

An aerial photograph of a vast, dense forest covering a mountain slope. The trees are a mix of green and dark green, with some rocky outcrops visible. The background shows more forested hills under a slightly hazy sky.

**Favourable conservation status of forest habitat types
and forest dependent species
from the EU nature conservation directives
– the Slovenian perspective**

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Until the date of accession (1 May 2004)

Slovenia is committed to:

- Demonstrate full compliance with the wild birds directive, including the designation of special protected areas (SPA)
- Submit proposal of the Sites of Community Interest (pSCI), which will form together with the SPA the Slovenian proposal for the Natura 2000 network
- On SPA and pSCI sites undertake measures to preserve the sites from such disturbances, which could endanger the favourable conservation status of the habitats and species for which the sites were established
- After the Special Areas of Conservation are designated and Natura 2000 network fully established, necessary conservation measures will have to be taken in order to maintain or restore the natural habitat types and species at a favourable conservation status

At the moment crucial phase of finalising the proposal for SPA and for pSCI

- The criteria used for selection of the sites will have important impact on the indicators for assessing the favourable conservation status.
- The method used in drawing up the sites is inductive (every habitat type and species is examined).
- The work was entrusted to the teams of experts for different taxonomic groups.
- For each of these groups and even for most of the species a separate GIS coverage was prepared and explained as a proposal for the site.
- For birds, coverage was made 3 years ago (Birdlife International) and recently only slightly changed.
- In expectation of a vivid process of integration, taking advantage of synergistic effects, reasonable shrinking of the areas possible.

Ecological requirements > Favourable conservation status

- The ecological requirements of natural habitat types and species involve all the ecological needs necessary to ensure their favourable conservation status (EC, 2000).
- Collecting data on ecological requirements of each of the species, as well as of the habitat types is an important parallel activity.
- Ecological niches of many species and even communities not sufficiently known:
 - importance of international exchange via Internet
 - indirect (ecosystem) approach
- The needs of a habitat type or a species can only be covered within an ecosystem with specific structure and functions that have to be maintained through time.

Slovenian forest richness

- The forests in Slovenia are of particular ecological importance - they cover 60% of the country territory and are very diverse.
- Natural forest communities and the forest structure are relatively well preserved due to:
 - distinguished foresters in the 19th century, who promoted selection forest practices and ‘a control method’
 - the conservative farmers’ forestry tradition
 - development of close-to-nature forestry practice in recent decades
- Cornerstones of Slovenian forest legislation, beneficial to maintaining ‘favourable conservation status’:
 - multifunctionality: balancing ecological, economic and social functions
 - close-to-nature (ecosystem) management: ‘forest management should strive towards conservation and reestablishment of natural composition of forest living communities’ (Forest Act, 1993)
 - management plans are prerequisite for all interventions in forests

Forest management planning

- For all forests on three levels: regional, management unit, operational
- Contents of regional and management unit plans:
 - classification of forests into management classes based on natural characteristics (well described from 1970 onwards)
 - analysis of the status of the forest compared to the last measurement/assessment
 - analysis of the past management and other events
 - prognosis of the natural development of the forest (learning also from forest nature reserves)
 - setting goals (describing structure and function of the forest in defined future)
 - setting guidelines (specific actions to be taken, e.g. in favour of conserving a species) and measures (figures on maximum allowable cut and silvicultural activities)
- The plans are based on digital ortho photos and permanent sample plots (monitoring) - normally 250 by 250 metres

Selecting corresponding forests for pSCI on the bases of forest management classes

- A forest management class represents forests of similar potential vegetation with similar structure and development trends, for which it is convenient to set a common management goal according to various forest functions. On the regional level they comprise from some tens to several thousand hectares.
- Forest management classes and data from compartments were used, respecting the following criteria (order is important):
 - concordance of the forest communities with descriptions in the manual
 - priority status and representativity
 - conservation status – management classes where a non-indigenous species to the site represented more than 30% in the growing stock were excluded
 - forests of larger complexes were advantageous
 - forests that represent habitats of annex II species were more likely included
 - socio-economic factors, such as the existence of a protected area, absence of roads or state ownership were also taken into account

General guidelines for maintaining favourable conservation status of forests

Management guidelines should reflect a general idea of keeping the forest as close to climax structures as possible, taking into account economic and social functions. Typical guidelines are:

- in a tree species composition the presence of non-indigenous species should be limited to a certain proportion (in any case not more than 30%)
- natural regeneration (preferable under canopies) should be enabled also through control of the ungulates
- only small to moderate gaps should be used when regenerating forests, mimicking natural disturbances
- relatively large average growing stock should be maintained within the economic feasibility wherever possible (production period over 120 years)
- eco-cells or small key habitats of dead trees of different size should be established and maintained at a certain general level
- man-induced forest fire should be prevented
- a small proportion of the habitat type on national level (e.g. 1%) should be left to natural development (forest reserves) as model natural forests

To clear any forest for other land uses a special permit is required.

Special guidelines for habitat types

Extreme sites, no use, protection and biodiversity function, measures against fire (small and/or dispersed areas):

4070 * Bushes with *Pinus mugo* and *Rhododendron hirsutum*

91D0 * Bog woodland

91R0 Dinaric dolomite Scots pine forests (*Genisto januensis-Pinetum*)

9530 * (Sub-) Mediterranean pine forests with endemic black pines

Very special guidelines needed in relation to the site and possible threats:

91E0 * Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

9180 * *Tilio-Acerion* forests on slopes, screes and ravines

9410 Acidophilous *Picea* forests of the montane to alpine levels (*Vaccinio-Piceetea*)

General guidelines in the context of ‘close-to-nature’ and ‘multifunctional’ management:

9110 *Luzulo-Fagetum* beech forests

91L0 Illyrian *Fagus sylvatica* forests (*Aremonio-Fagion*)

91K0 Illyrian oak-hornbeam forests (*Erytronio-Carpinion*)

Special guidelines for habitats of the forest species

In general forest dependant species can be classified into species that require forest structures:

- as are required for maintaining favourable conservation status of the forest habitat type in general (close-to-nature forestry) - most of the species, e.g. *Rosalia alpina*
- closer to primeval forests (K-species) - e.g. *Dendrocopos leucotos*, *Ficedula parva*, *Rhysodes sulcatus* ...
- closer to succession stages (e.g. *Bonasa bonasia*, *Callimorpha quadripunctaria* and other butterflies ...)

Special guidelines for preservation of wetlands (water courses) in the forest (e.g. *Rana latastei*, *Bombina variegata*, *Cordulegaster heros*)

Species that require solitary dead or weakened trees as special key habitats (e.g. *Strix uralensis*, *Aegolius funereus*, *Dendrocopos medius*, *Dendrocopos tridactylus*, *Ficedula albicollis*, *Osmoderma eremita*, *Cerambix cerdo*, *Cucujus cinaberinus*...)

Other special requirements (e.g. *Barbastella barbastellus*, *Myotis bechsteinii*, *Ursus arctos* require vast forest areas, butterflies require special plants and forest edges: *Leptidea morsei*, *Nymphalis vaualbum*, *Hypodryas maturna*, *Eriogaster catax*, *Erannis ankeraria*)

Fears

- After implementing Natura 2000 system some forests will be more important than others, which may cause deviation from the close-to-nature management standards in forests outside Natura 2000 sites. Commercial forestry concept with heavy machinery is knocking on the door.