Transport corridors as a factor of urbanization processes in the regions of Russia within the framework of the new Great Tea Route

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Abstract. The article considers the development of urbanization in the regions of Russia through the formation of transport corridors. The authors analysed the urbanization processes and their features in three regions of Russia: Trans-Baikal Territory, the Republic of Buryatia, and the Irkutsk region. Transport corridors will continue to develop within the framework of the regional policy of Russia and China. The authors also evaluated the foreign economic activity with Mongolia and China. The study highlights the key role of regional centres in the development of foreign economic cooperation. The evolution of urbanization processes in these regions requires the creation of a regulatory complex, which will allow streamlining these processes. It is necessary to use the opportunities for further development of regional cities through the formation of international transport corridors.

1. Introduction
Transport routes have always been a place of attraction for people. Territories through which caravan trails, railways and highways pass have always had greater opportunities for economic development. Crossing different towns and villages, transport routes become a link between disparate localities and allow for various economic activities (trade between regions and countries; providing jobs at customs, transshipment points, markets, and other places; providing various services, etc.). On the other hand, transport routes have always contributed to the emergence and development of large settlements and cities, thus becoming a factor in the spread and strengthening of urbanization processes [1].

At the present stage, the governments develop various ideas for reviving old transport routes. For example, China is actively promoting the “One Belt, One Road” concept, which fosters the creation of new transnational transport corridors. Due to the promotion of these initiatives, fundamental changes take place in the economic-geographical, and transport-geographical position of Siberia and the Far East. Therefore, it is necessary to find ways and promising directions for the development of the regions. The ongoing changes will contribute to the strengthening of urbanization processes in the current environment. It is necessary to study the background and assess the consequences for individual regions of our country.
2. Models and Methods
The three regions of the Russian Federation (Trans-Baikal Territory, the Republic of Buryatia, and the Irkutsk Region) are among the most important territories of Siberia and the Far East located within the planned transport corridors. All of them are located in economically advantageous territories in terms of interregional and international cooperation. The Trans-Baikal Territory and the Republic of Buryatia have access to the state border. The Irkutsk region does not have access to the border, but it has established economic, cultural and other ties with its closest neighbouring countries (China and Mongolia).

Despite the common nature, climate, and location in the centre of Eurasia, the regions differ in economic-geographical, and transport-geographical location, which creates different prerequisites for socio-economic development in the context of international transport corridors.

The largest cities in the regions are regional centres “... which international communication is built by including external transport infrastructure in the system of international transport corridors passing through the agglomeration” [2]. In this regard, the study of transport corridors as a factor in the development of urbanization processes will be most relevant. The paper uses an integrated approach, system analysis, comparative geographical, statistical, and cartographic research methods.

3. Results and Discussion
The Trans-Baikal Territory is located on the border with China and Mongolia, which determines its close cooperation with these countries. The main elements of the Trans-Baikal Territory transport system are the Trans-Baikal Railway; highways (Chita – Irkutsk, Chita – Khabarovsk, Chita – Zabaikalsk); seven land border checkpoints and one air checkpoint in Chita.

A significant component of transport communication in the Trans-Baikal Territory is the Yuzhny Khod (Karymskaya station – Zabaikalsk city), which is an important condition for successful cooperation between China and Russia in terms of cargo transportation.

The largest settlement of Trans-Baikal Territory is Chita – the administrative, economic, educational, cultural, and scientific centre of Trans-Baikal Territory. Major roads and railways pass through the city, and there is an international airport. The economic-geographical and transport-geographical position of the city and the region contributes to its active participation in the formation of an international transport corridor.

The urbanization processes in Trans-Baikal Territory are centripetal, which contributes to the contraction of the economic space. This is confirmed by data on migration flows within the region. For the period from 2013 to 2020, the population of Chita has increased by 5.8%. As of January 1, 2021, the total population of the city has reached 350 thousand people. Migration processes negatively affect the population density of the regional settlements. Experts note that it is necessary to develop a set of measures to secure the population because this problem is moving from the socio-economic to the geopolitical plane.

One of the most important directions in the socio-economic development of Trans-Baikal Territory is a foreign economic activity and close cooperation with China. In particular, the 2019 foreign trade turnover of the region compared to the previous year has increased by 49.2% and amounted to 1,508.5 million USD. In the volume of trade turnover, the export was 70.5 %, the import – 29.5% (in 2019 – 62.6% and 37.4%, respectively) [3].

The availability of transport routes (including the Trans-Baikal Railway) caused the growth of foreign trade. The transport routes not only generate profit through cargo transportation but also help attract investment. The formation of an international transport corridor will contribute to the socio-economic development and expansion of economic and foreign trade relations of Trans-Baikal Territory with the countries of the Asia-Pacific region.

The border position of the Republic of Buryatia with Mongolia creates favourable conditions for the development of cooperation. The transport infrastructure of the Republic of Buryatia consists of the following elements: Trans-Siberian Railway; Baikal-Amur railway; federal highways: R258 “Baikal” (Irkutsk – Ulan-Ude – Chita), A333 “Kultuk – Mondy”, A-340 «Ulan-Ude – Kyakhta”; regional highways; international airport “Baikal” in Ulan-Ude; river port.
The city of Ulan-Ude is the administrative centre of the Republic of Buryatia. Ulan-Ude agglomeration consists of the capital and districts with their centres: Ivolginsk (Ivolginsky district), Tarbagatai (Tarbagataisky district), Zaigraevo (Zaigraevsky district), Turuntaevo (Priibaikalsky district) [4]. In our opinion, the Ulan-Ude agglomeration includes only a part of the territories of nearby districts. Most of the population of these districts study at educational institutions or work at urban enterprises and organizations. If we consider it from the point of view of the integrated approach, it certainly seems reasonable to include the entire territory of the district, since any political or economic decisions will inevitably affect the whole population of the administrative districts nearby Ulan-Ude. We should note that the growth of the urban population in the republic has become a natural trend in socio-economic development and similar centripetal processes in Chita.

The Ulan-Ude – Kyakhta highway (which is part of the Ulan-Ude – Ulaanbaatar – Beijing – Tianjin international highway) is essential for the development of foreign economic relations. This economic corridor is a synergy of three programs: “Steppe Way” (Mongolia), “Silk Road” (China) and “Trans-Eurasian Development Region” (Russia) [5, 6]. This road allowed reducing thousands of kilometres of cargo transportation, rather than transportation through the Trans-Baikal Territory via the Trans-Baikal Railway. However, it is safe to say that both transport corridors will be developed (Figure 1). Transportation of specific, high-tech and heavy goods will still be carried out via railway tracks (safety and reliability of transportation, preservation of the quality of goods) [7].

In our opinion, the development of both directions of transport corridors depends on two main factors. On the one hand, there is Chinese regional policy aimed at developing border provinces, and, on the other, the changes in the priorities of Russian regional policy. In particular, the inclusion of Trans-Baikal Territory and the Republic of Buryatia in the Far Eastern Federal District.

In the Republic of Buryatia, the foreign trade turnover in 2020 amounted to 1,004.6 million USD, which is 4.7% less than in 2019. Exports mostly prevail (90.5% in 2020); imports – 9.5 % (in 2019 – 90.0 % and 10.0 %, respectively) [9]. The China – Mongolia – Russia international transport corridor will allow engaging additional funds for the development of the Republic and Ulan-Ude as a strong economic point of international cooperation.
Unlike the other two regions, the Irkutsk region has no access to the border. It is a transit territory where the West-East transport corridor passes. The transport system of the Irkutsk Region includes railways (the Trans-Siberian Railway section), the western part of the BAM (Baikal-Amur Mainline); highways – Priibaikal’skaya highway (Irkutsk region – European part of Russia); Kultuksky tract (Irkutsk Region – Buryatia – Trans-Baikal Territory); Aleksandrovsky tract; roads: Irkutsk – Kachug – Zhigalovo, Tulun – Bratsk – Ust-Ilimsk, Zalari – Balaganski – Zhigalovo; intra-regional waterways, including the Angara and Lena Rivers with their tributaries, Lake Baikal; international airports in the cities of Irkutsk and Bratsk, regional towns Ust-Kut and Ust-Ilimsk.

Irkutsk (the capital of the Irkutsk Region) is a strategic hub for the Russian Federation [10]. The Irkutsk agglomeration consists of the city of Irkutsk and the satellite cities Shelekhov, Angarsk, Usolye-Sibirskoe and Cheremkhovo. The agglomeration contains sufficiently extensive transport network. It has many opportunities to create a strong point for the planned international transport corridors. This area will receive a new impetus for socio-economic development.

In the Irkutsk Region, 2020 foreign trade turnover decreased by 21.6% compared to 2019 and amounted to 7.3 billion USD. Exports of products of the Irkutsk Region amounted to 5,728,4 million USD (81.6% compared to 2019), including exports to non-CIS countries (5,541.9 million USD), and to CIS countries (186.5 million USD). Thus, the main volume of the regional exports (96.7%) falls on non-CIS countries. The amount of exports to the WTO is 78.7 %. Imports of foreign goods to the Irkutsk region amounted to 1,547.6 million USD (94.1 % compared to the level of 2019), deliveries of non-CIS countries accounted for 1,115.3 million USD, while CIS countries accounted for 432.3 million USD. The percentage of imports to the WTO is 21.3 % [11]. The strategy for the West-East transport corridor development is based not only on the development of transport infrastructure but also on improving the qualification of workers and improving the overall level of the city development.

4. Conclusion

Thus, the formation of international transport corridors passing through the cities of Chita, Ulan-Ude and Irkutsk will favourably affect and ensure the sustainable development of urbanization processes. Within the international cooperation effectiveness, the governments should consider these cities and urban agglomerations as strong points of emerging transport corridors. However, it is necessary to develop a set of measures that will not only regularize the urbanization processes but also bring cities and agglomerations to a new strategic level. The regions should try to avoid spontaneous urbanization.

With the creation of the highway and the development of the Ulan-Ude – Ulaanbaatar – Beijing – Tianjin railway, there is a danger that the Trans-Baikal Railway will become an unclaimed corridor. However, in our opinion, since railway tracks have always been considered more reliable, there is a confidence that cargo and passenger transportation will remain in demand and even increase with the further action of the regional policy of the two countries.

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