

KOKEMÄENJOKI LIFE

Kokemäenjoen kosteikot – muinaisesta suistosta nykypäivään

From Ancient to the Present Estuary, Kokemäenjoki Wetland Chain

LIFE06/NAT/FIN/000129



AFTER LIFE –suojelusuunnitelma

AFTER LIFE Conservation Plan



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1. Objective of the plan

The aim of the After LIFE plan of the Kokemäenjoki-LIFE project is to assess the current situation in the sites included in the project after the completion of the project. An additional aim of the plan is to describe and assess on a general level measures to promote conservation to be carried out after the completion of the project and the challenges associated with them. In the project, management and land use plans were prepared for all project sites with the aim of providing detailed guidance for local conservation measures at the sites. The management and land use plans also contain a more detailed description of the division of labour and the estimated costs of the conservation work as well as discussion of the impacts of the measures on the natural values of the sites.

2. Kokemäenjoki-LIFE and current situation in its project sites

The aim of the Kokemäenjoki-LIFE project was to safeguard the natural values of the River Kokemäenjoki estuary and the Puurijärvi-Isosuo, Vanhakoski and Pirilänkösken and Preiviikinlahti Bay areas located on River Kokemäenjoki in Southwestern Finland through a number of different actions. The project sites cover a total of eight Natura areas. The project has also aimed to increase the amount of nature-related information and to impact attitudes towards conservation. Out of the project sites, Lake Puurijärvi, the River Kokemäenjoki estuary and the Preiviikinlahti Bay area are some of Finland's most important bird conservation areas, where species mentioned in Annex 1 of the Birds Directive as well as nationally endangered species nest and rest. The areas also contain habitats and species to be preserved under Annex II of the Habitats Directive. Vanhakoski and Pirilänkösken are habitat sites, and they are also part of the National Herb-Rich Forest Conservation Programme. The largest of the sites is Preiviikinlahti Bay (5,552 ha) and the smallest Vanhakoski (101 ha). In addition to the natural values, all the sites have great significance as recreation areas.

As the project was launched, the following were estimated as possible the problems in the conservation work and threats to the natural values of the sites: 1) overgrowth of open-water areas and shore meadows, 2) the drying of shore areas and shore meadows, 3) drainage of mires, 4) changes in the natural state of forests, 5) disturbance caused by humans 6) negative attitudes to the environment. The aim of the project was to alleviate and solve these problems. The project contained a diverse range of actions and their monitoring. The most large-scale restoration effort in the project was preventing the overgrowth of Lake Puurijärvi (440 ha) through excavation and rising of the water level. The objective was to almost double the water area during the driest periods. In the southern part of the lake, the water level was raised by almost a metre: the project was the most significant restoration of bird waters ever carried out in Finland. The work contained a number of difficult technical and also financial challenges that were solved during the project. Some of the work was not fully completed until after the termination of the actual project. Even though, according to birdlife studies, the number of both nesting pairs and resting birds of diving ducks, for example, increased in the area immediately after the raising of the water level, the final impacts of the efforts can only be assessed after a lengthy period of time, based on monitoring continuing after the completion of the project. In the Puurijärvi-Isosuo area, mires were restored to their natural state. Elsewhere, the restoration work has included the mowing and excavation of overgrown meadows, the blocking of ditches and the excavation of pools. Excavation work to construct nesting islands for birds was carried out in Lake Enäjärvi in the Preiviikinlahti Bay area. Birds were fed in the Rajalanjärvi field area. The aim was to attract geese and swallows to the area and to guide them to the vicinity of the service structures for recreational use.

In the project, new service structures were built in the areas (bird-watching towers, nature trails, signposts, duckboards). These have a significant role in reducing disturbance caused by visitors; in

addition, the service structures also constitute an important tool for increasing nature awareness and positive attitudes towards conservation.

Management and land use plans were prepared for all of the sites using a participatory approach, i.e. users of the land and landowners were included in the planning process. Dragon fly inventories were carried out in a few of the sites, and the heavy metal content of the sediments in the estuary, their location and the development history of the estuary were determined at the River Kokemäenjoki estuary as one element of the plan. Based on this information, it is possible to assess the restoration work necessary or possible in the area, taking into account changes in the natural state of the estuary brought on by excavation work carried out for a number of different purposes and the hazardous substances that have been carried into the estuary. Possible restoration work in the area will be carried out in accordance with the management and land use plan after the completion of the project. The area around the River Kokemäenjoki estuary, a home to more than 15,000 people, is one of the areas most prone to flooding in Finland. Efforts to control flood damage in the region and related excavation work have been accounted for in the content of the plan where applicable, so the document also supports the planning of land use in the area.

At the start of the project, the different sites were in different stages of conservation work. In some of the sites, management work had been planned and implemented prior to the project, although sometimes the plans drafted were already outdated and the amount of management work carried out was very little. These background factors naturally affected the work carried out in the sites during the project. Thanks to the project, the planning and implementation of management work in each of the areas has been initiated and updated to safeguard the conservation values of Natura areas. After the completion of the project, all management work discussed in the land use and management plan for the Puurijärvi-Isosuo National Park and its Natura areas has been completed. Through raising the water level of Lake Puurijärvi and related excavation work, the problem with the lake's overgrowth has been solved for several decades. The service equipment in the area has also been completed. In the areas of Pirilänkoski and Vanhakoski, the majority of management work included in the land use and management plans has been carried out, and the structures essential for the recreational use of the areas have been implemented. At the Preiviikinlahti Bay area in Pori, the most central overgrown shore meadow areas have been restored and the quality of management work carried out in the area has been improved. For the River Kokemäenjoki estuary, the sediment study implemented in the project functions as a significant background plan when assessing possible restoration work and flood protection measures to be carried out in the river estuary. Modern land use and management plans to guide the activities of public authorities and users of the land in the areas were prepared for all sites. Among other things, the land use and management plans contained assessment of the monitoring needs and described the division of labour between different actors in the sites. In addition, the land use and management plans constitute central background documents when planning projects by different funding sources or when assessing special agri-environmental subsidies for the sites. The project also functions to channel other projects and conservation measures in the sites and activates other actors in the areas to contribute to the conservation of the sites.

3. Conservation efforts after the completion of the project

The principal actors responsible for maintaining and improving the conservation values in the sites are Metsähallitus and the Centre for Economic Development, Transport and the Environment (ELY Centre) for Southwest Finland. Conservation areas will be established in the areas, preservation regulations for which are guided by land use and management plans prepared for the area. Previously, based on the division of labour of Finland's environmental administration, Metsähallitus has been in charge of state-owned land and the ELY centres have been responsible for issues related to the conservation of privately owned land. As concerns restoration and management, the emphasis of overall national responsibility for all areas has been shifted towards Metsähallitus, but the conservation work in the regions is implemented in cooperation with the ELY centres.

Metsähallitus restores and manages the areas through funding from the national budget, but the ELY Centre, too, has annual funding for minor environmental management tasks. Where necessary, Metsähallitus negotiates contracts with actors such as municipalities or entrepreneurs in the areas on work related to the maintenance of service structures in the sites. In addition, Metsähallitus leases shore meadow areas for grazing use to persons who have been granted special agri-environmental subsidy to cover the grazing of the areas. Metsähallitus and ELY Centre are also significant implementers and cooperation partners in various projects utilising different funding sources for the implementation of large-scale conservation work. Different sites have different actors and interest groups associated with the conservation work, and the maintenance and strengthening of these networks is a central element in the conservation of these sites. In order to commit both new cooperation partners and those already taking part in the restoration and management work to the efforts, it is necessary to continue the participation element of the conservation work after the completion of the project. Regular maintenance work in the sites and the regular updating of land use and maintenance plans carried out by public authorities provide an opportunity for this.

Restoration and management

The Puurijärvi-Isosuo area is national park area, meaning that work related to the post-management of the site is the responsibility of Metsähallitus. The final excavation work related to the restoration of Lake Puurijärvi have been carried out by the ELY Centre in autumn 2012, after the completion of the project. The need and location of pastures must be assessed once the situation with the water level and coastline has stabilised. Efforts will be made to finance the management of the pastures with special subsidies. In the area of Lake Rajalanjärvi, the feeding of birds will continue as work carried out by the prison. Pools excavated during the project will be maintained as work carried out by the prison funded by special agri-environmental subsidy.

In the management and restoration of **Vanhakoski** and **Pirilänkoski**, the nearby cities have acted as active implementers of work and providers of funding. The sites are located in the immediate vicinity of the cities, and it is essential to perceive environmental management work as an aspect of the recreational value of the areas. Further work required on the sites constitute minor clearing work or the expansion of pasture areas, which will be steered by Metsähallitus based on the land use and management plans. The Vanhakoski area contains a pasture area that is maintained with the help of special agri-environmental subsidies, and efforts will be made to organise the management of areas to be maintained by grazing through the instrument of environmental subsidies.

The Preiviikinlahti Bay area contains several habitats that are challenging from the viewpoint of management and its assessment. Work in the LIFE project focused on the clearing of overgrown shore meadows. Shore meadows central from the viewpoint of birdlife have been re-opened, and it is central to maintain and develop the quality of annual management (grazing and mowing) of these areas in the future. It is necessary to indicate areas managed as shore meadows to be managed through the instrument of environmental subsidies. Part of the area cleared in the project is already being grazed funded by special environmental subsidies, and an application for a subsidy has been submitted for another section of the area. The restoration work of shore meadows have been implemented by the City of Pori and Porin Lintutieteellinen Yhdistys (the Pori Ornithological Society), which will be important cooperation partners in the implementation of the management of the area also in the future. According to the management and land use plan, other kinds of restoration and management work requiring separate action plans are needed in the area. Among the most central of these plans is a detailed restoration plan for the dunes in Yyteri Beach. The plan, to be completed in winter 2012–2013, will be produced by the ELY Centre and Metsähallitus. Making the Preiviikinlahti Bay area part of the Bothnian Sea National Park strengthens and clarifies the role of Metsähallitus as the government authority in charge of the conservation of the area. A land use and management plan is currently being drawn up to cover the entire national park, and the plan for the LIFE project will be incorporated as part of this plan.

The nature of the area as part of the national park can and needs to be put to use when envisioning different development projects for the area and their funding channels.

A long-term challenge for the preservation of the natural values of **the River Kokemäenjoki estuary** is the changing of the river estuary. This change springs from both the natural background factors associated with the development of a river estuary and excavation work carried out in the estuary in the course of several decades. The sediment study carried out in the river estuary provides background information on the current situation and the direction of development in the estuary. It is necessary to account for this background information when planning measures, and, in particular, it is necessary to assess whether, in connection with flood prevention or waterway maintenance measures performed in the area, it would be necessary to plan excavation or other measures alleviating the possible harm caused by these measures. Otherwise, the most essential management works in the area are measures aimed at the management of shore meadows, the quality of which will be developed and the funding base of which will be adjusted to consist mainly of environmental subsidies. The majority of the sites are in government ownership, and the role of Metsähallitus in the steering of the conservation work is central.

Service structures

Thanks to the project, the structures guiding recreational use are, for the most part, completed. As concerns the structures built in the project, the maintenance and management responsibilities have been agreed upon regionally. Recreational use of the Preiviikinlahti Bay area requires new structures, and for this reason, a new action plan is needed. A possible increase in the number of visitors as the area becomes part of the national park will be accounted for in the guidance of recreational use and in the planning of the structures. Furthermore, the conditions in the areas must be carefully assessed in order to plan sufficiently robust and durable structures. When organising the management and maintenance of structures in each of the sites, it is necessary to identify the safety viewpoints associated with the structures and the significance of the structures for the preservation of both recreational and natural values of the area. The instructions and practices of Metsähallitus will be applied in the management and maintenance of structures in the sites.

Monitoring

The natural state of the sites is monitored in accordance with the monitoring needs outlined in the land use and management plans. Information on nature in the sites is supplemented concerning groups of organisms on which no data yet exists from the areas in question. Attempts will be made to include the sites into different research projects. In the basic monitoring of the sites, it is necessary to account for the impact of use as well as the impact of the management efforts. Based on an obligation connected with the environmental permit, the monitoring of the impacts of the restoration of Lake Puurijärvi will be continued for at least four years after the water level has settled at the height stated in the plan. The schedule for the monitoring will be revised after the excavation work, water level measurements and assessments to be carried out in autumn 2012. For monitoring purposes, it is necessary to produce a summary of the impacts after this and at the same time analyse the need for and content for the monitoring later on.

4. Challenges associated with the conservation of the sites

- Ensuring sufficient funding for different management work. Committing different cooperation partners to the effort and the associated channelling of possible new and different funding sources for the management work will, at any event, require resources for the steering of the management work and the implementation of the participatory approach. It is necessary to understand and market the funding for the environmental management work also as investments in values related to the use of the areas for tourism and recreation.

- Management of shore meadows is a central task in the areas. The availability of cattle and the maintenance of a sufficient level of grazing is a common problem in a number of different sites. The management of shore meadows should be increasingly supported with work carried out by machinery, and insufficient level of grazing should be supplemented with mowing coinciding with the grazing period. This needs to be taken into account for example when planning and applying for special agri-environmental subsidies for the areas.

- Preiviikinlahti Bay and River Kokemäenjoki estuary cover a large area and contain several different natural values. The conservation measures necessary in different parts of the areas may conflict in some aspects. Assessing the impact of the measures requires regular monitoring, more new information and flexible planning and implementation of measures carried out based on these.

-Preiviikinlahti Bay and River Kokemäenjoki estuary have a number of different uses, the reconciliation of which has proved highly challenging during the validity of the management and land use plan. Contacts between cooperation partners and participatory work in these sites must continue actively after the completion of the project. Structures and arrangements planned for Preiviikinlahti Bay for the purpose of guiding visitors require careful and detailed planning of measures and active communications.