

Watch your Danube



Fact Sheet 2

JDS3 and Water Framework Directive (WFD)

About the Joint Danube Survey 3: The Joint Danube Survey 3, also known as 'JDS3', is the world's biggest river research expedition in 2013. Its main goal is to produce highly comparable and reliable information on water quality and pollution for the entire Danube River and many of its tributaries and to raise awareness about the importance of the Danube and sustainable water management. The International Commission for the Protection of the Danube River (ICPDR) coordinates the implementation of JDS3. Launched on August 14, 2013 from Regensburg, Germany, the boats of the JDS3 will travel 2,375 km downstream the Danube River, through 10 countries, to the Danube Delta in Romania and Ukraine until late September.

Among its many uses, the information derived through the Joint Danube Surveys (JDS) has been essential for supporting the efforts of the ICPDR and Danube countries in its coordinated steps to meet the EU Water Framework Directive (WFD).

EU Water Framework Directive (WFD)

The EU WFD came into force in December 2000. It establishes a legal framework to protect and enhance the status of aquatic ecosystems, prevent their deterioration and ensure the long-term, sustainable use of water resources. It is possibly the world's strongest water legislation and is legally binding for all EU Member States.

The WFD requires all EU surface inland waters, transitional and coastal waters, to achieve 'good chemical and ecological status or potential' by 2015. 'Good chemical status' basically means that the water should be clean. However, it is not enough for a river to only have clean water without anything living in it. That is why the WFD also requires 'good ecological status', whereby waters must provide good conditions, for natural species to live healthily. For example, many fish need natural sand bank habitats for spawning, but this may not be available along an engineered stretch of river even though that stretch might have 'clean water'.

The WFD also requires countries to apply 'river basin management' as the main tool to reach the objectives of the WFD, and to have developed a 'River Basin Management Plan' by 2009. These had to identify the measures that countries would take to reduce pollution and to restore and protect natural habitats where possible, to meet the WFD by 2015.

For better coordination, the WFD calls for the creation of international districts for river basins that cover the territory of more than one EU Member State. The relevant area for water management is defined by clearly outlined water catchment areas rather than national borders. It further establishes several integrative principles for water management, including public participation in planning and the integration of economic approaches, and aims for the integration of water management into other policy areas.

When the WFD was adopted in October 2000, all countries cooperating under the Danube River



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Protection Convention (DRPC) decided to make all efforts to implement the Directive throughout the whole basin. The Non EU Member States committed themselves to implement the WFD within the frame of the DRPC. The ICPDR became the platform for coordinating basin-wide WFD-related activities.

Danube River Basin Analysis

In 2004, the first step of the WFD process was finalising the Danube River Basin Analysis (DBA), for which the Joint Danube Survey 1 of 2001 was a key information provider.

The overall aim of the DBA was the identification or estimation of surface water bodies (i.e. rivers, lakes, transitional waters, and coastal waters) at risk, possibly at risk or not at risk of failing the WFD environmental objectives in 2015, in relation to four main pressures: organic pollution, hazardous substances, nutrients and hydromorphological alterations (i.e. to the physical characteristics of a water body's shape, boundaries and content). It was the first comprehensive description of the basin's transboundary surface and ground waters, and significant human pressures which impact them. The DBA further provided an inventory of protected areas, an economic analysis and information on public participation.

Significant Water Management Issues (SWMI)

In January 2008, the ICPDR prepared a document on *Significant Water Management Issues (SWMI)*, largely based on the DBA. It highlighted four specific SWMIs for surface waters -- pollution by organic substances, pollution by nutrients, pollution by hazardous substances, and hydromorphological alterations. Each SWMI was accompanied by a vision and a number of management objectives to be achieved by 2015. For example, the vision for surface water organic pollution was zero emissions of untreated wastewater.

The SWMI document represented the basis for the WFD-required completion of the *Danube River Basin Management Plan* and its *Joint Programme of Measures*.

Danube River Basin Management Plan (DRBMP)

The Danube River Basin Management Plan (DRBM Plan) was completed in December 2009. It is one of the most comprehensive analyses ever attempted of the status of, and management options for, a major river system. Involving over 200 experts from 14 countries and the EU, as well as hundreds of people living in the region, it helped to fill the gaps and update the findings from the DBA of 2004.

It is structured according to the above four SWMIs which affect the status of surface waters and 11 transboundary groundwater bodies of basin-wide importance. The DRBMP was based mainly on data from countries, the ICPDR's Transnational Monitoring Network (since 1996) and the Joint Danube Surveys (2001 and 2007). Although many gaps and uncertainties still exist, the Plan gave a detailed picture of the condition of the entire Danube River Basin for the first time.

Given that the WFD requires Member States to encourage the active involvement of all interested



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parties in planning, the ICPDR used a strategic approach to make public participation central to the development of the Plan. Multiple channels for communication were set up, including a Stakeholder Forum and an ICPDR ‘Participate’ website. Visited by more than 3,000 people, the site helped raise over 300 water issues (from hormone pollution to infrastructure projects), nearly all of which are being used in the next steps of the process.

The Plan included a *Joint Programme of Measures (JPM)* of basin-wide importance which sets the framework for more detailed planning at the sub-basin and/or national level. It goes on to outline visions for each issue to achieve an improved and sustainable water environment, continuing on from the visioning work done earlier for the SWMIs. For example, the vision for hazardous substance pollution is *no risk or threat to human health or the aquatic system*.

Furthermore, it indicated where the proposed measures remained insufficient to meet the WFD requirements on a basin-wide scale by 2015, and proposed additional actions and further monitoring efforts. In effect, the DRBM Plan found that many WFD targets will not be met by 2015. The WFD provides for exemptions to the general objectives that allow for an extension of the deadline beyond 2015, less stringent environmental objectives or the implementation of new projects, provided a set of conditions are fulfilled.

The 2009 DRBM Plan – covering the period from 2009 to 2015 – was elaborated within the framework of the first *RBM Cycle* according to the WFD, which lasts until 2015. This will be followed-up by two more RBM Cycles to be finalised by 2021 and 2027, respectively. In December 2012, the ICPDR released a “2012 Interim Report”, providing an overview on the progress of measures implementation as included in the JPM of the 1st DRBM Plan.

Investigations have been (and will continue to be) undertaken to identify other relevant issues and their basin-wide significance such as climate change, flood and drought events, sediment transport and invasive species.

JDS3 will provide a homogeneous data set describing the water and sediment quality throughout the length of the Danube River. Special attention will be given to the analysis of biological quality elements and river hydromorphology according to the WFD as well as to the analysis of hazardous substances in water, sediment, biota and suspended solids with the view of filling gaps in the DRBM Plan. The findings of JDS3 will serve as a solid basis for preparation of the update of DRBM plan in 2015.