## **Additional information**

## Ecosystem services:

Social and cultural values:

Slano Kopovo and its vicinity have a very high importance for the local community and the wider region from the aspect of existing (realized) and potential social and cultural values. The main means of human activity were, and mostly remained in the modern times, livestock husbandry and agriculture. Today the arable lands are sown with agricultural cultures, while pastures are reduced to the remaining meadows. In this area, there used to be numerous haciendas, which today are torn down and are replaced by weekend bungalows and vineyard houses.

The traditional means of utilization of this area is hunting. This activity is today done in the way regulated by law and is based on principles of household management, with limitations brought in by projected protection, not threatening the main natural values of the area. It is important to mention the former use of mud on Slano Kopovo for curing ailments.

Due to the combination of natural characteristics, Slano Kopovo and its surroundings also represent a unique Pannonian area. The contribution to the complete landscape is church Arača, which is, like its forerunner from the period IX-XI century, built on the peninsula on formerly flooded area of Tisza. Arača used to be surrounded by aquatoria of Crna bara with the meander Mali Begej, Veliko Kopovo, Poštaš Kopovo and Bikaš. Around the remnants, which are the only witnesses of the former monumental beauty, there is the old preserved bed of Crna bara, that even today fills up with water in the spring.

In the area of Protected Natural Property Slano Kopovo, up to now there is no specially organized ecological tourism, but it is one of the special possibilities of development of whole area, and the matching of the interests of nature conservation and the prosperity of the local community. Tourism must be rigorously controlled, with mandatory expert guide and a limited number of visitors, and special care should be taken that birds are not disturbed. The visits should be only on paths specified in advance and the special observation points.

The science research activities were in recent years quite intensive regarding the following of the bird fauna, but should be intensified in problems connected with the other groups of living things, their communities and especially the questions of environmental protection and programs of sanitation and revitalization of main ecological conditions, wise and sustainable management of the area, with the development of continuous monitoring system.

Current scientific research and facilities:

Slano Kopovo represents an excellent science polygon, which is testified by numerous research and scientific works, primarily by geographers, ornithologists and botanists. In the future, it should be insisted that scientists and experts of various profiles be gathered together for further interdisciplinary work in this area. The coordinated planning and following of science research would result in answers on many questions of

fundamental importance (solving the problem of supplying the water), directions and the practical solutions for future management of the protected natural property.

The content of scientific research at the protected natural property is determined primarily by present diversity and richness of fauna, and specific flora characteristic for salty lakes. An especial care should be paid to valorisation of natural values of the area in the immediate vicinity of the Reserve, especially in the direction of remains of the monastery Arača as an important space for Cranes.

Having in mind the status of the protected natural property, directions and the goal of science research in the program of research of the Reserve that will be made in cooperation with the Institute for Protection of Nature of Serbia and the scientific research institutions, should be planned so they include an array of scientific research themes.

In order to fulfil these goals, the following activities are planned: 1) initiating and organizing the appropriate plan documents for arranging a half-functional object for scientific research activities, functions of accommodating the visitors, the ecological station, and other needs of the service of managing the reserve in the area of former pheasant pen. 2) Arranging three tall and one low lookout tower, for needs of monitoring, scientific research, educational and tourist activities. 3) Providing the protection service with a vehicle, computer equipment, video and photo equipment.

Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

An important activity in area of Slano Kopovo should be directed toward the education of visitors and especially the local community. The natural properties of the area in function of education will be presented through appropriate information in media and publications, promotions and other views of propaganda, as well as on expert and scientific meetings. Therefore following things will be made: a coat of arms and a sign of the protected property, special prospects and posters, postcards and guide, audio-visual propaganda material, website and popular scientific publications.

Taking in account all the natural values and the scientific importance of this area, the education potential of Slano Kopovo is extremely great, but still not completely used, especially from the reason of its uniqueness and specificity, and also easy access and the vicinity of large towns. This area has special importance as a space for realization of educational activities. The programs of education development will use experience and directions of organizations such as Europarc Federation, through the cooperation with the Yugoslav section of that organization.

Education activities may be realized through organized visits of smaller groups from elementary and high schools as well as colleges. It is especially important that college students of natural sciences (biology, forestry, agriculture) should be introduced to these unique and especially vulnerable ecosystems. This activity represents an investment into the future and making the consciousness about the necessity of real

household relationship toward the natural heritage, and should have a priority in programs of protection and development. With the goal of improvement and use, matched with the basic use of protected natural property, it is necessary to, besides presenting the material means, thoughtfully and permanently work on education of local community and the possible users of the area, and especially on the promotion and propaganda of existing natural values as development potential of broader area and the whole country.

The Hunting society Novi Bečej will, with the expert help of Institute for protection of Nature of Serbia, be equipped with workforce and technical things to start process and take care of documentation and data, with the goal of developing the information system of natural properties of Serbia. Information system with a database will be used in order to lead the program of education, protection measurements and improvement of natural values of the protected property, as well as monitoring of their effects, further research, information exchange on national and international level, for planning, arranging and utilization of space, and making of information-propaganda material.

In the area of the Reserve there will be organized eco-camps for researchers, as well as "schools in nature". The natural conditions and the proximity of larger education centers (Novi Sad, Zrenjanin, Kikinda) make a possibility of organization of one-day visits to the Reserve, together with lectures, for which an expertise program will be prepared. It will include different versions for various school levels (grades K-12). The existing object at the edge of the reserve will be rearranged for the needs of research, popularization and education.

Current recreation and tourism:

Tourist arrangement and organizing, matched with the protection of natural values, with the adequate promotion, is an important potential of the sustainable development of Slano Kopovo. In order to properly develop the tourist potential, it is necessary to make an Action Plan for Sustainable Tourism in SRP "Slano Kopovo", arrange presence of a guide and the other conditions for the expert program of presentation of natural values, tidy up the information center, admission points and eco- paths on the terrain, for group and individual visits, prepare the information tables, mark the directions of visitors' movement on observation points.

An important potential of sustainable development of Slano Kopovo is primarily the tourism, based on planning and organizing of primarily the special, so-called ecological tourism. An advantage to this is the fact that Slano Kopovo represents one of the last conserved ponds on salt ground of Vojvodina, with a typical halophyte vegetation, which is, not only in our country but in whole of Pannonian plain, in phase of extinction. In the same time, this area also represents a very important and significant center of biological diversity of wildlife in our area, as well as one of the most important and most characteristic habitats for birds in Serbia. We should also not forget the fact that this is a unique migration stop for migratory birds, especially the Common Crane. This natural property is also characterized with presence of very rare plant and animal species that can be seen only here.

With that in mind, investment into tourist arrangement and organization, with the adequate promotion, should contribute to placing this activity together with all the others into one of the main ones in the future development, matched primarily with conservation of main natural values.

One of the more important means of utilization of Slano Kopovo is hunting. The most important game species in this area are birds, primarily Pheasant, Grey Partridge, Quail and Mallard. Of the mammals, subjects of hunting are Hare and Roe Deer. The existing and future offer in hunting tourism should be improved with a possibility of "hunting with a camera", not only of official game animals, but also other very attractive bird species. We consider this a very important aspect of hunting in the future.

The cultural and educational function of the protected natural property will be accomplished according to the specialized programs and the target groups of visitors and users of the Reserve. The main goal is the arrangement of these programs and a suitable technical arrangement.

## Threats and responses:

On the western shore of the area there are orchards, vineyards and cereal fields with several bungalows and cottages. As they are in the zone III and were built earlier, their presence does not present a special problem at this time. However, it is necessary to further follow the happenings in this area in order to do the revitalization measurements. Inside of the protected property there are several small paths. Their existence is negative due to destroying of the habitat, disturbing birds and other species, and polluting the soil, so the interest of conservation is control of use of these paths.

The destroying of reed beds (burning or chopping) was previously a regular negative factor within the protected area, and in recent times it occurs sporadically in Poštaš Kopovo. Burning leads to the loss of habitat for birds and other organisms that live in the zone of emerging vegetation.

The insufficiently controlled utilization of chemical means to protect the plants (destroying pests and weeds), as well as artificial fertilizers, represents a very important problem in conservation of birds and other natural values of Slano Kopovo. In the process of circulation of matter, these harmful materials get into the depressions, and either directly or indirectly get introduced into the body of the birds and other living things, causing negative consequences for their life and health. Two decades ago, it was recorded that 45 Common Cranes (*Grus grus*) died due to improper use of a zinc-phosphide chemical for poisoning rodents in agricultural use. These factors were not recorded recently.

(a) in the surrounding area:

Building of certain objects in the wider area is one of the problems for nature protection. Dumping various poisonous materials, mainly agriculture pesticides, around and partly within the protected property was present in several places. This included building material, various bottles (including packages of poisonous chemicals), utensils and tools from households, plastic matter etc. All this garbage represented a negative influence on the reserve, especially the water mirror of the lake. There is still an illegal waste dump in the depression of Kopovo in immediate vicinity of the settlement Novi Bečej, representing one of the greatest ecological problems of the whole region.