About Eurasian Transcontinental Transport Corridors and Economic Axes

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Abstract

The article deals with the formation of high-speed Eurasian transcontinental transport corridors between the three huge and active interaction of economic spaces of China, Russia and the European Union and the subsequent formation of economic axes along them as areas of priority development. Their formation in the context of globalization and the intensification of foreign economic relations and, at the same time, increasing competition, geopolitical tensions in the world is seen as a real mechanism of the strategic alliance of the Eurasian continental space, creating conditions for sustainable development of its economy and the improvement of geopolitical relations between the poles. Along with the issues of construction or modernization of transcontinental transport corridors and formation along them economic axes "East-West", creation of high-speed transportation corridor and economic axis "North-South" along the Pacific coast of China and Russia are also discussed.

Keywords: transport corridors, areas of priority development, economic axes, "east bridgehead", Eurasian Economic Space, Asian-Pacific region, Trans-Siberian Railway, New Silk Road.

1. Introduction

In the context of another exacerbation of the geopolitical situation in the world and embraced the world globalization and the intensification of foreign economic relations between the countries and large regions of the world and at the same time - gain universal competition, particularly relevant is the search for adequate and effective global political, economic and technical solutions of these problems. Creation speed and shortest transcontinental transport corridors in Eurasia from the Pacific Ocean to the Atlantic Ocean between its major economic poles - China, the European Union and Russia - and formation along them economic zones of priority development may be such global and effective solution to geopolitical and economic problems.

2. Methodology

In recent years, there are new aspects of traditional methodological, theoretical issues in geography of transport, logistics, caused by dramatic changes in the geography of the world economy in a short time. These changes are more obvious at the global level. Over the last 35 years in the east of the Eurasian continent, largely unexpected for the rest of the world, a great new economic space – China appeared. According to the World Bank estimates in 2014, China has ranked first place in the world in GDP (PPP). In the south of Eurasia other economic pole of the world – India is actively coming, which, also suddenly, became the third economy in the world, well ahead of "recognized" global economic centers: Japan and Germany. Undoubtedly, the great opportunities (natural resource, spatial, scientific, technical and etc.) to repeat their success Russia has. As a result, in a very short period economic map of the world dramatically changed, new large-scale economic pole raised, huge traffic flows form between them. Also this happens in the context of globalization, increased competition and geopolitical tension.

In these conditions, development of transport networks between the newly emerged and earlier prevailing global economic centers, formation of the optimal configuration of main roads (especially railways) on the Eurasian continent is one of the most important methodological and theoretical problem of modern science. Today in global and Russian literature, there are many publications on the spatial organization of transport. Among the most successful may be noted, for example, the work of S.A. Tarkhov, in which there is a method of spatial analysis of the configuration of transport
networks based on the concepts of graph theory (Tarhov, 1989). However, these studies are usually made at the regional and local levels.

Today methodological, systematic study of the problems of spatial organization of transport networks on a global level, providing massive and prompt delivery of goods between the new and previously existing economic poles of the Eurasian continent in the face of increasing competition and the general geopolitical tension is more relevant. Recently, there is a number of informative dissertation (Kirichenko, 2007; Orlov, 2011; Strelnik, 2000; etc.) and monographic (Bandman, 1996; Kayuchkin, 2003; Leontiev and Hops, 2003; Strelnik and Leontiev, 2000; Huziyatov, 2007; etc.) studies and journal articles (Baklanov and Romanov, 2013; Vorobiev et al., 2011; Schlichter, 1995; Bezzukov and Korytny, 2009; Bezzukov and Dashpilov, 2010; Laumulin, 2009 2010; Vinokurov and Jadraliyev, 2009; Kathy Pain, 2011), which examines theoretical and methodological, methodical and other problems of further development of the railway network in the vast Russian space, upgrading the Trans-Siberian and BAM, convert them into international transit corridors, transport problems and economic development of Siberia and the Far East. However, these studies mainly concern only Russian, though very large, but only the part of the Eurasian continent.

In this regard, study on the development of theoretical and methodological approaches, conceptual provisions of formation of a single, interconnected network of transcontinental transport corridors between global economic poles of the Eurasian space, to substantiate their special economic and geopolitical significance, formation of economic axes (zones) along them as geographical spaces of priority development becomes particularly relevant today.

3. Results

As a first Eurasian transcontinental transport corridor the Trans-Siberian Railway, or "Transsib" has long been considered (Romanov, 2009; Bezzukov and Korytny, 2009; Bezzukov and Dashpilov, 2010; Blanutsa, 2010; and others). All last period it has a significant opportunity to successfully implement integration functions for Russian and foreign (Japan, South Korea, North Korea, north-eastern provinces of China) Far East to Europe, to priority development economic space along it, but for many reasons - objective and subjective, it is not yet able to provide this to the necessary extent.

At the same time today, high technologies on the railway transport provide a weight of transported goods, and at the same time, a radical reduction in the time of their delivery within Russia and Eurasia as a whole. They could make it much more competitive and safe in comparison with all other transport corridors, including and circuitous sea route through the Strait of Malacca, the Suez Canal, etc.

In recent years, intentions of China and the Central Asian republics to build another transcontinental transport corridor "New Silk Road", which runs well south of the Trans-Siberian Railway, and form along it economic zone are actively discussed (Emerson, 2009; Vinokurov et al., 2009; Hebbert, 2000; Laumulin, 2009, 2010; Zhao Huashen, 2013; Kathy Pain, 2011). It runs from the Chinese deep-water building port Xu Wei Lianyungang city district in eastern China across the central and northwestern China to Kazakhstan and then through the Russian fan-shaped reaches the European Union (Fig. 1).

"New Silk Road" is regarded as the "Second Eurasian Land Bridge" between the economic poles of the continent. According to Chinese experts, it is the longest and potentially could be the most important road in the world. Having regard to the very large scale of the economy and foreign trade turnover of China and the European Union, high economic density almost throughout the considered geospace, high potential importance of this corridor is undeniable. Length of the route from Lianyungang to Rotterdam (Holland) is 10900 km and, estimated by China, New Silk Road will generate economic zone, realizing up to 23 per cent of world exports, covering more than 30 countries in Eurasia with massive market with huge potential and a population of about 3 billion people (Zhao HuaShen, 2013).
In parallel to high-speed railway highway will pass, a length of it is about 8.5 thousand km - from Lianyungang to St. Petersburg (including in Russia - 2233 km, Kazakhstan - in 2787, China - 3425 km). On the territory of the Russian highway passes through Moscow, Nizhny Novgorod, Tatarstan and the Orenburg regions, its completion is planned in 2018. The Chinese part of the road corridor has been actually built, active building is in Kazakhstan.

In the context of globalization and world competition there is a new perception of time and space. In this regard, it can be expected that the creation of the "New Silk Road" will be a big step in securing new opportunities for all participants in this project, first of all, China, the EU and Russia. Completion of its construction will promote the stable and healthy development of the economy in Eurasia, will lead to a significant reconfiguration of the Eurasian and global geo-economic maps. However, a larger profit from this global project can be expected in the rehabilitation of the geopolitical situation in Eurasia, which is especially important in the present tense geopolitical situation in the world.

Rapidly developing China, with its huge trade flows to Europe (turnover in 2013 - $ 430 billion), has long been needed land, the shortest and speed, transcontinental transport corridor, especially in mind of the current problems of economic and geopolitical terms. At the same time, for China it is the most effective option to include the central and north-western provinces in the area of advanced development. In addition, on the New Silk Road good deliveries will be faster and easier for other countries in East and South-East Asia, making the flow of goods through it safer, especially large and effective. Overall, it is a real global project to create a free trade zone in the Eurasian space in the framework of the Shanghai Cooperation Organization (SCO).

According to Zhao Huashen, director of the Center for the Study of Russia and Central Asia, Fudan University (Shanghai), "... the new project is not confined to Central Asia, and is implemented at a broader level, covering South and East Asia and Eurasia. In terms of regional cooperation, it is beyond the scope of the Shanghai Cooperation Organization, although for China SCO is the base platform for cooperation in the region" (Zhao Huashen, 2013).

Today China actively implements the concept of economic zone of the Silk Road. Creation of new economic corridor along the Silk Road is considered as a new concept of the new Chinese leadership. Actively involved in the implementation of the so-called "Second Eurasian Land Bridge" Kazakhstan, which runs on almost 1/3 of its length.

Eurasian continent, or the Heartland (by H.J. Mackinder), where the majority of the world’s population live and which has always been and will be the central arena of geopolitics, as a result of the implementation of the concept of economic area "New Silk Road" will be linked together by network of high-speed railways and roads and pipelines.

Today, among the project participants at the international level is also discussed the question to connect India to high-speed transcontinental transport corridor "New Silk Road". Connecting India to the "New Silk Road" can significantly increase the flow of goods in both directions between the Far East and South Asia and the European Economic Area, as today it is - the third country in the world by GDP, generating gross output of more than $ 6.8 trillion, and well ahead of Japan and Russia, and Germany.

In connection with the transcontinental transport corridor "New Silk Road" is also considered the issue of building in the midst of its site railway line to the west - through Kazakhstan, Uzbekistan, Turkmenistan, Iran (or Azerbaijan, Georgia), Turkey, with access to the south of Europe. Perhaps in the longer term it would be appropriate and such
direction of the Eurasian transcontinental transport corridor, but today surmountable limiting factors for him are difficult mountainous terrain, the need for a large number of crossing state borders and maintain a complicated geopolitical situation, difficult in some cases, inter-state relations in this macro-region of Eurasia (Frolov, 2012). Therefore, a "Russian" direction of "New Silk Road" remains more relevant today.

In recent years, issue of modernization of the existing international railway "Moscow - Beijing" and transform it into high-speed are raised. This road crosses the Russian-Chinese state border and connects with the Trans-Siberian Railway near the Lake Baikal. The need to modernize and transform it in a highway is also doubtless, both by economic and political reasons. Given the importance of the railway for both "strategic partners" - China and Russia - and its technical tie-up with the Trans-Siberian Railway, the modernization of both of these roads may be conducted technologically interconnected and at the same time.

Along with the construction or modernization of land transcontinental - railway and road - transport corridors, converting them to high-speed, issues of revitalization of international maritime transport corridor - the Northern Sea Route - macro-regions between the end of the Eurasian continent are being actively discussed(Baklanov and Romanov, 2013; Balmasov, 2012; et al.). At the heart of a sharp increase in the interest of many countries and businesses to the Arctic and the Northern Sea Route is due to the action of the three essential and coincidental in time factors: 1) with a cycle of global warming in the northern hemisphere; 2) development of modern technologies in oil and gas in the extreme conditions of the North; 3) successful start of the development of the largest deposits of oil and gas and other mineral resources on the continental shelf of the Arctic sector of Eurasia. The efficacy and safety of natural resources of the Russian Arctic and other Arctic countries may be associated with the successful function of the Northern Sea Route, with the establishment of modern bases on the development of the North Arctic coast with icebreaking operation of this transport corridor.

In general, we can say that with the beginning of the XXI century active period of the formation of a network of Eurasian transcontinental transport corridors - onshore and offshore can begin. Moreover, process of implementation of global transport projects started by China can significantly accelerate if the European Union and Russia - in their own economic interests - actively join in it. This infrastructure framework of geographical space of heartland is able to radically change the geopolitical situation in the world, forming a fundamentally important geo-economic and geopolitical axis.

Along with the successful solution of geopolitical problems in the Eurasian continent, the global project "New Silk Road" will allow the participating countries as well and in large scale solve economic problems. Moreover, it will allow them for many years (at least for the period of its implementation) to forget about the global economic crisis. Proof of this can be, for example, the experience of the accelerated development of Germany and Japan in the 1930s, before the II-nd World War, when the economy of these countries mainly work for the domestic market (for military purposes) and provides 12-14-percent growth rate. Even higher growth rates provided the USSR in the period of industrialization (1928-1940yy.). Under certain economic isolation when its economy worked also mainly for the domestic market, and for 12 years more than 9 thousand large industrial enterprises were built, and the main production assets in the industry have been increased by 7 times.

Creation of Eurasian transcontinental transport corridors "Silk Road" and "Transsib" involves not only the creation of conditions for high-speed transport of goods between China, Russia and the European Union, but also - the conditions of advancing the development of economic centers throughout their length, and, above all, their source links or oriental "outposts" - respectively, Lianyungang and Vladivostok.

As part of the solution to the global geopolitical objectives - forming of economic transcontinental axis "Silk Road" - in China, in the district of Lianyungang, development of its "eastern bridgehead" is successfully carried out. Active and ambitious, as it is now commonly done in China, a deepwater port Xu Wei is building. It is planned that the port Xu Wei will take vessels of 300 thousand tons, and its turnover for the next seven years will reach 200 million tons. Four berths are ready in the port of Xu Wei now. In the city there is also a great building, infrastructure of the city is almost completed, the roads are built, administrative and office buildings, business centers, hotels are built, residential areas are being built.

Russia has a vast experience in the scientific basis and the creation of a significant length of transport lines, linear-nodal economic structures, economic zones or areas (e.g. areas of the Transsib, BAM zone and others.). At the same time, there is not yet possible to provide such a large-scale structures high economic impact and relevant economic scale, as China does recently. Necessary scale in the organization of the initial link the Trans-Siberian economic zone, or the Russian "east bridgehead" - Vladivostok and Vladivostok agglomeration are not achieved yet.

Vladivostok is surrounded on three sides by the sea, but fully use the "sea" development factor it can not yet - Vladivostok port, for example, is still a low-power and processes only about 12 million tons per year (2011). Even in the Strategy of Port Infrastructure development of the Russian Federation until 2030 does not provide for a significant development its capacities (up to 24.3 million.). While in neighboring China, there are already a large number of ports-
“100-millionaire,” and the functional analog of Lianyungang (Xu Wei port is under construction) plans to reach 200 millionth turnover for the past seven years.

In our opinion, in the development of Vladivostok agglomeration is advisable to take into account the experience of rapidly growing district Lianyungang that is often mentioned in the final period as the “eastern bridgehead of the” New Economic zone “Silk Road”. It is first necessary to take into account the experience in the development of port and railway complex, the organization of transport and logistics systems, traffic flows. Expediency of accounting Chinese experience in the formation of the “eastern bridgehead” in Vladivostok with a major port and railway complex and, “together with them” - high-speed Trans-Siberian corridor and economic zone, in our opinion, is of course.

In creating a real center for international cooperation in Vladivostok as the key link of Trans-Siberian economic zone is also need to invest considerable effort and money, as it does today China when creating Chinese counterpart - the international hub port and at the same time - “the eastern bridgehead of the” New Silk Road in the district of Lianyungang.

In order to successfully implement the project eastern bridgehead in Vladivostok, it is first necessary to determine its formation as one of the few areas of breakthrough in the development of the Far East. In the new approaches of the country’s management to the economic development of Siberia and the Far East such a “breakthrough areas” here, within the whole of Vladivostok agglomeration, may be the creation of zones of priority economic development with the status of a multifunctional Center for International Cooperation and Development.

The idea of development of Vladivostok as a center for international cooperation, transport and logistics, information technology development, communication and connection, deserves support. However, one thing - to announce intention to convert the city into the center of international cooperation, the other - actually achieve this.

The world practice shows that the real centers of international cooperation are the major economic centers with multi-function uniquely favorable economic and geographical position and wide transport (primarily port-rail) features:

- Major economic centers providing large-scale foreign economic relations and have reached in their implementation international recognition;
  - Large, usually multifunctional transport hubs (marine, rail, aviation, automobile, etc..) with large deep-water ports and advanced logistics;
  - Centers with a significant cultural and historical heritage, social infrastructure, tourist and recreational potential and favorable climatic conditions.

With the experience of China, efforts and resources in Vladivostok should be directed primarily to the construction of a major hub port, by analogy with the port Xu Wei, so that it could become a real source link, or “eastern bridgehead” of Trans-Siberian economic zone. For this purpose, it is necessary to establish adequate port facilities, for example, in the Amur or Ussuri Bay by dredging, as was done in Kozmino near Nakhodka, in Ust-Luga near St. Petersburg, in the port of Tianjin in China, or how it is done now in port Xu Wei. Powers of Vladivostok hub port should be such that it could process the increasing volume of container, including and international trade flows (Japan, South Korea, North Korea, and possibly North Eastern provinces of China), directed by Trans-Siberian Railway in both directions.

Based on this approach to the long-term development of Vladivostok and the scale of its tasks, fundamentally important features of the new concept of development of Vladivostok agglomeration should be:

1. Creating in Vladivostok large deepwater port as an essential condition of its transformation into a real center for international cooperation and “eastern bridgehead” of the first transcontinental Eurasian economic axis.

2. The priority in the economic structure of the future city should be determined by the most cost-effective in terms market activities, ensuring wide participation of Vladivostok in the international arena in the Asia-Pacific region - the port and rail and logistics, various services, high-tech knowledge-intensive production, including Biotechnology, some of the engineering and production.

3. Further active development and modernization of various marine economic structures (port facilities, shipbuilding and repair, construction of offshore platforms, processing of marine biological resources, etc.) in Vladivostok, as well as in other townships of Vladivostok agglomeration (in c. Bolshoy Kamen and villages Zarubino, Posiet, Slavianka).

4. Infrastructure (social, industrial) gives the focus of Vladivostok and agglomeration on active external relations, should be formed according to standards comparable with the developed to date real “growth poles” on the Pacific coast or to the capital cities of Russia - Moscow and St. Petersburg. For these purposes, Vladivostok should be determined status a city under federal jurisdiction.

In addition, the development of Vladivostok and agglomeration must necessarily consider “in conjunction” with the transformation of the Transsib in transportation corridor and priority development along it economic axes and network of major economic centers as local zones of priority development.

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In the following, along with the further development of economic centers along the Eurasian transcontinental transport corridors latitudinal direction and capacity of trade flows on them, formation of high-speed transcontinental highways of meridional direction - along the Pacific coast of Eurasia will be necessary.

Individual sections of railways along the coast of China began to be built in 1885, during the Qing Minister Li Hongzhang - creator of the Navy of China, who believed that for strengthening the protection of the sea coast it is necessary to build more railways, making it more convenient and the rapid movement of troops.

Today in China, because of accelerated modernization of roads in the 2000s, there are almost high-speed roads or high-speed railways along the coast of Zhuhai and Shenzhen in the south to Qinhuangdao and Dalian on the banks of the Liaodong Bay of the Yellow Sea and further to Harbin. In our opinion, in the current geopolitical and economic conditions in the world it is highly advisable to join Chinese and Russian railways (and the parallel roads) along the coast and extending them in the direction of Yakutia and Magadan (along the Sea of Okhotsk) and then to Kamchatka, Chukotka (Figure 2).

Such transport connection of economically significant centers and resource areas of China and Russia will create a high-speed transportation corridor, and later, perhaps, economic and geopolitical axis of meridional direction, which in conjunction with the above applications Eurasian transcontinental axes form, thereby economic and geopolitical triangle: China, Russia and European Union.

4. Discussion

The need, the reasonability of establishing both land and marine transcontinental transport corridors in Eurasia at the beginning of the XXI century is due to large-scale and sharply increased for a short historical period volume of international cargo between its economic poles, the need to accelerate the delivery of goods in the context of globalization and world competition, and - their security in an increasingly geopolitical tensions, piracy and other.

Competitiveness of Eurasian transport corridors - existing Transsib and under construction New Silk Road - is insignificant or practically non-existent due to the fact that they have to serve the economy, different societies, geographically distant from one another, parts of the vast Eurasian continent. The entire flow of goods between countries and regions of the Far East and South-East Eurasia, distant from each other for thousands kilometers, and the European Union can not be transported only by one transport corridor - the Trans-Siberian Railway or the New Silk Road - by virtue of their different geographical position persisting geopolitical problems and permanently changes in geopolitical relations between them and others.
Moreover, the formation of high-speed transport corridors and geopolitical, economic axes along the Trans-Siberian Railway and the New Silk Road, in fact - there is a strategic alliance of the Eurasian continental space as a real mechanism of mhenovskiy strategy “anaconda loop” confrontation. China in this case is in a dominant position in the southern axial region of the Eurasian continent - Heartland - in accordance with the real geopolitical situation in the world today, Russia - in the north.

Order of implementation of above mentioned transport corridors is defined by their level of importance and financial support to solve the pressing problems of the countries participating in the project. Therefore, given the financial, technical and other opportunities in China and other countries participating in the project, the successful completion of the priority constructions and reconstructions of railways and roads, pipelines in Chinese and Kazakh section of the “New Silk Road” on schedule is no longer in doubt today. Beyond doubt and the need for immediate completion of the modernization of the Russian section of the Eurasian transport corridor and convert it into a high-speed.

The urgency of immediate modernization of the Transsib today is also undeniable. In connection with the construction of “Silk Road” the need for sustainable large-scale operation of the Trans-Siberian Railway, converting it into a high-speed international transport corridor, does not disappear. Moreover, under conditions of growing geopolitical tensions this need only becomes stronger - by virtue of Russian needs to priority development of strategic areas of the Far East and Siberia, as well as the need to ensure rapid delivery of international transit goods from Japan, both the Republic of Korea, the North-East China et al.

Therefore, along with the construction of “Silk Road” it is necessary to accelerate modernization of the Trans-Siberian Railway, its transformation into a high-speed, and priority development of the economic axis along it initially as a set of local zones of priority development. The tsarist government, with its modest technical, financial and human resources and extremely weak development of the territory and so on, was able to build the first transcontinental railway line, and in a very short time. Today its transformation in the fast and electrified international highway will be real with modern technical opportunities.

5. Conclusion

1. With the beginning of the XXI century active period of the formation of a network of Eurasian transcontinental transport corridors - onshore and offshore begins. And that process of implementation of global transport projects started by China can significantly accelerate if the European Union and Russia - in their own economic interests - actively join in it. This infrastructure framework of geographical space of heartland is able to radically change the geopolitical situation in the world, forming a fundamentally important geo-economic and geopolitical axis.

2. Formation of high-speed transport corridors and geopolitical, economic axes along the Trans-Siberian Railway and the New Silk Road, in fact - there is a real mechanism of strategic alliance of the Eurasian continental space.

3. Creation or modernization of Eurasian transcontinental transport corridors “Silk Road” and “Transsiberian Railway” involves not only the creation of conditions for high-speed transport of goods between China, Russia and the European Union, but also - the conditions of priority development of economic centers throughout their length and the whole Eurasian continent.

4. The need of the “Trans-Siberian Railway” - as the Eurasian transcontinental transport corridor - and its modernization in the connection with the construction of the “New Silk Road” does not disappear, but in terms of large-scale increase in cargo traffic between the macro-regions of the Eurasian continent and, at the same time - gaining geopolitical tensions in the world only intensifies - by virtue of the Russian needs to the priority development of strategic areas of the Far East and Siberia, as well as the need to ensure the growing scale of interregional and interstate transportation.

5. Creating in Vladivostok large deepwater port and large-scale development of maritime structures, export-oriented industries is one of the most important conditions for its transformation into a real center for international cooperation and “eastern bridgehead” of the first transcontinental Eurasian economic axis.

6. In the current geopolitical and economic conditions in the world it is highly advisable to join Chinese and Russian railways (and the parallel roads) along the coast and extending them in the direction of Yakutia and Magadan (along the Okhotsk Sea) and then to Kamchatka, Chukotka.
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