

## **Theme 1 – Modern Day Dilemmas**

### **Presentation: Conflicting Interests and Regional Co-operation**

***Presenter: Joachim Bendow***

The Danube countries face numerous conflicting interests in their efforts to respond to their own national needs, as well as to their global responsibilities for assuring pollution control and protection of ecosystems in the Danube River Basin and the wider Black Sea area.

#### **Nutrient transport to the Black Sea**

Countries like Germany and Austria are investing huge amounts in waste water treatment facilities for the removal of nitrogen and phosphorus that make their way to the Black Sea. Both are upstream countries far away from the effects of the pollution, yet between 1994 and 1998, both have invested about €2.8 billion in waste water treatment facilities to reduce water pollution and in particular nutrient loads. This investment is in response to European Union (EU) Water Directives, in particular Nitrate Directives, but is also in response to the Danube River Protection Convention (DRPC).

The DRPC is the legal frame for co-operation of the contracting parties to assure environmental protection of ground and surface waters in the Danube River Basin and to reduce transboundary pollution within the Danube River Basin and to the Black Sea. Of 13 countries in the Danube River Basin, 11 states and the European Commission have signed, and most of them have ratified the DRPC, which came into force in October 1998.

The DRPC also provides the framework for sustainable use of ecological resources and coherent integrated river basin management. Common policy guidelines for the implementation of measures and actions assuring pollution control and sustainable management of water resources in the Danube River Basin have been incorporated into a Strategic Action Plan.

The EU, through its PHARE and TACIS programmes, together with the United Nations Development Programme Global Environment Facility (UNDP/GEF) and other international and bilateral organisations, have provided international assistance to develop appropriate mechanisms and planning tools for the implementation of the DRPC in the frame of the Danube Environmental Programme.

In spite of these important investments, the problem of nutrient loads to the Danube from Germany (12.3% of total loads of nitrogen and 7.6% of phosphorus) and Austria (13.9% of nitrogen and 7.7% of phosphorus) still persists and can be attributed mainly to diffuse sources of pollution from agricultural activities and animal husbandry.

The problem can also be attributed to middle and downstream countries, in particular Romania (22% of total loads of nitrogen and 26% of phosphorus) and Yugoslavia (13.1% of total loads of nitrogen and 14.4% for phosphorus), which contribute heavily to the nutrient input to the Black Sea. The Iron Gate reservoirs also play an important part, not only in the retention of phosphorus (annual phosphorus loads decrease by about 28%) but also in the retention and accumulation of other pollutants, such as toxic materials and heavy metals.

The construction or enlargement of waste water treatment facilities also causes conflicting interests. Most of the Danube countries in the accession process to join the EU are adapting national legislation in response to EU Water Directives. Investment in the construction of a modern waste water treatment plant places a significant burden on a community's budget. The building or enlargement of a waste water treatment plant might cost Budapest €350 to 500 million, for example, yet the town also needs to make significant investment in its infrastructure and economic development.

Transboundary co-operation is being reinforced by the DRPC in order to reduce water pollution and to assure sustainable management of resources and protection of ecosystems. Medium and small communities are usually not able to respond to these requirements without massive outside assistance in the form of soft loans and grants.

### Economic disparities

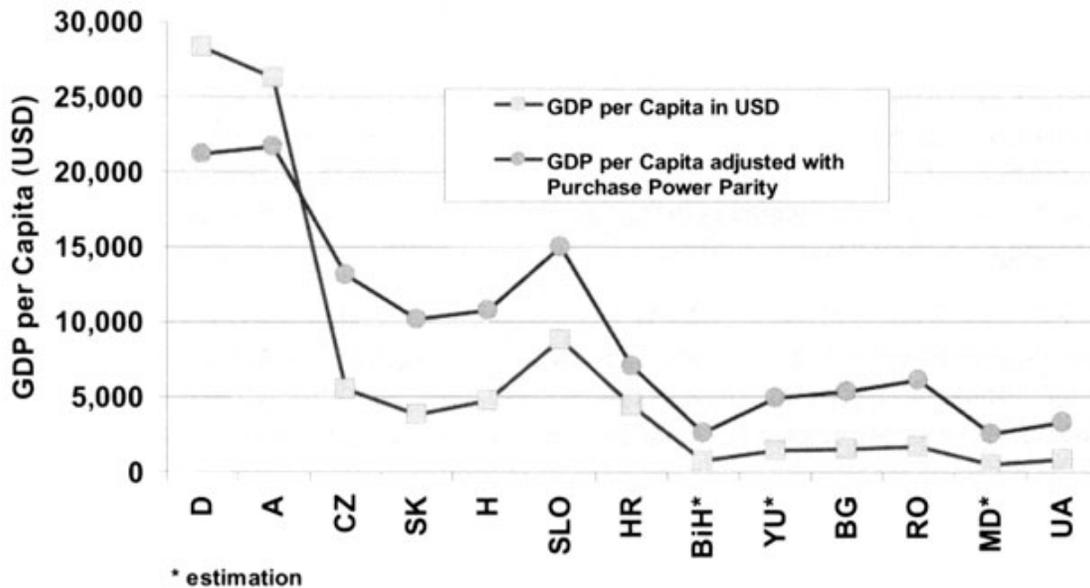


Fig. 1: Economic indicators of the Danube countries

The per capita GDP in 1997 US dollars shows a disparity between upstream countries like Germany and Austria, with about US\$25,000 per capita income per year, and downstream countries like Ukraine, with less than US\$1,000 per capita per year. This tremendous difference clearly shows the economic and financial problems faced by the middle and lower Danube countries in their efforts to respond to common policies and strategies for pollution reduction and to environmental requirements for accession to the EU. Countries in transition need assistance and the international community should take responsibility for responding to regional and global concerns of environmental protection.

### Problems, causes and effects of water pollution and environmental degradation

In each of the middle and downstream Danube countries, national planning workshops have been organised to analyse the causes and effects of water pollution and to develop policy guidelines, strategies, programmes and projects for pollution reduction and water management.

The primary or root causes for unsustainable ecological development and inadequate management of water resources in the middle and lower Danube countries take into account problems related to:

- socio-political transition, reforms and general economic recession;
- war and population displacement, as happened in the Kosovo crisis;
- unclear land ownership in many transition countries;
- incomplete legislation, regulations, standards and norms;

- low public ecological awareness, education and training;
- lack of financial sustainability of institutions;
- absence of national strategy for transboundary water management;
- inefficient environmental management, enforcement and compliance.

Important sources of pollution or priority hotspots were identified for municipal, industrial and agricultural sectors. Fifty-one “Significant Impact Areas” have been identified in the Danube River Basin as particularly affected by industrial pollution, COD and toxic materials, as well as by excessive nutrient loads.

The Pollution Reduction Programme was developed with UNDP/GEF assistance to provide the International Commission for the Protection of the Danube River (ICPDR) - the organisation responsible for the implementation of the Convention - with a programme of action for the implementation of the DRPC. Attention was paid to the establishment of a Project Data Base in which 421 Project Files for investment projects have been developed, out of which 192 are in the municipal sector and only 113 in the industrial sector. Most of these projects represent priority measures identified at national level and take into account the obligation to mitigate transboundary effects. Particular attention was also given to the identification of sites for restoration of wetlands, which play an important role as natural habitats as well as nutrient sinks.

Estimation of investment costs for pollution reduction measures - the total investment required to respond to priority needs - is estimated to be about US\$5.66 billion. By sector it breaks down as follows:

- Municipal waste water collection and treatment plants: US\$3.57 billion
- Industrial waste water treatment: US\$0.81 billion
- Agricultural projects and land use: US\$0.16 billion
- Rehabilitation of wetlands: US\$1.12 billion

Countries affected by the collapse of the former Yugoslavia, such as the Federal Republic of Yugoslavia and Croatia, have the highest investment needs. Romania, the biggest of the Danube countries, is faced with heavy investments for the implementation of pollution reduction measures.

The financial needs for investments, in relation to the per capita income of the various Danube countries, vary considerably. For upstream countries like Germany and Austria, the investments in relation to the GDP seem to be negligible. For downstream countries, the investment needs in relation to the per capita income represent an enormous burden.

The Pollution Reduction Programme is expected to show a considerable decrease of pollution in terms of COD/BOD respectively and in terms of nitrogen and phosphorus. The implementation of the proposed priority projects in municipal, industrial and agricultural sectors will lead to a reduction of about 640,000 tons of COD/BOD and of about 100,000 tons of nitrogen and phosphorus. The latter has a direct influence on the Black Sea and will help achieve the goal of restoring marine ecosystems in the north-western shelf.

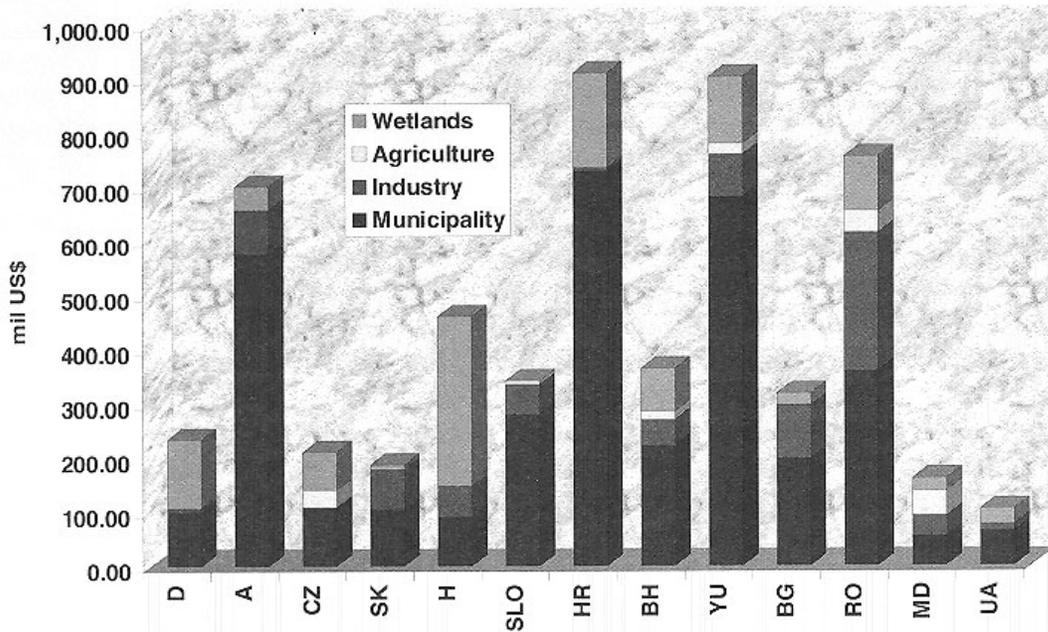


Fig 2: Total Investment Costs for Proposed and Ongoing National Projects per Country and Sector

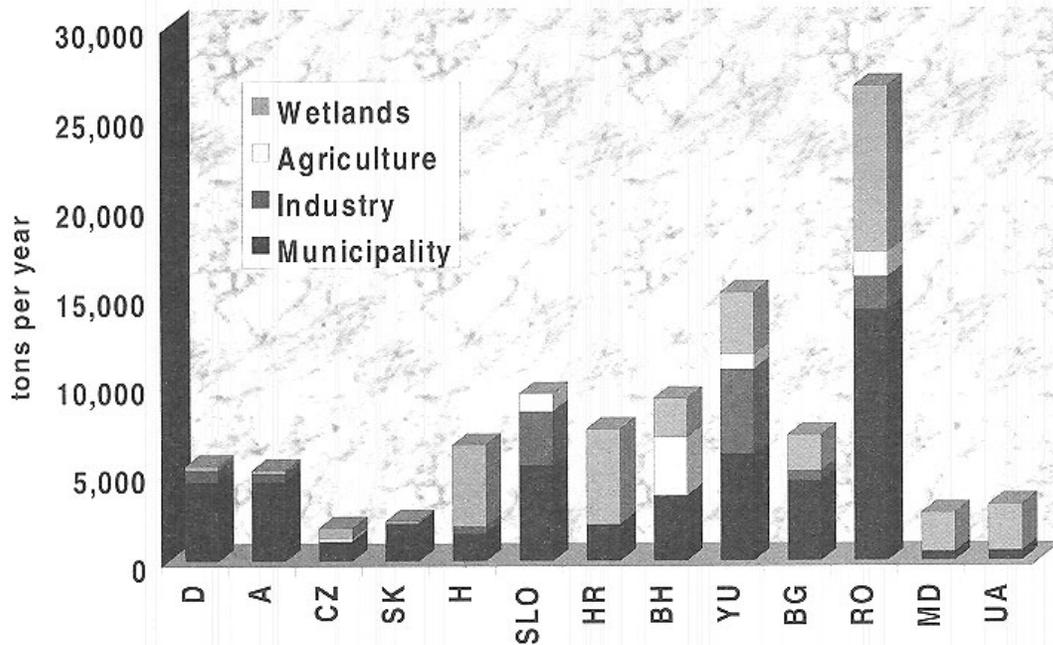


Fig 3: Expected pollution reduction of N+P from proposed and ongoing national projects per country and sector

## **International co-operation and financial support**

If the economic and financial situation of transition countries is taken into account, together with regional and global responsibilities to assure efficient protection of international waters, it is evident that the international community is obliged to provide necessary assistance for implementation of the Pollution Reduction Programme.

From 1949 to 1951 the United States invested about US\$13 billion (actual value of US\$80 to 100 billion) for the reconstruction of Europe in the frame of the European Recovery Programme known as the Marshall Plan. Of this, Germany alone received US\$1.6 billion, representing about US\$13.3 billion in actual value, and this is still available today in the form of a revolving fund. It can be estimated that from 1949 to 1951, the United States invested about US\$500 per inhabitant in today's value for the recovery of the European economy, and in particular for infrastructure and industrial rehabilitation. This seemed to be the most cost-effective way to protect the Western world against political and military threats from the former Soviet Union.

From 1990 to 1999, the German reunification process cost approximately US\$60 billion per year, or US\$600 billion in total. This investment represents about US\$3,500 per inhabitant per year, or US\$35,000 per inhabitant for the total period of ten years. Compared with US\$500 per inhabitant for the Marshall Plan, the cost of German reunification has been considerably higher.

Both examples of international co-operation may be compared with the commitments of the EU and also with the interests of international financing institutions, which have established special programmes to support environmental investment programmes in the Danube transition countries.

The World Bank is presently preparing with the GEF Secretariat a WB-GEF Partnership Programme to provide loans of US\$600 to 800 million for medium sized municipal waste water treatment plants, agricultural reform and pilot projects and wetland restoration. These loans are being complemented by GEF grants of about US\$60 million.

UNDP/GEF has supported the Danube Environmental Programme from 1992 to 1999 with about US\$8 million for capacity building and the development of planning and management tools in Danube countries, including Croatia and Yugoslavia, which did not benefit from EU assistance. A Regional Project is under preparation to assist the ICPDR and the Black Sea countries in developing policies and implementation strategies, with particular attention to control of land-based sources of pollution and sustainable management of resources and development of measures for nutrient reduction to the Black Sea. The project will cover a period of four to six years with a total investment of US\$10 million.

The EBRD is developing an investment programme - to be submitted to the GEF for financial support - which includes 50 projects from the Pollution Reduction Programme covering Hungary, Slovenia, Bosnia-Herzegovina, Bulgaria and Romania. In addition, the Project Preparation Committee (PPC), in co-operation with the EBRD, other IFIs and bilateral donors, organised a regional PPC meeting for Romania and Bulgaria in Bucharest in November 1999.

The EU, which provides the most important direct assistance to the Danube River countries, and in particular to the accession countries, has put in place the following financing mechanisms:

- EU Stability Pact: presently €2.2 to 2.5 billion are pledged and €700 million for emergency assistance are available, representing a total of €2.9 to 3.2 billion, out of which about €2 billion will be invested in Danube countries;
- ISPA Funds for accession countries: about €1 billion per year programmed for the period 2000 to 2006 representing a total of €7 billion, out of which about 50% is foreseen for Danube countries: the Czech Republic, Hungary, Slovenia, Slovakia, Bulgaria and Romania;
- SAPARD Funds for accession countries specially for agricultural development: about €0.5 billion per year and in total €3.5 billion covering the period 2000-2006 period, of which 50% is dedicated

to the Danube countries;

- PHARE Fund for accession countries: about €1.5 billion per year for the 2000-2006 period, representing a total of €10.56 billion, out of which 50% will be invested in the Danube countries.

The total commitments from the EU for environmental measures, in particular for water management and waste water treatment for the Danube River countries, can be estimated to reach at least €12.5 billion for a period of seven years. Considering a total population of about 50 million people in the central and lower Danube River Basin, the per capita investment would be €36 per year or €250 per inhabitant for the total planning period of seven years.

Nikolaos Mouzelis' concept for the social and economic development of Europe is only feasible if there is co-operation and commitment from the international community and, above all, from the States of the EU. If one compares the investments of the European Recovery Programme and the cost of German reunification with present commitments from IFIs, and above all from the EU, current efforts appear to be very modest. Indeed, if one compares the hundreds of billions of US\$ that are invested in space exploration by NASA, by the European Space Agency, the Russian MIR programme and others, the investment in environmental protection and sustainable management of resources on the earth on which we are living seem insignificant.

The experience of the European Recovery Programme of 1949/1951 should be repeated. Providing adequate support for countries in transition, in particular for the countries in south-eastern Europe, should not be considered to be aid. It should be considered an investment in economic and political stability and sustainable development.