3rd International Conference - Water resources and wetlands. 8-10 September, 2014 Tulcea (Romania);
Available online at http://www.limnology.ro/wrw2016/proceedings.html
Editors: Petre Gâștescu, Petre Bretcan; ISSN: 2285-7923; Pages:245-250; Open access under CC BY-NC-ND license

SINCE 60 YEARS HUNGARIAN-AUSTRIAN WATER COMMISSION SPECIFIC EXAMPLE THE CROSS BORDER LAKE FERTŐ TÓ/NEUSIEDLER SEE

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ABSTARCT
After World War II the Hungary and Austria were forced to set up some sort of rules on how to continue the management of the cross border water systems. After relative short negotiation a Hungarian-Austrian Water Commission was established in 1956 and the convention came into force in 1959. The commission makes decisions and adopt a resolution by the principle of unanimity and the resolution are later brought up to and approved by each national government. In the Danube River Basin Neusiedlersee/Fertő tó consisting of two water bodies (AT/HU) has a basin-wide importance. One of the most important objectives of the common lake management to keep the good ecological status.

Keyworlds: Bilateral water commission, water management between Hungary and Austria, Fertő tó/Neusiedlersee

INTRODUCTION

Before 1921 in the historical time of the Austro-Hungary Monarchy the Austrian federal state Burgenland was part of West Hungary. At the time there was no major water management task in the region. Going back in time, the stake holders along the Rába river in 16th.of November 1873 founded an enterprise called "Rába River Regulation Association"[1].

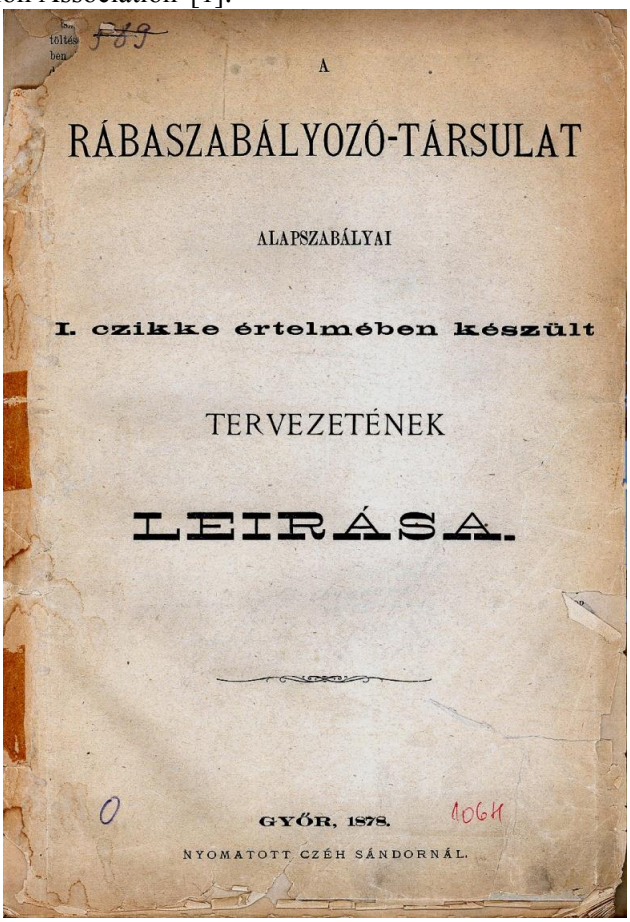
A
RÁBASZABÁLYOZÓ-TÁRSULAT
ALAPSZABÁLYAI
I. czikke értelmében készült
TERVEZETÉNEK
LEIRÁSA.
GYŐR, 1878.
NYOMATOTT CZÉH SÁNDORNÁL.

Figure 1. Statutes of the Rába river Regulation Association 1878

This enterprise built extensive drainage systems for the river Rába, which is the major cross border river between Austria and Hungary. Concerning the lake Fertő tó/Neusiedler See, there were plans to drain the area and convert it into productive agricultural land. Up to 1905, the Hanság-channel was built, enabling water from the lake via Győr to discharge into the Danube River. After World War I, in the treaty of St. Germain and Trianon, Burgenland became Austrian territory and the rivers, channels, lakes became cross

border characters. For the Fertő tó/Neusiedler lake this meant that a country border divided the lake, two third in Austria and one third in Hungary. Between the world wars, there was a loose agreement between the states about the management of the border waters. In the period 1938 - 1945 the German Empire financed the works of joint interest. After World War II the countries were forced to set up some sort of rules on how to continue the management of the cross border river and drainage systems, and the Fertő tó/Neusiedler See along the border zone. In 1954 on Hungarian initiative begun the negotiation between the two countries to aim knew comprehensive border water management treaty. The principle of the negotiation was solidarity and equality. After relative short negotiation a Hungarian-Austrian Water Commission was established in 1956 and the convention came into force in 1959 [2].

BUNDESGESETZBLATT

FÜR DIE REPUBLIK ÖSTERREICH

Jahrgang 1959 Ausgegeben am 27. Oktober 1959 58. Stück

225.

Vertrag zwischen der Republik Österreich und der Ungarischen Volksrepublik über die Regelung der wasserwirtschaftlichen Fragen im Grenzgebiet.

Egyezmény az Osztrák Köztársaság és a Magyar Népköztársaság között a határvidék vízgazdálkodási kérdéseinek szabályozása tárgyában.

Törvényerejű rendeletek

A Népköztársaság Elnöki Tanácsának 1959. évi 32. számú törvényerejű rendelete a Magyar Népköztársaság és az Osztrák Köztársaság között a határvidék vízgazdálkodási kérdéseinek szabályozása tárgyában Bécsben, az 1956. évi április hó 9. napján aláírt egyezmény kihirdetéséről.

Egyezmény a Magyar Népköztársaság és az Osztrák Köztársaság között a határvidék vízgazdálkodási kérdéseinek szabályozása tárgyában.

Abb. 21: Gewässerverträge Österreich und Ungarn; Auszüge aus den Gesetzblättern.

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Figure 2. Water management treaty between Republic Austria and People Republic of Hungary. 1959

THE TREATY

The commission has four official members. They are, for each country, one "first" plenipotentiary and one "second" plenipotentiary of the delegation and two deputies for the permanent delegations. The delegates are representatives from the member governments and in addition to the official members, water managers, chemists, biologists from the regional level, in Austria from the Federal State Office of Burgenland, and in Hungary, from the North Transdanubian Water Directorate, serves as expert consultants and providers of data and information to the commission. Attached to the commission are a sub-commissions leaded by "second" plenipotentiary who is the director of the local Water Directorate. Some of the experts groups from the parties are of more permanent nature, dealing with issues such as flood control, sharing of ground water resources, surface water quality while other are formed ad hoc, when there are needs for them. Officially, the commission meets once a year. During one week, the commission discusses issues related to water management of all border waters between Austria and Hungary. Before the official meeting, there is a preparatory meeting with sub-commissions, where the minutes for the official meeting to a large, detailed extent are prepared, by the local experts. The commission makes decisions and adopt a resolution by the principle of unanimity and the resolution are later brought up to and approved by each national government. The member governments finance the work performed within the frames of the commission, based on the costs shares due to the resolution. In the case of necessity (emergency) there is a possibility for an extraordinary meeting of the plenipotentiaries

The commission was established in order to promote co-operation in matters of water management and economy. The main duties of the commission are described in the treaty and include:

- Make decisions on the practical solution of technical and economic water management problems and promote co-operation in water questions,
- Plan hydraulic works and approve of methods of execution and maintenance,
- Supervise jointly executed works and measures,
- Suggest measuring operations and preparation of studies in connection with hydraulic construction work,
- Operate monitoring systems,
- Joint legislation, water licensing in a 6 km. zone.

According to the treaty, the main focus of the commission is to facilitate and manage hydraulic construction work in the border region. A water license can be issue in 6 km. border zone only with the agreement of the Commission. Parties can do no measurement with negative impact of downstream country outside the 6 km. zone.

The sub-commissions and experts groups working more problem oriented. The commission gives these groups specific tasks, such as investigation of the water quality and sluice regulation in Lake Neusiedler, which then implies data collection on specific issues. Usually, the commission takes the formal decisions about data and information collection after recommendations from the regional experts. The data exchange is free of charge. Strategies on how to collect water quality and hydrological data are written in a bilateral agreement between the countries, which regulates a joint monitoring programme. The data from the national or local monitoring programmes are stored in national databases at the water directorates. Results from the bilateral monitoring are stored in joint databases.

There are no problems in getting access to the other country's monitoring data. This is regulated in the treaty, which guarantees exchange of data. Results from the monitoring, together with information concerning flood protection and surface water and groundwater protection, are written down in the agenda of the commission meeting. This information serves as a basis for the decisions made by the delegates, which later are to be approved by the two governments.

The official languages of the commission are German and Hungarian, but since the Hungarians in the border area often are fluent in German, this is often used for more informal contacts.

The commission itself holds a press conference after the annual meeting, to which interested parties are welcome to participate. Every ten years, the commission publishes a brochure about the co-operation and the commission work. This brochure is available through the municipalities in the region.

In addition, there are some ad-hoc publications, e.g. for informing people about the water management, about different projects in the border area. In these days internet and web became more intensive and effective. But the main channels for communication with interest groups and the public are actually not through the commission itself, but through the regional water authorities, which, among other things communicate with the municipalities in the region.

FERTŐ TÓ/NEUSIEDLER SEE

In the Danube River Basin Management Plan, six important lakes >100 km^2 are identified as being of basin-wide importance: Neusiedlersee/Fertő tó consisting of two water bodies (AT/HU), Lake Balaton (HU), the Yalpug-Kugurlui Lake System (UA) consisting of the lake water bodies Yalpug and Kugurlui as well as the the Razim-Sinoe Lake System (RO) comprising Lake Razim and Lake Sinoe (also a transitional water body) (Danube River Basin District Management Plan, 2009).

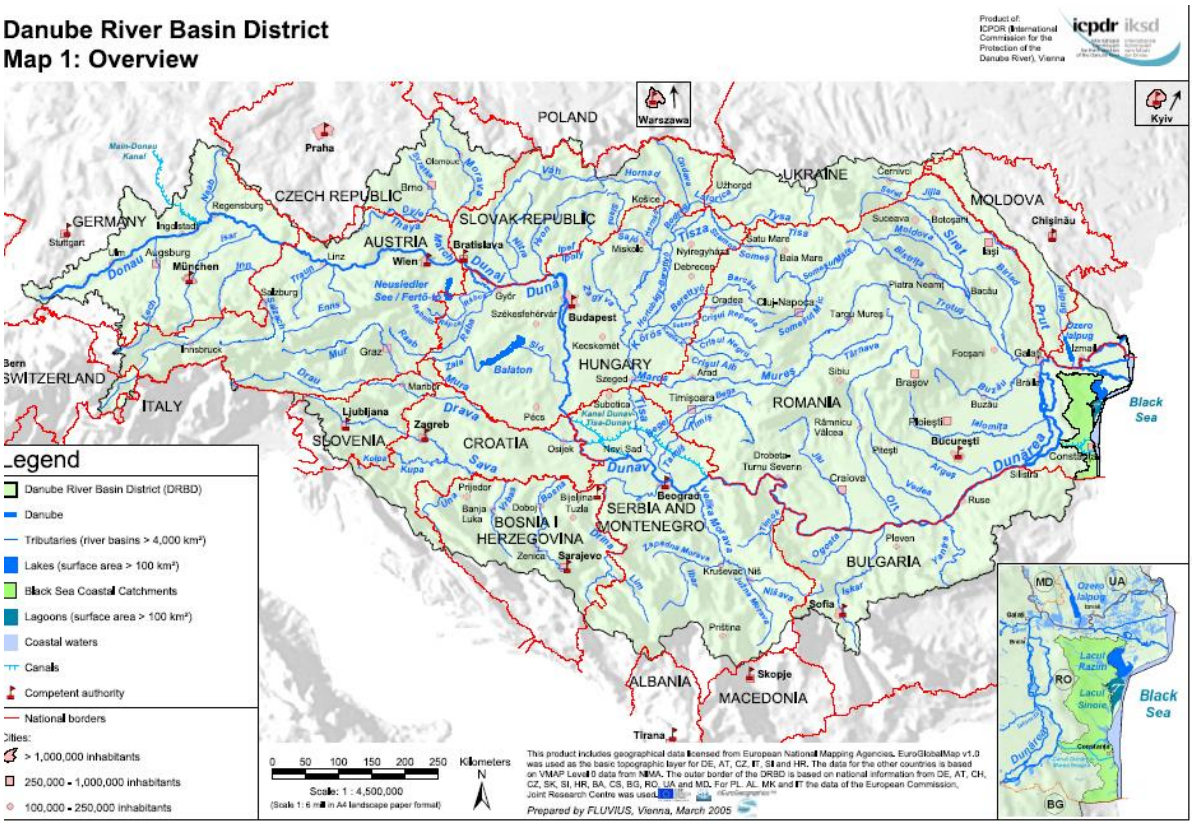

Figure 3. Lakes of basin-wide importance

The lake

Natural lake of tectonic and erosion origin.
Location of the lake: Austria/Hungary
Burgenland/Austria – Győr-Moson-Sopron County/Hungary
Coordinates: Longitude: 47^0 38' – 47^0 57'(N) Latitude: 16^0 41' - 16^0 52'(E)
Lake surface: 32,88 km^2 at 116,00 above Adriatic see level (m.A.s.l) [4]
Mean water level: 115.45 m. m.A.s.l. (highly astatic, fluctuating water level)
Regulation level: winter 115.70 m.A.s.l.,summer 115.80 m.A.s.l., transition 115.75 m.A.s.l.
Lake mean water volume: 2,5 million m^3
Water balance: Precipitation 574, Total inflow 180
Evaporation 660, Outflow 85
Total positive: 754
Total negative: 745
Total catchment area: 1116 km^2 (952 km^2 in Austria, 164 km^2 in Hungary)
Natural features: The kidney-shaped lake is overgrown with reed. [5] The open water is surounded by 181 km^2 reed belt (64 km^2 H 117 km^2 A), which is the largest closed monoculture of Phragmites area in Central-Europe. The reed area is more than 50 % of the whole lake surface and in the Hungarian part is about 85 %. Due to the rising and stabilising the water level reed growth was stopped. There have been reports in the past of lake area exceeding 500 km^2 and in the last two centuries the lake almost or completely dried out on several occasions. The water level was stabilized by the outlet sluice do to the resolution of the Hungarian-Austrian Water Commission. The lake is one of the most turbid, opaque inland waters in Europe, with a low degree of transmission. Even light breezes whirl up mud and organic/inorganic substances. The overall trophic situation of the shallow lake is meso-(eutrophic). The Fertő tó/Neusiedler See is the last and most western member of a so-called soda like lakes in Europe. UNESCO Biosphere Reserve, European Biogenetic Reserve, IUCN National Parks, World Natural Heritage (Wolfram et. al., 2014).

Figure 4. Lake Fertő/Neusiedler Landsat-8 OLI, 2013.07.29., Image courtesy of the U.S. Geological Survey

The mysterious lake
1318. Partly dried out instead of lake formed a river.
1410. High water level population escape to East, Apetlon was established
1568. Low water level period 1674. Lake width aprox. 3830 m. by Ruszt notice in Seehof
1693.-1736. Water surface slowly disappear against high precipitation.
1740. Lake dried out. Agricultural activity was planned.
1768.-1769. Water level begin to rise.
1786-os Lake surface > 500 km2. Several thousends of acres under water. Farmers escaped.
1801 Water level begin to drop.
1811 Completly dried out.
1838. March. Flood events 356 km2 surface level.
1865. By Apetlon and Eszerháza narrow water surface, lake bottom dried out.
1872.-1880 High water level again, 2-3 m. water depth.
1902. Low water level. Commission was delegated by the Ministry of Agriculture. (Sontagh commission) Chemical and physical investigations.
1905 Regulated water level

Resolution of the Hungarian- Austrian Water Commission
Short term: no need of endowment from the ecological point of wiev
Long term: climate change and a hazard of disapperarance of the lake as a landscape, endowment needed. Endowment may lead to massive eutrophycation process. Decrease of typical salt content of the lake water and a massive habitat changes may occure.

Objectives of the common lake management

1. Reed belt growth decreasing.
2. Reduce point like loads.
3. Minimize diffuse loads.
4. Reduce internal-loads.
5. Sustainable reed management
6. Common H-A lake strategy
7. Fertő lake environment objective: keep the good ecological status.

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