GREEN BELT OF FENNOSCANDIA AS A POTENTIAL WH SITE

Statement of significance

The Green Belt represents a range of ecosystems from the Arctic tundra at the Barents Sea coast to mixed broadleaf forests covering the islands of the Gulf of Finland. In the past the high degree of conservation of these taiga ecosystems was conditioned by strictness of the national security belt along the borders. Aside from the unique preservation of the last tracts of old-growth taiga in the European part of the continent, this area has interesting geological structure and relief. On the one hand, the area is a part of the ancient Baltic crystalline shield. Fragments of the shield appear as large and small ridges and individual erratic massifs. On the other hand, the surface has been intricately transformed by glaciation, which resulted in the undulating moraine relief and unusual shapes of various moraine features, such as kames, eskers, outwash plains, drumlins, roches moutonnés, etc. The last glacial receded 10,000 years ago and this region’s landforms are among the youngest in the world.

The formation of its ecosystems is still in the beginning stages and they are yet fairly unstable. Dissection of the terrain, tectonic depressions and abundant precipitation resulted in formation of a multitude of picturesque lakes, which appear as the most fascinating trait of the local landscapes. A large number of rapids and waterfalls on small rivers add to the spectacular natural beauty of the area.

The geographical position, climatic and geological features have found their reflection in the remarkable mosaic of picturesque landscapes and frequent alteration of the spectacular natural complexes. Location of the region in the taiga zone with predominantly light coniferous pine forests, combined with its remarkable terrain and multitude of lakes have created its unique coloration.

In general, the Green Belt contains the last large tracts of old-growth taiga typical of Fennoscandia, which mainly consist of dry pine forests with a characteristic high fire frequency. They are unique in the world.

Another unique feature in this network of protected areas is the crossing of several vegetation regions between the Lappish Tundra Province of the Circumtundra Zone and the Middle Baltic Mixed Forest District of the Middle European Deciduous Forest Region.

Integrity

The area is untouched and without human interference in its natural dynamics. It is large enough in its horizontal as well as in its vertical extension to ensure and preserve all aspects of natural taiga and mire ecosystem processes:

- The vegetation structure with its natural mechanisms such as forest fires, windfall or insect outbreaks
- The food chain, including big predators such as the bear, wolf and lynx
- A delicate hydrological regime between the mires, lakes and rivers
- The characteristic soil development on the poor crystalline shield and the diverse glacial deposits

Criteria under which inscription is proposed

The Green Belt of Fennoscandia nature complex is nominated under the following criteria:

(vii) The property should contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.

- Intensive interrelation of the water and land areas, the numerous mires and clear lakes with their complicated coastlines as well as the rivers with rapids and waterfalls assemble the most beautiful features of the region.

(viii) The property should be outstanding example representing major stages of the earth’s history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.

- The area is located on the oldest part of the European continent (2,500–3,000 Ma old).
- The big stratigraphic gap between the oldest pre cambrian crystalline Baltic Shield of Fennoscandia and the youngest quaternary glacial deposits is unique in the world.
- The complete glacial morphology including erosion as well as deposit formations is represented in the territory.
- In large areas, untouched mires develop and function in a natural way, by fixing CO2 and producing important peat deposits.

(ix) The property should be outstanding example representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.

- The area represents the complete gradation of vegetation regions from the Deciduous Forest Region in the South up to the Arctic Tundra in the North as well as the vertical differentiation from the zonal plain ecosystems up to the Alpine Region.
- The complete variety of site and ecosystem types under different soil, relief, and microclimatic conditions is present in every geographical subdivision.
- The area presents west-east and south-north corridors for the still ongoing species resettlement after the glaciations.
- These corridors are important for the genetic exchange between oceanic and continental as well as southern and northern species; they are the connection of the Fennoscandian Shield to the rest of the Eurasian Taiga.

(x) The property should contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

- Predominance of the natural pine forest tracts on the poor soils of the crystalline shield is found nowhere else but in Fennoscandia. The Green Belt is the only region where this kind of forest is preserved in a viable extension.
- The area contains the northernmost pine forests in the world in the ‘Kirkenes ledge’.
- The area represents an important migration route with a number of resting sites for migrating birds.
- The area is important for conservation of rare species, for European forest conservation as a whole and especially for the Finnish protected areas.
- Here we can find viable populations of many endangered European plant and animal species for which smaller protected areas are dependent, as they cannot maintain their own regeneration processes to a full extent. The Green Belt sustains the largest populations of many species that used to be more abundant further south before the era of intense human impact.
- In case of a probable climate change the area could present a possible north-south corridor for migration of species under the changing conditions.

In addition to these outstanding natural features, the site also presents significant cultural features such as:

- Numerous archeological sites from the Neolithic times
- Traces of the old Sami culture
- The place of origin of the ‘Kalevala’ epic

Russian SPAs within the boundaries of “Green Belt of Fennoscandia”

1. Pavsk State Nature Reserve
2. Laplandsky State Nature Biosphere Reserve
3. Kutsa State Nature Sanctuary
4. Paanajavalki National Park
5. Kalevalsky National Park with Voinitsa Landscape Sanctuary
6. Kostomukshsky State Nature Reserve
7. Tulvos Landscape Sanctuary (plan)
8. Koitajoki Landscape Sanctuary (plan)
9. Tolva Landscape Sanctuary (plan)
10. Ladoshelshye Skierres National Park (plan)
11. Iso-Rivni Landscape Sanctuary
12. Kurelian Forest (Karelsky Les) Landscape Sanctuary
13. Prigranchyn Landscape Sanctuary

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