

15 Years of UNDP/GEF Interventions in the Danube River Basin: The Conclusion

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Introduction

The main goals of the ‘Danube Regional Project (DRP)’ are to reduce nutrient and toxic pollution in Danube River Basin waters and the Black Sea and to strengthen trans-boundary cooperation. Launched in December 2001 with total project funds of USD 17 million, the DRP is implemented by the United Nations Development Programme (UNDP) with funds from the Global Environment Facility (GEF). It provides financial and technical assistance to the countries of the Danube basin and the International Commission for the Protection of the Danube River (ICPDR)

The DRP is nearing the end of its programme and together with the ICPDR is assisting with the development of strategies to ensure the long-term sustainability of the institutions and cooperation in the region.

The need for support

In the 1970s and 1980s, excessive nutrient pollution resulted in the large-scale eutrophication of tens of thousands of square kilometres of waters in the western Black Sea. A large proportion of this originated from the Danube River Basin through agriculture, municipal wastewater and industry. The depletion of oxygen decreased biodiversity and worsened water quality, creating a severe ecological imbalance in the Black Sea.

The significant decline in industry and farming following 1989 reduced the pressure on the Danube basin and the Black Sea. However, the inefficiency or absence of wastewater treatment plants still posed a significant threat, and the potential for pollution to increase as economies recovered required introducing actions to ensure good practices that minimise the impacts of farming and industrial activities..

The first ten years

The DRP is the last intervention in the Danube River Basin by UNDP/GEF after 15 years of active involvement. In 1991, Danube River Basin countries, together with the European Commission (EC), UNDP and World Bank, established the Environmental Programme for the Protection of the Danube River Basin. In 1992, a Programme Coordination Unit was mandated to oversee the programme, managed jointly by the EC and UNDP/GEF. In June 1994, the Danube River Protection Convention was signed by 11 Danube countries and the EU. In October 1998, the Convention came into force and the International Commission for the Protection of the Danube River (ICPDR) was established to co-ordinate the Convention’s implementation.

EU and nutrient pollution

To date, the EU accession process and EU law have been the main drivers for the reformation of environmental protection and pollution control in the Danube River Basin. Nutrient

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reduction in the EU is driven by the obligation of EU Member States, and countries acceding to the EU, to abide by a number of EU environmental directives aimed at protecting water bodies.

The last 15 years saw the introduction of four key EU water-related directives that have a direct impact on nutrient releases in the EU and large areas of the Danube River Basin. They are the Water Framework Directive (WFD), Urban Wastewater Treatment Directive (UWWT), Nitrates Directive and the Integrated Pollution Prevention and Control Directive (IPPC).

While the EU Common Agricultural Policy (CAP) has historically been a key driver for intensive agricultural practices that contributed to excess nutrient pollution, recent CAP reform now provides opportunities for supporting EU water protection efforts.

River basin management in the Danube River Basin

In October 2000, the ICPDR became the platform for the implementation of the EU WFD in the Danube River Basin. Nine Danube River Basin countries, now either EU Member States or acceding to the EU, are obliged to implement the WFD. Four non-EU Danube River Basin countries in the ICPDR (MD, UA, CS, BA) also formally agreed to undertake WFD implementation.

An initial reporting requirement of the WFD was the joint preparation of the 'Danube River Basin Analysis 2004', the first comprehensive study of the Danube environment and pressures affecting it. The report clearly showed the negative impacts and threats from nutrient and toxic pollution to the Danube River Basin and Black Sea. It also identified specific areas of the Danube River Basin as being 'at risk' of failing to meet the objectives of the WFD.

Danube Regional Project 2001-2006

The UNDP/GEF DRP implements its activities through nearly 80 sub-projects geared to a wide variety of objectives such as the development of new laws and policies, capacity building, enhancing public participation, implementing demonstration projects and institutional strengthening. Key project beneficiaries are the ICPDR, Danube River Basin governments and NGOs. Examples of key thematic areas include river basin management plans, water and wastewater utilities, phosphates in household laundry detergents, wetlands, and environmentally-friendly best agricultural practices (BAP). Significant resources have been devoted to enhancing NGO capacities for participating in WFD implementation, raising public awareness and implementing projects.

The DRP works closely with the expert groups within the ICPDR's structure and has adapted its programme of work to meet the evolving needs of the ICPDR. For example, considerable resources have been directed to providing technical assistance on a range of activities linked to the WFD implementation.

DRP focus on agriculture

Agriculture is now the biggest source of nitrogen in the Danube River Basin with a 39% share, and the second biggest source for phosphorus emissions with a 32% share. This was clearly identified in the ICPDR's Danube Basin Analysis Report prepared for the WFD. Together with the ICPDR, the DRP has been targeting farmers and agricultural ministries within the basin to raise the profile of environmental protection and the use of 'best agricultural practices'.

One main source of N and P nutrients is the inappropriate or over-use of nitrogen fertilizers. For example, many farmers apply them at the wrong time of year or in the wrong areas. Another source is the over-production and poor handling of solid manure and liquid waste from raising livestock. On many farms, nearly half of all livestock waste becomes pollution.

While some farmers try to store it properly, others just pile it on the grass or dump it into streams.

Reducing nutrient and toxic pollution from agriculture to Danube River Basin water bodies is a key objective of the DRP. Outputs include products and activities such as technical reports, grants for Danube River Basin NGOs, demonstration sites, workshops and trainings, and communications/media outreach.

DRP highlights include assessments of the use of nutrient fertilizers, manure and pesticides in the Danube River Basin and identifying bad agricultural practices and their environmental impacts. Recommendations were made regarding the implementation of best agricultural practices (BAP) and of EU and national policies and legislation that could support agricultural reform.

BAPs are currently being tested by the DRP at eight demonstration pilot farms in Serbia, the results of which will be transferred to other Danube River Basin countries through national training workshops. A total of 53 NGOs in the Danube River Basin have received DRP financial grants to support activities in disseminating information about and applying BAPs. Workshops for farmers and advisory agencies have also been held on issues such as BAPs, the design and construction of manure stores and field and fertilizer planning.

Environmental benefits

The ICPDR and Danube River Basin countries have underscored UNDP-GEF's important catalytic role in bringing all countries together to focus on national actions needed for the trans-boundary reduction of nitrogen and phosphorus pollution. The EU highlighted the Danube River Basin as a model for transboundary waters governance in its report to the U.N. Commission on Sustainable Development in April 2005.

Having cooperated in numerous joint efforts, all three components of the GEF Strategic Partnership, the EC, ICPDR and Danube River Basin countries can take credit for the recent measurable improvements in Black Sea water quality. At the same time, it should be noted that many of the observed positive environmental trends in both the Black Sea and the Danube River Basin stem from the impacts of the economic downturn following the collapse of the former Soviet Union in the 1990s and associated reductions in fertilizer use and livestock and industrial emissions.

The Black Sea ecosystem is showing initial evidence of recovery. The depletion of oxygen in the lower levels of the sea observed in the 1970s and 1980s has been virtually eliminated, with oxygen levels at or near saturation in most areas during recent years.

The frequency of algae blooms has decreased markedly compared to levels in the 1980s. Surface chlorophyll concentrations have shown measurable decreases. The number of benthic species observed in the early 2000s was 1.5 – 2 times higher than levels found in the late 1980s. Finally, most of the upper reaches of the Danube are no longer considered 'at risk' of not achieving the EU WFD objectives for hazardous substances, nutrients and organic loads.

Future prospects

Despite the excellent progress observed to date, there is still work to be done. The enforcement of policies and legislation remains a challenge in both the accession and non-accession countries. Fish stocks in the western Black Sea have not yet shown signs of

recovery. The middle and lower reaches of the Danube are still classified to be 'at risk' for hazardous substances and nutrient pollution under the WFD. Coincident with the recovery of economies in the region there remains the risk that pollution discharges will again increase, particularly from agricultural nutrient sources.

The recent CAP reform process is intent on reducing subsidies for farming, especially for intensive production. This could mean that many smaller farms in former communist countries that still use extensive production methods will not get enough subsidies from either the state or the CAP to survive. As a result, they may not be able to compete with larger more established companies, and intensive farming and pollution into Danube River Basin waters could rise again.

This emphasises the need for continued investment, implementation of agreed nutrient reduction policy and regulatory reforms, effective implementation of the EU WFD, and close attention to the impact of the EU CAP, if the intermediate target of maintaining Black Sea nutrient loads at mid-1990s levels is to be maintained.

At the same time, the maturity of the ICPDR and progression of the EU accession process within the Danube River Basin have led to the view that further GEF support will not be required at this level after 2007.