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A conceptual model for evaluating the impact of the complex investment project "Yeniseyskaya Sibir" on the development of Krasnoyarsk

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Abstract. The article describes the "Yeniseyskaya Sibir" complex investment project, aimed at unlocking the socio-economic potential of the Krasnoyarsk Region, Republic of Khakassia, and Tyva Republic. As of today, the project includes 32 investment projects with a total declared investment value in excess of 1.9 trillion rubles. The project forms a cross-border macro-region with the prospect of cooperation with Mongolia, China, and Kazakhstan. Particular attention is directed to analyzing the impact of such a large-scale project on the city of Krasnoyarsk, the capital of "Yenisei Siberia." As a result, the authors propose a conceptual model linking the development of a complex investment project with the future of the city of Krasnoyarsk.

Keywords: investment project, production, capital, conceptual model

1. Introduction

In the context of growing competition for leading resources, such as investments, innovations, human capital, many subjects of Russia, as well as their leaders, often come into confrontation among themselves, seeking to have the largest possible amount of the most valuable assets. Undoubtedly, the struggle contributes to the development of regions, allows to diversify their economies [1]. However, a too tough position of non-accepting a "neighbor" has also negative consequences for all subjects of interaction. Under the conditions of the Russian Federation, especially in Siberia, for the most part, the regions have fairly long territories, huge reserves of natural resources and minerals, and at the same time, it suffers from a lack of developed infrastructure, inaccessibility of sales markets, increasing competition from neighboring entities [2].

Faced with this problem, the leadership of the Krasnoyarsk Region concluded that it was necessary to move away from confrontation between the regions and move to close cooperation. As a result, with the support of the President and the Government of Russia, the "Yeniseyskaya Sibir" complex investment project, which aims to develop three regions (Krasnoyarsk Region, Republic of Khakassia, the Republic of Tyva) has emerged. The main goals of this project are to enhance the socio-economic development of these regions, increase their investment attractiveness, create new jobs, increase tax revenues and real incomes of residents [3].

Currently, the "Yeniseyskaya Sibir" includes 32 investment projects with a total declared investment value of over 1.9 trillion rubles for the period 2019-2027 and over 3.6 trillion rubles for the



period up to 2035. More than 60 companies are involved in the implementation of a complex investment project, including those that are leaders in the global industrial markets.

Planned effects from the project until 2027 [4]:

- Over 70,000 new jobs;
- 528 billion rubles of tax deductions from the project;
- Increasing turnover of small and medium-sized businesses by 250%;
- Sustained growth in foreign direct investment;
- Sustainable population growth in the Yeniseyskaya Sibir;
- Doubling the human development index.

Formation of this macro-region allows creating high benefits for developing the Asian part of Russia. Its flagship projects allow to go not only beyond regional borders, but also beyond the borders of Russia, i.e. they are cross-border in the very nature. Last year, a number of meetings were held between the delegation of the Republic of Tyva and the representatives of Mongolia and China, in which the most important infrastructure projects were discussed, including the following issues: energy bridge and transport corridors (railway, automobile, aviation) between Russia, Mongolia and China, environmental measures, projects in the field of tourism, creation of joint trade and manufacturing enterprises. This will allow the Siberian regions to provide access to the markets of the Asia-Pacific region and strengthen cross-border economic cooperation [5].

However, within the framework of this large-scale project, neither urban development nor the housing policy is on the agenda of discussions on stimulating economic growth. Only a small part of research on this topic pays attention to the development of agglomerations, creation of transcontinental development projects, and development of new urbanization plans [6, 7, 8]. Meanwhile, it is the basis not only for the well-being of people, but also for business development. Here we need to differentiate housing policies in accordance with certain territorial characteristics. First of all, in this aspect, the authors propose to consider the city of Krasnoyarsk, the capital of the Krasnoyarsk Region, and the impact of the complex investment project "Yeniseyskaya Sibir" on their development.

2. Materials and Methods

Krasnoyarsk is the largest industrial and cultural center of Eastern Siberia, the capital of the Krasnoyarsk Region. The region ranks second in the area among the subjects of Russia. The city covers an area of about 380 thousand km² [9]. 1,090.8 thousand people live on its territory, which is 29.5% of the total population of the whole "Yeniseyskaya Sibir" project.

The main advantages of the geopolitical position of Krasnoyarsk [10]:

- This is a major transportation hub on the intersection of rail, air, road, river, and pipeline routes;
- The city is located in the alignment of the Yenisei transcontinental transport corridor connecting
 the Arctic and southern regions of middle Siberia and the countries of North America with the
 countries of South and Southeast Asia;
- The city has satellite cities with significant production, technological, innovative, and human potential;
- The city is located in the city center of a large industrialized region with sustainable development prospects;
- The city is located in the center of a vast agricultural area.

The average annual budget of the city is 27.5 billion rubles, 48% of which are tax revenues and 42.2% are gratuitous receipts from other budgets of the Russian Federation [11].

In 2018, precisely in Krasnoyarsk, the idea of creating a complex investment project was first heard at the annual Krasnoyarsk Economic Forum. In 2019, the project was also one of the key topics of the forum. As a result of the forum, Krasnoyarsk became a platform for the conclusion of investment agreements in the framework of the project "Yeniseyskaya Sibir." About 70 agreements were concluded only in 2018. Also, 70 agreements (in the amount of 600 billion rubles) were concluded in



2019. However, along with a discussion of the future development of the regions that make up the project, almost no attention is paid to what effect it would have on the city of Krasnoyarsk.

Based on the systematization of information, the article proposes a conceptual model that characterizes possible future changes in the economic, social, industrial, housing, and other spheres of Krasnoyarsk.

3. Results

Figure 1 characterizes the comprehensive effect of implementing the "Yeniseyskaya Sibir" complex investment project.

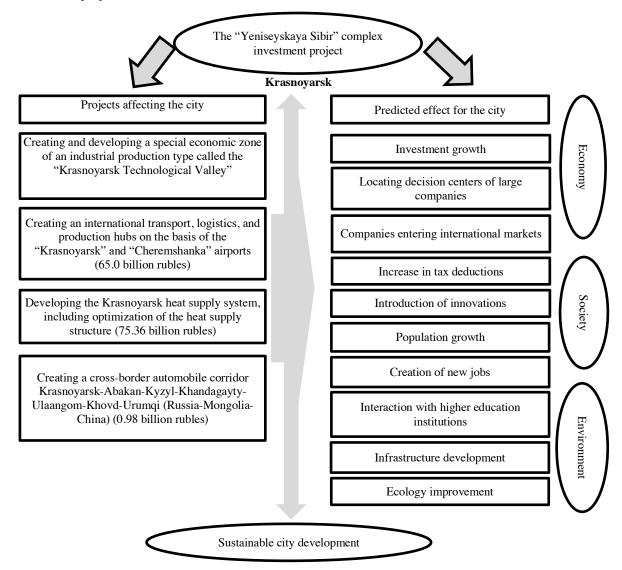


Figure 1. The conceptual model of the development of the city of Krasnoyarsk.

4. Discussion

As we can see from Figure 1, a total of 4 out of 32 projects of the "Yeniseyskaya Sibir", to one degree or another, have a direct impact on the city of Krasnoyarsk. The total investment in these 4 projects is about 170 billion rubles. More than 80% of the planned investment will be mastered directly in the city.



The Krasnoyarsk Technology Valley is aimed at developing a domestic industry, creating innovative enterprises, and producing competitive products in demand both in Russia and abroad. The number of potential investment projects includes the following: development of rolling production, production of wheel disks, profiles, consumer goods, including sports products.

The creation of an international transport hub and production and logistics center to serve the cargo traffic from the main international hubs and create conditions for the organization of new production will allow the creation of a large interchange and reloading transport hub. It will be able to transport up to 800 thousand tons of cargo annually.

The development of the Krasnoyarsk heat supply system is necessary as part of creating the infrastructure for a growing city, building new housing estates. The project is aimed at the development of the city's energy facilities, including integrated environmental modernization and expansion of the Krasnoyarsk CHP-1, and an increase in the capacity of the Krasnoyarsk CHP-3. In addition, the development of the city's heat supply system, including the optimization of the heat supply structure and the replacement of inefficient small boilers, is planned.

It should be noted that an increase in investment in the city is not limited to the figure indicated above. Significant investments in areas that provide in the long term the creation of high added value have a multiplicative effect and definitely "attract" additional investments in the city's economy.

However, in conjunction with the activities presented in Figure 1, the authors believe that the following significant projects of Krasnoyarsk, contributing to the development of the city's infrastructure and the formation of a comfortable living environment, should be considered as auxiliary for the successful implementation of "Yeniseyskaya Sibir":

- Creating a "Digital Valley" for the development and implementation of high-tech products and services (investment volume: 33.5 billion rubles; 5 thousand jobs);
- Constructing a subway system using the technology of three-car couplings, modernization of the tram line, and launching a high-speed tram (65.0 billion rubles of investments);
- Constructing the regional wholesale distribution center "Agroterminal," with an area of 54 thousand m² (investment volume: 1.5 billion rubles);
- Constructing a new business district "Krasnoyarsk-city", including a five-star hotel and offices (investment volume is about 25 billion rubles);
- Constructing a golf club on an area of 200 hectares, including a 18-hole golf course, a golf academy, and also a landscape park (investment volume: 1 billion rubles);
- Implementing the second stage of the project "City electric train" (investment volume: 430 million rubles.);
- Redeveloping the territory of the Krasnoyarsk combine plant with an area of 106.45 hectares with the construction of the "Novoostrovsky" residential area with more than 1 million m² of housing, about 300 m² of commercial real estate, two schools and three kindergartens (investment volume: 75 billion rubles; 10 thousand jobs);
- Redevelopment of the Krasnoyarsk woodworking plant with an area of 121 hectares with the construction of residential areas "Tikhiye zori" and "Yel park" on it, including more than 840 thousand m² of housing, two schools, four kindergartens, a polyclinic and social business centers (investment amount: 60 billion rubles).

First of all, the growth of tax deductions to the city budget should be noted as one of the main effects for the economy of Krasnoyarsk. First of all, this is due to the growth of additional investments, placement of head offices of large companies directly in the city (Rusal, Polyus, Norilsk Nickel, Aeroflot, etc.) and with the prospect of Krasnoyarsk companies entering the Asian markets.

As a result of the project, creating new jobs through the opening of new industrial complexes and the development of the service sector will have a positive effect on society. Also, infrastructure development (engineering, transport, and social) is essential. Already today, in the direction of social infrastructure development, various social programs from large industrial groups are operating.



Due to the reconstruction of the outdated heat supply system of the city, the creation of new environmentally friendly production and the closure of harmful and non-modern production requirements, improvement of the ecological situation in the city will occur. This will generally have a favorable impact on the environment.

5. Conclusion

The study allows us to conclude that when implementing large regional and integrated investment projects, attention should be paid not only to how their performance will affect the region as a whole. One also should consider the multiplicative effect on the cities located in the subject, which are the main points of economic development and growth.

The implementation of the project "Yeniseyskaya Sibir" will have a positive impact not only on the Krasnoyarsk Region, Republic of Khakassia, and tTyva Republic, but also on the direct capital of the project, the city of Krasnoyarsk, its economy, residents, and the environment. All this will contribute to the sustainable development of the city. However, for a more detailed study of the impact of an integrated investment project on Krasnoyarsk, on the basis of the conceptual model built, it is necessary to decompose each of its levels and perform all necessary calculations, taking into account the future multiplicative effect.

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