshold for the species listed in Annex A2, B2,	**IDENTIFICATION:** ▪ List of National Endemics : Red Lists for plants, Fauna and Flora of Romania ▪ Maps according to WWF Global 200 Ecoregions, ▪ Map of the Conservation International 'hotspots' ▪ Endemic List (Ciocârlan 1988-90, Negrean et al 1989, Dihoru et. al 1994, Oltean et. al 1994, Boşcaiu et. al 1994) ▪ The Strategy for Biodiversity Conservation and the Action plan 1996 **MANAGEMENT:** The management of these forests should aim to ensure, by varied measures inclusive of strict protection, the conditions for the maintenance of these species, on a case by case basis. The specialists who identify these HCV shall recommend the most appropriate measures to be implemented according to the species requirements, their develpoment stage and abundance. When maintaining forest vegetation is needed to prevent invasion of other species, the silvicultural treatments will ensure the continuity of the forest cover through regeneration cuttings with shelter and long regeneration period (more than 20 years). Usually the intensity of such treatments will be low.

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Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that shall include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.2.4.3. Preliminary and Full Assessment

Preliminary assessment

For the preliminary assessment to identify HCV 1.3 the recommendations in Table HCV 1.3,column 3 shall be considered.

Appendixes 2A and 2B are lists that show the endemic species for Romania and give information on the habitats these species prefer.

Further sources of information:

- Maps showing the range of those species and species groups designated as HCV;
- Lists with the areas and habitats where the species are likely to occur;
- Specialised literature, former assessments of the biodiversity in the area, information provided by NGOs and landowners confirming or denying the presence of the designated species.

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Appendixes 2A and 2B show information on the situations when a forest is likely to contain HVC 1.3. In this respect the appendix columns showing species which may be designated as HVC 1.3 and their location (biotope or forest type) should be studied. If the forests within the management unit include the designated biotopes/forest types, they are potential HVCF.

Full assessment

When habitats that are likely to contain HCV 1.3 species have been identified, the forest manager will have to conduct a biological survey, under specialised assistance. Since the designation of the endemics requires specialised knowledge, contact with the institutions listed in Appendix 5 is recommended.

2.2.5. HCV 1.4: Critical temporal concentrations

2.2.5.1. Rationale

This element is designed to ensure the maintenance of important concentrations of species that use the forest only at certain times or at certain phases of their life cycle. It includes critical breeding sites, wintering sites, migration sites, migration routes or corridors. For instance resting sites during migration of large birds of prey (the Imperial eagle, *Aquila heliaca,* the lesser spotted eagle *Aquila pomarina,* the honey buzzard *Pernis apivorus* forests of hill level, in the vicinity of open hills in the main migration corridors. Hill forests with specimens of old trees that black stork, eagles or honey buzzards use.

We have considered all species referred to in the national and international legislation ratified in Romania which, at different stages of their development cycle, depend on the complex forest ecosystem (woodland including open forest, open spaces, rocks, peatland, water streams or standing waters).

2.2.5.2. Defining the HCV 1.4

HVC 1.4 Temporary critical concentrations

Definition	Threshold	Recommendations concerning the identification, designation and management
Forests that represent sheltering sites for species with critical concentrations at some stages of their life cycle.	The occurrence of a species is the threshold.	**IDENTIFICATION:** Appendixes 3.1, 3.2 of this guide. Specialised literature: Munteanu, D. (2001) *Polyglot Dictionary of Bird Species in Romanie*, Publications of the Romanian Ornithological Society, no. 14, Cluj Napoca Weber P. (ed.) 1994. *Provisory Atlas of Hatching Birds in Romania*. Publ. S.O.R. No. 2., Mediaş. Bibby C., M. Jones and S Marsden 1998. *Expedition Field Techniques. Bird Surveys.* Royal Geographical Society, London. Cramp, S. I. 1988. *Handbook of the birds of Europe, the Middle East and North Africa: the birds of the Western Palearctic. Vol.1-6.* Oxford University Press Furness, R.W. and J.J.D. Greenwood 1993. *Birds as Monitors of Environmental Change.* Chapmann&Hall, London. Hagemijer E.J.M. and M.J. Blair (eds.). 1997. *The EBCC Atlas of European Breeding Birds: Their Distribution and Abundance*. T&A Poyser, London. Lefranc N. and T. Worfolk 1997. *Shrikes A Guide to the Shrikes of the World*, Pica Press, Sussex. Tucker G. and Heath M. F. 1994. *Birds of Europe: Their Conservation Status*. BirdLife International, BirdLife Conservation Series No. (3.), Cambridge. **MANAGEMENT:** Ensure calmness during nesting in those areas where concentrations of the colony birds listed in the appendix have been identified (January - August) Maintenance of hollow trees within the tree stand, when they shelter nests of designated bird species Promotion of a large variety of species and ages in stand Clearcutting the entire forest stands will be avoided. The proposed management guidelines will create a mozaic of age classes to ensure the continuity of forest vegetation.

		Providing a protective area of 150 m around the trees sheltering the nests of critically endangered bids according to the Red List (see Annex 3.2, column 10)

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Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.¶

2.2.5.3. Preliminary and Full Assessment

Preliminary assessment

The preliminary assessment should include maps or other information that delineate areas within the country that are or that potentially contain critical breeding sites, migration sites, migration routes or corridors (latitudinal as well as altitudinal) or that contain important seasonal concentrations of species.

Significant information is also provided by:

- Publications of SOR (Romanian Ornithological Society) -(e.g. magazine ALCEDO of SOR)
- Bird Life publications
- Observations made by the managers of hunting grounds

The results of former biodiversity assessments will have to be considered during the preliminary assessment too.

Appendixes 3.1 and 3.2 include the lists of species relevant for Romania, and the occurrence of such species may indicate potential HCVF 1.4

Full assessment

The full assessment will be conducted if, following the preliminary assessment, forest areas have been identified as potential migration corridors or critical concentration/breeding sites of the species mentioned in appendixes 3.1 and 3.2.

The full assessment will be conducted with specialists' assistance, and the institutions listed In Appendix 5 will be contacted.

2.3. HCV2 Globally, regionally or nationally significant large landscape level forests where populations of naturally occurring species exist in natural patterns of distribution and abundance.

2.3.1. Introduction

This part of the HCVF definition aims to identify those forests that contain viable populations of most if not all naturally occurring species. It often also includes forests that contain important sub-populations of very wide-ranging species. It includes forests where ecological processes (e.g. natural disturbance regimes, forest succession, species distributions and abundance) are wholly or relatively unaffected by recent anthropogenic activities. Such forests are necessarily large and will be less affected by recent human activities than other forests within the region. Such forests are increasingly rare and continue to be threatened throughout the world, through processes such as deforestation, forest fragmentation and degradation.

It is also worth emphasising that the forest considered under HCV2 is not necessarily confined to a particular administrative unit (e.g. forest management unit or forest district). This is because several contiguous administrative units of forestland may together form a significant large landscape level forest. An individual forest management unit can be a HCVF under HCV2 if it is whole or part of a significant large landscape level forest.

2.3.2. Rationale

As discussed above, forests that contain viable populations of most or all native species, are large in size, and relatively unaffected by recent human disturbance and fragmentation may be defined as HCV2.

HCV2 include compact forest areas that mainly include natural forests that show a special biodiversity potential. The term "natural forests" is to be understood according the definition in the "Terminology" table, at page 5, " forests over 120 years old, with consistency higher or equal to 0.7, having a natural composition and a diversified structure (with age variation of over 30 years and/or dimension variation, even if altered through management).

HCV 2 may cover forests not included in any protected areas, therefore having no protection regime, as well as forests within national and nature parks that meet the criteria defined in this chapter and are not included in any other HCV categories.

2.3.3. Defining the HCV 2

HCV 2 Globally, regionally or nationally significant large landscape level forests where populations of naturally occurring species exist in natural patterns of distribution and abundance.

Definition	Threshold	Recommendations concerning identification, designation and management
Compact forest areas that maintain the features of the natural forest ecosystems. **2.2** Compact forest areas of minimum 7000 ha within the same basin that maintain the features of the natural forest ecosystems.	Landscapes of over 10 000 ha in which at least 7,000 ha are covered by forest area and artificial forests cover less than 20% of the total area Note: HVC shall be delineated at national or sub-national level	**IDENTIFICATION:** - Law no. 5/2000, Section 3 - Protected Areas - Government Decision no. 230/2003 - MAPAM Order 552/2003 - Law no. 462/2001 - Forest Management Plans - Legal documents of the designation of the nature reserves and nature monuments - Results of professional surveys **MANAGEMENT:** Appropriate operations and technologies are recommended to preserve the forest features (TII, TIII and TIV, according to Technical Regulations, 1986) to ensure, among other things: - preservation of the forest integrity; - promotion of natural forest types; - maintenance of the integrity of the species that are significant for the preservation of the natural ecosystems; Such forests are usually included under forest functinal categories of high intensity which recommend special management measures to maintain and enhance their function. Clearcuts will be forbidden. Silvicultural treatmens ensuring regeneration under shelter and a diverse stand structure are recommended. According to the ecological requirements of the tree species, the developmental stage and site

		stands can be managend for diverse structures (horizontal and vertical) Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.3.4. Preliminary and Full Assessment

Preliminary assessment

The preliminary assessment is based on the study of the legislation and documentation listed in the Table HCV 2, column 3. maps of the legally designated protected areas shall be considered as well.

The preliminary assessment will also consider the area size threshold, which automatically excludes from this category the forests that are not compact and those with areas smaller than 500 hectares at the hill level and 1000 ha at the mountain level.

Full assessment

Typically, if the primary assessment shows that the management units cover the areas mentioned in table 2 there is no need for full assessment, as these forests are considered HCVF.

2.4. HCV3. Forest areas that are in or contain rare, threatened or endangered ecosystems

2.4.1. Introduction

Some ecosystems are rare due to the limitations imposed by the climatic or geological conditions necessary for their development.

Other ecosystems have become rare through human activities such as the conversion of natural ecosystems into cultivated or other land use. It often occurs that such ecosystems are the most threatened by continued human activity.

This value is designed to ensure that threatened or endangered forest ecosystems are preserved on long term. Such ecosystems include forest types that were previously widespread or some rare associations of species even when the constituent species may be widespread and secure. They include:

- Associations (intact or not) that have always been rare
- Intact ecosystems that are now rare or greatly reduced even if previously widespread or typical of the region.
- Forests ecosystems, even if heavily disturbed or degraded, which are now rare or greatly reduced.

In these cases, the HCV is the rare ecosystem itself, which may be all or part of the any particular forest. Native forest ecosystems or species assemblages that are characteristic of a region but are not rare or endangered should not be considered HCVFs under this part of the definition.

All species referred to in the national and international legislation ratified in Romania, dependant on the complex forest ecosystem (woodland that includes open forest, rocky areas, peatland and bodies of water), have been considered In the designation of this HCV.

If species of such categories occur in several locations, a forest area will be considered HCV only if several such elements occur within. (See HCV 3 table).

2.4.2. Defining the HCV 3

HCV 3 - Forest areas within or containing rare, threatened or endangered ecosystems

Definition	Threshold	Recommendations concerning identification, designation and management
A. ASSEMBLAGES OF FOREST ECOSYSTEMS AND OTHER ECOSYSTEMS INCLUDED IN THE FOREST ENVIRONMENT		
A1 Forest and shrub ecosystems typical at a regional level	Forest sub-compartments and groups of forest sub-compartments	**IDENTIFICATION** See Appendix 4 and recommendations for the preliminary and full assessment (2.4.2) **MANAGEMENT**: - conservation operations in order to preserve the designated complexes - strict restriction of all harvest operations that might impact upon the swamps, rocks, steppe pockets
A2 Assemblages of forest ecosystems, low-density forests and peatland,		
A3 Assemblages of forest ecosystems and low-density forests on rocks and/or scree		
A4 Assemblages of low-density forests and shrubs at sub-alpine level.		
A5 Assemblages of forest ecosystems and low-density forests in forest-steppe with at least natural composition of the stand, including the steppe vegetation pockets within	Forest sub-compartments. For particular cases when a rare ecosystem is not delineated inside of a forest sub-compartment, the ecosystem should be used as threshold (and delineated correspondingly)	
A6 Assemblages of forests, low-density forests and psammophile vegetation, grassy and shrubby, on continental sands		
A7 Assemblages of forests and low-density forest and grassy psammophile vegetation on marine sands		
B. RARE, RELICT, THREATENED OR ENDANGERED FOREST ECOSYSTEMS		
B1 Rare forest ecosystem	Forest sub-compartments	**MANAGEMENT**: - strict protection;
B2 Relict forest ecosystem	Forest sub-compartments	

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B3 Forest ecosystem endangered by human activity		Forest sub-compartment stripes along streams, according to case	- adequate operations may be carried out if necessary to ensure stability and maintenance of such ecosystems (ex. conservation operations).
B4 Forest ecosystems of upper altitude limit level		The forest sub-compartments including such ecosystems	
C. NATURAL FOREST ECOSYSTEMS WITH HIGH COMPOSITIONAL AND STRUCTURAL COMPLEXITY			
C1 Frequent forest ecosystems with very high biodiversity		Samples of such ecosystems with at least 5 tree species in stand composition and covering atr least one forest sub-compartment Participation of secondary species should be maximum 30%.	**MANAGEMENT**: -silvicultural measures to conserve the entire biodiversity relative to the ecology of the component species - The use of silvicultural treatments using openings to provide favorable conditions for regeneration and seedling development are recommended. Length of the regeneration period and timing of cuttings will be correlated to the need for irregular and diversified stand structures. - interdiction of any changes applied on the biotope of such ecosystems
D. PRIMARY AND SECONDARY FOREST ECOSYSTEM			
D.1 forest ecosystems of low-density forests and bushes with primary and secondary character as defined by the PINMATRA project.	All types of forest ecosystems, low-density forests and bushes included in the parcels set by the PINMATRA project.	Forest sub-compartment (or areas of minimum 10 ha covered by such forests). For particular cases when a rare ecosystem is not delineated inside of a forest sub-compartment, the ecosystem should be used as threshold (and delineated correspondingly).	Strict interdiction of any type of operations or human and livestock access.

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2.4.3. Preliminary and Full Assessment

Preliminary assessment

For the preliminary assessment it might be necessary to study:

- Types of Forest Ecosystems in Romania, 1990, MAPM, ICAS
- Law 462/2001
- Habitat Directive
- Other lists and descriptions of the rare natural ecosystems

In Table 3 and Appendix 4, check of the columns that indicate the ecosystem types and specified thresholds (Columns 1 and 2). In case the management unit contains such ecosystems, it is likely to be a potential HCVF 3.

Full assessment

When types of ecosystems specified in Table 3 are identified in other areas than those enumerated in the "location" column of Appendix 4, professional help will be required. For clarification, thresholds defined in the table and Appendix 4 will be used (all forest habitats containing old trees with a diameter larger than 80 cm, whatever their health condition is, may be considered as HCVF. A forest area of minimum 1 hectare size shall be designated HCVF if it contains at least one tree of more that 80-cm diameter; for two or more such trees, areas of minimum 5 hectares are to be designated as HCVFs.

2.5. HCV4. Forest areas that provide basic services in critical situations (e.g. watershed protection, erosion control).

2.5.1. Introduction

All forests provide some services, such as watershed protection, stream flow regulation or erosion control and these services should always be maintained under good management. In some cases the failure in these services may have a serious catastrophic or cumulative impact. For example, a forest that forms a large proportion of the catchment area of a river that has a high risk of damaging and destructive flooding downstream may be critical in preventing flooding and would be considered a HCV. It is such type of situations that HCV4 attempts to identify.

Since there is a range of distinct ecosystem services, this value has been sub-divided into three elements, as follows:

2.5.2. HCV4.1 Unique sources of drinking water and forests of critical significance for watersheds and water catchment

2.5.2.1. Rationale

Forests play an important role in preventing flooding, controlling stream flow regulation, water quality and protection of water supplies for people or communities who have no alternative sources of drinking water. Where a forest area constitutes a large proportion of an important water catchment, its role in maintaining the water quality and quantity and in providing the other services described above is critical and it may be seen as a HCVF.

2.5.2.2. Defining the HCV 4.1

Definition	Threshold	Recommendations concerning identification, designation and management
HVC 4.1 Forests that ensure the protection of the unique sources of drinking water and forests of critical significance for watersheds and water catchments The following areas and forests of the national forest fund are designated as HCV 4.1: a) forests within the protection area of water sources, ore and mineral drinking water sources, which represent the unique sources of drinking water for the local communities. b) forests standing on the valley sides of natural and artificial lakes c) forests within watersheds or areas with excessive alluvial transport d) Forests protecting water catchments and irrigation systems in the steppe and forest-steppe areas, forests in the inland floodplain along the streams that cross the southern part of the country where desertification processes have begun and in the Danube floodplain.	a) They are the unique sources of drinking water for the communities in the area b) The main destination of the natural or storage lakes is to provide drinking water for the communities in the areas (villages, towns) c) the distance to the human settlements or tourist resorts is less than 5 km (are located in the close vicinity of such settlements).	**IDENTIFICATION**: - forest management plans and maps; - data in SGA MANAGEMENT: Management plans will include considerations regarding the connectivity with the surrounding landscape. For all forests designated as HVC 4.1 a), TII - conservation operations are recommended. For category HVC 4.1 b), c), TIII – treatment with long-time regeneration are recommended. Forests that are not under the above mentioned function types and which, according to the definition, are designated as HVC 4.1 d) shall be managed according to TIII and TIV function type. The management plans should include certain guidelines referring to the connectivity of such forests with the landscape. These forests are assigned to a protection functional category. Therefore, they need adequate management

		measures in order to provide the protection functions attributed. It is very important to maintain their optimal structures for erosion and hidrological control. Highly diverse stand structures (age and vertical profile) are the most efficient. It is important to maintain an optimal stand density and the good quality of the understory and forest litter. Clearcuts (especially on large areas) should be avoided. Silvicultural treatments promoting regeneration under shelter are recommended. Conservation cutings and unevenaged silvicultural cuttings are the most effective. Among the even aged methods, irregular shelterwood (group shelterwood with a regeneration period longer than 20 yr) could also be used.

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2.5.2.3. Preliminary and Full Assessment

Preliminary assessment

Requires the study of:

- provisions in the forest management plans;
- landscape planning maps;
- other plans and documentation (SGA, RENEL) where the case is.

It is also important to have consultations with the local communities.

It will be checked if the forests within the forest management unit are under the function categories in the second column of Table 4.1, in which case they are designated as HCVF.

Full assessment

Those forests identified through the primary assessment as HCVF do not require a full assessment.

2.5.3. HCV4.2 Forests critical to erosion control

2.5.3.1. Rationale

Forests are often important in maintaining land stability, including control of erosion, landslides and avalanches. When the forest is critical to erosion control, it should be designated HCVF in relation to some factors as degree of slopes, soil types etc.

2.5.3.2. Defining the HCV 4.2

Definition	Threshold	Recommendations on identification, constitution and management
HCV 4.2. Forests critical to erosion control The following areas and forests within the national forest fund are designated as HCV 4.2: a) forests on rocky land, scree, terrain with depth erosion and active landslides, or on slopes with high inclination, hydro-technical works included b) forest vegetation close to avalanche corridors as well as *Pinus mugo* covered areas c) forests on consolidated sands therefore under 1.2g function category d) forest plantations in degraded soil, therefore under 1.2e function category	a) threshold is set if the following conditions are met: the degree of the slope is 40º on any lithological bedrock, 35 on flysch bedrock and 30 on sand and gravel bedrock b) forests within minimum 100 m around them c) d) the whole area of such forests	**MANAGEMENT:** Maintaining forest vegetaion cover is a priority for such ecosystems. Management measures will adapt to ecological species requirements and ecosystem status.

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Forests defined as HCV 4.2 a), b), d) – T II – specific conservation operations¶
Forests defined as HCV 4.2 c) – T III – long-term regeneration treatments ¶
Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.5.3.3. Preliminary and Full Assessment

Preliminary assessment

Requires the study of:

- provisions of forest management plans;
- landscape planning maps;

Consultation of local communities is also very important.

Check to see if the forests within the forest management unit meet the criteria for the function categories in column 2 of Table 4.2, in which case the forests can be designated as HCVF.

Full assessment

No full assessment is necessary in the case of forests identified through the preliminary assessment as HCVF.

2.5.4. HCV4.3 Forest areas with critical impact on agriculture or fisheries

2.5.4.1. Rationale

The importance forests have in maintaining the microclimate is already well known. Where forest areas are close to agricultural land, these effects can sometimes be critical to maintaining agricultural production. The effect of forest on maintaining agricultural production will vary according to climate and topography, spatial configuration of agricultural land and forest as well as crop types. In addition to maintaining the microclimate, some forests are critical to maintaining the quality of the water, as already mentioned with HCV 4.1.

2.5.4.2. Defining the HCV 4.3

Definition	Threshold	Recommendations on identification, constitution and management
HVC 4.3 Forest areas with critical effect upon agriculture and fisheries Terrain or forest areas within national forest fund in the following function categories are designated as HVC 4.3: a) forest strips consisting in a row of parcels around retention basins of ponds, therefore under the function category 1.3d b) forest belts for protection of agricultural land under the function category 1.3e c) forests protecting water sources providing water for trout farms and the forests on the valley sides of trout farms, under function category 1.1h	a) threshold represented by the constitution of a parcel line around retention basins b) minimal area 0.25 ha c) threshold represented by the constitution of a parcel line around retention basins	**MANAGEMENT:** Conservation cuttings are the most effective as maintaining forest vegetaion cover is a priority for such ecosystems. Management measures will adapt to ecological species requirements and ecosystem status.

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For protection forest curtains: TII¶
Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.5.4.3. Preliminary and Full Assessment

Preliminary assessment

Information related to the identification of the forests having critical effect on the agricultural terrain or fisheries is obtained through the study of the forest management and landscape planning maps. Consultation of local communities and agronomy specialists in the area may also play an important role.

If the forests within the management unit are under the function categories in column 2 of Table 4.3, then they may be designated as HCVF.

Full assessment

The forests identified by the preliminary assessment as meeting the criteria in Table 4.3 are designated as HCVF and full assessment is not necessary.

2.6. HCV5. Forest areas fundamental to meeting the basic needs of local communities (e.g. subsistence, health).

2.6.1. Introduction

The definition of the HCVFs underlines that some forests are essential to human well-being, not only for forest-dependent communities, but also for any communities that get substantial and irreplaceable amounts of income, food or other benefits from the forest. However, HCVs do not relate to excessive extraction, even when communities are currently economically dependent on it. Nor do they include the excessive application of traditional practices, when these are degrading or destroying the forests and the other values present in the forest.

A forest may have HCV status if local communities obtain essential fuel, food, fodder, medicines, or building materials from the forest, without readily available alternatives. In such cases, the High Conservation Value is specifically identified as one or more of these basic needs.

The following would not be considered HCVs:

- Forests providing resources that are useful but not fundamental to local communities (e.g. a forest where people go for recreational hunting will not be designated as HCVF);
- Forests that provide resources that could readily be obtained elsewhere or that could be replaced by substitutes.

2.6.2. Rationale

This HCV is different from the biological and environmental HCVs because its identification requires consultation at local level.

Forests can supply a large range of basic needs that can not be strictly prioritised according to their significance. Consequently the various elements of this HCV are treated together, since the fundamental aspects are the same, whether the value in question is food, fuel, construction materials, medicine etc.

2.6.3. Defining the HCV5

HVC 5. Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health)

Definition	Threshold	Recommendations on identification, constitution and management
Forests containing HVC5 are the forests that meet the basic needs of rural communities for which no alternative is available, such as: - house heating energy; - Wood or other forest products needed for traditional activities and crafts.	The threshold is set if the following conditions are met: - More than 50 % of the population's income has its source in wood and/or other forest products - the public roads are not accessible all year round (Isolation of the community at some times of the year) - the forest area is less than 500 ha and represents the only forested area within 20 km around the locality	**IDENTIFICATION**: Based on the following documents - landscape planning maps (point 1); - forest management plans (point 2); - records of local authorities (pct. 4). - consultation of communities (including structured surveys) - consultation of NGOs (ex. FRDS) **DESIGNATION**: If no alternatives are available or the alternatives are economically inaccessible the high conservation value 5 is confirmed. If alternatives exists or the basic needs met through the forest resources is seasonal or complementary, the high conservation value 5 is not confirmed. **MANAGEMENT**: 1. Economic Tools a. allocation of a percentage of the wood availability (set through the management plan) for the local community (if accepted by the owner – in case there is a private owner). b. encouraging the forest owners to associate for unique forest management c. adjusting the canton areas to the economic pressure over the forest d. forest agriculture in the private land fund (forest shelter belts) 2. Forest Management Solutions - sustainable management of high forests to be able to provide a continuous timber flow to local communities dependent on this resource.

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		b. maintain the use of coppice in stands of black locust (or other tree species) surrounding local communities dependent on this resource. c. improving stand structure through improving stand density and species composition. imbunatatirea structurii actualelor paduri prin ameliorarea compozitiei si consistentei d. ecological restoration of degraded forests surrounding local communities. e. increasing the area of forests surrounding local communities through identifying non-forest lands and plant with species adapted to short production cycles (rotations).

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2.6.4. Preliminary and Full Assessment

Preliminary assessment

The preliminary assessment shall observe the identification recommendations in the 3rd column of HVC 5 Table.

Full assessment

The full assessment of this HCV will always require the consultation of the local community and forest managers. When the communities that use the forest resources have been identified, the full assessment will decide if the forest is fundamental in meeting any of the community basic needs.

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The need for forest resources and especially the dependence upon those, is well-known at local level by forest managers and local administration representatives. In most of the cases presence of HCV5 can be identified through consulting these two stakeholders.

If public consultation of community members is needed, the following steps are recommended:

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a) Consultation guide

b) Analysis of the consultation output

a) Consultation guide

1. Where do you acquire the firewood?

- from the forests in the vicinity of the locality (name of the forest under assessment)…….. (%)

- from other forests ……. (%)

2. Where do you acquire the wood for woodworking?

- from the forests in the vicinity of the locality (name of the forest under assessment)…….. (%)

- from other woods ……. (%)

3. What amount of wood do you annually acquire?

- wood for fire …… cube metres

- wood for work …. cube metres

4. Do you process and commercialise wood products for your income *every year*?

- Yes / No

5. Do these represent your main income source?

- Yes / No

6. Do you collect and commercialise non-timber forest products for your income *every year*?

- Yes / No

7. Is this your main income source?

- Yes / No

8. Do you think you may use alternative sources such as sawdust, methane gas, etc in the future?

- Yes / No

9. What other sources of income could you find?

b) Analysis of the consultation results

In case there are no alternatives available, or the available alternatives are economically inaccessible, the high conservation value 5 is confirmed.

When alternatives exist or the basic needs covered by the forest resources are seasonal or complementary, the high conservation value 5 is not confirmed.

Obviously, if the forest is very small then it will not be appropriate to undertake a major consultation process. Attempts will be made to demonstrate at which extent the specific forest is fundamental for meeting the basic needs of that community.

Recommendations for management are shown in Table 5. There are as well a series of adjacent measures that not only address those directly involved in the forest management but also other factors - local authorities, ITRSC, Environment Guard, etc.

- Promotion of economic, forest and ecological education
- Encouraging the efficient use of forest waste and sawdust (e.g. briquetting)
- Encouraging the traditional trade between communities for a sensible use of resources (e.g. exchange agricultural products for wood)
- Stimulation of local association to avoid the need for dealers in selling the local forest products.

Example: there are cases when private owners want to use the oak tree for fire or do not take into account the negative effects of grazing inside the forest or the negative effect of exaggerate collection of non-timber forest products. Such cases should be addressed through economical, forest and ecological education among other measures.

2.7. HCV6. Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance related to such local communities).

2.7.1. Introduction

As well as being essential for subsistence and survival, forests can be critical to societies and communities for their cultural identity. This value is designed to protect the traditional culture of local communities where the forest is critical to their identity, thereby helping to maintain the cultural integrity of the community.

A forest may be designated a HCVF if it contains or provides values in the absence of which a local community would suffer a drastic cultural change and for which the community has no alternative.

2.7.2. Rationale

The various components of this HCV are dealt with together, because the basic issues, which include defining what constitutes 'critical', will be the same whether the value in question is cultural, religious etc.

As with the HCV5, identifying HCV6 will require a process of consultation. That means that preliminary assessment can be used to identify where the value is likely to occur, but a full assessment to determine whether it actually is present will always require consultation at a local level.

2.7.3. Defining the HCV 6

HVC 6. Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance in co-operation with such local communities)

Definition	Threshold	Recommendations on identification, constitution and management
Forests containing HVC 6 are the forests with significant value in maintaining the cultural identity of a community or area: 1. Forests related to local customs and ritual celebrations traditionally carried out within the forest area; 2. (Semi) natural forests standing in the vicinity of historical monuments or religious communities (monasteries) which are declared historical and/or cultural monuments or close to pilgrimage sites.	1. Forest strip consisting of full parcels of at least 50-m width, surrounding the site where customs and ritual celebrations are performed. 2. Forest strip consisting of full parcels of 100 m width, surrounding the cult sites and historical monuments 3. Compact body of forest of definite cultural value for the local community, value that has been transmitted through legends and literary or art works that are now part of the national culture heritage identified as such through legal documents.	**IDENTIFICATION**: Based on the following documents and work procedures: - Ethnographic monographs (point 1) - Database of the Ministry of Culture and Cults (point 2) - Consultation with communities - List of Protected Areas in Law no. 5/2000 (Appendix 5). - ITRSC list of owners of private or community forests - Forest management plans **DESIGNATION**: Consideration of the data sources. Checking of the "locality name" fields in the two databases: the list of private or community forest owners of ITRSC and list of cult sites and historical monuments Actual delineation in nature. **MANAGEMENT**: Maintenance of the forest through conservation cuttings within the area of interest (the forest itself or the forest nearby the objectives of cultural and religious value) and silvicultural treatments promoting natural regeneration for the stands surrounding the area of interest.

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Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

2.7.4. Preliminary and Full Assessment

Preliminary assessment

For the identification of HCV 6 the data sources shown in the 3rd column of the Table HCV 6 shall be used.

Required steps:

- study of data sources
- checking of the "locality name" fields in the two databases: the list of private or community forest owners of ITRSC and list of cult sites and historical monuments.

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Full assessment

Data sources:

- Public consultation of community members.
- Forest management plans and maps (pct. 3).

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Steps:

- Public consultation of community members.
- Delineation in the field.

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All stakeholders must be consulted whether the forest has HCV6 or not. This should be a participatory process, the following methods being recommended:

- participatory mapping: prepare a large map of the forest owned by that group; give everyone cards or post-it notes and ask them to choose places in the forest that are important to them, and write on the card / note what that importance is, then attach it to the map;
- brainstorming: ask the group to call out what is important to them in their forest, list all the comments (without criticising or praising any of them) on a poster, invite the group to discuss whether those values are being met
- ranking or clustering: the values listed through mapping or brainstorming can be grouped or ranked. For example, participants might decide that some values are being met through current management practice, and they can be grouped in one cluster; while other values are more threatened and need special attention, and they can be grouped in another cluster.

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Forest management then needs to demonstrate that it is taking account of these values.

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3. Management and monitoring of the High Conservation Values Forests

The identification of High Conservation Values is a significant process for all end users, but the forest managers are the ones to focus on the management aspects, to make sure that all identified values within the management units are being maintained or improved. These processes also need to be integrated in a monitoring programme to see the development in time of the forest condition and check if the values are adequately managed.

It is therefore necessary that the management plan should include specific measures appropriately designed, adequately carried out, and easily accessible, when requested by stakeholders.

At this stage the key idea is that the maintenance or enhancement of **each specific HCV** that has been identified should represent the clear and demonstrable aim of the forest management. For some of the values, the whole management unit will be designated. For some others, parts within the management unit will be delineated and their size and location will vary according to the specific conservation requirements.

Examples:

1. If the management unit contains an endangered ecosystem defined as high conservation value, such an ecosystem is usually confined to a specific geological formation within the unit. In such cases only that part of the management unit containing the defined ecosystem will be designated as high conservation value forest.

2. When the management unit contains endangered mammals, including predators and ungulates defined as high conservation values, these animals are usually spread on the whole area of the unit. In such a case the whole forest management unit will be designated as high conservation value forest.

In all situations, the general applicable aspects of HCV management should:

- Always be based on the precautionary approach when taking decisions, to minimise the risk that any irreversible damage is done to these critical values.
- Always be part of a management process that is adaptive with regard to planning, implementing, monitoring the effects and where necessary re-planning on the basis of the analysis of the monitoring results.

Typically, the HCVF management process that any forest manager should go through is:

- **Identify all HCVs** and record this in the management planning documents, wherever possible mapping or otherwise delineating their location and extent.
- Collate/compile all relevant, available **baseline information** for each identified HCV, including:
  - relevant legislative requirements concerning the presence of high conservation values (including both national legislation and international conventions),
  - current status, trends and threats to the high conservation values identified within the management unit;
  - Known effects of the current forest management on the HCVs.

- Detail the **management regime** for each HCV. The management regime must have as objective the maintenance or enhancement of the HCV within the defined HCVF area. In case one forest shows several HCVs of different categories, the most restrictive management recommendations shall be applied.

- **Integrate** HCVF management process into the broader forest management process.

- **Training** of all operators with regard to the understanding, monitoring and adequate management of HCVFs.

Monitoring HCVs is an essential part of any management process. In the case of high conservation value forests, the main purpose of monitoring is to establish whether or not the identified HCVs within the forest are being maintained or enhanced. Monitoring allows the forest managers to check whether the management is working properly and, at the same time offers the information needed to operate changes of the management process in order to obtain the expected results. It is through monitoring that any change at the level of HCVs can be detected and its causes identified.

When designing a monitoring programme one should take consider the following:

1. setting of the monitoring indicators;

2. development of the monitoring programme;

3. analysis of the monitoring results;

4. setting the management measures based on the output of the information analysis;

5. implementation of the management measures decided upon.

Examples of monitoring indicators:

- Wildlife populations, such as the number of migratory bird species that use (temporarily) a particular lake each year;

- Social issues, such as the income local people derive from collecting non-timber forest products.

- Water quality, soil erosion, natural forest regeneration etc.

Typically, the indicators should be easily measurable, should not require large human resources and material, and should be relevant (giving information on the HVC changes).

It is also necessary to decide upon how often the indicators should be measured and how the monitoring data are collected, reported and analysed.

A minimal set of general guidance on the management of each HCVF category is provided within each chapter.

When designing the management measures, i.e. when designing the management plan, it is important to take into account the presence of the HCVF and to make specific recommendations for each particular type, according to the HCV category they are under. In order to make the appropriate recommendations concerning the HCVF management, specific directions (e.g. technical regulations in forest management for HCV1.1, HCV 2, HCV 4), the needs of the species or associations of species (HCV 1.2, HCV 1.3, HCV 3) or the social role of the forest shall be taken into account.

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Development and implementation of a plan for monitoring the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.

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Development and implementation of a monitoring plan for the development of the HCV within the HCVF, plan that should include the mechanisms for the analysis of the monitoring results on which the specific management measures to be set and implemented are based.