



CASE STUDY

Slovakia: Conservation and management of Danube floodplain forests



Summary

Danube floodplains were continuously deteriorated by human impacts. Construction of the Gabčíkovo water dam caused direct clearance of minimum 2,500 ha of floodplain forests and influence on water regime of other areas. NGO BROZ has developed a project for EU funding scheme LIFE. The project aims to preserve last remaining natural floodplain forests in Slovak part of the Danube floodplain and to introduce sound, sustainable forest management in the area.

Background

Beauty and wilderness of Danube floodplains was continuously deteriorated by human impacts. Construction of the Gabčíkovo water dam caused direct clearance of minimum 2,500 ha of floodplain forests and influence of water regime of other areas. Intensive forestry has in the few decades rapidly changed the face of the Danubian landscape. Unique forests have been destroyed, natural and diverse forests have been replaced by monocultures - only one species of non-native hybrid poplar, planted for maximal wood production. The last refuges of the rare species of fauna and flora were endangered. The Danube floodplain was designated a Ramsar site in 1993 because of several reasons. The system of river branches, oxbows and forests represent the largest inland delta in Central Europe. The site hosts large amount of rare, vulnerable and/or endangered species of plants and animals. Forest management is the most serious impact which has led to the large scale destruction and degradation of vast majority of Danube floodplain forests. Recent forest management practices are focused only on maximization of wood and pulp production, using large scale clear-cuts (up to 5 ha), removal of the top soil layer by using

heavy bulldozers and planting of trees of hybrid poplars and other non-native tree species.

Actions taken

A regional NGO BROZ located in Slovakia, has developed a project for EU funding scheme LIFE. The main objective of the project is to preserve last remaining natural floodplain forests in Slovakian part of the Danube floodplain and to introduce sound, sustainable forest management in the area. The project actions were focused especially on changing the unsustainable forest management practices and to prevent the loss of natural floodplain forest habitats due to reforestation. Several interventions have been implemented ranging from administrative measures, intervention in changing management practices and enhancement of public participation in integrated water, forest, land and ecosystem practices.

The implementation activities included:

1. Interventions for planning processes, such as elaboration of the Sustainable Forest Management Framework Strategy for the whole area, based on the field inventories and database information, as a basic document for the updating of the respective Forests management plans; elaboration of new Forests management plans (for 5 forest administrative districts), in detail for all forest stands concerned.
2. Interventions regarding changes in management, such as creating model example of "close to natural" forest management, favourable for the long-term preservation of biodiversity; inventory of local sources of genetic material for afforestation – selected individual trees of native species; designation of new nature reserves and enlargement of existing ones; applying proper forest management on selected sites – control and elimination of invasive plant species, promoting of natural regeneration, selective tree cutting (instead of clearcutting).
3. Stakeholder involvement and public participation activities, such as education and training of personnel of State Forest Administration and State Nature Conservation institutions, including the study visits abroad (to the Czech Republic – Morava and Dyje river floodplains, and Austria - National park Donau- Auen, Naturreservat Marchauen); raising the public awareness on the conservation of floodplain ecosystems – preparation of information materials, talks and field trips for students and public, slide presentations, publicity campaign in local, regional and national media, installation of signposts.

Outcomes

The five year project resulted in several successful achievements. A Sustainable Forest Management Strategy has been elaborated to give a base for new forest management plans. The Strategy is now used as a guideline document formulating the standpoint of State Nature Conservancy on the forests management plans.

New forests management plans were elaborated for 4 forest administrative districts – Rusovce, Samorin, Gabčíkovo and Calovo; covering the whole project area. Former forest management plans did not respect sufficiently the nature observation interests and needs. According to Forest Act, the forest management plans are obligatory document for any forest management of all forest stands. During the project duration, new Forest management plans were elaborated for the whole area concerned.

Proposals for designation of 5 new and enlargement of 3 existing protected areas with total size of 2,086 ha were made.

Individual trees of native species were identified within the project area, which will provide the reproduction material for nurseries and for further afforestation (seeds, material for vegetative reproduction).

Land purchase is used if it is not possible to achieve nature conservation objectives by other effective (cheaper) way (e.g. agreement with land owners and land users) or if the owner is not willing or able (not) to manage the land in a proper way. Ownership/ long term use of the forest land by the environmental NGO allows to leave trees to live their whole biological age and to see the natural forest regeneration. After series of negotiations with land owners, the NGO BROZ was successful to sign contracts and acquire land in different areas of Danube floodplains. At the moment BROZ has under total control 330 ha of the land in cadastres of municipalities Cunovo, Cicov, Velke Kosihy and Zlatna na Ostrove. From this, BROZ has 30 ha in ownership and 300 ha in long-term lease for 25 or 30 years.

At selected sites the invasive tree species were eliminated to prevent their further spreading and to promote the growth of native tree species.

The project included interventions to increase public awareness and increased capacities of local environmental authorities in application of modern ecosystem protection practices.

Lessons Learned

Regular and frequent personal contact project partners and stakeholder and dedication of the project team is a must.

It is not necessary to involve all the partners if they will not have a significant contribution. It was important to follow up actions/control and cooperation is very important to maintain project achievements.

The river restoration project is in line with IWRM principles, as the project resulted in multi-purpose water functions: restoring the natural ecosystem, securing provision of drinking water, and the enhancement of flood protection.

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Related IWRM Tools

Civil Society Organisations , Ecosystem Assessment

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