

ROLE OF EUROPEAN COOPERATION PROJECTS IN THE IMPLEMENTATION OF THE EU WATER RELATED DIRECTIVES

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ABSTRACT

The Water Framework Directive and the Floods Directive create frameworks within which European Union Member States can operate and require governments to take a new holistic approach to manage their waters and oblige Member States and accession countries to use a river basin approach to manage water resources. Where a river basin includes more than one Member State or crosses from the EU to neighbouring countries, the water directives call for the creation of an international river basin district. The European Territorial Cooperation is one of the key goals of European regional policy for 2007-2013 and it supports cross-border, transnational and interregional cooperation programmes and projects focusing on innovative common approaches as required in the water directives.

In the context of South East Europe territorial cooperation programme, ISPRA is involved in the Danube Floodrisk "Stakeholder-oriented flood risk assessment for the Danube floodplains" project, a European trans-national project promoting the cooperation between spatial planning and water protection establishments in the Danube river basin. The project emphasizes the need to learn how to cope with floods and manage risk through a basin approach, with the participation of governments, municipalities and stakeholders.

The partnership of this project includes many organizations from the states along the Danube River that are responsible for flood risk management. For the first time, all Danube countries cooperate in concrete data management and harmonisation activities. Moreover, a joint trans-boundary implementation of flood risk assessment and mapping actions are developed in the project.

The goal is to link scientific progress in harmonization of approaches and data with practically oriented stakeholder and end user involvement. Vertical and horizontal cooperation are the two pillars of the project. The main expected results are a Danube atlas with flood hazard maps and flood risk maps and documentation of 3 pilot project applications in three MS (AT, BG, RO).

1 INTRODUCTION

The European Territorial Cooperation (ETC) is one of the key goals of European regional policy for 2007-2013 and supports cross-border, transnational and interregional cooperation programmes and projects focusing on innovative common approaches as required in the water directives.

In the programming period 2007-13 the European Territorial Cooperation objectives cover three types of programmes:

- 52 cross-border cooperation programmes along internal EU borders.
- 13 transnational cooperation programmes involving larger areas of cooperation such as the Baltic Sea, Alpine and Mediterranean regions.
- The interregional cooperation programme and 3 networking programmes covering all 27 EU Member States. They provide a framework for exchanging experiences among regional and local bodies in different countries.

Thanks to these cooperation programmes and the allocation of 8 billion Euros for 2007- 2013, regions and towns are encouraged to overcome national borders to organise cooperation projects and improve their knowledge.

In 2009, the European Council formally asked the European Commission to prepare an EU Strategy for the Danube Region (EUSDR). The EUSDR is the second EU macro-regional strategy, after the EU Strategy for the Baltic Sea Region, whose activities have been running since June 2009. The EU aims to consolidate and integrate the existing cooperation programmes in the Danube region through the European Strategy for the Danube Region. Territorial Cooperation is a key-element of the Danube Strategy development and implementation.

The task of the territorial cooperation programmes in the Danube Region is to promote and support the development of cross-border and transnational projects in the area, on the EU side and with external partners. Through the setting up of networks and innovative pilot activities, cooperation projects contribute to abolish borders and to bring regions together, for the benefit of their populations and economies.

Therefore, the creation of certain conditions, such as the existence and free access to risk information and maps, and the evaluation of cost-benefit-relations of mitigation measures, is one of the key objectives of transnational cooperation projects.

Many territorial cooperation projects are already contributing to the strategy and have been identified as illustrative projects in the Action Plan, such as the transnational project Danube Floodrisk, financed under the Transnational Programme South-East Europe.

2 THE EU WATER RELATED DIRECTIVES AND THE INTERNATIONAL COORDINATION

Where a river basin includes more than one Member State or crosses from the EU to neighbouring countries, the *Water Framework Directive* (2000) calls for the creation of an international river basin district. Among the 110 European River Basin Districts designated under the WFD, forty watersheds are international, covering 60% of EU's territory. The size of the River Basin Districts (RBDs) varies considerably from very small ones less than 1,000 km² to the largest one, the Danube with over 800,000 km². There is a total of 170 national parts of international river basin districts.

Since catchment areas cut across administrative boundaries, water management requires close cooperation between all administrations and institutions involved. The sustainable river basin management in transnational river basins needs transnational cooperation structures. This makes international coordination aspects one of the most significant challenges for the sound implementation of the WFD and the achievement of its objectives. The Directive makes this cooperation mandatory within and between the Member States and encourages it with countries outside the EU. This component

ensures true horizontal and vertical integration, article 3.3 and 3.5 of the *Water Framework Directive* (2000).

“The Floods Directive (FD) is another framework directive and at the same time sister directive of WFD. FD defines assessment and management of flood risks, requiring Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and the population at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.

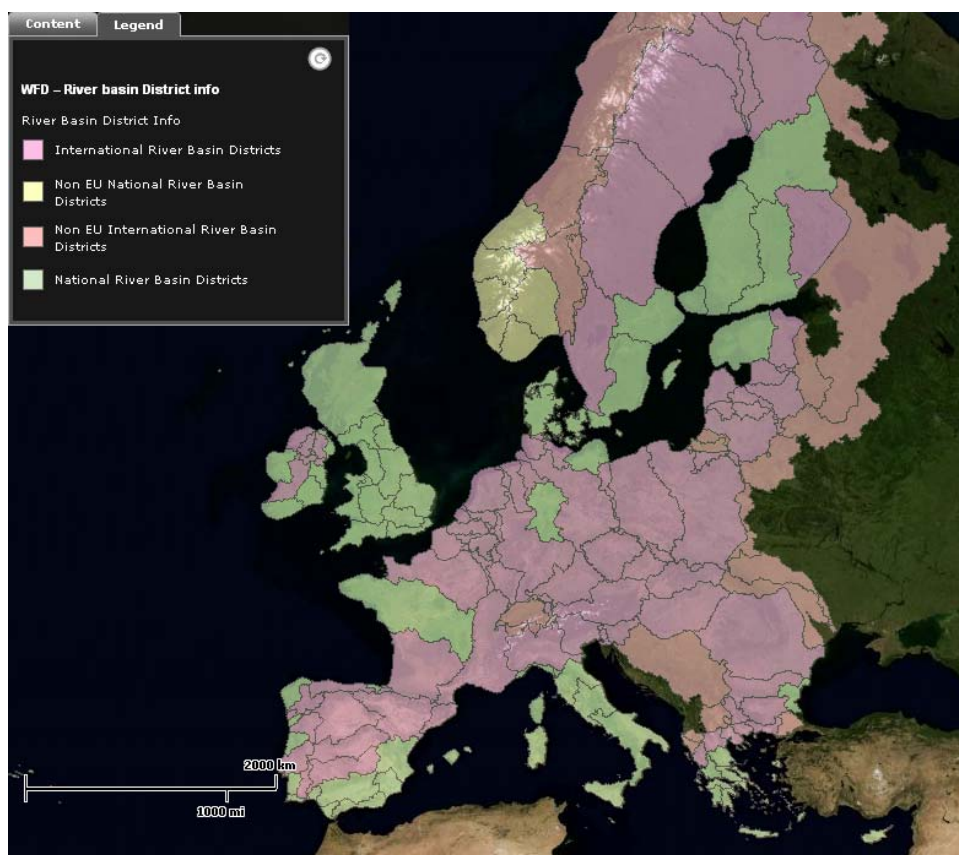


Fig 1. WFD: River Basin Districts

This Directive also reinforces the rights of the public to access this information and to have a say in the planning process” as stated by *Maria Brättemark* (2010).

The *Water Framework Directive* (2000) and the *Floods Directive* (2007) create frameworks within which Member States can operate and require governments to take a new holistic approach to manage their waters and oblige Member States and accession countries to use a river basin approach to manage water resources.

3 THE DANUBE FLOODRISK PROJECT

In the context of the South East Europe territorial cooperation programme, ISPRA is involved in the Danube Floodrisk “Stakeholder-oriented flood risk assessment for the Danube floodplains” project, a European trans-national project promoting the cooperation between spatial planning and water protection establishments in the Danube river basin.

The general objective of the Danube Floodrisk project is to develop high quality, unified, stakeholder oriented flood risk maps for the transnational Danube River floodplains to make available risk information for adequate risk management and planning activities in the future. In order to produce an appropriate tool that constitutes the basis for sustainable development along the Danube River, stakeholders and end users involvement is an important task of the project. Vertical and horizontal cooperation are two pillars of the project as reasserted by *Peter Heiland (2008)* and *DEF Bulletin (2009)*.

The project highlights the need to learn how to live with floods and manage risk through a basin approach, with governments, municipalities and stakeholders participation. It focuses on the most cost-effective measures for flood risk reduction:

- risk assessment
- risk mapping
- involvement of stakeholders
- risk reduction by adequate spatial planning.

In fact, improvements in risk management, information management and risk prevention can only be achieved by close and effective cooperation of all relevant actors and decision makers in a river basin. This cooperation structure has to include not only high political level but especially the implementation levels of responsible organisations.

The project will bring together scientists, public servants, NGOs and stakeholders who will jointly develop a scalable system of flood risk maps for the Danube River floodplains. Transnational methodology and models will be defined and implemented for flood risk assessment and mapping as shown by *Mary-Jeanne Adler, Olimpia Negru, Simona Pătruț (2010)*. This will result in proposals for:

- flood mitigation measures
- adjustment of spatial development plans
- assessment tools for economic development in flood plains
- raised awareness of flood risk of stakeholders, politicians, planners and the public.

Infrastructures at risk, such as industry, power stations and supply infrastructure, will be considered in the project.

In the Danube Floodrisk Project, for the first time, all Danube countries cooperate in concrete data management and harmonisation activities.

Almost all relevant institutions responsible for flood risk management representing the countries along the Danube River are involved in the project activities: nineteen authorities from Austria, Slovakia, Hungary, Romania, Bulgaria, Italy, Serbia and Croatia. Nineteen institutions all along the Danube countries, central public bodies, universities, research institutes and operational agencies, NGOs are involved in the project. All project partners are committed to use top international expertise not only to

achieve the technical objectives of the project, but to serve as an example of synergy and cooperation between countries and institutions.

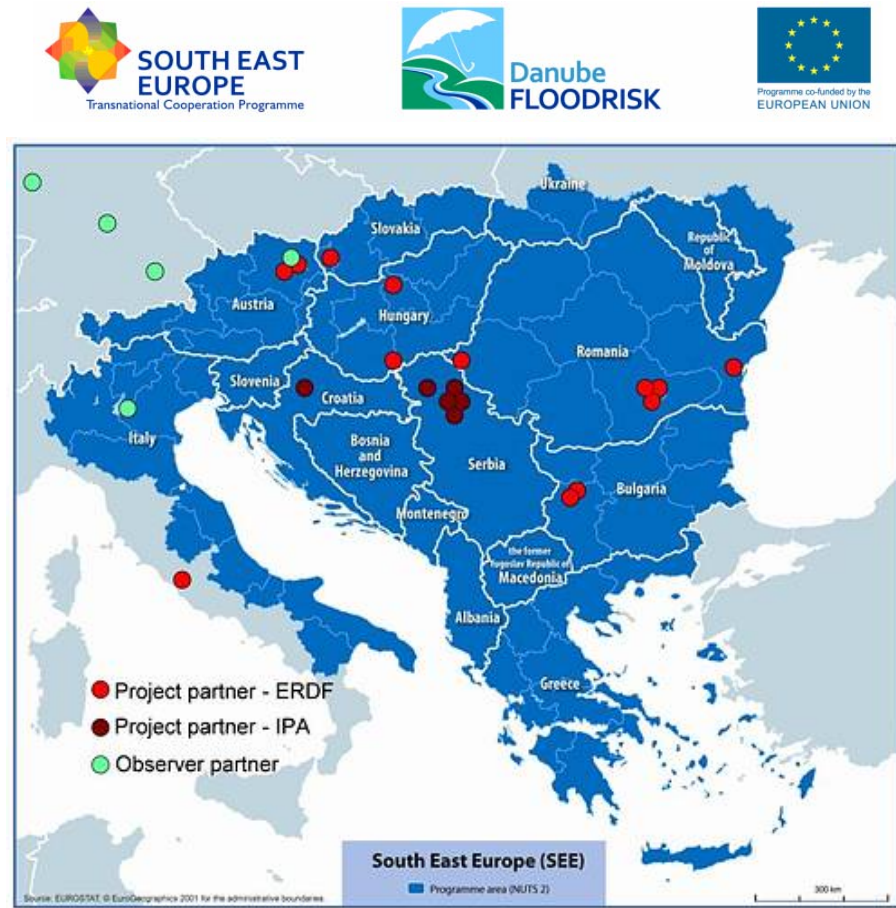


Fig 2. South East Europe and Danube Floodrisk partnership

The Italian territories in the Danube River Basin are those depicted in Figure 3 and they belong to Slizza, Drava, Stiller Bach and Spöl river basins. The last two rivers are tributaries of the Inn river.

The competent local Authorities on these territories are respectively:

- River Basin Authority of Friuli Venezia Giulia Region for the part of Slizza river basin (<http://www.abr.fvg.it/>).
- Autonomous Province of Bolzano for the part of Drava and Stiller Bach river basins and for other smaller territories belonging to the Inn river basin (<http://www.provincia.bz.it/aprov/amministrazione/default.asp>).
- Lombardia Region for Spöl river basin (<http://www.adbpo.it/on-multi/ADBPO/Home.html>).

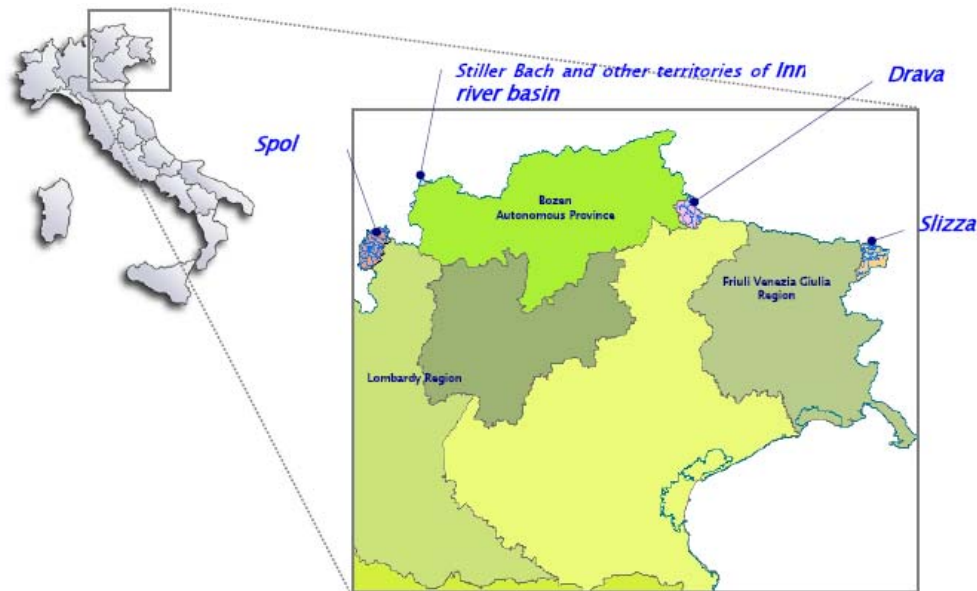


Fig 3. Italian territories in the Danube River Basin

The project contributes with these long-term objectives to the improvement of the socio-economic conditions of the population in the Danube floodplain by flood risk mapping, reducing the flood damage in the Danube floodplain and the improvement of the long-term strategic planning framework for flood risk management.

The results will produce impacts on the EU working group on flood (WGF) and ICPDR flood protection expert group (FPEG) activities, and improvement of transnational cooperation in flood issues.

4 CONCLUSIONS

The Danube river links most of the countries in the South East Europe (SEE) area and it is now largely a European Union (EU) space. Therefore it is seen as a model to effectively apply the Integrated River Basin Management (IRBM) through the WFD which is a very comprehensive and integrated water legislation and the FD which provides for the Flood Risk Management Plan. Both directives constitute flexible and adaptive planning instruments to allow an integrated approach and an international coordination across the whole river basin.

Any future-oriented risk management strategy needs joint methods, databases, and a combined approach on assessing and coping with risk. The Danube Flood risk project will combine top-down regulations and bottom-up cooperation to focus on the most cost-effective measures for flood mitigation.

The Danube floodrisk project introduces a highly innovative approach in the risk management in Europe with the integration of the relevant stakeholders to represent the different kinds of land use as well as flood reception on the different levels of flood risk management planning. Therefore the development of standards for flood risk mapping in the countries of the whole river basin is innovative, since no other European river

includes so many different member States like the Danube and this project.

We have made a point of emphasizing the contribution of this project as well as other European cooperation projects in the early stage of the EU Directive on flood risk management to test the approaches fixed in the directive through practice and stakeholder and general public oriented development of harmonised methods for flood risk assessment and mapping.

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