Danube River – A Central axis of the European Union

Petronela-Sonia NEDEA  Faculty of Touristic and Commercial Management
Dimitrie Cantemir Christian University
Bucharest, Romania
E-mail: petronela844@mail.com

Oana-Maria MILEA  Faculty of Touristic and Commercial Management
Dimitrie Cantemir Christian University
Bucharest, Romania
Email: o_rez@yahoo.com

Emilia PASCU  Faculty of Touristic and Commercial Management
Dimitrie Cantemir Christian University
Bucharest, Romania
Email: pascu.emilia@ucdc.ro

ABSTRACT  The Danube, the second largest European river, has become a central axis of the enlarged EU and the Black Sea Region. Therefore, considering its strategic role, the optimization of the Danube transport is of major importance and the co-operation between riparian countries will be an important catalyst for the economic development of the region. The optimization of the transport along Danube is dependent on a number of factors, which are interdependent and must be analyzed. Therefore, the present analysis goes beyond the context of Romania and inevitably becomes horizontal and relevant to other European countries.

KEY WORDS  Danube River, optimization of the transport along Danube, European Union

JEL CODES  R4

1. Introduction
The Danube, the second largest European river, unites (through its link to the Rhine) East and West, the Black Sea with the North Sea. It binds together 80 million people with a multitude of traditions and cultures (EU Member States and non-applicant countries). The EU has multiple reasons to establish a close co-operation with the Danube countries.

With the enlargement, the Danube has become a central axis of the enlarged EU and the Black Sea Region, a coastal area of the EU. Hence, the strategic importance of the region is increasing in the context of an enlarged EU. Co-operation between the countries of the Danube will be an important catalyst for the economic development of the region. It will allow them to benefit from the Danube as a navigable waterway.

2. The Danube River: Corridor VII of the Pan-European Transport Network
Its most outstanding characteristic is that it is one of the longest European inland waterways (over 2,857 km) sharing 68.9% of the transcontinental inland waterway transport (through Rhine-Main-Danube). The ultimate political goal is certainly the close linking of the Corridor VII to the
These actions, in the framework of the Steering Committee of Corridor VII come in addition to a major boost recently in a wider context; this task is further extended, and as a proof, the Declaration of the II International Black Sea Transport Conference (Kiev, 5-6/3/02) refers to the need to join up the Europe-Caucasus-Asia Transport Corridor with the ultimate purpose of creating a common transport system.

The Memorandum of Understanding (MoU) on the development of the Pan-European Transport Corridor VII - the Danube (the document was signed in Rotterdam on 6/9/2001) between Transport Ministers of 10 European countries highlights the need to strengthen the connections of the Danube with the TENs and the Black Sea. This MoU describes the intentions for a series of actions to be undertaken in order to achieve this goal.

"In Rotterdam the Ministers of Transport of the Netherlands and of Romania signed also the Declaration "Accelerating Pan-European Cooperation Towards a Free and Strong Inland Waterway Transport". The declaration was adopted by 19 European countries.

These actions, in the framework of the Steering Committee of Corridor VII come in addition to other initiatives, such as the joint declaration of the Danube Commission and the Central Commission for the Navigation on the Rhine (Bucharest, 22/6/2001), which expresses the willingness to intensify their mutual co-operation.

This concerted action will focus on obstacles and measures in order to achieve a highly desirable integration of the inland waterway transport of the two rivers. There are certain practical and legal problems to be examined in order to harmonize them or render them equivalent. The opening up of the relevant inland waterway transport markets will facilitate their integration.

The Preparatory Committee of a Diplomatic Conference dealing with the Danube co-operation should also be mentioned. It is expected that this initiative will further promote the harmonization and co-operation in the Danube basin. Two working groups deal with questions of navigation on the Danube and the extension of co-operation on the Danube in the fields of policy, economy and ecology.

In its recent opinion on Community Guidelines for the development of a Trans-European transport network, the ESC shares the view expressed in the White Paper on Transport Policy 2010 that "infrastructure is a key element of the strategy for the economic development of the candidate countries and their integration into the internal market". It also deplores the fact that "our corridors only concern the current EU and offer hardly any cross connections to and over the territories of the applicant countries, which could provide diversions around problem areas".

In the context of the EU initiative to promote alternative modes to road transport in order to alleviate road congestion, inland waterway transport and sea/river transport are considered as priorities in achieving the above goal. Navigation in the Danube should be seen in the above light.

Moreover, inland waterway transport and sea/river transport are part of the EU initiative for promotion of short sea shipping. However, promotion of the Rhine/Danube waterway is an alternative not only in alleviating road transport but also in alleviating sea transport through the highly congested Bosphorus straits.
Linking the Danube corridor with the Aegean Sea would greatly contribute to that effect. The ESC in its opinion on Relations of EU/South Eastern European countries proposed the updating of the study on the linking of the Axios/Vardar River with the Danube, i.e. linking the Danube with the Aegean Sea.

Inland waterway transport is, in essence, a multimodal form where the operation to be carried out is a chain in which each of the links contributes to the end result. More than other modes, inland waterway transport is, therefore, dependent on a development strategy which supposes simultaneous removal of the various barriers and coherent development of the entire system.

In this context, the Chairs of Corridor VII, Railway Corridor IV and Railway Corridor X have commonly decided to establish a common Secretariat in Vienna, at the former TINA premises, to work together towards the multimodal development of transport in the Central and South Eastern Europe.

There are several obstacles, i.e. "bottlenecks", connected with the navigation in the Danube which prevents it from playing the role that it deserves and deploying its full potential. The Declaration of the EU-Romania Joint Consultative Committee (17/11/00) highlighted these issues and stated that "Infrastructure and legal problems regarding navigation on the Danube should be dealt with as a matter of priority in order to render it a major inland waterway to the common benefit of the EU and Romania.

The optimization of the transport along Danube is dependent on a number of factors, which are interdependent and must be analyzed. Therefore, the present analysis goes beyond the context of Romania and inevitably becomes horizontal and relevant to other European countries.

3. Infrastructural Issues

The majority of the cargoes transported on the Danube have origins and destinations outside Romania both downstream (Ukraine) and upstream (Serbia, Hungary, the Slovak Republic, and Austria). Consequently, improving the navigation conditions will only be beneficial if several issues are addressed:

- physical improvements of the river (deepening of its depth, removal of shallow-narrow sections);
- clearing of debris from bridges destroyed/reconstruction of bridges;
- physical improvements to ports;
- improvements to shipyards;
- improvements to fleets;
- improvements to operations;
- institutional and legal issues.

Due to the conflict in F.R. Yugoslavia, navigability in the Danube has severely suffered or has even been blocked due to the destruction of bridges and their debris in the river. As a result, commercial operators have sustained considerable damage and long delays in delivering goods were registered. Several infrastructural projects will be required for the restoration of the riverbed and banks but also for its deepening in order to accept vessels of larger draughts.

The introduction of UN sanctions occurred at the period when the political and economic transformation of the region had begun. The Danubian shipping became one of the most adversely
affected sectors in the economies of the riparian countries. As a consequence of the crisis, most of the riparian countries pay less attention to shipping than they normally would.

The East European riparian countries were not really able to compensate for the losses caused by the slow, unreliable and expensive transport through the Yugoslavian section of the Danube. These events greatly affected the process of transformation of the shipping industry and greatly prevented a quick and successful transformation of the related services.

A decade after the opening of the Main Danube Canal in 1992 it can be seen that only a very small part of the Danube fleet, are in a position to use the new canal, due to their size and poor technical status. In addition, there is a lack of qualified personnel able to sail West European waterways.

4. Traffic Volumes on the Danube

The cargo traffic on the Danube showed a fluctuating trend from 1989 onwards. During the above period the economic environment in the former Comecon countries has substantially changed. Concerning the inland navigation, a new era started with the opening of the East European markets and their transition from planned to market economies and the completion of the Main-Danube Canal.

The inland waterway transport sector could capture cargoes from the road and rail sector provided that the service levels are improved. This can be achieved by, inter-alia, improving navigational conditions on the Danube. Economic developments in Romania are promising, with a forecast in growth in GDP of about 4% per year in the next 5 years. It is forecasted that neighboring countries will have similar growth in GDP.

As a consequence, the need for transport will increase accordingly. Traffic potential for the Danube may be considered as relatively high, because transport demand in the corridor is high, and the road network cannot absorb substantial new traffic because of its present saturation level.

If an important transport demand exists for low value bulk commodities, there is also a growing demand for general cargo that can be transported in containers or RoRo vessels. This potential new traffic could be diverted to the Danube only if investments are made in order to transport these products efficiently.

Since 1989 Romania dominates the traffic, whilst other countries with high traffic volumes are Ukraine, F.R. Yugoslavia and Austria. The cargo flows exhibited a downward trend from 140 million tones in 1989 to 35 million tones in 1994. An increase occurred in 1995 of some 40 million tones, which further rose to about 55 million tones in 1997.

It has been estimated that if no major investment is made to improve navigation conditions on the Danube, to adapt port infrastructures and equipment to new transport demands (containers, RoRo) or to increase the efficiency of port operations, the traffic volume would increase slowly at an average rate of 1.4% per year.

If some small size investments are realized to increase the efficiency of river transport and transshipments, and if most of the institutional and legal problems are gradually eliminated, traffic volume may increase at an average rate of 3% per year. If further actions are undertaken the traffic is forecasted to increase at a rate of 6% per year for the short and medium terms, and 3.5% per year afterwards. Most of the additional future traffic would be diverted from railways, and to a lesser extent from roads.
5. Shipping Fleet

The Danube is an international waterway open to vessels from different nationalities. The composition of the Danube fleet indicates that Romania and Ukraine have the biggest fleets, while the Bulgarian fleet is relatively small. After 1990 Romania constructed several new barges with a carrying capacity of 3,000 tonnes, particularly suitable for dry bulk trade.

Regarding sea-river shipping, none of the Danube inland waterway transport operators have sea-river capacities. On one hand, the prevailing pusher convoys are nautically not suitable for Black Sea crossings. On the other hand, existing coastal ocean ships are suitable only to call the seaports at the Danube estuary and at the Cernavoda Canal.

Going further upstream is not possible because of draught limitations: existing sea-river ships from Russia or on the Rhine have standard draughts of at least 3.20 m when (partly) loaded, which permits them to operate efficiently in their respective geographic regions, but not on the shallow Danube with its 2.50 m maximum draught target limitation.

These circumstances indicate that the sea-river ship concept appears not practicable for the Danube. In fact, to transship inland waterway cargo (including containers at the Danubian and Cernavoda Canal sea ports and terminals) into sea ships’ (including river-sea ships arriving from the Russian Don-Volga system) is the only reasonably feasible and efficient alternative. In light of the above, sea-river shipping in the case of the Danube is not feasible for the time being.

The most obsolete part of the Romanian river fleet (towed units) will have to be scrapped. The remaining part of the fleet will have to be modernized with new engines and electronics. In fact, the fleet will have to be upgraded/renewed to efficiently handle container and Ro-Ro trade, as well as agro-bulk (grains, cereals). Since 1990, a number of small private shipping companies have been established to anticipate on the market needs for smaller consignments.

Danube transportation and its river companies and harbors are still state owned. Their organizational structures as well as their management capacities are not adapted to free market competition and entrepreneurial business activities.

A successful fleet privatization and the establishment of an environment, which supports private and innovative activities, will automatically solve the above problems as well as the problem of certified nautical personnel in Western Europe abandoning Romania for better paid jobs abroad.

6. River Ports

Ports and terminals along the Danube would require improvements to provide adequate service levels for the shippers and cargo transporters. Some of the hinterland connections would need to be upgraded to improve access to the ports. Various development plans have already been prepared for grain and container terminals (e.g. Costanta) as well as Ro-Ro facilities.

Some foreign companies have shown interest for the operation of port terminals in Romania. Activities in the ports are limited exclusively to transshipment. An assessment of the existing port infrastructure (traffic, transshipment data and trends) would result in a detailed master plan for each port and its future development. The links between ports, rail and roads are of particular importance in the improvement of port development.
7. River Bridges

During the Kosovo war (1999), all bridges crossing the Danube in Serbia, except those in Belgrade, were destroyed resulting in a complete stop of navigation. This blockage has had a tremendous impact on the shipping companies in Romania, as most of its fleet could not be used for transport to/from Central European countries.

Reconstruction of these bridges as well as the establishment of a safe transport corridor was imperative for the revival of inland waterway transport in the Danube. Apart from the navigable depth and the draughts of vessels, the overhead clearances under bridges constitute equally bottlenecks that are relevant to container shipping.

8. Legal problems as bottlenecks equally hindering navigation on the Danube

It is noteworthy that several international conventions cover aspects of the inland waterway navigation in the Danube. Moreover, bilateral agreements between EU Member States and Romania refer to various aspects of navigation in the Danube. The legal status of these arrangements has to be examined in the context of accession negotiations of Romania with a view to clarifying the legal situation concerning the right of navigation, market access and freedom to provide services in the Danube.

On the other hand, the EU has harmonized most of its inland waterway legislation. The *acquis communautaire* addresses issues such as market access, transport of dangerous goods, boat masters' certificates and technical prescriptions for vessels. The relationship between international law, bilateral agreements and EU law has to be analyzed and clarified.

Historically speaking, navigation on the Danube was governed by the Treaty of Paris (27/7/1921) which recognized the right of navigation to vessels of all flags. The Treaty of Paris was superseded by the Treaty of Belgrade (18/8/1948) concerning navigation on the Danube. Romania was a participating state in both Conventions.

According to the EU inland waterways legislation, market access to the Danube should be open to all the vessels flying flags of the EU Member States. However, according to the Belgrade Convention the Danube is open only to vessels flying the flags of the riparian countries. Therefore, there is an incompatibility between the EU legislation and the Belgrade Convention and the latter will have to be revised.

However, for the optimization of the Danube as a Pan-European Transport corridor in the enlarged EU, the legal regime governing navigation on the Rhine should also be taken into consideration. Therefore, the compatibility of the two legal regimes under the Belgrade Convention and the Mannheim Convention - governing navigation on the Rhine - has to be examined.

An analysis of the Mannheim Convention (17/10/1868) and the Belgrade Convention reveal that both multilateral conventions of international law have a similar form but their contents are different. For 133 years the Mannheim Convention has established a "Europe of inland navigation" in Western Europe.

On the other hand, the Belgrade Convention in its 55 years of existence established a basic tendency on the Danube. This development has been slowed down by political changes in the Central Eastern European countries since 1990 and the war in Yugoslavia.

www.hrmars.com/journals
The contents of the two Conventions reflect the principal differences of political and economic approach between the two regions at the time of signing, and also reveal the restraints that the Danube states are facing now that they are turning towards a free market economy.

The differences between the two Conventions and their influence on the navigation and trading regime became even more pronounced when the opening of the Rhine-Main-Danube canal in 1992 linked the two areas.

The rules and regulations issued under the above Conventions by the Central Commission for Navigation on the Rhine and the Danube Commission indicate a significant difference in the decision-making system and its subsequent enforcement procedures. The Mannheim Convention resolutions are unanimously supported and compulsorily enforced through national law, while the Belgrade Convention resolutions are approved by majority and enforced by the Danubian states piecemeal.

The establishment of a free shipping regime on the Danube is still far away from what has been achieved under the Mannheim Convention on the Rhine. It is true from the foregoing that the technical standards of the *acquis communautaire* are often based on those developed by the Central Commission for the Navigation on the Rhine. The Danube Commission is examining the use of EU legislation as a source for its non-binding recommendations.

The differences between the two conventions have also an effect on inland waterway transport between ports of loading and ports of discharge along Rhine and Danube. The small and large cabotage are equal for vessels in the Rhine navigation, (i.e. vessels of participating states in the Mannheim Convention) and are reserved to vessels of EU countries, which are not members of the Mannheim Convention. According to the Belgrade Convention only the small cabotage is regulated. It is reserved to vessels of the corresponding country.

9. Conclusions

It is obvious that the EU is showing a high interest in the River Danube, not only as an international traffic corridor and valuable economic and natural resource of the continent, but for all countries whether member states or not of the wider Danube basin.

The Danube is a strategic corridor for fluvial transport in Central and Eastern Europe, an aspect also reflected in the freight transport forecasts. Also, favorable navigation conditions are very important for the Danube’s strategic significance, that of transport corridor from fluvial harbours to Constanta.

The economic value of this river is huge, not only to riparian and basin countries, but for the whole of Europe and the Mediterranean region as well. There are no obstacles, natural or formal, to river transport carrying goods between the Mediterranean and Central Europe without reloading, and even North Sea ports are accessible through the Rhine-Main-Danube Channel.

Using the Danube as an international “water highway” not only for commercial transport, but for individual travel too, and the development both of commercial ports and marinas for small craft along this trans European corridor will surely lead to increases in direct and indirect employment in local communities, boost existing and introduce new businesses while at the same time bringing international interaction and cooperation to a higher level, making the flow of knowledge, goods, money, and ideas closer to the people of all the regions involved.
References

5. *** Optimization of the Danube as a Pan-European TEN Corridor,*** (2002), 5th Meeting of the EU-Romania Joint Consultative Committee, Bucharest, 23 - 24 May.