

Artículo de investigación

PROJECT FEDERAL TERRITORIES AS AN OBJECT OF THE SPATIAL DEVELOPMENT OF SIBERIA AND THE FAR EAST OF RUSSIA

ПРОЕКТ ФЕДЕРАЛЬНЫЕ ТЕРРИТОРИИ КАК ОБЪЕКТ ПРОСТРАНСТВЕННОГО РАЗВИТИЯ
СИБИРИ И ДАЛЬНЕГО ВОСТОКА РОССИИ
PROYECTO DE TERRITORIOS FEDERALES COMO OBJETO DEL DESARROLLO ESPACIAL
DE SIBERIA Y DEL LEJANO ORIENTAL DE RUSIA

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Abstract

The study is devoted to the spatial development of Siberia and the Far East of Russia. The role of federal districts as established macro-regions is considered - in optimizing territorial planning and correction of subjects of interregional management, and isolating project federal territories on their basis - as objects of sustainable-safe spatial development. The main focus is on the formation of a promising spatial (infrastructure) framework for the development of macroregions, including the identification of advanced growth nodes (the so-called "second" and "third" cities of macroregional subjects) and the links between them (transport axes and corridors) that are significant in the global economic context. The findings of the study can be used both in strategic planning at the level of federal districts and in further research at the national and interregional levels.

Keywords: advanced growth node, federal district, macro-region, project federal territory (TFP), transport axis.

Resumen

El estudio está dedicado al desarrollo espacial de Siberia y el Lejano Oriente de Rusia. El papel de los distritos federales como macrorregiones establecidas se considera, en la optimización de la planificación territorial y la corrección de los temas de la gestión interregional, y el aislamiento de los territorios federales del proyecto, como objetos de desarrollo espacial sostenible y seguro. El enfoque principal es la formación de un marco espacial (infraestructura) prometedor para el desarrollo de macrorregiones, incluida la identificación de nodos de crecimiento avanzados (las llamadas "segunda" y "tercera" ciudades de sujetos macrorregionales) y los vínculos entre ellas (ejes y corredores de transporte) que son significativos en el contexto económico global. Los hallazgos del estudio pueden utilizarse tanto en la planificación estratégica a nivel de distritos federales como en investigaciones adicionales a nivel nacional e interregional.

Palabras claves: Nodo de crecimiento avanzado, distrito federal, macrorregión,

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territorio federal del proyecto (TFP), eje de transporte.

Аннотация

Исследование посвящено пространственному развитию Сибири и Дальнего Востока России. Рассмотрена роль федеральных округов как установленных макрорегионов-в оптимизации территориального планирования и коррекции субъектов межрегионального управления, а также изоляции на их основе проектных федеральных территорий - как объектов устойчивого-безопасного пространственного развития. Основное внимание уделяется формированию перспективной пространственной (инфраструктурной) основы развития макрорегионов, в том числе выявлению опережающих узлов роста (так называемых "вторых" и "третьих" городов макрорегионов) и связей между ними (транспортных осей и коридоров), значимых в глобальном экономическом контексте. Результаты исследования могут быть использованы как в области стратегического планирования на уровне федеральных округов и в дальнейших исследованиях на национальном и межрегиональном уровнях.

Ключевые слова: узел опережающего роста, федеральный округ, макрорегион, проектная Федеральная территория (ТФП), транспортная ось.

Introduction

The desire for continuous and consistent economic growth is one of the main criteria characterizing the development of the state. At the same time, one of the main obstacles to sustainable growth of the Russian economy is spatial imbalances. There is a critical need to create an environment that is attractive for competitive livelihoods. The key role in achieving this goal belongs to the qualitative territorial planning and sustainable and safe spatial development.

It would not be an exaggeration to state that this problem is almost 300 years old. In 1719, the President of the Berg-Collegium, Jacob Bruce, presented Peter the Great with his treatise "On the Land Surveying of the Russian State", justifying the importance of drawing up a detailed geography of Russia. Vasily Tatishchev, a statesman, historian, geographer and economist, was appointed as the responsible executor of the land surveying of the entire state and the composing of detailed geography with land cards. Already in the years 1720-24. He led the expedition "in the Siberian province of Kungur and other places where convenient places are searched, to build factories and, from ores, to melt silver and copper." The practical result of the research of Tatishchev was the foundation of Ekaterinburg and Perm. In addition, we can say that it was then that the first experience of economic regionalization was obtained.

Further large-scale studies of the socio-economic spaces of Russia were conducted somewhat later,

in the 19th century. Of particular note here are the works of Academician Konstantin Arsenyev, Vice-President of the Russian Geographical Society Peter Semenov-Tyan-Shansky, Senator Ivan Wilson, Prince Alexander Vasilchikov, statistics by Dmitry Richter and, of course, Professor Dmitry Mendeleev.

The results of these works were as similar divisions into 14 "natural" areas of Semenov-Tian-Shansky or 14 economic regions of Russia Mendeleev, and rather original economic regionalization of Wilson into 6 provincial groups: Northern, Baltic, Western, South-Western, Central, Eastern and South. Nevertheless, we note that the closest to the current understanding of the term "spatial development" (we will come to it in more detail) should include the work of Academician Arsenyev "Drawing the Russian State Statistics" (1818), in which he shared the territory of Russia, "Based on purely geographical considerations", into ten spaces: "Northern (including Finland), Alaun, Baltic (Ostsee provinces), Low (including Lithuania), Carpathian, Steпноy, Central, Ural, Caucasus and Siberian" (Zamaletdinov et al, 2014).

The establishment of the Commission for the Study of the Natural Productive Forces of Russia (KEPS) under the Presidium of the Academy of Sciences in October 1915 by Academician V. Vernadsky can be considered a further milestone in "spatial life". The KEPS ideology was based on the "practical use of scientific results of geology, mineralogy, botany, zoology and other

natural sciences for the rational use of natural resources; the rapid development of expeditionary work and the combination of expeditionary and laboratory research; the formation and development in Russia of a wide network of research institutes” (Glazychev, 2004).

According to Vernadsky, “natural productive forces should be understood: forces associated with the works of nature - soil fertility, forest wealth, wildlife, vegetation products, fish wealth, etc.; various energy sources - the strength of waterfalls, rivers, wind, natural gases, tides and other manifestations of dynamic processes on the surface of the earth; natural resources concentrated in the subsoil, metal and metalloid ores, combustible gases, mineral springs, oil, coal, groundwater, etc.” (Asaul, 2005).

As Professor V. Glazychev noted, “the biggest drawback of this work was the ignoring of human capital, understandable both due to the extreme conditions of the state machine’s crisis during the war, and due to the general backwardness of sociological knowledge. The work on the macro-regionalization of the country produced by this commission remains an extremely important example of the intellectual courage of spatial planning, free from the burden of previous stereotypes” (Russia: Principles of Spatial Development, 2000).

The main practical result of the Commission’s work was the GOELRO plan (1920), which was based on the work of KEPS, although it “partly narrowed the thinking basis of programming and, moreover, design, but retained the main characteristic of its predecessor — the integrity of the consideration of the country’s space” (Glazychev, 2004). Further, based on KEPS, the Council on Productive Forces (SOPS) was established.

The next stage — or rather, an attempt “to improve the organization and methods of locating production” — Gosplan of the USSR in the early 1960s is preparing for the creation of a General Scheme for locating productive forces. For this purpose, a stage of pre-plan studies is introduced in order to proceed sequentially to the compilation of long-term integrated schemes for the development and distribution of productive forces.

“Since there were no necessary specialists in the Gosplan, by a decision of the Central Committee of the CPSU and the USSR Council of Ministers, the SOPS was transferred from the USSR

Academy of Sciences system to the State Economic Council system (in 1962 it was transformed into the USSR State Plan again). These measures radically changed the directions, methods of work and the structure of SOPS, which is now turning into a purely departmental institution with the tasks of a consolidated analytical and predictive nature” (Russia: Principles of Spatial Development, 2000).

Naturally, the consequences of this varied with the expectations: “The disunity of the forecasting-planning structures grew to such an extent that the operability was lost step by step. Thus, in the 1960s, SOPS developed the General Schemes for the period 1971–1980, 1976–1990, and also for the periods up to 2000 and until 2005. The General Scheme was a rationale for the rational allocation of the productive forces of the country for a long time. the period with the presentation of feasibility and balance sheet calculations. <...> Of course, these studies had a purely “internal” character, they did not even have any practical application” (Russia: Principles of Spatial Development, 2000).

Given the actually missed end of the 1980s and the entire 1990s, it is impossible to consider even the slightest degree of acceptable level and quality of territorial planning, while the entire civilized world has established itself on the foundation of spatial development. “The normalization of spatial planning went far beyond Western Europe and the United States, progressively covering not only Israel, which is natural, but also Egypt, Turkey, Malaysia, and other countries” (Glazychev, 2004).

Attempts to activities in this direction have been made more than once. But, unfortunately, they were either purely theoretical in nature (such as the publication in 2014 of the collective monograph “Strategic resources and conditions for sustainable development of the Russian Federation and its regions” (2014) under the auspices of the Institute of Geography of the Russian Academy of Sciences), or they were differently directed and not coordinated, led to the closure or formalization of activities (as it was with the “Strategy 2020”, etc.).

Despite all the criticism of the decision on the formation of federal districts in 2000, it was then that for the first time in many years “the fundamental possibility — but only the possibility — to give spatial planning an adequate scale and depth” opened (Glazychev, 2004). Of course, the tasks assigned to the Plenipotentiaries in the districts at that time were

far from spatial planning. However, when in 2003, Russian President V. Putin ordered an update of the General Settlement Scheme, the Ministry of Economic Development and Trade sabotaged this order and secured its closure, not wanting to share powers in the field of strategic planning.

Nevertheless, the possibility of activating the mechanism of spatial development on the basis of federal districts - as actually existing macro-regions - still exists today. The federal law of June 28, 2014 No. 172-FZ "On Strategic Planning in the Russian Federation" provides for the preparation of a fundamentally new type of document for Russia combining strategic and territorial planning approaches - the Spatial Development Strategy of the Russian Federation (hereinafter - the Strategy). It is intended to become a "projection" of socio-economic development priorities on the territory, to evaluate the existing system of settlement in the Russian Federation, to give proposals for its harmonization.

In accordance with the Decree of the Government of the Russian Federation of August 20, 2015 No. 870 "On the content, composition, order of development and approval of the spatial development strategy, as well as on the procedure for monitoring and controlling its implementation" The strategy is being developed for the entire territory of the Russian Federation. The strategy should determine the priorities, goals and objectives of the regional development of the Russian Federation, as well as measures to achieve and solve them. As part of the Strategy, proposals should be developed for improving the settlement system in the territory of the Russian Federation and the priority areas for the location of productive forces (Ministry of Economic Development and Trade, 2018).

Even during the first presentation of the Strategy in Suzdal in January 2017, representatives of the working group reported that priority was given to the "formation of large spatial structures - globally competitive macroregions implementing long-term megaprojects of interregional cooperation". The authors of the document noted that "the general direction of changes in the spatial structure of the Russian economy over the period 1990–2015 for most indicators of economic activity (except for mining) was an increase in the share of the western regions due to a decrease in the share of the eastern ones (Loria, 2017).

The first article of the present study "Demographic and geopolitical aspects of the development of transport systems of Siberia and the Far East" (Ter-Akopov, 2017) outlined the main tasks of the research project (grant). In addition, the work showed that "the development of new transport projects can not only significantly increase investment and migration attractiveness, but also contribute to the "retention" of local labor resources through the formation of new "growth points" for the socio-economic development of Siberia and the Far East" (Pozdyaeva et al, 2017). Within the framework of this article, the current situation in two eastern macro-regions — the federal districts — the Siberian and the Far-Eastern, will be considered. This can be used both in strategic planning at the level of federal districts and in further research at the national level.

Results and discussion

Macroregions - Siberia and the Far East

Within the framework of the Strategy, three scenarios of spatial growth were proposed:

The first — conservative — implies in the long term "further uncontrolled contraction of the developed space, concentration of the population in the center of the country and in the most prosperous regions and cities, increasing polarization between the growing and depressed regions, preserving the modern composition of leaders and outsiders, and preserving the proportions in the distribution of economic activity between western and eastern parts of the country".

The second scenario - competitive growth - is based on the "model of polarized development, implies a high level of openness of the Russian economy, when the global trends have a significant impact on the spatial distribution of economic activity and the specialization of regions. The new frame structure of the country's spatial organization will be formed on the basis of the leading regions, as well as large agglomerations connected by a developed system of transport communications".

The third scenario of diversified spatial growth emphasizes that "each region is unique in terms of not only its economy, but also its human potential, ecology, and culture. The scenario assumes that spatial development is determined by growth based on internal sources for each region, as well as on the effective use of the

potential of their inter-regional interactions” (Loria, 2017).

At the time of the preparation of this article, government order No. 4 (following the results of the Russian Investment Forum in Sochi RIF-2018) is in the process of implementation: “On the Spatial Development Strategy of the Russian Federation for the Period up to 2025”, including “the formation of framework” of the Russian Federation with the aim of lifting the infrastructure constraints for the development of the economy of the constituent entities of the Russian Federation”.

Russia in terms of infrastructure development in the Global Competitiveness Ranking 2017 takes 35th place out of 137. In a detailed study of the rating, it can be noted that in terms of the development of transport Russia is after China (21st place) and India (25th) in 37th place. The condition of the railway infrastructure and air routes is high enough (12th and 9th places, respectively), while the quality of roads and the quality of transport infrastructure in general leaves much to be desired - (114th and 74th places).

The country’s position on power supply and telephony infrastructure looks somewhat better - 44th place, including the country’s 59th place in terms of energy infrastructure development, and our country страна 9th in the world in terms of mobile and satellite communications (The Global Competitiveness Report, 2017). According to experts, “the demand for high-quality infrastructure in Russia is several times greater than supply, and the lack of investment in this area reaches 50%” (Course 2030: research of infrastructure development in Russia, 2017).

The pre-crisis demand for transport and engineering infrastructure investments (roads, ports, airports and utilities, but excluding kindergartens, schools, hospitals, etc.) was at the level of 20 trillion rubles (Obukhova, 2013), which is at least of the country’s GDP (according to Rosstat, GDP amounted to 73.1 trillion rubles in 2013 and 79.2 trillion rubles in 2014).

For us, it is axiomatic that, in the case of non-declarative spatial planning and spatial development, the infrastructure framework must be considered within the framework of established macro-regions or the entire territory of the country. Otherwise, the risks of subjects’ imbalances, the problems of competitiveness - as an obstacle to the sustainable growth of the country’s economy and, accordingly, threats to national security will not take long to wait.

The idea of forming a grid of macro-regions of Russia on the basis of federal districts has a fairly long period. Back in 2000, the report “Russia: Principles of Spatial Development” (2000) was presented under the guidance of Professor V. Glazychev, and in 2004 a monograph edited by RAS Academician A. Granberg “Strategies of Macroregions of Russia: Methodological Approaches, Priorities and Ways of Implementation” (2004), justifying the task of resuming economic regionalization and strategic macroregional planning.

Despite the opinion of Professor O. Kuznetsova, “it is impossible to find a definition of a term in economic or geographical dictionaries, although the concept of “macro-region” is quite firmly entrenched in the literature” (Kuznetsova, 2012), we will use the principle of “floating signs” by Professor L. Smirnyagin (1989). Then the “macro-region” is the sum of communities — for example, natural-geographical, transport, etc., but the basis is ecological and socio-economic integrity.

In order to set the methodological framework, it is necessary to designate our vision of definitions. So, the term “spatial development” was established in Europe, Canada, and then in the USA by the beginning of the 70s of the 20th century, although it was used since the beginning of the 30s (Toronto Metropolitan Unit formed the District of Toronto Metropolitan Unit in 1934). The term is overly extended in content, but in any case it refers to the “large space” of the strategic: from the scale of the country to the scale of the largest city” (Glazychev, 2004).

At the same time, by the term “spatial development” we understand the system-structural approach to scalable territorial tasks of managing holistic development. But given the unconditional uniqueness of the territory of Russia - first of all, its length and disproportionality - there is a need to adjust development management tools, without blindly copying or hoping for ready-made solutions and technologies. For example, historically unprecedented is the situation facing Russia in the XXI century - to ensure the social, economic and cultural development of Siberia and the Far East in the midst of depopulation for the medium term. Especially considering that the key problems here are “both the low level of population in the country and the unfavorable climatic conditions for doing business, due to the fact that more than 60% of the territory of the Russian Federation is in the permafrost zone”

(2016, 2016). The main indicators for the districts are presented in Table. 1.

Table 1. The main socio-geographical indicators of Siberia and the Far East

Name Parametres	Siberian Federal District (Novosibirsk city)	Far Eastern Federal District (Khabarovsk)
Territory	5 144 953 km2 (30.04% RF)	6 169 329 km2 (36.02% RF)
Number of cities	12	9
Number of cities	132	68
Population	19.287 million people	6.165 million people
Population density	3.75 human/km2	1.00 human/km2
Urban population	73.2 %	75.78 %
Perspective of depopulation for 2031 year	- 0.9 million people	- 0.73 million people
Share in the total length of the railway RF	17.5 %	9.5 %

Source: compiled by the authors according to Rosstat

There are a number of indicators of particular concern. On the one hand, these federal districts occupy 2/3 of the territory of Russia (or 1/4 of all subjects of the country), and on the other, only 17.3% of the country's citizens live here. In addition, there is the lowest population density (from 1.00 to 3.75 people / km²), with the smallest number of cities - 200 or less than 1/5 of the entire urban environment of Russia. The level of economic activity in the subjects differs, but only the negative spectrum of the economic barometer is most represented: from semi-reliable bankrupts (Republic of Khakassia) to backward ones (Republic of Buryatia, Sakha (Yakutia), Tyva, Altai and Kamchatka Krai) and crisis receivers (15 other subjects). No donor subjects.

Once again, with the creation of the system of federal districts, a unique opportunity to scale the space appeared. Thus, it is possible not only to overlay the grids of territorial planning, economic zoning and spatial development, but also to distinguish on the basis of such an overlap of project federal territories - as objects of development. In our view, with reference to Siberia and the Far East, this change means the following.

1. The formation (isolation) of five project federal territories (PFT) seems to be optimal:

1.1 CFT "ZapSib" (Altai Republic, Altai Krai, Kemerovo region, Novosibirsk

region, Tomsk region). The Omsk Region is not included in this CFT, since it is objectively a detached "island" of economic life in the Siberian Federal District. Basis - polycentric agglomeration "Novosibirsk - Tomsk - Barnaul - Novokuznetsk - Kemerovo". Here the main task is the development of agglomeration. The second task is the controlled development of mineral resources. The third is the controlled development of industry, characterized by a certain economic and geographical position and relative territorial unity.

1.2 PFT "Yenisei" (Republic of Tyva, Republic of Khakassia, Krasnoyarsk Territory). The first task is the controlled development of natural resources while preserving reserves for reserves. The second task is to create the growth poles of industry, tourism and agribusiness, characterized by the peculiar nature of the environment.

1.3 CFT "Baikal" (Republic of Buryatia, Trans-Baikal Territory, Irkutsk Region). Two tasks. The first is the controllable development of natural resources while preserving reserves for reserves. The second is the controlled development of industry, logging,

water management and tourism activities, characterized by the peculiarity of the natural and economic conditions of Lake Baikal.

1.4 CFT “Extreme North” (Yakutia, Kamchatka Territory, Magadan Region and Chukotka Autonomous Region). The main task is the controlled development of raw materials while preserving natural reserves for reserves and indigenous peoples.

1.5 PFT “Vostok” (Primorsky and Khabarovsk Territories, Amur and Sakhalin Regions, Jewish Autonomous Region). Here, the main task is cross-border economic cooperation, taking into account the specifics of the geostrategic position.

Identification of the real spatial framework for the development of macroregions, including the nodes of advanced growth and the links between them (transport axes and corridors) that are significant in the federal and global economic context (the so-called “second” and “third” cities of the subjects of macroregions).

2. Planning directions for the prospective development of these nodes and connections;
3. The development and implementation of specific development projects that can engage in their orbit and so-called depressed (depopulated) territory.

The main differences between CFT and TOR (advanced development areas) are the scale of the spatial development object and the subject of the action — not a development corporation in charge of local (subject) TOR, but the Representative Office is the managing structure of the federal district. With such a unified approach (for the entire specific PFT or the macroregion) the following one-time general territorial profits are possible:

- actualization of the investment aspects of the development plans of the entities and municipalities in accordance with the requirements of financial structures;
- synchronization of the levels of interconnectedness of the plans for the development of the CFT with macro-regional and federal strategic development;

- coordination of investment plans for CFT with sectoral development plans (transport axes, energy, roads, etc.);
- financial savings in public procurement and payment for the development of infrastructure development plans by specialized companies.

According to Deputy Prime Minister D. Kozak, only the state municipal order amounted to about 6-7 trillion rubles in 2016 and 2017: “These resources could be used much more efficiently if we coordinated everything taking into account the understanding of where and what infrastructure, what development prospects each territory has” (Kozak, 2018). Audit and coordination will save at least 10% - about 600-700 billion rubles, which can and should be directed to infrastructure development, including in Siberia and the Far East - at least 90 billion rubles. The underfunding of infrastructure is estimated at a minimum of 2 trillion rubles per year. According to the investment company, InfraOne, the immediate need of only the Far East (headliner TOR) for minimal infrastructure investments by 2019 will be more than 860 billion rubles, and by 2025 it will grow to 970 billion rubles, given that infrastructure spending already reduced from 3.7% of GDP in 2012 to 2.5% in 2016 (Fomin, 2018).

Unified planning is based on the technical survey of the infrastructure of the CFT and tariff audit, and may include, inter alia:

- Documents of territorial planning and urban zoning (justification for the need to make changes to them);
- Development of infrastructure diagrams for settlements and industrial facilities;
- Coordination of the Prospective Investment Development Schemes of the Subjects and Municipalities with the long-term (8-12 years) development schemes of the electric-gas supplying organizations in the territory of the CFT;
- Recommendations for the formation of long-term tariffs.

The main goal of the macro-region spatial development program is the relative alignment of the density and quality of the infrastructure framework and the reduction of the inequality of access to public goods. This is not about redrawing administrative boundaries, but about the formation of commensurate objects of strategic planning, in which the forces of society,

the state and business need to be optimally (selectively) combined.

To improve the quality of manageability, the introduction of collective responsibility for the system solution of economic cooperation, it is advisable to create a managing council in each of the CFT and introduce the post of secretary of the council (curator) with the rank of deputy presidential representative of the district. But the position of the general manager of the CFT should be competitive and urgent (no more than two terms of 4-5 years).

Spatial (infrastructural) framework of the macroregion

The average population density in Russia in the North and the Far East is from 1.00 to 3.75 people / km², which may seem insufficient (the average density in the country is 8.58 people / km²), until we compare it with the Australian (3.2 people / km²) or Canadian (3.7 people / km²). However, “neither Australia nor Canada has prevented the creation of efficient economies - in particular, because in these vast countries densely populated lands represent a very small proportion of the territory. In Russia, less practically unlivable territories, we have a density of about 20 people / km², which provides the country with so-called food security, however, as the analysis from developed countries shows, it is decidedly insufficient for intensifying and modernizing production” (Russia: Principles of Spatial Development, 2000).

There is an opinion that for such intensification it is necessary to increase the population density to a minimum of 50-60 people / km². Obviously, without mass “landing” of immigrants or controlled depopulation through evacuation relocation from depressed areas this is impossible. Considering that the average zone around a small city is about 50 km, and the effective radius of settlement around large cities is up to 100 km, it becomes clear that this task of compacting settlement without violent actions to reduce peripheral cities is unattainable, and in the North and Far East a priori is unacceptable. Nevertheless, the selective sealing reconstruction of the settlement system was long overdue.

As Professor V. Glazychev noted, “it is necessary to see the primacy of the base frame of the settlement and activities in relation to the territory and to abandon the gigantism of the areas practically unsuitable for permanent habitation. If significant territories of the North, Siberia and the Far East will be interpreted

primarily as a biosphere resource of global importance and a resource of economic development for future generations (perhaps future centuries), even such usual characteristics of the settlement system as population density should be recalculated” (Glazychev, 2004).

It is also impossible not to take into account the specifics of the transport system of Siberia and the Far East of Russia. The main type of transport here is rail. The typology of the subjects of the Russian Federation in Siberia and the Far East based on the indicator “density of the railway network” is not uniform. The grouping method can be divided into five types of subjects within a country with different density of railways: high, high, medium, low, and low density of railways. In these districts - macroregions - only two of the 21 subjects are in the group of average density of the railway network, another 6 are in the group of low density, and the remaining 13 are in the group of low density of the railway network.

It should be noted that the density of railways largely determines not only the level of development of the territories, but also predetermines some demographic indicators: “In the absence of a sufficient transport infrastructure and connectivity of territories, isolated regions inevitably become “atavism” of the state and face both the shortage of food and energy resources, and with a massive outflow of the population to more favorable regions of the country” (Ryazantsev, Lukyanets, Khramova, 2016). In this case, the weak and low network density frankly provokes the migration outflow of the population from many eastern settlements of Russia.

Moreover, it is not a secret that due to demographic contraction. In the period 1994-2014, the population of the Far Eastern Federal District decreased by 1 million 487 thousand people, or 19.3%, which is the largest example of population decline among all federal districts (Ryazantsev, Bogdanov, Khramova, 2017). Russia, the territories of a number of subjects of the Federation may be stretched between the largest nodes of economic stress and, in the medium term, lose their vitality. At the same time, the existing transport system was built up for the outgoing tasks: the centers - in fact - are not always so.

The system of advanced growth nodes and links between them (the so-called “second” and “third” cities of macro-region subjects and high-speed transport axes - arteries between them) come to the fore as a real spatial or infrastructure

framework for the development of macro-regions. Accordingly, in the future, it is important to have a preventive (proactive) planning of the directions of the priority development of such nodes and connections.

Structural examples are well known: Vladivostok - Nakhodka, Bratsk - Irkutsk, Norilsk - Krasnoyarsk, etc. Accordingly, it is necessary to select the "second" and "third" cities from the 200 cities of the macroregions of Siberia and the Far East (see Table 2 and 3).

Table 2. The system of nodes of advanced growth of the Siberian Federal District

Subject	«First» city	«Second» city	«Third» city	Population growth / decline in the period 2012-2016, in %
Republic Altay	Gorno-Altaysk	Mayma	Kosh-Agach	+ 3.3 %
Republic Buryatiya	Ulan-Ude	Severobaykalsk Gusinoozersk, Kyakhta	Zakamensk	+ 1.2 %
Tuva Republic	Kyzyl	Ak-Dovurak	Shanogar, Chadan	+ 2.6 %
Республика Хакасия	Абакан	Черногорск	Саяногорск	+ 0.8 %
Altai region	Barnaul	Biysk, Rubtsovsk	Novoaltaysk	- 1.4 %
Transbaikal region	Chita	Krasnokamensk	Borzya, Petrovsk- Zabaykal'skiy, Nerchinsk Kansk,	- 1.5 %
Krasnoyarsk region	Krasnoyarsk	Norilsk, Ashinsk	Zheleznogorsk, Kansk, Minusinsk	+ 1.0 %
Irkutsk region	Irkutsk	Bratsk, Angarsk	Ust'-Ilimsk, Usol'e- Sibirskoye	- 0.5 %
Kemerovo region	Kemerovo, Novokuznetsk	Prokop'evsk	Mezhdurechensk, Leninsk- Kuznetskiy, Anzhero-Sudzhensk	- 1.2 %
Novosibirsk region	Novosibirsk	Berdsk	Iskitim, Kuybyshev	+ 2.6 %
Omsk region	Omsk	Tara, Isil'kul', Kalachinsk	Nazyvayevsk, Tyukalinsk	- 0.1 %
Tomsk region	Tomsk	Seversk	Strezhevoy	+ 1.4 %

The source is here and table. 3: compiled by the authors.

Table 3. The system of nodes of advanced growth of the Far Eastern Federal District

Subject	«First» city	«Second» city	«Third» city	Population growth / decline in the period 2012-2016, in %
The Republic of Sakha (Yakutia)	Yakutsk	Nerungri	Aldan, Mirny, Lensk	+ 0.7 %
Kamchatka region	Petropavlovsk- Kamchatskiy	Elizovo	Viluchinsk	- 1.6 %
Primorsky Krai	Vladivostok	Ussurisk, Nakhodka	Artyom, Arsen'yev, Arsen'yev	- 1.2 %

Khabarovsk Krai	Khabarovsk	Komsomolsk-na-Amure	Amursk, Sovetskaya Gavan'	- 0.7 %
Amursk region	Blagoveshtsensk	Svobodny, Belogorsk	Tynda, Zeya	- 1.8 %
Magadan region	Magadan	Ola	Susuman, Sokol	- 3.9 %
Sakhalin region	Yuzhno-Sakhalinsk	Korsakov	Kholmsk, Okha	- 1.4 %
Evreyskaya avtonomska oblast'	Birobidzhan	Obluchye	Nikolayevka, Leninskoye	- 5.2 %
Chukotka avtonomniy okrug	Anadyr	Bilibino	Pevek	- 2.0 %

Basically, the “second” cities of the two macro-regions are not comparable in size and level of activity with the “first” ones, but there are exceptions when they start, if not to exceed, then catch up with the centers of the subjects. For example, the case “Novokuznetsk vs Kemerovo” or Komsomolsk on the Amur. In addition, not being the capitals of the subjects, they are “in the shadow of” the leaders are more proportionally efficient economically (especially production centers such as Bratsk), although there are no examples of the level of Great Onions yet.

The attention and effect of some “third” cities attracts attention. They may be smaller in population and more removed from the center of the subject, but the level of economic activity (including hidden) exceeds or is at the level of the “second” cities. For example, Susuman in the Magadan region, Sayanogorsk in Khakassia or Tynda in the Amur region. In addition, there is also the phenomenon of cross-border presence with another subject (district), such as the city of Strezhevoy of the Tomsk region, whose population traditionally uses the Nizhnevartovsk airport of the KMAO-Ugra.

If we approach the issue of reformatting the space of macroregions through the nodes of the “second” and “third” cities, this will make it possible to structure the new planning grid of economic activity. It seems important to conduct a special division of the territory of the macroregion on the basis of the federal presence. The authorship of the term “federal presence” belongs to Professor V. Lexin. Although it is used in a slightly different perspective of federal relations, we consider its use in this connotation to be quite appropriate.

If the “second cities”, as a rule, do not need federal support, since the main economic objects belong to a fairly large business, already “third” cities have an obvious need for mandatory support and infrastructure development.

Further typologization of the “second” and “third” cities is possible according to the perspectives of their activity on the “points of growth”, the “equilibrium zone” and depressed settlements. The “points of growth”, as is known, are based on the strategy of the polarized development of the macro-region, which can have a developing influence on the territories adjacent to each other. Accordingly, the main interested parties of this kind of activity are medium-sized businesses that need a high-quality financial infrastructure.

“Equilibrium zones” (in the terminology of Professor V. Glazychev) are territories “in which one can speak of relatively stable self-sustaining of the population, with a slow growth of consumption and (partly) of production that is poorly identifiable in the official dimension. > ... <In the absolute majority of cases, “equilibrium zones” are able to maintain a balance between lifestyle and living standards, which allows them to completely absorb any amount of external funds” (Glazychev, 2004).

Professor S. Kordonsky calls this phenomenon “garage economy”, allowing the province to survive. The basis is crafts, small and micro-business: “along with the maintenance of federal obligations addressed to individuals, these zones need only the development of supporting infrastructures: drinking water, protection from floods or landslides, maintenance of communications” (Russia: principles of spatial development, 2000).

The main difference between depressed settlements, including crisis single-industry towns, from “equilibrium zones” is such a critical deterioration of the situation that, without a federal presence, they are on the verge of social catastrophe. According to Professor N. Zubarevich, there are two ways to solve this problem: the first is with the large-scale support

of the state, the second is the evolution of the functions of the settlements (Zubarevich, 2010).

The first option involves the rehabilitation of territories with broad state participation. Since a non-working city-forming enterprise, in fact, is a ready-made industrial site with all communications, it can be used if the geographical position of the city is sufficiently favorable. The decision on how this platform will be used should be made jointly by local authorities and business. At the same time, it is up to business to decide what production will be, and the task of the authorities is to facilitate the entry of business into this territory as much as possible.

As for the second option, in this case the city, losing its industrial function, still remains a city - the center of the surrounding area, in which there is a district hospital, a technical school, management institutions and social services. Thus, the population will decline, but it will retain these functions. In the case of a successful geographical location of the city, this process goes faster and without significant population losses.

It should be noted that as early as 2002 the CSR "North-West" published the study "Spatial Development Statistics" (2002). In it, using the example of the North-West Federal District, three classes of territories in Russia were identified.

1. The territory of the inertial development of systems of settlement. In such

territories, free self-organization of the population will develop;

2. Territories of active state regulation on which it is necessary to conduct a policy of consolidation of the population. These are territories with unfavorable demographic potential, where the current large-scale depopulation is undesirable based on socio-economic and geostrategic realities. It provided for the promotion of migration flows through budgetary and extrabudgetary investments in the production sector, social and communication infrastructure, both at the federal and regional levels;
3. Territories of a demographic resource, where the population and labor resources become higher than the need for them due to the current level of economic development (including single-industry towns). As a result, we should expect an outflow of the population from these settlements. These are territories that are located outside the strategic priority areas and the main centers of socio-economic activity. They are remote from border areas and are characterized by the greatest imbalance between the current level of development of productive forces and population.

In the whole country, there are 319 monotowns, in which 9.6% of the population lives (see Table 4). 100 of them - with the most difficult socio-economic situation, 148 - with the risks of deterioration, and 71 cities with a stable situation.

Table 4. Categories of single-industry cities of Russia

The Category Name	Siberian FD	Far Eastern FD	In Russia as a whole
Single-industry towns with the most difficult socio-economic situation	9	8	100
Single-industry cities, with the risks of deteriorating socio-economic status	34	18	148
Single-industry towns with a stable socio-economic situation	10	7	71
Total	53	33	319

Source: compiled by the authors according to the Foundation for the Development of Monotowns

In the Siberian and Far Eastern districts, the situation is more ambiguous. If in the first and third categories (the most problematic and most prosperous) - 17 cities each, then the second category includes 52 cities (more than 60%). The

main problem is that this situation is still deteriorating. Then the above-mentioned gradation of measures of federal presence will be forced to find its new contour.

Conclusion

The main problem of Siberia and the Far East: the situation of a crisis “triple deficit” - the shortage of quality labor, coupled with deficiencies of infrastructure and financial resources. Given the volume of social obligations, sanctions costs, negative and negative population mobility, as well as the pathological restraint of the business community, non-trivial management initiatives are needed.

Of course, the government is well aware that if a third of the cities are problematic in the country, there will not be enough federal presence to deal with it. Moreover, the main anti-crisis instruments, such as TOR in the Far East, are not approved in large numbers, so far only 18 and the free port of Vladivostok (plus 3 TOR in Siberia).

It should be noted that TADs are created as economic zones with favorable tax conditions, simplified administrative procedures and other privileges, for accelerated development and improvement of the population's life - albeit for 70 years (as opposed to 49-year-old SEZs), but only for specific large investors, with an approved type of economic activity, the volume of investments and the number of new jobs. In addition, TORs are created locally (in specific subjects).

It is also obvious that, despite the declaration of the infrastructure renovation of the spatial framework (“infrastructure mortgage”), the government will have to make austerity in the short term. The following unpopular measures are quite predictable:

- Construction / reconstruction of only the main highways and suburban road networks with simultaneous refusal from the reconstruction of the peripheral and roadside networks;
- Provision of medical and social services in the most dense - key areas (the creation of integrated points of care);
- Priority development of housing and utilities networks of large (from 100,000 people) cities and their transfer in small settlements to owner associations;
- Increased tax burden;
- Promoting the idea of agglomerations - as the main way to increase population density to the average indicators of the Moscow region and a factor in improving productivity (but also in opposition to Moscow and St. Petersburg).

In this case, you need to be aware that new zoning, in some cases, may lead to coincidence

with the current borders of the subjects or not to coincide - which will certainly lead to their separation or enlargement - to the factor of increased competition between the new centers of economic activity.

The idea of project federal territories (PFT) put forward in this article has several goals. First, this is a new managerial scale - a vision of the situation in the complex on a homogeneous territory - the real object of spatial development, without being locked in the parochial framework of the subject or municipalities.

Secondly, it is an opportunity to implement truly macro-regional or inter-regional breakthrough projects - infrastructure, manufacturing, logistics, agricultural, recreational, etc.

Thirdly, it is the potential of synergy for sustainable growth through improved investment climate, socio-economic conditions, a cascading effect of employment and multipliers of related sectors of the economy.

Fourthly, this is the real way, when many local, local and intersubject problems can and should be solved at the level of the macroregion. Especially when these issues are not national, but affect several subjects of the Federation, requiring the conclusion of agreements between them (for example, the positive experience of Canada).

Accordingly, “in such a geographically extended and disproportionately developed country as Russia, one of the key development vectors should be the formation of a course towards economic decentralization” (Fomin, Lakhno, Pyshnograd, 2018). At the same time, an important aspect of modernity is the creation of a system of maximum favoring of business, production, trade and tourism, competitive with other states, but taking into account local peculiarities.

This is a culture of new socio-economic interaction. However, it is the development of the infrastructural framework that should become the starting point for reducing the spatial disproportions and the formation of a new living environment.

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