

Additional information

Ecosystem Services

Scientific research:

Financed by the World Bank, the Bio-ecological station has been installed in the Tikves complex. Hosting laboratories, conference rooms, a library and accommodation capacity, the Station is dedicated to facilitate research and monitoring of the area.

The Management Office is carrying out limited monitoring, including populations of flagship species as White-tailed Eagle *Haliaeetus albicilla*, Black and White Storks *Ciconia nigra* and *C. ciconia*, colonial water birds etc. The Management Office also carries out regular mid-winter waterfowl counts. Several international colour-ringing schemes (White-tailed Eagles, Black and White Storks and Eurasian Spoonbills *Platalea leucorodia*) are carried out in the area.

Numbers of other research projects (covering hydrobiology, zoological surveys etc.) funded by the Ministry of Science are carried out in the area by the scientists from Osijek and Zagreb universities.

Current recreation and tourism:

The site is used for ecologically sound tourism that is organised by the Management office. Up to 30,000 visitors are taking organised tours in the area, including boat trip in the Special zoological reserve in 2007. The number of bird-watchers is increasing in the area. Other, less developed types of recreation includes sport angling at designated areas (up to 1500 anglers/year), walking and bicycling. The plans to develop bicycles routes along the site exist.

Current land (including water) use:

Habitat/nature conservation; big game hunting in nature park zone but not in special zoological reserve; forestry according to the relevant and approved plans, freshwater fishery-recreational and traditional, husbandry; water management, maintenance of the existing channel network for agricultural purposes; tourism, up to 30,000 visitors in 2007 in Nature Park but not in special zoological reserve.

Social and cultural values:

In historical times, the Danube's floodplain had a historical value for the local population as a source of building material (reed, wood), firewood and food (fish and game). Since Austro-Hungarian Monarchy the area was primarily used for hunting, timber production, fishery and agriculture. Local population maintained the social relation with the wetland through traditional fishing until early 80-ies of 20th century, with number of cultural heritage artefacts originating from those times. Nowadays, this cultural heritage is preserved through special events as e.g., Fisherman days in Kopacevo village. Villages, containing multinational and multi-confessional population, still maintain examples of traditional architecture and lifestyle. Several castles from the period of Austro-Hungarian Monarchy still exist in the area.

Current socio-economic values are based on forestry, hunting and agriculture. However, none of these activities, if operated on the current way, are viable on the long run and the area needs a new development concept that would be based on nature protection and ecologically sound tourism. The Management Office is the leading stakeholder in promoting these types of activities.

Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects

within the Ramsar site:

Despite being protected since 1967 by the Law on Nature Protection and in jurisdiction of Croatian nature protection authorities, Kopacki rit Nature Park was included on the Ramsar list in January 1993. Intensive agriculture through pesticide use in the surrounding area had in some extent negative impact on the protected area. Being a state hunting ground for politicians and privileged, the area has been managed for hunting, but not within special zoological reserve area as a core zone of the Nature Park. Maintenance of big game populations (Red deers, Wild boars) above the natural capacity of the ecosystems prevented natural regeneration of forest ecosystems in some areas (Mikuska A., Mikuska J. & Mikuska T. 2003.).

Kopacki rit has been listed on the Montreaux Record since 1993 because of Serbian occupation of the Baranja County, including Nature Park Kopacki rit, that begun in 1991 and ended in 1997 by peaceful reintegration in to the Croatian national territory. The mayor consequences of the occupation include termination of all conservation measures during the mentioned period, destruction of most of the infrastructure, limited wood cutting, the area was polluted with un-mapped minefields along the dikes, population of Red deers *Cervus elaphus* and Wild boars *Sus scrofa* were reduced to ¼ of the pre-war times mostly because of illegal hunting, poaching.

Through the peaceful reintegration process in 1997, for its larger part (Danube's right bank) the site has been integrated and returned under the jurisdiction of Republic of Croatia. Croatian government founded independent state financed Public enterprise "Kopački rit Nature Park" for the purpose of managing and maintaining the site by the end of 1997.

However, circa 9000 ha of the Ramsar site along the left Danube's bank are still out of the jurisdiction of Republic of Croatia and lacking proper protection and management. This area is under strong pressure from intensive timber exploitation, carried out by Vojvodina Šume-Serbian forest company, with exhaustive clearcutting of old, native *Populus* and *Salix* stands and re-plantation of those areas with different alien tree plantations (*Populus x canadensis* etc.) and corn. During winter, illegal waterfowl hunting, organised by Serbian firms, takes place on the Danube River making serious disturbance to the waterfowl roosts.

Throughout the centuries, Kopacki rit was one of the famous state hunting grounds for celebrities. Despite legal protection, the hunting did not stop recently because the category of nature park can tolerate hunting activities in some extent in some parts for restricted period of time.

Extensive fish production on the existing Podunavlje fishponds recently ceased in 2006 despite the fact that this area is highly important for many water birds, particularly during droughts. The new owner of the fish ponds is not interested in fish production; Public enterprise "Park prirode Kopački rit" together the Nature Protection Directorate is trying to find the way to have the ponds filled with water through the year round.

Once providing the living for hundreds of families, indigenous traditional fishing and related cultural heritage, including knowledge of preparation and use of traditional tools, is almost extinct after the occupation of the Baranja County because of disappearing people interested in fishing activities caused by the low demand of the market. Illegal fishing has disturbed the area in some extent.

Triggered by the occupation during the period 1991-1997, emigration from the area had profound effect on the socio-economic situation of the settlements within the protected area and surrounding villages too. Only 78 people, mainly old ones, lives within the boundaries of the Ramsar site, and the demographic situation of surrounding villages is disturbing. Cultural heritage, including castles, churches and traditional houses are being abandoned and neglected.

in the surrounding area:

The list of main problems in the surrounding area includes: intensive agriculture, drainage and irrigation schemes, water pollution, forestry and hunting.