



Results overview for the Drava river basin (Croatia)

This fact sheet summarises the results of the Water and Wetland Index for the Croatian part of the Drava river basin. Information about the project and the different issues presented in this fact sheet can be found in the WWF Report “Water and Wetland Index - Critical issues in water policy across Europe” (2003).

Water Resources in the Croatian Drava

The River Drava flows 715 kms through Central Europe, a continuous riverine corridor that, together with its main tributary the Mura, forms a ‘lifeline for nature’ through the heart of the continent. Its upper reaches in Austria and Slovenia are used for electricity production, and in Croatia the upper Drava floodplain is modified by three large hydropower dams (Varazdin, Cakovec and Dubrava). Remnants of the original meandering river channel between the dams still remain and support rich nature, but are currently being destroyed through river channel straightening and allied gravel extraction. Downstream the Drava is a unique river, parts of it never regulated: a precious surviving fragment of the Central European floodplain heritage.



Application of Integrated River Basin Management principles

Public participation in water management

Information provision

The active provision of information to non-governmental stakeholders occurs in isolated cases. Means used to spread the information should be adapted to the characteristics of the final recipients (e.g. not all Croatian citizens have access to the Internet). There are efforts to improve information provision, but the existence of information tools (e.g. journal on water issues, a Teletext page of the Croatian Waters Directorate) should be better advertised.

Existence of arrangements¹ ☹️

Adequacy² ☹️☹️

Public consultation

Public consultation normally occurs only when it is compulsory by law (e.g. for Environment Impact Assessments) and following procedures that do not facilitate the public response. The Water Management Master Plan, currently under elaboration, will not be made public before its adoption.

Existence of arrangements ☹️

Adequacy ☹️☹️

Active involvement

The active involvement of non-governmental stakeholders through cooperation councils or fora is almost non-existent. This is due both to the weakness of civil societies that are still building their capacity and to the lack of tradition and expertise in this field in the Public Administration sectors. Croatia is planning to improve its public participation processes, especially with a view to achieving the EU Water Framework Directive (WFD) requirements.

Existence of arrangements ☹️☹️

Adequacy ☹️☹️

¹ This assesses the existence of arrangements (e.g. the celebration of information days, the existence of public consultation procedures, the existence of water management plans, etc).

² This assesses the adequacy of the existing arrangements and their implementation on the ground. It is based on the opinion of WWF, partner NGOs and other water stakeholders.

Integrated management of water resources

Transboundary cooperation

There are international agreements with Hungary and Slovenia, but not with Serbia and Montenegro (currently under development). These agreements mainly deal with flood management and measures related to water quality and quantity, while cooperation on biodiversity issues is almost nonexistent. Steps are being taken to improve the agreements, and a project is developed by Croatia for the Integrated River Basin Management of the international Drava River.

Existence of arrangements	
Adequacy	

Integration of competencies in water management

Water management is highly centralised and water management responsibilities are distributed between the State Water Directorate and the central and regional branches of the Croatian Waters Company, with a prevailing body of engineers and very few environmental specialists.

Existence of arrangements	 
Adequacy	 

Integration of water policy with sector policies

The needs of sectors depending on water, including natural ecosystems, are not considered in a holistic way and in some cases such as the gravel extraction activities, this lack of integration has significant negative effects on the environment and the populace.

Existence of arrangements	
Adequacy	 

Wetland management

Integration of wetlands into water management

Too often wetlands are considered as unproductive lands. Water management authorities do not consider the values and needs of wetlands in the planning process.

Existence of arrangements	
Adequacy	 

Wetland protection policy

The Biodiversity and Landscape Protection Strategy is the only document referring to the need for wetland protection and there is no explicit governmental policy for wetlands protection. Moreover, lower categories of protected wetlands are not taken into account in water management planning. There is no management plans for any protected area along the Croatian Drava, although a World Bank project is supporting the development of a Management Plan for Kopacki rit Nature Park at the Danube-Drava confluence.

Existence of arrangements	
Adequacy	 

Wetland restoration policy

The Biodiversity and Landscape Protection Strategy identifies some wetlands in need of restoration. However the Ramsar National Report of Croatia states that there is no need for wetlands restoration in the country. There are no restoration projects under way. Some restoration activities are being considered in the framework of the Danube Convention and in Kopacki rit Nature Park.

Existence of arrangements	 
Adequacy	 

Response to key pressures and impacts on freshwater ecosystems

Water quantity problems (agriculture)


Approach to the problem

The problem of water quantity is not officially recognised and addressed in the Danube-Drava District Water Management Master Plan. This is likely to change after the prolonged droughts that hit Croatia in the summer of 2003.

Adequacy 


Legal & regulatory instruments

The legal and regulatory instruments are reasonably good but their practical enforcement is poor.

Adequacy 


Financial & economic instruments

Except for charges for water abstraction, there are no economic incentives to change water consumers' behaviour toward water-saving practices. Moreover, farmers are charged for irrigated area rather than for consumed volume, which gives little incentive to use water wisely.

Adequacy 

Information & voluntary instruments


There are no information tools to influence water-consumption patterns in agriculture.

Adequacy 

Water quality problems (household)

Approach to the problem

The problem of water pollution by domestic water use is acknowledged, but the existing instruments are not enough to solve it..

Adequacy 

Legal & regulatory instruments

The regulatory framework is generally good, but the enforcement of the law is poor.

Adequacy 


Financial & economic instruments

The water authority provides funds for the construction of wastewater treatment facilities, but as co-financing is required by local water associations and large water users, in many cases this is not sufficient to ensure the completion and subsequent operation of the facilities. Nevertheless, the Drava Basin has the highest number of wastewater treatment facilities in the country.

Adequacy 

Information & voluntary instruments

There are very few initiatives in this field.

Adequacy 

River fragmentation due to infrastructure

The fragmentation of water bodies resulting from existing dams – and the unnatural daily flood wave from the electricity generating cycle – has had huge effects on the migration of fish and their spawning, resulting in a large decline in fish populations in the Drava River. Local people have suffered negative effects from existing dams, such as changes in groundwater levels, fisheries decline, forests drying up, and changes in local microclimate, and are therefore strongly against the construction of any more dams.

River fragmentation and dams



Local authorities in the affected areas have been demanding mitigation of the destructive impacts of the existing dams, as well as the exclusion of the Novo Virje dam from the local spatial development plans. Dialogue among all the involved parties - local communities, local authorities, regional and national authorities – needs to be urgently opened to solve conflicts and find solutions that are less harmful for the environment.

The current river regulation works are destroying the surviving remains of the old natural riverbed upstream from Varazdin, and converting it into a straightened channel with a series of ponds. Side branches are being blocked all along the river. These works are accelerating at present, encroaching on the last natural areas of this section of the Drava.

In many cases the flood prevention measures seem to exceed what is necessary. Complex, expensive and environmentally damaging flood defence infrastructures are being built in places where the oldest inhabitants cannot remember their waterways ever flooding. Sustainable flood management approaches, such as the opening of branches and wetlands to give space to the river and reduce downstream flooding, are still to be introduced on a larger scale into the flood defence planning of Croatia.

River fragmentation and flood defence



Legend:

Good



Fair



Poor



Very poor



Note: In 'Adequacy', where there is a double score, the face on the left of the slash represents the assessment of the adequacy of the instruments themselves, while the face on the right represents the assessment of the implementation of the instruments 'on the ground'. Where no double score is specified, it means that the two aspects got the same score.

Further information

The WWI for Croatia was completed by ZEUS, Green Action and WWF.

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