The presumptions of croatian entry into european traffic system in 21st century

Željka Šiljaković - Martin Glamuzina

Geography Department
Faculty of Philosophy - University of Split

Geotraffic situation of Croatia is an essential precondition of the key transeuropaean direction development across its territory. The building of modern roads and railways is giving opportunity to Croatia for more intensive inclusion into the European traffic network.

In this matter, priorities should be directed on connecting with Middle and Eastern Europe across the main node Zagreb and with Western Europe along the Adriatic coast. The orientation of trade flow towards Croatian coast, gives an opportunity for Rijeka to develop as the leading port on the Adriatic, whose capacities are not enough used.

Key-words: traffic policy, highway directions, high-speed railways, Zagreb, Rijeka

However, until its independence, the role of Croatia in intereuropean linking was marginal. Due to the political factors, main traffic directions were oriented across the territory of Serbia (Belgrade - Niš - Skopje - Solun: Budapest - Belgrade - Bar). As a consequence, leading Croatian ports on the Adriatic were omitted from the net of European motor-road and double-track railway-directions while the port Bar was politically favored.

In that way the interregional connection of Croatian territory was omitted which made the disperse urban-economic development impossible and hampered the harbor-industrial potentials of Rijeka and Split.

Since the independence, there have been real presumptions for valorization of the own traffic system, including both highway and railroad on the main North South transversals, i.e., for joining Pannonia and Mediterranean area of Croatia.

Traffic valorization of Croatia

Croatian traffic politics is a part of the general economic state of country, but also a perspective of further development which is primarily based on the advantages of geographical position. The position of Croatia opens the possibility for effective integration in European traffic network. With the traffic development of these two key corridors (Pannonian and the Adriatic), Croatia would obtain the strategic role in interstate goods exchange. Its geographic position that acts as a powerful push factor, is limited by still inadequately built infrastructure of qualitative motor-roads and high-speed double-track railroad networks. It resulted by the remarkable portion of traffic circulation's from Middle Europe being directed across the territory of the neighboring Slovenia. And that is why the main aim of the Croatian traffic politics is to modernize the existing infrastructure, by building new road and railway communications and by directing trade and travel directions along the main corridors.

There are two key traffic directions on the Croatian territory:

1) longitudinal - as a link of Northern and Middle Europe with Middle East
2) transversal - as a part of direction Baltic - The Danube Basin - Northern Adriatic

Both of these ways of communication have wider geographical meaning, primarily as a part of transeuropean main-road that links Western and Southeastern Europe (Spain / Great Britain - France - Genova - Northern Italy - Trieste - Rijeka - Zagor - Šibenik - Split - Dubrovnik - Bari - Drac - Athens). Croatian traffic policies must be directed on the Adriatic orientation as one of the strategic potentials of further economic development of the country.

**Continental traffic system**

In the past, the aim of the construction of the railway-road network on Croatian territory was to link Croatia with existing power centers in Vienna and Pest. Although Croatia had been given the first railway in 1860 (Budapest - Pragersko - Zador - Zagreb - Karlovac - Rijeka), in spite of the fact that the railroads were built for the interests of Vienna and Budapest, Croatia gained very important role on the traversal between Middle Europe and the Adriatic. Even today it still remains one of the key axes of Croatian economy and traffic development.

There are two potentially the shortest traffic directions towards North and Northwest on their way from the Mediterranean to Middle Europe (across Krapina and Pragersko to Vienna), i.e. to Eastern Europe (across Koprinivica to Budapest and L'vov) stretching from Zagreb, a main traffic node. In European traffic node network, Zagreb has not only the key function in acceptance of traffic on the way to ports of Northern and Middle Adriatic, but also towards Southeastern Europe by Sava corridor. In order to integrate in European railway networks it is necessary to partly modernize these two directions, i.e. to reconstruct them completely for the acceptance of high-speed trains.

Railway direction Zagreb - Pragersko must be adjusted for high-speed trains, at the beginning for those speeding up to \( \geq 200 \text{ km/h} \) in passenger traffic and \( 120 \text{ km/h} \) for cargo traffic on electricity broad-gauged train. In that way the shortest link to Middle Europe would be realized. The direction Zagreb - Koprinivica - Budapest must also achieve that sort of modernization. That line is supposed for traffic of high-speed trains (min. 200 km/h, or 120 km/h), too. Both of these railways are directed towards Rijeka, which contributes to the strengthening of its importance as the most remarkable port on the Adriatic the trade traffic streams of Austria, Hungary, Bohemia and Slovakia are directed towards Rijeka. Rijeka would then bring back a part of lost transition during the Croatian War of Independence when the great deal of traffic neighboring countries had been directed towards Trieste and Kopar. It is supposed to the strengthening of container traffic for whose necessities Rijeka has enough capacity. The building of the Adriatic Railway, which would bring all Croatian parts on the Adriatic into unique transition streams, is of a great importance for the economic and tourist linking of Croatia to West European and Mediterranean countries. There are 2 solutions predicted for this road both route Rijeka -...
Zadar. According to the 1st variant of the track is located next to the shore, above present the Adriatic Railway with an assumption of building shields for NE wind on the coast under the Velebit. The 2nd one assumes the track being located behind the mountain massif of Velebit, on the side of Lika, making in that way possible the valorization of depopulate area of Lika, and at the same acting as an important pull factor of economic development. The limiting factor in this area is the climate, esp. strong drifts of snow during the cold part of year. This 2nd track should get some advantages in further analysis just because of its impulsive factor in economics. The construction of Croatian railway “Y” and the Adriatic railway opens perspectives of development of Rijeka as a leading port-industrial center on the coast, but also for its outgrowing into one of the leading European ports. The additional impulsive possibility opens up with a construction of canal Sava - Dunav, from Slavonski Šamac to Vukovar. That again enables the shortest link to Northern as well as to SE Europe, and Mediterranean, esp. for intermodal transition (canal Rhein - Main - Dunav - linked to Sava to Zagreb and high speed train to Rijeka and Split). The construction of the Adriatic Railway presents also an alternative to Sava corridor which links Western and Middle Europe with Belgrade, Solun and Sofia across Ljubljana and Zagreb through Sava Valley. Trains speeding up to 140 - 160 km/h travel on the section Zagreb - Vinkovci - Tovarnik.

The modernization of the Lika track in the 1st phase and its complete reconstruction in the 2nd phase, is of a great importance for the interregional linking of Croatia, because it connects the Pannonic-Peripannonic area with the South. The existing condition of Lika track does not satisfy neither the realized speeds nor the quality of transportation, as a result of that, a great deal of trade and passenger traffic is re-oriented on road communicat-
conditions for qualitative, fast and safe development of passenger and trade-truck traffic.

The construction of the Adriatic Highway has a great role in the plans of Adriatic orientation of Croatia, considering the fact that in that way the Croatian territory would be connected to Western Europe. It would also open the possibility of dispersing urban and industrial development of some regions (Northern Croatian coast, Middle Dalmatia, South Dalmatia). That’s why the construction of highway and railway communication is necessary as well as building container terminals in three leading port-industrial centers on the coast: Rijeka, Split, Ploče, but also in Zagreb as the leading traffic center of the country. The dispersal of urban and industrial functions is opened by the traffic communications across the Lika territory (Lika Railway, Lika’s Highway “Y”) and the construction of trade terminals in Karlovac, Gospić, Zadar and Knin.

**Figure 4: priority road-communications in Croatia**

The Croatian economy greatly depends on marketing of some products of homemade industry, on European and world market. The majority of foreign trade exchange is done with the countries of Middle and Western Europe, among which Italy, Germany, Slovenia and Austria take the leadership. Therefore, traffic directions must also be in function of qualitative trade exchange. In tourist way Croatia is also oriented to this market. The high qualitative traffic network is one of the necessary preconditions of tourist development on the Adriatic.

**Conclusion**

The construction of the modern highways and high-speed broad gauged trains is one of the decisive activities which can help Croatia take a step with the developed part of Europe at the beginning of the 21st century. It is inevitable to establish prior directions in which where the country policy has the key importance. Directions towards Middle, Eastern and Western Europe open perspectives in development of Rijeka and Split as the leading port-industrial centers on the coast and to Rijeka also as one of the leading ports of Europe.

It is possible to detach few main axes of development in the Croatian traffic policy framework:

1) Middle Europe - Graz - Maribor - Zagreb - Rijeka (branch towards Zadar - Split - Dubrovnik)
2) Eastern Europe - Budapest - Zagreb - Rijeka (branch towards Zadar - Split - Dubrovnik)
3) The Adriatic transversal: Trieste - Rijeka - Zadar - Split - Dubrovnik and
4) Osijek - Bosnia and Herzegovina - Ploče and Varazdin - Koprivnica - Osijek

The railway traffic can develop in few phases: the 1st phase consists of modernization and reconstruction of the railroad tracks for the speeding up to 200 km/h, on the main transversal and longitudinal directions and then follows the planning of the long-termed construction of new railroads for Maglev - transrapid technology.

Croatian traffic policy has double meaning: fitting of Croatia into trade-traffic and travel streams of Europe, and also stronger integration of country area, esp. its North and South across Lika - the “spine” of Croatia. In that way disperse development of urban and economic functions in depopulate areas of country is enabled.

**BIBLIOGRAPHY**

BOGOVIC, B. (1993) Jadranjska željeznica kao dio europske mreže pruga, PROMET, Vol. 5, Zagreb Str. 31-33
The Adriatic Railway as a part of European Railway Net - p. 31-33.

The Possible Alternative Routes of the Adriatic Railway Rijeka - Dubrovnik - p. 72-83.


Regional Cooperation of the Middle and Eastern European Countries in the Transport Area - p. 135-138.

Traffic Valorization as a Pre-Condition for Determining the Traffic Policy of Croatia - p. 19-23.