

## Slovakian section I.

**Date:** October 15, 1996

**Country:** Slovak Republic

**Name of wetland:** Wetland between Upper Tisa and River Latorica

**Geographical coordinates:** 48° 28' 47'' N, 22° 08' 39'' E

**Altitude:** Minimum is 99 m, the maximum is 103 m, with an average of 100 m above Baltic sea level

**Area:** 500 ha

**Overview:** The site represents the old arm of the previously meandering River Tisa and the surrounding area which is separated from the living river system by dikes (the interdiike area is the Latorica Ramsar site). Most of these valuable natural wetlands have been damaged by the construction of drainage channels and other projects, with only a small area still remaining (as natural reserve).

**Wetland type:** W, T, 3,4,9

**Ramsar criteria:** 1a, 2b

**Map of site included?** see Map

**Name and address of the compiler of this form:**

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**General location:** The proposed River Tisa Ramsar site is located in the southern part of Eastern Slovakia, specifically in the subregion of the East Slovakian Lowlands. It has a natural border with the present Latorica Ramsar site (which is a 4,358 ha, 22 km long interdiike area of River Latorica between the Ukrainian border and the confluence with River Laborec). It is located within the county city of Trebišov and the nearest town is Kráľovský Chlmec.

**Physical features:** The existing geological substrate forms rocks of the Upper Miocene up to Pliocene, represented mostly by marl, mica and sandy clay. Soil types are typical clays and sandy dunes. Potential evapo-transpiration is 750 mm but yearly precipitation is 620 mm and specific water outflow from the area is 130 mm. The extreme shortage of rain precipitation is 260 mm. This area is represented by subcontinental climate, hot summers and cold winters, with

average temperatures of 9,5 C°. Water quality is poor with pollution occurring from nearby villages (without treatment of wastewater) but mainly from agricultural lands (i.e., artificial nutrients, pesticides, etc.). In the current situation there is no proper hydrological connection between the old riverbed system and the channelized water within the interdiike area. This lack of connection results in the disappearance of the water.

**Hydrological values:** In addition to the problems with floods and inhabitants, the natural environment is experiencing a shortage of water during the summer months and in this area there is usually drought in the summertime. There is a loss of connection between the present altered river system and the previous riverbed system. During this time, local governments and state authorities are preparing revitalization projects for the entire River Tisa area (these projects are especially focused on the changes in the hydrological regime of the old riverbed system of River Tisa).

**Ecological features:** The most important phenomenon in the River Tisa area is the remaining part of the old Tisa riverbed (natural reserves) which is slowly being filled up with sediments, resulting from intensive agricultural activities in the surrounding areas. About 35 associations are reported, and about 45 taxa of threatened plants and their communities - *Hydrochari-stratiotetum*, *Nuphar lutei-Nymphaetum albae*, *Trapaetum natantis* and various littoral communities. The most dominant willow shrubs include: *Salix cinerea*, *Salix fragilis*, *Salix purpurea*.

**Noteworthy flora:** *Nymphaea alba*, *Nuphar luteum*, *Stratiotes aloides*, *Trapa natans*, *Aldrovanda vesiculosa*, *Beckmannia cruciformis*, *Batrachium baudotii*, *Elatine alsinastrium*, *Ranunculus lateriflorus*, *Leucojum aestivum*, *Solanum dulcamara*, and *Glechoma hederacea*.

**Noteworthy fauna:** Insects: *Mantis religiosa*, *Odonata*, *Aorida hungarica*.  
Birds: *Ardea purpurea*, *Ciconia nigra*, *Porzana porzana*, *Rallus aquaticus*, *Perdix perdix*, *Anas platyrhynchos*, *Circus aeruginosus*, *Falco naumanni*, *Luscinia svecica*, *Locustella luscinioides*, *Merops apiaster*, Mammals: *Sus scrofa*, *Capreolus capreolus*, *Lepus europaeus*.

**Social and cultural values:** Citizens in this area have lost their identity and connection to the land, because the natural environment has been transformed. Fish and game production have also decreased. This area includes very important archeological sites in the villages Zemplin and Leles. The majority of the population in this area are of Hungarian nationality.

**Land tenure/ownership of:**

- (a) Specific site: It is still not clear who the owners are. The re-privatization process has not been finished yet. The greatest part of the area belongs to private owners and local communities.
- (b) Surrounding area: On the north side is the Latorica Ramsar area that is divided by dikes. The rest of the surrounding areas are agricultural lands with intensive farming.

**Current land use:**

- (a) Site: The main economic activity in this area is farming. People use these sites mostly as arable lands, pastures and vineyards. The largest proportion of this land has been channelized (long system of ditches) for draining the land.
- (b) Surrounding/catchment: Same as above (a).

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

- (a) At the site: The completed water channels and changes in water regime have negatively affected the ecological stability of the wetland and entire area is now very dry, especially during the summer.
- (b) In the surrounding/catchment: Air pollution (industrial dust and SO) from the Vojany Power Plant, drainage so as to lower water levels in agricultural lands, and a rapid decrease of forest lands.

**Conservation measures taken:** The whole proposed Ramsar site is a part of the Medzibodrožie (inter-river space between River Latorica and River Tisa) where the natural environment has been protected in the form of natural reserves: Zátény, Debnárske, Veľké Jazero. The largest part of this area was channelized and drained for intensive agricultural purposes and the sandy hills were used for vineyards. Most of the human activities in the area are not restricted.

**Conservation measures proposed but not yet implemented:** To this date, no special proposals or measures have been prepared, except for the existing natural reserves.

**Current scientific research and facilities:** Research has been performed in this area mostly by experts from Slovakian scientific institutes, universities and NGOs. Research is currently being conducted but it will be necessary to harmonize its goals and implements.

**Current conservation education:** This region does not have a special focus on environmental education, but throughout the area a well-organized campaign for the protection of wetlands has been launched. We would like to initiate also the reconstruction of the old riverbed of River Tisa. It will be a unique example to show the principles of sustainable development.

**Current recreation and tourism:** The site does not belong to the important recreational areas of Slovakia, but there is a potential for closer co-operation in tourism and recreation between Ukraine and Hungary when the borders will be more permeable.

**Jurisdiction:** Slovak Environmental Agency - branch Košice, Zvonárska 22,040 01 Košice

**Management authority:** The management of this wetland has been cared for by an association of surrounding villages in the Medzibodrožie area. This association is currently preparing a revitalization project.

### ***References***

Surveys and research have been conducted, however, their results are not available.