

Review paper

UDC: 911.3:625(4)
DOI: 10.2298/IJGI1201089M

CORRIDOR Vc AS A FACTOR OF INTEGRATION OF BOSNIA AND HERZEGOVINA INTO THE EUROPEAN UNION

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Received 10 May 2011; reviewed 19 June 2011; accepted 19 March 2012

Abstract: Corridor Vc enables inclusion of Bosnia and Herzegovina into transportation system of South-Eastern Europe and Eurocorridor system, and development of cross-border cooperation and establishment of Euro-region, which is one of the important segments on its approaching to the European Union. Integration processes and positive impacts on stabilization of development effects cannot be realized without clearly defined strategic aims of transport system development. Transport development policy in Bosnia and Herzegovina has two directions - on one hand, it refers to strengthening of internal territorial cohesion, and on the other, it refers to establishment of efficient connections and relations with the European Union.

Key words: Bosnia and Herzegovina, Eurocorridors, Corridor Vc, South-Eastern Europe, the EU

Introduction

In integration and regional-economical processes, transport is of crucial importance and is considered to be a ‘‘bloodstream’’ of every country and the main prerequisite for development of other economic activities. Establishing of modern transportation system is an imperative for regional and international cooperation, which significantly affects equalization of economic growth and development, thus particularly emphasizing strengthening of economic, social and political connections and relations between central and peripheral regions. Transport is one of the most important elements of the functional organization of space in which the level of development of transportation system articulates the concentration of population and settlements, and development of economic activities (Rodrigue, Comtois & Slack, 2006).

European integration processes are confirmed through constant expansion of the European Union in the post-socialist countries, including six countries of the Balkans (South-Eastern Europe today) which are still not its full members. Since

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the nineties, all these countries make considerable efforts in establishing democratic society, state of law and market economy. They are aimed at achieving some degree of macroeconomic stability through adoption of common rules, standards and the EU policies that would eventually lead them to the full membership. Among six countries of South-Eastern Europe, after signing Stabilization and Association Agreement, Croatia and Macedonia achieved the greatest benefits, while Bosnia and Herzegovina, Serbia, Montenegro and Albania must carry out several more activities in order to implement the defined set of economic and political reforms. One of the important activities in achieving this goal is their inclusion into Eurocorridor system, which was defined by the EU in the nineties (I Pan-European Conference was held in Prague in 1991, the second one was in Crete in 1994, and the third was in Helsinki in 1997). In the sphere of implementation of the project of Eurocorridor construction and development in South-Eastern Europe, six (IV, V, VII, VIII, IX X) of the ten corridors pass through this region (Grčić & Ratkaj, 2004), including Corridor Vc, which goes through Bosnia and Herzegovina in meridian direction, and creates realistic preconditions for its integration into European geo-economic system.

Main geo-economic guidelines

Geographical position of Bosnia and Herzegovina is substantially altered after it became independent. As a federal unit in Socialist Federative Republic of Yugoslavia, it had a central position with a distinctive dimension of interregional, economic and functional uniting of Yugoslav geospace. This means that Bosnia and Herzegovina participated in all the benefits of Yugoslav transport and geographical position which was defined by the Morava-Vardar, Adriatic and Danube orientation. In early nineties, Yugoslav republics which became independent formed new independent and internationally recognized countries, including Bosnia and Herzegovina. With this, geographical position of individual new states on the same geospace fundamentally changed. Therefore, the process of disintegration of SFR Yugoslavia created a new geopolitical and geo-economic structure of the Yugoslav geospace, in which Bosnia and Herzegovina still needs to valorize interregional and intraregional benefits of its geographical position and geo-economic potential.

In this changed geographical position, Bosnia and Herzegovina has lost the Morava-Vardar development orientation, while it was largely excluded from the Adriatic as one of the main flows of littoralization. Namely, Adriatic orientation is reduced to a narrow zone of only 23,4 km in Neum-Klek, with no access to the open sea since it was separated by state borders of Croatia. In economic

terms, Bosnian narrow zone does not have industrial or any other economical importance, apart from tourism and hospitality industry. Therefore, the main determinant of geographic position and geo-economic orientation of contemporary Bosnia and Herzegovina has been reduced to the *Sava River basin-Danube development component*.

Economic structure of Bosnia and Herzegovina within SFR Yugoslavia has had an emphasized raw-industrial orientation, sharing the fate of socialist self-management society and methodical economic system. The post-war process of industrialization, as a general model of economic and social development, in Bosnia and Herzegovina was directed to exploitation of mineral and wood resources, so that basic industries (ferrous metallurgy, metal processing, wood and coal) took more than 56% of total industrial production (Maric, 1991). Such process of industrialization caused the orientation of transport structure on development of railway transport, so that Bosnia and Herzegovina lost its modern road network until the beginning of this century, when making the first kilometers of highways started. Territory of Bosnia and Herzegovina is among low valorized transport regions which are poorly connected in both interregional and intraregional sense.

All transitional reforms, started in 1989, are disabled due to political disunity, which led to inter-ethnic conflict (1992-1995) and dramatic history of making independent state with immense long-term consequences on overall social and economic development. Dayton Bosnia and Herzegovina covers 51.129 km², the Republic of Srpska occupying 49% and Federation of B&H 51% of its territory. Total length of the state border is 1.537 km, while the winding entity border is 2.177 km long.

Regionally, Bosnia and Herzegovina belongs to geo-economic space of South-Eastern Europe, where it takes 19% of total area and it makes 16% of population in the region; with GDP of 9,1 billion US \$ and 2.337 USD per capita (Statistical Yearbook, 2008); with foreign trade deficit of 7,2 billion BAM and unemployment rate of 40,8% (Republic of Srpska Institute of Statistics, 2009). Weak indicators in macroeconomic and foreign trade sphere, together with a slow process of privatization and implementation of structural reforms, undoubtedly contribute to the low inflow of foreign investments. Such geo-economic position of Bosnia and Herzegovina in the regional framework, with a distinct tendency of the EU expansion towards the southeast of the continent, and Stabilization and Association Agreement defined in 1999, require a rapid process of democratization, institutional capacity building, infrastructure reconstruction and economic development with consultative assistance of the

EU. One of the most important steps towards joining the European integration process is development of modern transport network (transport, energy, telecommunications, etc) that would provide high-quality spatial connection of Bosnia and Herzegovina with South-Eastern Europe and furthermore with the EU.

Condition of transport network

Contact macro regional position of Bosnia and Herzegovina between Pannonian Basin in the north and Adriatic Sea in the south, determines its territory as the shortest transport connection between Central European countries and Adriatic coast. Its land transportation network is inherited as an integral part of the transport system of SFR Yugoslavia, which was adjusted to the needs of the previous united state. Total length of road network is 23.151 km, where the primary road network takes 4.043 km (17,5%), the secondary takes 5.108 km (22,1%), while the length of local roads far exceeds the overall network of the previous two categories and takes 14.000 km or 60,4% (Table 1). Primary road network in Bosnia and Herzegovina consists of the following three categories of roads:

- The first category includes international routes and roads connecting the main regional and the largest economic centers in the country. Their total length is 995 km;
- The second category includes inter-entity roads and the ones within the entity which are in continuation of the roads belonging to the first category, with a length of 1.953 km;
- The third category includes roads that connect administrative centers in the country, and their length is 1.095 km (Basic infrastructure investments in South-Eastern Europe, 2000).

Share of E-roads in the primary network is about 25%, but the quality of surface and sub-surface layers depends on their maintenance before the war, degree of damage and their reconstruction and modernization today. E-road network passing through Bosnia and Herzegovina consists of the following six courses:

- E-762: Sarajevo-Brod na Drini-Šćepan polje (Montenegrin border);
- E-761: Bihać-Petrovac-Jajce-Travnik-Sarajevo-Višegrad (Serbian border);
- E-661: (Croatian border) Gradiška-Banja Luka-Jajce-Travnik-Lašva;
- E-73: (Croatian border) Šamac-Doboj-Zenica-Lašva-Sarajevo-Mostar-Doljani (Croatian border);

- E-65: pass through Neum;
- E-59: (Croatian obrder) Izačić-Bihać-Ripač-Uzljebić.

The only Eurocorridor which is planned through Bosnia and Herzegovina is V, whose third branch C coincides with the road E-73, which through the port of Ploce has the access to Adriatic Sea, and which joins its main branch in the north, in Budapest.

Table 1. Structure and length of road and rail network in Bosnia and Herzegovina, 2005. (km)

	B&H	RS	F B&H	Brcko District
Primary network	4 043	1 990	2 024	29
Secondary network	5 108	2 384	2 724	...
Local roads	14 000	6 048	7 952	...
Total length of road network	23 151	10 422	12 700	29
Length of rail network	1 053	416	608	29

Source: Basic infrastructure investments in South-Eastern Europe, 2000; Statistical Yearbook FB&H,2009; Statistical Yearbook RS, 2009.

In the period after the war (1992/95) in Bosnia and Herzegovina, the most important projects of reconstruction and modernization of road infrastructure network are the construction of highway section on the Corridor Vc which takes the territory from south-west of Sarajevo (Jošanica) along the E-73 road to Kakanj, about 40 km long, and the construction of highway from Banja Luka along the E-661 road to Gradiška, i. e. the border of Croatia, about 50 km long, which is planned to be finished by the end of 2010. This route, in cooperation with Croatia, should be lengthened to Okučani, where it should be connected with Corridor X. Highway Banja Luka – Gradiška, together with the planned construction of highway Banja Luka – Šešljije (near Doboje) and joining to Corridor Vc, is vitally important to transport system of the Republic of Srpska, since in that way its leading center – Banja Luka and the western part of this entity and Bosnia and Herzegovina will be incorporated into the main travel and commodity courses in the state, region and the EU.

Development of railway network in Bosnia and Herzegovina started in 1872, when the first railway between Dobrljin and Banja Luka was built. For a long time, it was the dominant mode of transport of various materials which were the base of development of mining and heavy industry branches, whose location was mainly related to train routes. Concentration of industrial production along railway lines accelerated the process of urbanization and development of new settlements, which confirms the fact that about 70% of Bosnian settlements are located just along these lines (Separat B&H, 1983). Total length of railway network in Bosnia and Herzegovina is 1.053 km, out of which the Republic of

Srpska takes 416 km or 39,5% (Table 1). Geographical distribution of the rail network is uneven, and it is most concentrated in Peri-Pannonian part of the country, except the railway taking meridian direction along the rivers Bosna and Neretva which is parallel to Corridor Vc. The most important railway lines are:

- (Croatian border) Šamac-Doboj-Zenica-Sarajevo-Mostar-Čapljina-Croatian border – Port of Ploče;
- (Serbian border) Zvornik-Tuzla-Doboj-Banja Luka-Noví Grad-Bihać-Martin Brod- Croatian border;
- Banovići-Tuzla-Brčko- Croatian border.

In addition to road and rail networks, in the context of participation of Bosnia and Herzegovina in Trans-European Transport Network and Eurocorridors, river transport draws considerable attention although it significantly lags behind the mainland roads. This is primarily related to flow of the Sava River, which is 333 km navigable and which connects Bosnia and Herzegovina with the Danube and the main European river-canal system Rhine-Main-Danube. Since the Corridor VII goes along the Danube River flow, it would enable the inclusion of Bosnia and Herzegovina into the European system of waterways and thorough valorization of its transport and geographical position. The main Bosnian river ports – Brčko, Šamac and Brod with the planned oil terminal are located on the Sava River, which further increases the importance of reconstruction and modernization of these ports. It should be added that important regional centers, such as Banja Luka, Tuzla, Doboj, Zenica and largely Sarajevo naturally gravitate to the ports on the Sava River, which is at the same time their most efficient transport link with Belgrade and Zagreb which are connected with Corridor X, north from the Sava River. Considering the planned construction of oil terminal in Brod and the Sava River - Danube canal, and connecting to Corridor VII, it is clear that the role of the Sava River is becoming strategically important in the process of inclusion of Bosnia and Herzegovina in the system of Eurocorridors and in creating transborder region in the Sava River basin.

Importance of the Corridor Vc in integration processes

Corridor Vc is defined on the Third Conference in Helsinki in 1997. It has a strategic importance for Bosnia and Herzegovina since it spatially includes it into Trans-European Transport Network and Eurocorridor system, which provides it the access to European market system. Corridor Vc goes through Bosnia and Herzegovina taking meridian direction, 336 km long, thus connecting several economically active and densely populated areas with significant economic and large urban centers, among which the most important are:

Corridor Vc as a factor of integration of Bosnia and Herzegovina into the European Union

- Sarajevo, with over 420 thousand inhabitants; the largest urban center with a variety of functions such as economy, transport, education and culture, also functioning as the administrative center of the state;
- Zenica, with over 127 thousand inhabitants; the second largest center in Sarajevo-Zenica region, with traditionally most developed mining and metallurgy industry and many educational and cultural institutions;
- Mostar, with over 111 thousand inhabitants; the most important cultural, educational, economic and tourist center in Herzegovina;
- Doboj, with over 80 thousand inhabitants; has long been a major transport junction of the state, and is becoming increasingly important cultural, educational and economic center of the Republic of Srpska.

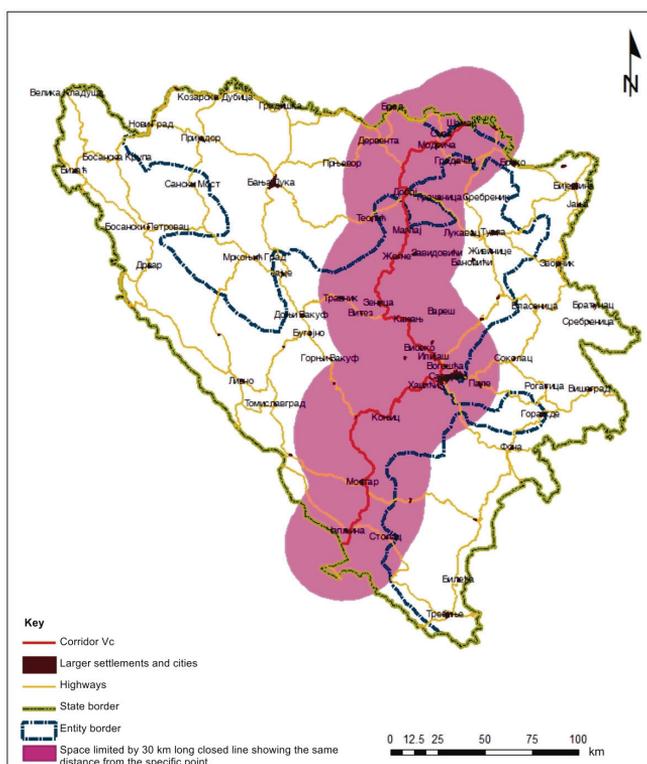


Figure 1. Influential (gravitational) zone of Corridor Vc (Authors: Maric, Dj. and Bajic, D)

Considering spatial and time availability, where it takes averagely 30 minutes to overcome the distance of 30 km, influential (gravitational) zone of Corridor Vc (Fig. 1) was determined. This zone takes less than 20% of Bosnia and Herzegovina territory, and it has about 50% of population that earns almost 60% of the state GDP. In addition, 61 municipalities are located in this zone, among which only 18 belong to the Republic of Srpska. It passes through four of the six largest urban centers in Bosnia and Herzegovina, where some important economic facilities are located: Metallurgy Plant in Zenica, Aluminium Plant in Mostar, oil refineries in Brod and Modriča, wood-processing industry in Zavidovici and Maglaj, coal mines and power plants near Kakanj (TE Čatići) and Dobož (TE Stanari, which is under construction). However, significant part of the territory with developed urban centers as important junctions west (Banja Luka, Prijedor, Bihać etc) and east (Bijeljina, Tuzla, Zvornik, Trebinje etc) from this transport base remains out of its direct gravitational influence.

Construction of Corridor Vc and harmonization of transport system in Bosnia and Herzegovina with European tendencies will inevitably require relocation of the main roads from urban areas what will increase safety, reduce urban transport congestion and decrease adverse environmental impact in urban areas. At the same time, it is necessary to make a partial transfer from road to some other transport mode, primarily on the railway one, which will directly affect reduction of truck transport of goods, and thus will increase road safety and decrease adverse environmental impact in the areas of the main transport routes. In addition, it will be necessary to harmonize technical standards, and social and fiscal requirements that aim to increase the quality of services.

Application of the principles of intermodality in the EU transport development will result in using the integrated (combined) transportation whose advantages of development in Bosnia and Herzegovina refer to parallel provision of road and railway network on Corridor Vc and connecting to Corridor VII on the Sava River after its canal confluence with the Danube River. However, development of integrated transport requires introduction of modern transport technology, most commonly referring to palletization, containerization, and other systems (eg. RO-RO or RO-LO) with equipped terminals and built loading and unloading bridges. Despite many advantages offered by integrated transport in Bosnia and Herzegovina and SEE countries, it is still not developed enough.

Important transport routes and transport network significantly affect the level of development of some regions and forming the development base, where *transborder regions* (Euroregions) have become the base of European development policy. The European Union under transborder regions implies an

active transborder cooperation and regional development, therefore they represent a new model of spatial and functional organization of the border regions. The essence of understanding the problems of border regions development is the paradigm `center – periphery`. Considering the Republic of Srpska and Bosnia and Herzegovina in this context, it is possible to recognize certain problems and prospects of development in the future period of its integration into the EU. Currently, geopolitical confrontation is characteristic of Bosnia and Herzegovina and its neighbors, rather than transborder cooperation and forming the transborder regions as the base for integration processes. Therefore, in the process of stabilization of neighborly relations, of great importance are modernization and construction of modern transport network that will encourage opening of the borders and improve cooperation with neighboring countries in the region and furthermore with the EU countries. Globalization processes and democratic Europe impose new approaches to solving the old problems through agreements, understandings and cooperation in order to establish territorial, economic, political and ecological conditions for promoting European values and standards while keeping specific qualities of cultural identity.

Border zones of Eurocorridor represent a model of transborder cooperation and border areas development (Marić & Bajić, 2007). In this case, it is a *transborder region of the Sava River basin*, along the Sava River as a border zone of the Republic of Srpska and Bosnia and Herzegovina towards Croatia, where Corridors Vc, X and VII meet. Forming and development of transborder region in the Sava River basin is conditioned by a number of functional relations, primarily by transport connection, complementary economic conditions, cultural relations etc, where the type of state border functionality has the key role. Previous barrierity of Bosnian border towards neighboring countries and the EU countries is taking filterable and contact function, which implies intensive cooperation between Bosnia and Herzegovina, Croatia and Serbia along the Sava River which will be conflated with the Danube River. In this way, border zone towards Croatia as a peripheral area in accordance with the model of transborder regionalization becomes an integration area which provides more rational approach to economic and geographic valorization and spatial and functional organization of border areas in Bosnia and Herzegovina.

Process of transborder cooperation and development is basically implemented by the `bottom-up system` (from below), i. e. from local, via regional to national level. This means that stronger structural changes should be expected at the level of neighboring urban areas and regional entities, which has already been the case between neighboring cities Gradiška (formerly Bosanska Gradiška) – Nova

Gradiška, or Brod (formerly Bosanski Brod) – Slavonski Brod, Brčko – Gunja, etc. However, development of functional relations in urban settlements along the Sava River is stopped in the nineties, by turning the republic into state borders, which led to demographic and economic decline of many settlements in the border area of Croatia (Nova Gradiška, Okučani, Pakrac, Novska, Slavonski Brod, Županja, Gunja). Newer processes, and especially the project of planning, protection and exploitation of the Sava River, will not be implemented without creating a transborder region which would reflect interactional relations between the Republic of Srpska and Bosnia and Herzegovina, Croatia and Serbia. Development of small and medium-sized towns along the Sava River and their infrastructural connection could eventually get the functions of local centers of regional development. In addition, it is very important to encourage cooperative relationships between urban and rural areas and to create a common policy to promote complementarities and diversity in their social and economic relationships at the local level. Forming transborder region of the Sava River basin in the framework of new geopolitical and macroeconomic transition processes would significantly affect the integration of the Republic of Srpska and Bosnia and Herzegovina into the EU.

Inclusion of Bosnia and Herzegovina into Trans-European Transport Network of the South-Eastern Europe and Eurocorridor system, in addition to transport and trade integration, has a significant energetic, geopolitical and socio-economic dimension. Specifically, oil and gas pipelines have been built or are planned to be built along these routes, which ensures Bosnia and Herzegovina easier access to energents and other raw materials which are transported from the Black Sea and Caspian Sea basins across this region to the EU.

At the moment, the most current gas pipeline is «South Stream» (Serbian: «Južni tok») which would, in Bulgarian port Burgas, branch into two branches: the northern branch would, via Serbia, Croatia and Slovenia, transport Russian gas to northern Italy, while the southern branch would, via Greece and the Albanian port of Vlore, transport gas to the southern Italian port of Bari and the Adriatic region. By simple insight into spatial position of this pipeline, it is noticeable that it overlaps with Eurocorridors, the northern branch with Corridor VII and Corridor X, and the southern branch with Corridor VIII. Greater significance for Bosnia and Herzegovina has the northern branch since its proximity would definitely enable gasification in the Republic of Srpska, and in emergency circumstances it could serve as an alternative to Zvornik pipeline, which today primarily supplies Federation of Bosnia and Herzegovina with this important energent. Such transport system would significantly affect the increase of

international goods transport and improve socio-economic position of Bosnia and Herzegovina.

Sustainable development of Bosnia and Herzegovina

Definition of the strategy for transport development as an important element of sustainable development of Bosnia and Herzegovina is based on monitoring of the existing transport network, on one hand, and determining future requirements that have to be incorporated in development of Trans-European Transport Network, on the other hand. In other words, sustainable development implies clearly defined strategic orientations with established positive impact of Corridor Vc on the overall socio-economic development of Bosnia and Herzegovina. In this regard, there are several dilemmas:

- First, it is only the third branch of Corridor Vc which could also be a branch of Corridor X which, through geospace of former SFR Yugoslavia, coincides with former Brotherhood and Unity Highway (Serbian: Autoput «Bratstva i jedinstva»). Therefore, forming a branch of Corridor X from Okučani over Gradiška, Banja Luka and Šipovo to Split is extremely important for the Republic of Srpska, since this would facilitate geo-economic development of the western part of the Republic of Srpska. So far, 50 km long highway section from Banja Luka to Gradiška has been made. The fact that the third branch of this Corridor V separates in Budapest where it meets several Eurocorridors leads us to think about historical past, i. e. about late XIX and early XX century. Namely, in that period, Bosnian roads were only accessory roads to Austro-Hungarian main roads directed to Budapest and Vienna with mostly exploitation function, ignoring development interests of Bosnia and Herzegovina. Therefore, the project of Corridor Vc could be seen through the prism of historical heritage with ambition to join geospace of Bosnia and Herzegovina to Trans-European Transport Network centered to old European capitals. On the other hand, Corridor Vc ends in the Croatian port of Ploče whose function, in addition to the ports of Rijeka and Split, has a secondary importance for Croatia, especially in regional frameworks. Although the port of Ploče was mainly built by resources and for economic needs of Bosnia and Herzegovina, in completely new conditions of international relations and changed positions of these countries, it has lost its former importance which significantly reduces the functionality of Corridor Vc.

- Second, Corridor Vc enters Bosnia and Herzegovina from neighboring Croatia, where it ends and in meridian direction, through the shortest route, connects its northeast parts with the southeast ones. Therefore, it can be concluded that this corridor will have an important geo-economic dimension for both Bosnia and Herzegovina and Croatia.
- Third, considering the fact that outside of immediate impact of Corridor Vc there are significant concentration of population and economic activities, primarily the western part of Federation of Bosnia and Herzegovina and the Republic of Srpska with its largest center – Banja Luka, which is the second most important center of the country, it is unlikely to expect it to be the base of spatial development in Bosnia and Herzegovina. Thus, territorial cohesion, which is primarily based on transport connection of primary national and largest development centers in the country - Sarajevo and Banja Luka, found itself outside the immediate gravitational zone of Corridor Vc. It should be added that this corridor is not directly followed by other important facilities such as oil pipelines, gas pipelines or major communication systems that normally follow Eurocorridors.

Conclusion

At this stage of implementation of standards for inclusion of Bosnia and Herzegovina into the European Union, Corridor Vc is the important factor of integration, although significant concentration of population and economy remain outside its gravitational impact, thus reducing its importance to become the base of spatial development of the country. Therefore, in the long-term sustainable development of Bosnia and Herzegovina it is necessary to define such strategy of transport development that will enable territorial cohesion based on connection of western and eastern parts of the country with Corridor Vc (Banja Luka-Doboj, and at least one route towards the Drina Basin and Serbia), and joining the western part of the Republic of Srpska to Corridor X. In addition, undeniable importance in integration processes have forming and development of transborder region in the Sava River basin, which has a real basis in orientation towards the Sava River basin and Danube and functional impact of Corridor Vc.

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