

Restoration of dune and coastal habitats in the Vattaja Military Area – FI

1. Policy Objective & Theme

- SUSTAINABLE USE OF RESOURCES: Preserving coastal environment (its functioning and integrity) to share space

2. Key Approaches

- Participation
- Ecosystems based approach
- Technical

3. Experiences that can be exchanged

The management and restoration of eroded, coastal dune areas.

4. Overview of the case

About 1,200 ha. of dunes in a Natura 2000 area and used by the military and as a recreation area have been heavily eroded. Various habitat management plans have been drawn up and implemented to improve the dune area.

5. Context and Objectives

a) Context

The state-owned Vattaja Natura 2000 area covers 1,200 ha. and is situated in the municipality of Lohtaja in central Ostrobothnia, about 30km north of the town of Kokkola on the eastern coastline. It is Finland's most important dune habitat area and accounts for 37% of Finland's grey dunes. The area is also important to the entire European network of protected areas as Vattaja is the largest boreal zone dune area in Europe. The area contains six priority habitats, mainly dunes and coastal lagoon habitats, and eight other habitats of interest to the European Community. Furthermore, it is home to 18 Birds Directive species, twelve of them breeding. Eleven species are nationally or regionally threatened.

Since 1952, Vattaja has also been one of the most important military exercise and artillery practice areas of the Finnish Defence Forces and is also used for international military exercises. Exercises are conducted about 220 days per year by up to 2000 military personnel at a time. Heavy weapons and ammunition are brought in by motorised vehicles during live fire exercises and fortifications are constructed. Due to its great natural beauty, the area is at the same time subject to significant recreational use and tourism, with 5 - 10,000 users annually. Both activities put these vulnerable priority habitats under intense pressure and cause erosion. Furthermore, the intensive forestry with monocultures established in the 20th century, together with the termination of extensive farming practices, has had a profound negative impact on the habitat types and continue to pose a threat to their conservation

b) Objectives

The main objectives of the initiative was to conserve and restore the dune habitats in the Vattaja and to enhance users' awareness of these dunes, as well as the conservation objectives of the Natura 2000 network. It aimed to adjust the activities of the Finnish Defence Forces in order to prevent damage caused to Natura 2000 habitats during military exercises.

6. Implementation of the ICZM Approach (i.e. management, tools, resources)

a) Management

The Natural Heritage Services of the National Board of Forestry in Finland is responsible for the management and use of state-owned Natura 2000 areas and other nature conservation areas. The Board of Forestry is the competent national authority in Finland for planning and implementing management of habitats and species in need of conservation as well as general management of state owned nature areas. The Board of Forestry is, therefore, responsible for ensuring appropriate management of forests and nature in the exercise areas of the Finnish Defence Forces. The Board's field of activities also includes increasing the public awareness of the environment and nature.

b) ICZM tools

An adaptation plan to adjust the Defence Forces' activities to better accommodate the ecological values of a Natura 2000 site was drawn up. Military personnel using the exercise and artillery areas were trained to take into account the vulnerability of the natural habitats. Erosion effects were minimised by moving the defence forces' firing positions away from the most important dune areas, standardising access routes and locations of firing practices and by increasing the facilities directing recreational use.

A number of management plans were drawn up for the different types of habitats to prevent their further shrinkage e.g. areas of open dune habitats, heritage biotopes created by grazing, forests and mires. These plans include the restoration of a number of eroded dune sites. In an inventory, 314 damaged sites were recorded. Areas affected by military use, such as transition mires, forests and a part of the adjacent gloe-lake, have been, and are being, restored. To prevent overgrowth and encourage the development of open and semi-open habitats, grazing animals were introduced to meadows and pastures in co-operation with local farmers. In the more sensitive areas of the site, recreational users were better guided and informed to reduce the negative impact of the recreational use e.g. building wooden steps over the wooded dune slopes. A full monitoring programme has been implemented both for the changes in the dune topography as well as the effects of the restoration measures

7. Cost and resources

The total budget was €1,807,330 of which there was a Life contribution of €903,665.

8. Effectiveness (i.e. were the foreseen goals/objectives of the work reached?)

Early indications from the results of the monitoring show that the management measures are leading to a reduction in the amount of trampling. The grazing activities have reduced both unwanted grasses and willow trees. In general, the goals of the different management plans are slowly being achieved. It will, however, take a number of years before it is clear if these plans have significantly worked.

9. Success and Fail factors

The various environmental management and restoration plans which were drawn up were key. They have formed the foundation for the Vattajanniemi Natura 2000 area's long term maintenance and land-use planning. Co-operation with the military and a willingness to change attitudes and habits was also important.

10. Unforeseen outcomes

Since the restoration activities, new Birds Directive species now occur e.g. Slavonian grebe and Whooper swan.

11. Prepared by

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12. Verified by

It has not been possible to verify this case.

13. Sources

- Restoration, environmental management and monitoring in the Vattaja dune LIFE project 2005-09 (2009) K. Koskela & M. Sievanen, Metsähallitus



LIFE 104 report (3.46 MB) 