

Establishment of Network of Strictly Protected Forest Areas in Estonia

The right share of one or another forest management regime is to a large extent a political and socio-economic issue. Art. 3.5 of the Estonian Forest Policy approved by the Parliament on June 11, 1997 stipulates that the share of forests with a strict protection regime should be at least 4% and the share of forests with a special management regime 15% of the total area of forests. In addition, there is up to 2% of key habitats according to the evaluations. Consequently, the share of commonly managed forests should not exceed 79% of the total area of forests. It is eventually unclear whether such an area of protected forests secures the preservation of the current diversity of Estonian forest communities; the respective studies and long-term monitoring of forest communities should provide the answer. This is currently a political compromise. Besides, the actually required share of protected forests depends on the methods and intensity of management of protection forests and commercial forests.

For pursuance of the objectives stipulated in the Estonian Forest Policy (1997) the same document says that *"A complementary inventory of present and potential conservation areas will be carried out in order to assess their value as conservation objects and adopt appropriate criteria for forest classification. In commercial production forests, management guidelines will be modified in order to improve biodiversity management through measures such as protection of key biotopes, maintenance of natural stand species structure, etc. To enable a continuous evaluation of the environmental status of forests, an adequate monitoring system will be established"*.

According to an additional measure provided in the Forest Act (1998), in commercial forests, key habitats have to be registered. Key habitats are relatively small parts of commercial forests where the occurrence of threatened and rare species is highly probable. In other parts of commercial forests the management methods allowed in the Forest Act and in other accompanying legislative acts that proceed from research of forest ecology and increment of forests should secure the diversity of forests and consequently their regeneration ability.

According to the results of scientific research the diversity of forest communities increases with the age of forest stands. Therefore, it is important from the aspects of preservation of several species to have

rather old forests in certain number and area than extensive young or middle-aged forests that would become suitable habitats for these species only in decades. Political decisions should secure continuing preservation of old forests as well as the preservation of the elements of natural forests in commercial forests.

Estonian Forest Conservation Area project

Several foreign countries have supported the different projects initiated for implementation of programmes related to nature conservation in Estonia during the past decade. The Estonian Forest Conservation Area Network (EFCAN) project was initiated by the Estonian Ministry of Environment and the Danish Ministry of Environment on February 1, 1999 proceeding from the environmental co-operation agreement made between the same institutions on September 2, 1991. It was the Danish Co-operation for Environment in Eastern Europe – DANCEE project. The completion date of the project was January 31, 2001. Forest Department of the Estonian Ministry of Environment was responsible for implementation and co-ordination of project activities.

The EFCAN project is a continuation of the pilot project "Development of the Estonian Network of Forest Conservation Areas. Implementation plan", the principles of which were worked out in frames of the Estonian Forestry Development Programme. The main objectives of the pilot project were:

- 1) to start the creation of an ecologically justified and biologically representative and diverse network of forest conservation areas that would take into account directives concerning the habitats and species of the European Union (EU);
- 2) to improve the management of forests in current conservation areas, in order to secure the preservation of their ecological and biological values.

The pilot project was started in March 1997. It was financed by the Economics and Information Centre of Forestry and the Forest Fund. Primary selection criteria were worked out for the identification of areas with high nature value, also the fieldwork methodology for inventory of selected areas. The fieldwork on 22,449 ha of forests was intended above all for the testing and mastering of the methodology and for the evalu-

ation of the work volume and capacity. Fieldwork was carried out in two stages:

- inventory of biological diversity, in the course of which the natural and untouched character of forests was evaluated (old-growth forests, natural forests, regenerating forests and commercial forests) and the forest survey data were corrected;
- inventory of species (3,500 ha) – mycological, botanical, bryological, entomological, lichenological and ornithological – for the description and registration of all species in the old-growth and natural forests identified in the course of the earlier inventory.

Goals and objectives of EFCAN

The goal of the EFCAN project was to secure the protection of valuable forest ecosystems and to preserve the existing level of biodiversity, increasing the area of protected old-growth forests and improving the representation of forest types in the strictly protected zones of conservation areas. New large forest conservation areas were planned to establish to reach this goal. Strictly protected forests are a comparison basis and study material for the management of commercial forests. In the basic document of the project it was also specified that it “will be developed in co-operation with NGOs and other parties and that it has to have the support of the general public”.

The more specific objectives of the EFCAN project were the following:

- 1) to form a network of strictly protected forests that would comprise at least 4% of the total area of Estonian forests, following the recommendations of international nature conservation organisations to increase the share of protected forests to 10% in the country in the future;
- 2) to protect Estonian forests, bearing in mind their typological, regional and landscape representation; it is generally necessary to take into account that the need for the protection of forest types is in inverse relationship with their area in Estonia, but threatened forest types have to be protected to the extent of the entire zone of their occurrence;
- 3) to increase the typological representativeness of the strictly protected forests of the existing conservation areas, establishing for that purpose new smaller conservation areas of over 50 ha in forests of high conservation value that remain outside the existing conservation areas, and making proposals for making the protection regime of forests of the existing conservation areas more stringent;
- 4) to protect all old-growth forests and increase their area through the creation of additional strictly protected areas;

5) to carry out the nature value assessment of nature reserves and special management zones of the existing conservation areas, and make proposals for the creation of additional strictly protected zones;

6) to secure protection, habitats and zones of occurrence to rare and threatened species;

7) to take the EU directives and requirements for the planning of ecological networks, also other obligations related to nature conservation into account in the planning of the EFCAN;

8) to protect the current level of the existing biological diversity;

9) to protect forests at different stages of succession;

10) to support national self-consciousness with the protection and preservation of old forests;

11) to plan the creation of recreation and buffer areas accessible to those interested in strictly protected forest areas.

Results

As a result of the project, a detailed plan for the establishment of additional forest conservation areas of the EFCAN along with the list of areas belonging to the network, maps and the database were presented to the Nature Conservation Department of the Estonian Ministry of Environment. For fulfilment of the EFCAN objectives, a proposal was made to protect strictly 29,176 ha in addition to the existing conservation and to put 8,645 ha of forests under protection as buffer areas. The proposal includes 136 different forest areas. The areas to be placed additionally under protection contain in total 1,355 ha of forest communities that are rare and require protection, also 2,529 ha of key habitats, potential key habitats and regenerating forest communities. Forest conservation areas constitute an important part of the forest areas of the Natura 2000 network including 8,634 ha of habitats that conform to Annex I of the Directive on the conservation of natural habitats and of wild fauna and flora. Databases gathered and created in the course of the project effectively support its creation.

Several other project activities supported the selection of additional EFCAN areas. One part of the project consisted in drawing up management guidelines for protection forests to support and favour the development of biological diversity. In order to raise the awareness of the general public of the issues of the biological diversity of forests and the needs and possibilities for protecting it, several promotional materials were issued. For the support of establishing additional strictly protected forest areas, public consultation days were carried out in all counties. In frames

of the training programme of the project, basic principles of forest ecology, evaluation of the nature values of forests, methods of promotion of nature, friendly-to-nature management of protection forests, legislative aspects of the establishment of conservation areas, and the possibilities for combining economic activities with biological diversity were taught to interested people.

Conclusion

The EFCAN project was the first systematic project engaged with the planning of the protection of forest communities in Estonia and also in the Baltic countries. Still, it is just one stage in securing the protection of forest communities in Estonia. The entire network of forest conservation areas has to be developed further. It has to be based on the principles of a typologically and regionally representative ecological network and follow as much as possible the standards and requirements described in international agreements and programmes. It has to be based on adequate selection criteria and the analysis of shortcomings of its representativeness, at the same time it is necessary to secure the social, economic and ecological functioning of the network of forest conservation areas. Although no forests in Estonia are completely untouched

by human activities, our preserved natural forest communities that have been relatively little influenced by human activities have great importance for whole Europe. Increasingly intensifying forest management is a great risk for such communities.

Outputs in English

- Korjus H., Viilma K.** 1998. Inventory of potential and existing forest conservation areas in Estonia. – In: Forest management in designated conservation and recreation areas. AISF-EFI International Conference proceedings, 7-11 October 1998, Florence, Italy, 381–388.
- Korjus H., Viilma K.** 1999. Development of forest conservation area network in Estonia. – In: Hytönen, M. (ed.). Social sustainability of forestry in the Baltic Sea Region. The Finnish Forest Research Institute. Research Papers 704, 153-161.
- Kuuba R.** (ed.) 2001. Management guidelines for protection forests. Tartu, 47 p.
- Viilma K., Öövel J., Tamm U., Tomson P., Amos T., Ostonen I., Sørensen P., Kuuba R.** (comp.) 2001. Estonian Forest Conservation Area Network. Final Report of the Estonian Forest Conservation Area Network project. Tartu.
- Educational video "Old-growth forest – ancient treasure", 26 minutes.

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