Environment and the Purposes of a Danube Area Macro-regional Strategy

Alexios Antypas

Associate Professor, Central European University, Budapest

Director, Center for Environment and Security, Central European University, Budapest

Introduction

The Danube River Basin contains 19 countries, 10 of which are within the European Union. It is the world's most international river in the world and plays a vital role in trade and transportation in Europe. The Basin drains 801,463 km3 and contains a population of 81,000,000. It includes all of Hungary and practically all of Romania, most of Austria, Croatia and Slovenia, and nearly half of the Czech Republic and Slovakia. Significant parts of Germany and Ukraine are within the Basin. [1]

The upstream-downstream relationship between Danube countries is evident across all environmentally relevant dimensions. These include pollution from agricultural runoff and discharge from industrial sites, as well as waste water; risk of pollution from industrial accidents; water quantity issues as a function of dams and flood control measures; fisheries; and vulnerability to climate change and extreme weather events. Moreover, the ecological integrity Danube River Delta, located mostly in Romania but extending somewhat into Ukraine, is dependent upon the environmental management of the river. The Delta contains the largest remaining natural wetlands in Europe, parts of which have World Heritage Site designation. The Delta ends in the Black Sea, which itself is significantly affected by the management of the Danube.

[1] For more specific information on DRB countries consult the website of the International Commission for the Protection of the Danube River at http://www.icpdr.org/icpdr-pages/countries.htm.

A number basin-wide and sub-basin environmental management institutions exist for the Danube, including the intergovernmental organizations such as the International Commission for the Protection of the Danube River (ICPRD), the Sava Commission, the Drava Commission; and non-governmental networks such as the Danube Environmental Forum, which is composed environmental NGOs. Within the European Union, rivers are managed using a river basin approach under the Water Framework Directive (WFD), and the ICPDR is currently in the process of finalizing a management plan that is consistent with the WFD for the entire Danube Basin. The basin and sub-basins are the focus of numerous international initiatives and projects, such as UNDP's $1.9 million initiative to develop a strategic action plan for the Tisza River Basin that improves the resilience of the basin to changes in climate.[2] The overarching international legal framework for managing the Danube River is the Convention on Co-operation for the Protection and Sustainable Use of the Danube River, the secretariat of which is the permanent secretariat of the ICPRD.

A macro-regional strategy that addresses environmental concerns for the Danube region should be integrated with and work to support the ICPDR's management plan, but can also develop novel projects and project areas that fill gaps left by the plan. Such contributions may include but not be limited to addressing the issue of reducing risks from industrial accidents in such a way that the environment is protected even while the economic potential of river basin states, especially poorer states both within and outside of the EU, is developed.

[2] The UNDP office for Europe and the CIS is the lead agency in this project (Improving Resilience of the Tisza River Basin to Fluctuating Climatic Regimes through Development and Adoption of a Strategic Action Programme) that seeks, among other things, to harmonize water and land use policies. For further information please consult http://europeandcis.undp.org/governance/hrj/show/3D226C69-F203-1EE9-B5D7F386CED8AB14 and the project wiki at http://waterwiki.net/index.php/Establishing_Mechanisms_for_Integrated_Management_of_Land_and_Water_Resources_in_the_Tisza_River_Basin.

Environmental and Socio-Economic Challenges

The DRB contains 130 identified industrial pollution hot spots and suffers from toxic chemical pollution as well as eutrophication caused by nutrient runoff from agriculture and industry, and microbial contamination[3]. Heavy industry and mining within the basin contribute a constant stream of pollutants as well as the risk of catastrophic accidents, such as the Baia Mare cyanide spill that contaminated the Tisza River in 2000. Four sectors—food, paper, chemical, and iron—account for 75% of industrial pollutants discharged into the river[4]. Heavy metals such as cadmium and lead are at high levels in downstream countries, and pesticides such as DDT, Alachlor, and Atrazine also contaminate stretches of the river.

Consistent with the Water Framework Directive, a macro-regional strategy for the Danube Area should focus on increasing institutional capacities and adaptability in order to manage for the broad range of ecosystem goods and services at multiple scales and across long time frames.

The Baia Mare cyanide spill pointed up gaps in the governance regime for the Danube—and for that matter, for other transboundary waterways in Europe—that have yet to be filled, and that can become areas of focus for the environmental component of a macro-regional strategy. The gaps include the absence of a framework for investor responsibility in hazardous activities on the one hand, and a region-wide environmental liability regime on the other[5]. On the latter, although the EU Environmental Liability Directive (Directive 2004/35/EC) applies to member states, the Civil Liability Protocol to the UNECE's Accidents and Watercourses Conventions has only been ratified by Hungary and has yet to come into force.

Countries within the DRB are socially and economically diverse and face a variety of challenges that are bound up with the environment. Romania, Serbia

---

[3] McGlade, Jacqueline M. (2002). "Governance of Transboundary Pollution in the Danube River," *Aquatic Ecosystem Health & Management* 5 (1), pp. 97-98.
[4] Ibid p. 99.
[5] Stephen Stec, Alexios Antypas, Tonya Jansen and Eszter Gulacsy, 2002. "Transboundary Environmental Governance and the Baia Mare Cyanide Spill", *Review of Central and East European Law*, Vol. 27.

and other DRB countries contain significant mineral deposits that could serve as an economic foundation for rural development. However, the risks to the environment from poorly planned and technologically inadequate mining operations are great. The Baia Mare cyanide spill highlighted these risks, and the highly controversial proposed gold mining project in Rosia Montana, Romania has demonstrated that social conflicts around mining have the potential to undermine community well-being and sustainability. New investment in mining in the region is low due in part to the social, political, and environmental risks involved. While the EU's environmental legal framework provides a high degree of protection to the environment, there still remains an opportunity to develop principles and procedures of investor social responsibility that are tailored to the social environments of new member states—and that can also be applied in non EU countries.

Many DRB countries face crises in agriculture. Developing a sustainable, ecologically sound agriculture that serves as a foundation for rural development will be a challenge for low and medium income DRB countries for many years. A macro-regional strategy that prioritizes rural development and is sensitive to the special circumstances of agriculture in low and medium income DRB countries could serve a vital function in promoting development while maintaining or improving environmental quality.

While the entire DRB is need of a high degree of environmental protection, the Danube Delta is a unique ecological treasure that is highly sensitive to chemical and nutrient pollution, and the effects of upstream dams and overhunting and overfishing. Measures taken to protect the Delta will benefit the upstream sections of the rives and the basin as a whole—in other words, actions that target protection of the Delta will have wide ranging positive impacts. Improving the ecological integrity of the Danube Delta would be a worthy priority in a macro-regional strategy.

Added Value of a Macro-Regional Strategy

The Danube River, like the Baltic Sea, links the countries that lie within the river basin through the medium of the water itself. However, unlike the countries that border an enclosed sea, countries within river basins do not share approximately equal risks and benefits associated with the waterway. The upstream-downstream dynamic plays a dominant role in the perception of interests among DRB countries. It is no accident that Hungary is the only country that has ratified the UNECE's Civil Liability Protocol.

A macro-regional strategy can foster a sense of common responsibility by directing funding to cooperative projects, cross-border protection measures, and sharing of best practices. Such a strategy can be a flexible mechanism that leverages existing networks (such as the Danube Environmental Forum and other stakeholder networks and processes) for enhanced capacity for collective action aimed at basin-wide environmental protection as well as sustainable development, especially in rural areas. The strategy could and should be used as a catalyst for implementing the Water Framework Directive and the objectives of the ICPDR, and can also seek to boost synergies between the Danube and Carpathian Conventions.

A Danube Macro-Regional Strategy can, as mentioned, play a unique role in creating contexts within which best practices and regional and local knowledge are shared and learning takes place. This is especially important in programmes and projects where rural development and environmental protection must go hand-in-hand. This is also an area where projects can bring together EU and neighbouring states.

The environmental component of the strategy can be structured around key pillars which should be developed through a stakeholder engagement process. Such pillars may include but not be limited to a. reducing chemical pollution, b. reducing nutrient load, c. reducing the risk of industrial accidents, d. adapting to climate change, and e. promoting sustainable and ecologically sound rural development.