

THE DANUBE RIVER: ITS FUTURE AS A EUROPEAN TRANSPORTATION ROUTE

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The Danube River is the second longest river in Europe, flowing from southern Germany to the Romanian coast of the Black Sea. With its 2,850 kilometres it has left a deep mark on European history, both geopolitically and culturally. In the last two decades it has taken on the symbolic role of reuniting western and eastern Europe after the fall of the Iron Curtain. In addition to its role in Europe's history, it is also an important commercial shipping route as well as a great natural ecosystem, fundamental for the ecological balance of the European continent. For the European Union the Danube is the subject of many documents and projects as part of the European transport policy framework. For the EU the issue is how to appropriately develop the river's strengths in light of steadily increasing traffic on this waterway. From this perspective developing the Danube as an inland waterway is part of a wider political and economic strategy, promoted by the EU to shift part of the goods transported across Europe from highways and streets to rivers and canals. Due to the Danube's length and width it has been included in the Trans European Transport Network (TEN-T) and classified as Pan European Transport Corridor

VII, now one of the ten corridors planned by the EU to enhance its transportation network.

Special attention is being devoted to projects in the Danube river basin. Firstly, the Danube is now part of the NAIADES (Navigation and Inland Waterway Action and Development in Europe) action program (2006-2013). In order to create the right conditions for achieving NAIADES targets the European Commission and the inland navigation sector operators launched the PLATINA platform, an initiative comprising twenty two private and public partners and aimed at strengthening the inland waterway navigation on the Danube. These two elements combined form a network of institutional and private stakeholders committed to upgrading the European inland waterway transportation system. They are particularly interested in developing the unexploited transport possibilities offered by the Danube basin, since it is currently underutilized as an international waterway. The Danube area is also considered by the European Commission as one of the macro-regions, along with the Baltic region and the Black Sea region, which deserves a specific strategy for the near future and medium term socio-economic development. The "EU Strategy for the Danube Region" will be finalized by the beginning of 2011 and should be adopted within the next year. This European dimension gives more weight to the policies being formed for this river basin, underlining its significance beyond the single country level.

Transportation along the Danube is the most important aspect in the context mentioned above. There are fourteen countries directly and indirectly affected by the Danube in terms of transport: Germany, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Serbia, Bosnia Herzegovina, Montenegro, Bulgaria, Romania, Moldova and Ukraine. Moreover, as mentioned before, the entire European Union is involved in exploiting the river as a waterway, given its driving force for commerce and communication.

The river's geographical route is particularly significant in terms of the EU's cohesion and trans-border policies being promoted among the EU's eastern members. At the same time the Danube region is also part of the neighbourhood policy promoted by the European Commission and directed

towards the western Balkans and those east European countries that are not yet part of the EU. Part of the funds allocated for these tasks will be used in the context of the EU Strategy for the Danube Region, enabling the river once again to become an element of union and possibly a useful development tool for the territories it crosses as well as for the whole continent.

All the countries affected by developments in the Danube river basin and especially those through which the river directly passes, agree on the strategy to follow in the upcoming years. The need for systematic collaboration on all levels by the Danube coastal nations is frequently seen as a major challenge, given the possibility (and sometime readiness) to place their own interests ahead of common ones. Thus developing and sharing coordinated navigation and maintenance policies, plus greater transfer of know-how between coastal countries and their waterway management agencies, will be of great relevance for achieving a feasible, efficient and sustainable transportation system on the Danube.

According to EU strategy, this kind of approach should be taken when dealing with the construction or enlargement of Danube ports. Currently there are approximately forty sizable ports along the river; these are expected to be enhanced and other ones are in the planning stages. Port development will mean establishing the starting points for a multimodal transport network comprising railways as well, with the goal of shaping a more rational and efficient regional logistics system.

As the programs mentioned above indicate, all the EU institutions view the Danube as a necessary component of the future European transport network. This view will become reality in the near or medium term, in order to achieve the forecast benefits as soon as possible. The advantages stemming from developing the Danube waterway can be roughly divided into two main categories: environmental and economic. The first category deals mostly with the lower level of CO₂ emissions generated by transporting people and goods by boat compared with the car/truck-based system of transport utilized to a greater extent today. In fact, transport by ship emits 3.5 times less CO₂ per ton-kilometre than truck transport. This makes investment in the Danube

waterway profitable environmentally, in particular in terms of efforts to comply with the EU's goal of a 20% reduction in greenhouse gas emissions by 2020. From the economic point of view, the advantages are many: from developing new facilities and services along the river waterway as a result of increasing traffic, to the development possibilities deriving from opening up a relatively underdeveloped part of Europe (through extensive inland river transport).

In any case, considering the Danube a commercial and communication route to be more intensively exploited in the future overshadows the first and most vital reason for the river's existence. In fact, the Danube is one of the richest surviving ecosystems on the continent. It is a source of drinking water for tens of millions of people, provides water for agricultural irrigation (and is thus vital for agriculture in many countries), and is the habitat of thousands of animal and plant species, etc...

This manifold and irreplaceable function is invaluable and must be preserved before and regardless of any economic considerations. In this light the following issues related to increasing traffic on the Danube must be adequately evaluated.

The first problem arises with the adaptations to the river necessary to transform it into an easily navigable waterway. The projects set to begin aim to reduce the distances and bends created naturally by the river itinerary as well as deepening the riverbed as needed for the transit of ships. These actions (dredging, dams, canalization, coating river banks and so on) will damage the various forms of life present all along the river and will jeopardize vital hydrological functions. This will potentially cause the loss of lives and hundreds of millions of euros by exposing the ecosystem to more frequent and extreme floods, landslides and droughts. Not to mention the catastrophic domino effects caused by the loss of biodiversity (first of all fish and water plants) for nature and humans.

Another huge problem will be the pollution resulting from increased ship traffic on the Danube. Water pollutants and fuel from ships will become too much to bear for the river and the species that it hosts. In fact the Danube is already

overburdened by waste from factories, municipalities and urbanization, fertilizers and other chemical substances used for intensive agriculture transported both indirectly by the tributaries of the Danube and directly by rain). Moreover the likelihood of spills deriving from accidental collisions and technical failures will be much higher than now because of the greater sizes and numbers of ships in transit (here the consequences can hardly be imagined).

European Union directives on the protection of animal and plant species, water quality and environmental integrity are theoretically sufficient to partially control the damaging effects implied by this development. In any case it appears that the short term motivations of the EU Strategy for the Danube Region will prevail over the longer term social, environmental and economic effects. EU regulations on this subject are difficult to apply on a regional scale, and therefore the risk is a lack of clarity and firmness in avoiding probable harmful consequences for the river and the region as a whole.

Although a certain degree of inland waterway traffic is desirable and will remain important in the future, it is worth noting that even if inland waterway transport on the Danube is to be promoted on a large scale, it will still not meet the estimated demand for transport in the Danube region in the forthcoming years. Therefore, is it possible that the risks are greater than the possible forecast advantages? After all, one of the choices for future sustainable production and consumption is to shorten as much as possible the distance covered by goods from the manufacturer/grower to the consumer.

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