

The Impact of Increasing the European Union's Role in the Development of the Transport on the Danube in Romania

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Abstract: Inland waterways is a safe way of moving goods and passengers, with low cost, with development opportunities that can provide congestion the avoidance major ports, low noise levels, low power consumption and the last but not least, a substantial reduction in greenhouse gas emissions. Despite these clear advantages, currently the shipping percentage of total transport volume in the Danube region is below 10%. Specific to the majority of inland waterways, the Danube can and should play an increasingly greater role in transport, especially in terms of interregional freight transport and not least in the connection with European seas. The European Pan Transport Corridor VII, which includes shipping on the Danube River to the Black Sea, can and it must bring it to full capacity by deploying a fleet of transport development, an increase in operating capacity of the Danube ports and general development of the coastal regions. Through its specific policies, the EU manages to play an increased role in the development of transport in system, in general, and of the transport on inland waterways, including the River Danube.

Keywords: multimodal traffic; infrastructure; shipping; inland waterway

1. Introduction

The network of inland waterways of the European Union which currently totals about 37,000 km, on the stretch of 20 of the Member States, insures the annual transport of about 500 million tons of cargo, especially in densely populated and congested areas from Germany, the Netherlands, France and Belgium.²

The profound political and economic changes of the past 25 years that occurred in central, eastern and southeastern Europe have created a dynamics in terms of economic development in the region, which have generated needs and prospects for more commercial trades, including transport along the Danube.

The Danube is one of the most important economic and cultural region in Europe, the Danube being itself an “alive” central line, “the backbone of Europe” (Maftai, 2012, p. 86) and a transport axis.

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² Inland waterway transport sector is small in relative terms, but nevertheless with 140 billion tons-kilometers it brings a considerable contribution to the EU transport system.

The changes on the former USSR, and in the former Yugoslavia have led to a total reconfiguration of the traditional transport scheme across Europe and it amplified the possibilities of enhancing the geographical position that Romania has, in the context of development and modernization of transport infrastructure.

As it is known, nowadays Europe is crossed by 10¹ Pan-European Corridors of Transport². One of the Pan-European Corridors of Transport is Corridor VII targeting the shipping on the Danube, with River Sulina and Danube-Black Sea Canal.

The naval transport by itself (but also as a component of multimodal transport), has a multitude of advantages compared to other types of transport: the costs incurred from shipping are lower than those of road and rail transport, it allows the transport of large quantities of cargo to a single operation; it is more environmentally friendly (hence less pollution), the development and maintenance of infrastructure necessary for this transport type require relatively low costs and last but not least, shipping represents an important link in the development of combined transport system.

Intermodal transport elements are highlighted in the most eloquent way in the port activity as the ports are the most complex transit activity of goods, the maximum interference area of transportation and handling means, which has the main role in the conduct of goods traffic (in the transport chain) from suppliers to beneficiaries.

2. Few Features Specific to the Transport on Danube in the Romanian Sector

Specific to the majority of inland waterways, the Danube can and should play an increasingly greater role in the transport domain, especially in terms of interregional freight transport and not least in connecting the European seas.

The many opportunities provided by the natural geostrategic advantages of Romania - riparian country to the Black Sea and riverine country to the most important thoroughfares waterways in Europe, the Danube River whose waters on a length of 1075 km provide a series of advantages in the area of the confluence of the main currents of goods from Europe, the Balkans, Middle East and Asia.

Shortening the way to the Black Sea about 400km (Maftai, 2012, p. 84), by the direct connection between the two seas of the continent, namely the Black Sea and

¹ By transport corridor it is understood the infrastructure of road, rail, ports, maritime and river waterways transport, combined, including the ancillary facilities (roads, border stations, service stations, cargo and passenger terminals, storage devices necessary for directing traffic) and their connections with all modes of transport infrastructures on routes that are related to the corridor.

² Of these 9 were established Pan-European Transport Conference in Crete, Greece (March 1994) and the last at the third Pan-European Transport Conference in Helsinki.

the North Sea after being brought into use the Danube -Black Sea Channel in 1984, which conferred new aspects of transport on the Danube, having similar effect the completion of the Rhine-Main -Danube waterway in 1992.¹

These multiple benefits are not currently put into good use, only to a small extent, although Romania is the owner of a network of waterways with remarkable exploitation possibilities.²

The data published annually by the National Institute of Statistics reveals at least since 2010, a continuous decrease in the volume of goods transported on the Danube in Romanian sector or to the transit through its ports and the number of river and sea ships.

Reviving traffic through the seaports and river ports on Danube depends both on enhancing the trade relations, but also on the modernization of related infrastructure, particularly through projects, which, in addition to the development and modernization of the fleet, would improve the ports' connection with rail and road. Last but not least it is necessary the completion of modernization of the Danube River in the Calarasi – Braila sector, and in other areas with similar needs, which would avoid gaps in periods of drought when low water causes great difficulties for ship owners.

In a related way, by upgrading the land transport infrastructure, especially motorways and express roads, Romania can become a bridge between geographical areas and countries in the northern Europe geographical area of the Black Sea countries, opening towards the Middle East and Asia.

Even before joining the European Union, in order to increase the attractiveness of some areas in some of the ports, in the sea, in the bordering river and in the crossing points there were established and the free zones operate³ which provide foreign investors all the specific features of such areas.

¹ In turn, the positioning as the port on the Black Sea and endpoint of the connection on the Danube with the North Sea, the port of Constanta is the main hub of traffic flows in the Black Sea. By using the Port of Constanta, the navigable route between the Suez Canal, the Eastern area of the Mediterranean Sea and Central Europe is shortened by approx. 300 km. Also, by the systems RO-RO and ferry boat developed in Constanta Port, it is achieved at the connection between the European and the Middle East space, the Caucasus and Caspian areas, on routes with high potential energy resources and freight traffic.

² Waterway network in Romania is situated entirely in the south and south-east with, with a density of 6.5km /1000 sq. km; the network length is 1779 km of which 1075 km Danube international waterway, 524 km navigable branches and 91 km of artificial waterways (canals Danube-Black Sea and the White Gate/Poarta Alba - Navodari); in the network of waterways and the Black Sea there are integrated 35 ports of which 3 sea ports, 6 sea-river ports and 26 river ports. Romanian ports have approximately 49,000 m of hydro-technical construction for dock ships, of which 18.1% with an age greater than 50 years, requiring urgent reconstruction works.

³ Currently, in port areas in Romania, it operates the free zones: Constanta South and Basarabi, Sulina, Galati, Braila, Giurgiu.

In conclusion, even if, for reasons more or less objective, that can and must make them subject to specialized critical studies, the technical condition of transport infrastructure in Romania does not correspond to the current stage's needs, they may still note that there is currently a well-structured network of roads, railways, and waterways with sea and river ports and related airway and airports that can interconnect localities to the national and international transport networks.

3. The European Union's Role in the Revival of Transport on the Danube

The jurisdictional framework, which defined pan-European transport corridors which include Romania as well, was created by the European agreements developed under the UNECE (AGR¹, AGC², AGTC³, TER⁴ and TEM⁵) resulted from the three pan-European Transport Conference in Prague (1991), Crete (1994) and Helsinki (1997) and the Decision of the European Parliament and of the Council no. 1692/96/EC of 23 July 1996 on guidelines for the development of trans-European transport network, as amended by the European Parliament and Council Decision No. 1346/2001/EC of 22 May 2001.

Between December 2008 and June 2009 as riparian countries, Romania and Austria have initiated and proposed, at the level of the EU Member States in the Danube basin and the third states from the area of this basin, a new project aiming at enhancing the regional cooperation. This cooperation nowadays called the *EU Strategy for the Danube Region*, following the model of the EU Strategy to the Baltic Sea. Following this initiative, the Commission was requested by the European Council on 18-19 June 2009 to develop by the end of 2010 the strategy as such, it was achieved and made public simultaneously with the related Action Plan. The Strategy provides four priority axes⁶, all having an impact in the naval transport i.e. connecting the Danube region, environmental protection, regional prosperity and improvement of governing system (Maftai, 2012, p. 85).

¹ The E road network agreement.

² The E rail network agreement.

³ The E combined transport network agreement.

⁴ The Trans-European Railway was initiated in 1990 as a modern railway network at east European level. Initially the proposed network consisted of a North-South corridor and six branches orientated approximately West-East, but over time additional segments were added so that today the network topology is a matrix, with the expected length of 23,858 km.

⁵ The Trans-European Motorway project was initiated in 1977 by countries in the Central, Eastern and South East Europe.

⁶ Each of the four pillars focuses on priority areas, aiming at the achievement of programs, projects and actions in order to provide effective and sustainable solutions to common problems of the partners in the Danube basin: environmental issues and biodiversity, challenges related to security in the region, stimulating multimodal transport, tourism, green energy etc.

As observed in a previous study (Bocăniață & Bocăniață, 2011, pp. 828-833), the objectives that need to be pursued by Romania through the participation in the development and implementation of the EU Strategy for the Danube Region are:

- a dynamic, competitive and prosperous Danubian region;
- creating some integrated transport systems and environmental protection monitoring based on new technologies;
- cleaner water, protection of bio-diversity, combating cross-border pollution and reduce the flood risk.

The Danube Strategy must take into account these developments and undertake projects such as:

- replacing the current system of control of ships on the Danube River based on inspection at the port of destination, with a system that envisages setting the specific border control in points of entry / exit to / from the future Schengen area, clearly established;
- strengthening the cooperation between law enforcement institutions and with local authorities in the Danube riparian states;
- providing control structures with fixed and mobile detection equipment, communications equipment of performance and efficient means of naval mobility;
- protecting the Danube ecosystem by implementing an efficient concept of prevention of illegal fishing and hunting, forest and intentional or accidental pollution;
- insuring security of freight transport and goods handled or stored in ports.

All investments which are to be made in the Danube basin should be smart type systems based on the latest scientific and technological developments, where the environment protection is included in the designing phase (“green intelligent knowledge systems”).

In the concrete plan without taking into discussion the multiple needs to modernize the Danube river and sea ports, taking advantage of the opportunities opened by the Danube Strategy in the current European financial exercise 2014-2020 EU, only to ensure optimal and safe navigability in the area, it is need for the implementation of projects that would ensure:

- hydro-technical works and providing depth at Sulina bar;
- high shore construction and bank protection on the Danube Black Sea Canal;
- protection and consolidation of banks White Gate/ Poarta Albă - Midia - Năvodari - Midia – Navodari Canal;
- arrangements to ensure navigability on the Danube (Calarasi - Sulina) including signaling system and topographic measurements on the Danube;

- improvement of navigation conditions between Calarasi and Cernavoda (redistribution of water in the flow in the bifurcation area of the Bala arm of the Danube - sector length 48 km);
- works of defense and consolidation of banks on the Sulina Canal (sector length 51 km).

There is also an agreement where the framework conditions for inland navigation should be improved in an integrated manner by the ten Danube riparian states, following the objectives of the European Action Programme in order to promote inland waterway transport - NAIADES I for the period 2006-2013 and NAIDES II for 2014-2020.

In turn, the Danube riparian communities have an important role to play as well and along with the local public administrations they have understood that they can and should do more for their own development, by taking advantage of the benefits offered by the Danube.

Taking initiative, in a way, a group of city- port from the river Danube and the Black Sea¹ began to achieve a joint project within the naval type associations designed to encourage the transit trade in general and naval transports, in particular. This association of naval type of several ports belonging to Romania, Bulgaria and Ukraine started from the model of a similar association that operates with good results for the ports of the Adriatic Sea.

Important steps for the formation of this association were made in 2013, during a meeting held in Krems Danubian port of Austria, where decision makers of public administration of the involved port cities attended, port operators and owners of the three countries. For this purpose it was created at the meeting concerned a general secretariat to work on writing a development program, so as within the European financial exercise 2014 - 2020, the association should support and develop major projects involving the participation of the ports in question.

4. Brief Conclusions

From the brief conducted analysis it can be concluded that transportation on the Danube but also its surrounding areas have a high growth potential, which may successfully lead to the economic, social and cultural development of the entire region of the old river. In this way various states and regions from the expanded basin of the Danube could be beneficiaries of an easy and direct access to the Black Sea, so as to ensure the connection of the European Union with the Middle East

¹ Two port river-maritime cities from Romania (Galati and Constanta), two from Bulgaria (Varna and Burgas) and two from Ukraine (Odessa and Ismail).

regions of the Asian continent; these prospects were envisaged by Black Sea Synergy.¹

Inland navigation offers important opportunities to transfer goods on the Danube and its tributaries, instead of road transport, in an energy- efficient manner (e.g., in terms of cost of transported goods / tone - km). This can contribute to the traffic streamline on some routes. Intensive use of the Waterway capacity of the Danube basin can handle the volume of traffic in a manner friendly with environment and society, taking advantage of the nonstructural measures (such as innovations in the fleet) and infrastructure investment. Navigation on inland waterways should take part in the economic growth of transport activity by maintaining or expanding it in the Danube Corridor. Estimates indicate that this could lead to a doubling of transport volumes on the Danube for the next 10 years. Currently shipping percentage of the total transport in the Danube region is below 10%. Undoubtedly, for the level of economic development of today must be secured by the multimodal use of available transportation possibilities (road, rail and waterways). But inland waterways, compared to air and road transport is seen as more environmentally friendly and energy efficient and it can therefore contribute to the socio-economic development of the countries in the area. With its special geographical position to the Danube, and the development and modernization of infrastructure, Romania can meet unquestionably, in the near the future the role of turntable of the continental and intercontinental transport on the main geographic directions North West and South East. In such a context, Danube has and may have in the future a very important role.

The transport policies that promote transfer modalities, clearly stated, for example, by the European Union, the Transport White Paper, lead to a series of proposals for investment in inland waterway infrastructure, which should be supported by EU financial institutions, but also by the international ones.

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¹ It started in 2007, during the German Presidency of the EU Council, following the steps of Romania, Bulgaria, Greece, supported by the other Member States and with the contribution of the European Commission, the Black Sea Synergy was profiled as a new initiative for EU regional policy specially for the region. It was officially launched on 14 February 2008 in Kiev, in a meeting of foreign ministers of EU member states and the countries of the region covered by the Synergy (Armenia, Azerbaijan, Georgia, Moldova, Russian Federation, Turkey, Ukraine).

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