

## **Gabcikovo – 10 Years After the Conflict**

***24 October 2002 marked the 10<sup>th</sup> annual day for the operation of the Gabcikovo hydrodam system. For years, this project was one of the hottest water disputes in Europe but until today a conflict resolution is pending.***

At Bratislava, the Danube enters the Hungarian plain where it formerly deposited a big fan of sediments. The Danube runs on top of this gravel and sand body which is filled with one of the largest groundwater reservoirs. This so-called “inland delta” is a very dynamic network of forked and meandering arms that regularly changed its structure. This wild system was tamed since 1880 in various river engineering steps, thus improving navigability and local flood protection.

Modern river engineering was initiated only in September 1977, when a joint treaty was signed between Czechoslovakia and Hungary to construct the Gabcikovo-Nagymaros river dam complex. Objectives were to improve navigation and flood protection, and to more intensively exploit the river by producing peak power at the Gabcikovo dam, with the resulting flood waves being caught up in the 130 km long reservoir impounded by the Nagymaros dam.

While Czechoslovakia completed most of the scheme in the 1980s, Hungary started late and then with a building support by the Austrian Donaukraftwerke (Danube Powerplant Co.). In 1989, however, as a result of public protests and change of political powers, works were halted: The multiple critique in Hungary but also from international experts and environmental groups led in May 1992 to the abandonment of this party from the bilateral treaty.

Czechoslovakia on the other hand, having already invested very much into the construction, decided in 1991 to quickly build a unilateral solution in form of a new river diversion dam at Cunovo, only a few hundred meters upstream the Hungarian border. While new bilateral negotiations were reinforced by the European Commission, Slovak engineers dammed the river bed in late October 1992 and started operating the power plant. Since then, over 80% of the river flow and all commercial navigation are directed through the 25 km long Gabcikovo side-canal.

As a result, parts of the Danube bed and the extended side-arm system fell dry. In spring 1993, artificial irrigation systems started providing water for these floodplain biotopes on both sides of the river (altogether 8,000 hectares). However, numerous dikes and cross-barriers dissected the former open and interconnected ecosystem into separated parts. The Danube lost its function as a “life pump” regularly moistening and draining the riparian landscape. The stabilisation of formerly very dynamic hydrological and morphological processes led to a continuous degradation, with many forest areas drying up and fisheries receding, with rare pioneer habitats and species having gone. Also the former purification effects for Danube waters through the filtering process in the rich vegetation and soils are lost today.

In March and April 1997, the legal dispute between both states was discussed under world-wide attention at the International Court of Justice in The Hague, Netherlands. On 25 September 1997, the judges ruled “that both Parties committed internationally wrongful acts”: They must now negotiate a new solution jointly using the present technical variant (i.e. without Nagymaros) “in such a way as to accommodate both the economic operation of the system of electricity generation and the satisfaction of essential environmental concerns.” In deed, there exist new proposals by Slovak, German and WWF experts to restore the river-floodplain system.

Since autumn 1997, both parties conducted a number of negotiations without yet finding a joint solution. Today, Gabcikovo is a major economic burden, as the costs for large credits and dam maintenance cannot be covered by the income made from hydropower. 24 October was no day to celebrate, neither for the environmentalists nor for the dam operators.

[Written by Alexander Zinke, Vienna. Published in *Danube Watch* no. 2/2002, pp. 14-15.]



Photo 1: View into the “old” Danube river bed near Gabčíkovo, lacking over 80% of its discharge (© Zinke, 09/2002).



Photo 2: The formerly open side-arm system is since end of 1992 disconnected from the river and, here on Slovak side, turned into a system of artificially irrigated and stabilised cassettes (© Zinke, 04/2002).