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The idea of Morava-Vardar water canal and its long-term geopolitical context

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Abstract

The aim of this paper is to analyze in chronological terms the idea for the construction of Morava-Vardar canal and the contemporary geopolitical consequences of this project along with its economic, environmental and social impacts. Through critical readings of different contributions and reports made by scientific community, other institutions and media we have presented the idea in chronological terms from the late years of the 19th century until recent years. Continental geographical position Serbs have, has always been considered as an obstacle for their overall development. Through participation in unsustainable geopolitical formations they have continuously managed to develop any kind of connections to the sea. Even though part of various political entities over the time the effort to reach the direct contact to the sea was not successful. For this reason, Serbs raised idea and developed a project to connect their continental state with the sea through construction of the Morava-Vardar water canal. Except economic and environmental consequences, construction of this canal would have geopolitical implications in Balkan Peninsula known as very unstable geopolitical region.

Keywords

Serbia,
canal Morava-Vardar,
geopolitics,
sea,
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Highlights for public administration, management and planning:

- The historical and political roots of an idea for the construction of Morava-Vardar water canal promoted by Serbia is traced.
- The reappearance of this idea in contemporary geopolitical circumstances denotes a tendency of Serbia to valorize its central position in Balkan Peninsula.
- The strategic links to other entities (Balkan countries, EU, Russia and China) in this project are analyzed in geopolitical terms.

1 Introduction

Except size, shape, position, borders and geomorphologic units, another important feature of modern state has to do with isolation and the fact that some countries do not have direct access to the sea (so called land-locked countries) (Grčić 2002). This characteristic presents serious problems for traffic, trade and other industries for each country. States that are completely isolated may solve this problem in cooperation with neighboring countries that have access to the sea. Fay et al (2004) noted that besides the relatively poor performance of many land-locked countries, which can be attributed to distance from coast, several aspects of dependence on transit neighbors are also important such as dependence on neighbors' infrastructure; dependence on sound cross-border political relations; dependence on neighbors' peace and stability; and dependence on neighbors' administrative practices. In such cases isolated countries should develop a cooperation policy with its neighbors in order to address in a better way this problem (Cvrtila 2004). However, the example of Serbia as an isolated (land-locked) country, denies, as in many other cases in the world, theoretical assumptions of political geography and geopolitics, where cooperation and neighborhood policy is substituted by the policy of hegemony and subjugation of neighboring peoples. The disintegration of the former Yugoslavia, where no doubt Serbia

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played a very destructive role during the beginning of the 1990s of the 20th century are convincing arguments that reinforce the abovementioned statement. Serbs' attempt to connect to the sea has a relatively long history. Serbia has sought to fulfill its connection with the sea through the development of infrastructure projects such as, the railway Belgrade-Bar, which was completed in 1975. A giant infrastructure project with more than one hundred years of history, which was not realized until now is the water canal "Morava-Vardar" that would connect Central with South Europe. Therefore, in this paper we are presenting the idea of construction of Morava-Vardar canal in the context of realization of the abovementioned goals, and the contemporary geopolitical consequences of this project along with its economic, environmental and social impacts.

2 Theoretical background

The water canal "Morava-Vardar" is a giant infrastructure project that was not realized until now. Overoptimistic circles in Serbia compare it with ancient Silk Road which dates back before Christ (Dimitrijević 2017). It would link the North Europe with the Mediterranean Sea, through the center of the Balkan Peninsula, being an important strategic project not only for Serbia, but for all the countries of the North, Western and Central Europe and the Middle and Far East region as well. There are little scientific contributions that treats Morava-Vardar projected canal, comparing with Danube-Oder-Elbe or Danube-Rhine, for example. Most commonly, the canal's histories have been written by engineers, who focus on technicalities and boast the project's positive effects. They claim many times that the canal felt victim to ignorance, narrow-mindedness and politicians' incompetence. The situation is even worse regarding Morava-Vardar projected water canal with just a few contributions even in the period after first World War when we have growing body of works dealing with or closely related to inland navigation (Crompton 2004).

Obertreis et al. (2016) noted that infrastructure projects cannot be reduced to its material/physical components alone. Instead, they need to be seen as combinations of technical artifacts, regulatory frameworks, cultural norms, environmental flows, funding mechanisms, governance forms, etc. that get configured in particular ways in particular places at particular times. Some authors have addressed the ways in which infrastructure have been used to build a sustain political regimes, whether as instruments of territorial integration for nation states (van Laak 2001).

We have many examples of close ties of water infrastructure (water canals) and geopolitical processes and developments. One of many examples is Danube-Oder-Elbe canal, which became an object of geopolitics around the turn of 20th century as a crucial constituent of the Austrian imperial waterway network (Janáč et al. 2016). In his analysis of transnational aspects of the West European waterway network construction Disco (2011) identified the crucial problem they faced relating to a particular feature of waterways and especially trans-watershed canals: they initiated conflict between those who controlled acces to the sea and those who had the authority to extend the navigability of a certain river or a waterway system further inland. While in the case of the Danube-Oder-Elbe canal, there were used four different integration frameworks to legitimize the need for transnational integration at the time, each of which was linked to a specific vision of Europe (i.e., Mittel-Europeanization, Nazification, Sovietization, and Europeanization; Janáč 2013), in the case of Serbia ambitions for transnational integration have bigger aim then easing traffic and economy, and have been inspired by hegemonic ideas of territorial expansion through conquest of other Balkan nations. One of the pioneers of this expansionist idea was Jovan Cvijić, Serbian geographer and founder of the school of anthropogeography in the beginning of the 20th century. Cvijić elaborates this idea in the paper titled: "The Exit of Serbia to the Adriatic Sea" (Cvijić 1912). The followers of Cvijić's theory claim that Serbia possesses favorable assumptions to acquire a central place in South Eastern Europe (Radovanović 1983) through the possession of striking geographic focal points. One of these marvelous areas is the longitudinal valley of Morava and Vardar that merges in Preshva Valley.

Of course, the importance of the construction of the Morava-Vardar canal, in addition to the geopolitical aspect, is explained by the importance of the development and diversification of traffic, international trade, regional and continental integration processes. Since the construction of this canal would significantly lengthen the waterway Rhine-Main-Danube, Germany and other countries of Central Europe could be interested in the construction of the waterway from the Danube to the Gulf of Thessaloniki. According to some authors (e.g., Karanović 2002) all these interests through economic instruments will be of mutual benefit. Further connection of the former Yu-

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goslavia with the rest of Europe and the world markets through Adriatic Sea and the Strait of Otranto can serve as synonymous for the connection of Serbia with the world and the world market through the Corridor X and river the Danube-Morava-Vardar-Thessaloniki Bay (Dujić 2009).

3 Methodology and study area

Through readings and critical analysis of scientific contributions and reports from different institutions and media we have understood and described the chronology of the idea for canal construction and we have analyzed geopolitical, economic and environmental consequences of such a giant infrastructural project. While using cartographical methods the water route was divided into sections which have different length and building obstacles. Morava and Vardar are two domicile river systems in Balkan Peninsula. Morava is a major river system in Serbia, while the same is Vardar in Macedonia. They are divided in Presheva Valley, which is the lowest point of the watershed with just 460 m above sea level. For this reason, it helps easy connection between the Morava Valley in the north and the Vardar valley in the south. The Presheva Valley is located in the central part of the Balkan Peninsula – more precisely, between the Morava Valley in the north and the Vardar Valley in the south. These two valleys constitute the most important natural corridor connecting Europe with South East Europe, the Middle East and North Africa (Ejupi & Ramadani 2016). Presheva Valley, with its lowlying watershed, is located between these two valleys and across its territory it was planned to build up a section of the canal, which would allow Serbia to contact with the Aegean Sea. According to data obtained from census of 2002, Albanians makes a majority of population with 72.98% (Ejupi 2016).

4 Results and discussions

4.1 Chronology of the project

The idea to build a canal Morava-Vardar dates from the late nineteenth and early twentieth century (). This is the period when growing initiatives regarding construction of canals may be observed especially in Central Europe such as in Austria, Germany, Hungary, Czech Lands. Waterways re-appeared on the Austrian government's agenda in 1893 and for this purpose they established a Department for Research and Construction of Canals. In the same year Germans issued Danube-Vltava canal project, while some years earlier Germans have begun a Dortmund Ems canal project (Janáč 2013).

This idea was preceded by a growing interest in the development of river traffic in the Morava River. The French were among the first to be interested in the realization of this idea. For this purpose, it was established a joint French-Serbian company (French-Serbian Shipping Company), which in cooperation with another French company called Principale Compagnie de Bateaux à Vapeur developed activities for the organization of inland waterway transport in the Morava River. The French sought by Serbian King Milan Obrenović to him for traffic to be allowed to use the Morava River for 30 years. But here is intervened Russia, which was also interested in its stronger presence in the Balkans. However, in 1860 the French have won the right to use Morava River for traffic purposes. But the agreement failed and the construction of the canal has not started when it was discovered that the French company did not provide sufficient security for investments and the same deal with a suspicious businesses.

The idea reappears in 1879 by Serbian engineer Ante Aleksić in the book entitled *"Morava, the current situation and shipping opportunities"* (Corres 2014) and was developed more because it was proposed for the possibility to connect Danube River with the Aegean Sea (Jovanovski 2011). The project was presented to the Germans, the British, and through them to the Americans, who have expressed interest in its implementation. In 1907, an American company from New Jersey drafted the conceptual design for the water in "Morava-Vardar", called *"The line of European economic gravitation in relation to the Suez Canal"*. The first project of the canal was made by Nikola Stamenković, a professor at the University of Belgrade. This project describes, in a professional and creative way, the main route of canal which has survived to this day. The project has been in the Serbian language and it was made public in 1900. and a design solution is published in English 1932.

The new geopolitical developments in the Balkans such as wars, destructions and the need for economic recovery were an obstacle for the realization of this expensive project and temporarily quench the hopes for political and financial support for this initiative. Hopes were renewed in 1961 when the Design Institute for River Traffic from Belgrade prepared a preliminary design for the con-

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struction of water road Danube-Thessaloniki, and in 1973 the annex to this project was presented and a reported by UN experts (Dunčić & Lukić 2013) on water canal Morava-Vardar.

Even after the disintegration of Yugoslavia, in political, economic and academic circles of continental Serbia, once again has appeared the idea for the construction of water canal through the Morava and Vardar to the Aegean Sea. According the data from previous projects, this waterway will be complicated system of cascades and canals, which needs to eliminate the height differences of 491.6 m. It is planned to be built 65 cascades, from Smederevo (Serbia) to the port of Thessaloniki (Greece). Water route will be divided into five parts, of which is the most difficult part is that of the watershed between Presheva and Kumanova. According to Serbian academic and political community construction of water canal Morava-Vardar would not be important just for the region of Southeast Europe, but it would be important for the whole continent, and therefore they believe that for its construction will be interested also other countries of Europe.

In today's geopolitical situation and economic relations in the Balkans construction of a water canal is almost impossible. What can be done is to take over the planned construction of infrastructure systems, to reserve a space for its construction in the future. Construction of water canal in the Presheva Valley is also included within the Spatial Plan of Serbia (Matić 2012). Existing studies have not proposed a final solution, but only reserved the space for the water route. The plan aims to ensure minimal spatial conditions for sailing across the Morava after year 2020. However, mainly the high cost of this infrastructure project, today's circumstances and perspective of geopolitical developments, will be an obstacle for the construction of the canal for a long time.

4.2 Technical characteristics of Canal

From a total length of 650 km, 346 of projected navigable route belong to Morava Valley section and 264 km belong to Vardar Valley section. The watershed of the Presheva Valley point in this projected route has a length of 30 km. As a very complicated engineering project it is accompanied by several branches and lateral canals like that along West Morava River to the city of Kraljevo with a length of 73 km; the canals along Nishava River to the city of Nish with a length of 15 km and the canal branch along Vardar River to the city of Skopje with a length of 35 km (Dunčić 2013). Total length of lateral canals is 166 km while the total length in regulated river flows of Morava and Vardar and Pčinja River is 484 km.

Fig. 1 Presheva Valley in the project of Morava-Vardar water canal

4.3 Reappearance of the idea in Serbia

Passing more than a hundred years after the presentation of the idea for the construction of water canal "Danube-Morava-Vardar", the idea again revives from the Serbian Progressive Party Tomislav Nikolić and Aleksandar Vučić, which won the election in 2014, and 2016 in Serbia. Reappearance of megalomaniac idea to build a canal is not a surprise knowing the political past of this political party and their leaders. Nikolić and Vučić were second or third in the political hierarchy of the Serbian Radical Party of Vojislav Šešelj, the party that through its political program, as well as concrete actions had fascist attitude towards Albanians, Croats, and Muslims in the former Yugoslavia. Vojislav Šešelj, based on many testimonies against him, a few years ago was sent to The Hague Tribunal, against whom was launched a trial for crimes against humanity, war crimes, genocide and ethnic cleansing in Croatia and Bosnia and Herzegovina.

In the power struggle, T. Nikolić and Aleksandar Vučić were separated from Vojislav Šešelj and recognizing the current political conjuncture in the region and Europe, at least declaratively tried to break with their political past, declaring pro-European idea and embraced Western democratic values. However, this cosmetic transformation and allegedly pro-Western orientation was unmasked in some of the key points of their pro-

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gram during the last election campaign, which they won. One of them is the idea for construction of water canal "Morava-Vardar". Although it is focused on the environmental and economic benefits that Serbia will benefit from, the main objective is the factorization of Serbia as the Balkan power with hegemonic aspirations towards other countries and nations. So, this idea should be viewed as a continuation of the old hegemonic mentality of the vast majority of the political, intellectual and academic community.

4.4 Environmental and economic context

According to those who proclaim this idea, by construction of the water canal "Morava-Vardar", Serbia will simultaneously solve two major environmental problems: droughts and floods. There is 1.5 million hectares of cultivated land in the Morava Valley, of which land that are suitable for irrigation occupies 0.2 million hectares while irrigated area occupies only 4 500 hectares, taking up only 0.3%. The water efficiency of irrigation in the Morava Valley is 0.5. For this reason the construction of canals and dikes will help to protect 70 000 to 80 000 hectares of fertile land, while, on the other hand, will provide the same volume of irrigation during the dry season. Agricultural production should be trippled and benefits would be in the field of energy production, since it will work 5−7 hydropower plants with installed capacity between 300 to 400 MGW electricity (Avakumović 2013). Industrial waste water and sewage from households from settlements on both sides are discharged directly into the river with a few protective treatments. The main pollution sources include urban sewage, industrial wastewater, and sewage from dairy farms and stables. As per Serbia water class management measures, the water quality of the Morava River falls into Class II. As per the data base used by Serbia Hydrometeorological Research Institute from 2006 to 2009 the water quality of the Morava River falls into Class III/IV. The sewage needs to be collected into the urban sewage treatment plant for centralized treatment, and the drainage water up to the standard after treatment shall be drained into the non-drinking water source function area, build systems for urban waste water treatment. According to data from the Central European Development Forum, by 2025 two thirds of humanity will feel a serious lack of water, so the multifunctional and integrated approach to water resources management is a duty of every responsible society. Morava River basin covers an area of 6 126 square km or 42 % of Serbian land (Gavrilović & Dukić 2014), where approximately three million people live, and its water potential at confluence is 45 % out of the total water resources in Serbia.

In terms of transport the route from northern Europe to the Aegean Sea will be shorter for 1.200 kilometers. De (2006) finds that transaction costs are a statistically significant and important determinant in explaining variation in trade, with the median landlocked country having transport costs which are 55 percent higher than the median coastal economy. Grigoriou (2007) finds that improvement in the infrastructure of the transit country would increase the international trade of the landlocked country by 52%. By construction of this water canal would be raised the participation of water transport, which until with just 4.7% remains low and much behind the EU countries, where the percentage of river transport in relation to the total traffic is more than 15%. These are some of the advantages of river transport compared to other modes of transport that are used as arguments for the construction of the canal from the group of experts and political representatives in Serbia.

4.5 Geopolitical context

Arguing the need for a construction of a water canal political and academic circles never stopped mentioning the possibilities of valorization of the geopolitical position of Serbia in the context of the Balkans and wider. Thus, in a statement to Serbian newspaper "Politika" of 27.01.2013, traditionally close to the Government, the Minister Bačević says:

"Through this project, Serbia will become an important factor in all the communication links in the relations between South Africa and the Middle and Western part of the continent. With this waterway system, the whole country will be connected with the river system Rhine-Main-Danube, which is the most important in Europe, but also with water canals of Rhone and Seine in France, as well as the Vistula and the Oder in Poland and the Czech Republic".

According to Bačević construction of the canal, will change the geopolitical position and international status of Serbia (Avakumović 2013). In this context Bačević did not hesitate to repeat the story of hegemonic aspirations, noting that Serbia, after canal construction could become a European superpower. The political, intellectual and analytical circles in Serbia, which are close to the authorities and vice versa, expressed their opinions 'for' and 'against' the idea to build a water canal. Ži-

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vadin Jovičić, professor at the Faculty of Geography, University of Belgrade, for the Serbian newspaper "Danas" justified the idea to build a canal, as a continuation of the idea of Serbian geographer, Jovan Cvijić (1865- 1927), who in the early twentieth century developed the idea to connect Serbia with the port of Thessaloniki over the Morava and Vardar. He was one of the pioneers of the greatest exponents of the hegemonic aspirations of Serbia to reach the sea and the idea to build a canal Morava-Vardar he has explained in an article titled: "Izlazak Srbije na Jadransko More" (Cvijić 1912).

Professor Jovičić in his article "The Danube-Thessaloniki is not a fantasy", which he wrote for the newspaper "Danas" the arguments for the construction of the canal attempts to explain with the current geopolitical context in Europe generally, and especially in the Balkans and aspirations of Serbia's integration into the European Union (Jovičić 2012). According to him, the realization of these ideas will be of great importance for the integration process of the country, because of the numerous problems and speculation, such as the global economic crisis, relations between members of the developed and less developed countries within the EU as well as issues related to accession of countries, particularly for the beginning of negotiations for accession of Serbia in the European Union. In this context, Professor Jovičić saw the construction of the canal as a strong argument that would enable Serbia a faster path towards full membership in the European Union. Within the intellectual and political community in Serbia we can see also very pragmatic and realistic approaches regarding the idea of building a canal Morava-Vardar. Mahmud Bušatlija, investment consultant and well-known economic analyst, in his statement (*"There is nobody to sail canal"*) for the Serbian newspaper "Politika" of 27. 01. 2013, noted that the idea to build a canal is exceeded and in the current geopolitical and economic situation almost impossible project (). This was of course a grandiose idea for the geopolitical circumstances of the late nineteenth and early twentieth century, when it was promoted for the first time. Austro-Hungarians supported this idea in order to prevent the Turkish domination in the entrance to the Black Sea and the Russian domination of the Crimean Peninsula. Also, in technological terms, the waterway would not have the capacity to carry out modern river and sea boats.

Since the Morava-Vardar canal would be a transborder project, besides the good will of a part of political and academic circles in Serbia, there must be an agreement between Macedonia and Greece for such a project. During their meeting in Skopje Macedonian Prime Minister Zoran Zaev and the mayor of Thessaloniki Janis Butaris says that Macedonia and Greece are opened for project such as canal Morava-Vardar, because it is very important for both states and helps intensifying cooperation in touristic, cultural and environmental protection field. But so far, Macedonia's government says it has not received any official request for cooperation on the project from Serbia, although the Vardar runs through Macedonia (Barlovac 2013).

Among other geopolitical circumstances that differ from those of the early twentieth century, the construction of the water canal is not economically feasible. Although the project is still in the preliminary stage and without detailed studies on the economic, social and environmental feasibility, economic analysts predict that the construction of the canal cost of 15 to 20 billion dollars. Many observers of the economic environment in Serbia warned that the construction of the canal will pressure Serbia with long-term economic consequences. Miladin Kovačević, in the journal "Economic Analysis", warns that Serbia should not start this expansive project, because it may experience a Greek scenario. Another expert of economic environment in Serbia, Further risk that could bring construction of the canal is that the canal Morava-Vardar may have the same historical fate as of Belgrade-Bar railway, through which the former Yugoslavia and Serbia realize connection with the Adriatic Sea. When this railway was built it was thought that through allegedly developed transport from Hungary, Romania, the Czech Republic and half of Europe. The breakup of Yugoslavia led to the fact that the Port of Bar is now empty, railway is not used, but due to the difficult terrain through which it passes makes higher maintenance costs than economic benefits. In the case of canal "Morava-Vardar" the situation is similar or even worse since there is no intergovernmental preliminary agreement between Serbia, Macedonia and Greece in whose territories will be realized this waterway system. In a time when the EU, Greece and Macedonia are in crisis, it is difficult to imagine a tripartite agreement or the one with the European Union for joint financing of the project.

The re-actualization of the Morava-Vardar canal construction, during the time when Serbia is in the intensive phase of completing the chapters for EU accession, can be seen as Serbia's attempt to factorize the central position in the Balkan Peninsula and accelerate the path towards full EU membership and greater benefits within the dialogue with Kosovo. On the other hand, the engagement

of the Chinese company Gezhouba Group, which prepared the feasibility study for the construction of the canal, and engagement of the Russian state company for the reconstruction of the southern part of the Belgrade-Skopje-Thessaloniki international railway which has been finished recently shows the strong ties that Serbia cultivates with these countries and the increase of Russian influence in Serbia and the Balkans.

5 Conclusions

The permanent goal of Serbia for many years is to reach direct acces to the sea. Continental geographical position Serbs have always considered as an obstacle for development and realization of their development aims. Serbia, through wars or participation in the creation of unsustainable geopolitical formations, such as Kingdom of Serbs, Croats and Slovenians or Yugoslavia (after 1929), the communist Yugoslavia, and after that the Union of Serbia and Montenegro, has repeatedly managed to expand territorially and reach out the sea. However, even though it was part of the former Yugoslavia, with a long coastline, Serbia has never managed economically and politically to evaluate it, because the direct access to the sea had other republics such as Croatia, Montenegro, Bosnia Herzegovina and Slovenia. In these circumstances, Serbia has sought to fulfill its connection with the sea through the development of railway Belgrade-Bar, which was completed in 1975. A large infrastructure project which has not been realized until now is the waterway "Morava-Vardar". Reappearance of this project in contemporary geopolitical circumstances may have different consequences. Mainly, Serbia as a state with the continental location is trying through realization of this project to evaluate its central position in Balkan Peninsula in communicative, geopolitical and economical terms especially in the process of fulfillment of requirements for European Union accession.

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