

**THE DEVELOPMENT OF NEW APPROACHES OF PUBLIC POLICY IN THE
FIELD OF SPATIAL DEVELOPMENT BASED ON THE CLASSIFICATION
OF MODERN URBANIZATION PROCESSES OF RUSSIA RESOURCE
REGIONS**

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ABSTRACT

The goal of the article is to examine and classify fundamental and specific factors of Russian spatial development in the context of increasing efficiency of the state spatial policy. The article gives a comparative analysis and a classification of urbanization processes in the Russian resource regions, points out the factors of urbanization, positive and negative effects of this process. The influence of urbanization processes on inter-regional social-economic asymmetry of regions was investigated by the example of Krasnoyarsk Krai as a typical resource region of Russia. Research methods include econometric modeling and building standardized integral indexes. Evolution of spatial policy instruments within the last decades has been considered and due recommendations for the state spatial policy have been elaborated to increase the effectiveness of urbanization management.

Key words: public policy and administration, urban and rural areas, resource economics, spatial development, resource regions.

INTRODUCTION

Nowadays the modern world pays more attention to urbanization processes. The dynamic approach considers them as the process of forming urban settlements, static - as the current state of cities development [1]. Within the period 1994 to 2014 the size of the world urban population increased from 2,3 to 3,9 billion people amounting to over 50% of the population due to new fast developing countries and territories[2], [3].

There are four aspects of urbanization impact on the society: demographic (increasing the share of urban population), spatial (growth of urban settlements and urban areas` number), economic (increase of population employed in non-agricultural sector), social (adoption of urban lifestyle) [4]. They are measured by different indexes, but are essential for the assessment of sustainable development: the listed effects can have both positive and negative impact on the social and economic development. The negative effects such as changing borderlines of the territories of rural working people, increasing social and property inequality, increasing the cost of ecological services, negative environmental impact and increasing the population morbidity occur in case of economic imbalance in cities [5].

Economic, social and ecological balance is provided by the state policy aimed at the sustainable harmonious development of urban and rural settlements within the country or the region [6]. At present a considerable quantity of models for urbanization management exists [7], [8].

Among basic factors determining the initial level of urbanization are natural resources, the geographical position, the scale of the territory, methods for industrial transformation, the condition of human assets, historically established specialization of the settlement or region. An important consequence of urbanization is the change in relative levels of economic situation in the regions, the increase or mitigation of economic and social inequality between them [9].

Processes of urbanization and demonstration of their positive or negative effects are influenced by the authorities responsible for the development and implementation of spatial policy and technological development. Among them there are state and regional authorities, and multicorporate enterprises operating in the region. Under the lax governmental control, amid the rapid industrial development of the region by corporations, the only economic aspect of the process is under concentration, and no social or environmental factors are considered.

The article investigates particularities of urbanization processes in the Russia resource regions and is aimed at detecting principles and basis of effective spatial development state policy, meeting challenges of modern urbanized economics. The distribution of the population across the country is highly uneven. The European part of the country where the main cities locate, presents the highest population density. The major eastern regions of Siberia and the Far East as well as northern territories are sparsely populated, but they are rich in natural resources. The resource-based economics of these regions is determined by the availability of significant natural resources and their remoteness from basic consumer markets. Therefore, the state policy in relation to sparsely populated territories of the country, including urbanization management, should consider the particularities of these resource-based economics.

MATERIALS AND METHODS

The resource regions urbanization processes were analyzed in the real-time mode on the basis of socio-economic indicators of the Krasnoyarsk Krai. It was selected as a model Russian region possessing the resource economics. Panel investigations by urban areas and municipalities of the Krai. [10]. A standardized integral index of economic development, calculated as a normalized sum of ranks by all indicators of panel observations was taken for comparing social and economic condition of the territories. Besides, based on the econometric model, developed by the authors, a comparative analysis has been conducted to estimate the changes in the level of economic asymmetry or rural and urban areas of the Krasnoyarsk Krai. Official statistical data of the Federal statistics service of the Russian Federation and municipal statistics for the period 2007-2014 were taken as the informational basis for the investigation.

RESULTS

Factors of economic growth of Russian regions and their impact on urbanization processes. Among indicators pointing to the resource nature of the region economics are the different indexes of specialization- the share of resource industries in the gross regional product, net export, investments. Relative index of the region specialization is

calculated in comparison with the average Russian level: if for a specific region this index is greater than one, the economy of the region is considered to be more resource-based than the country economy as a whole.

Based on the relative index of specialization, 22 subjects of the Russian Federation can be considered as regions focused on mineral extraction. Regions from this number (14) belong to territories of Extreme North, Far East and Siberia. They share the following common features. Population density in these regions is lower than the average Russian; the proportion of urban population in the overwhelming majority of resource regions is higher than the average Russian, as the industry and population are concentrated near locations of natural resources; the majority of the resource regions include Extreme North territories possessing adverse climatic conditions for living and economic management; GRP per capita in the most resource regions exceeds the average Russian level (Table 1)

Table 1- Characteristics of the resource regions of the Extreme North, Siberia and the Far East in 2015¹

The subject of Federation	Relative index of specialization	GRP per capita, thousands rubles.	Density of population	The share of urban population	Region *	The distance to Moscow
Sakhalin Oblast	6,17	1627	5,59	82	FE	6 643
Tyumen Oblast	5,08	1439	2,47	80	Sib	2 443
Republic of Sakha	4,19	689	0,31	65	FE	4 883
Chukotka Autonomous Okrug	4,02	1123	0,07	69	FE	6 190
The Republic of Komi	3,16	559	2,06	78	EN	1 300
Arkhangelsk Oblast	2,52	458	2,74	77	EN	1 308
Irkutsk Oblast	1,86	376	3,11	79	Sib	5 700
Magadan Oblast	1,62	659	0,32	96	FE	5 905
Krasnoyarsk Krai	1,59	497	1,21	77	Sib	4 300
Murmansk Oblast	1,15	419	5,26	93	EN	2 120
Republic of Karelia	1,13	294	3,49	80	EN	1 000
Russia	-	403	8,56	74,1	-	-

* **FE** – Far East, **Sib** –Siberia, **EN** –Extreme North

Among the fundamental factors, which determine the spatial development of eastern regions of Russia- the Siberia and Far East, are their role and place in the national economy” as national resource storehouse”. The historically developed system of economic relations as well as economic specialization of regions based on natural resources extraction has formed a focal type of settlements, which infrastructure built in a close connection to mining centers. In fact, such urban territories can be described as “deposits surrounded by settlements”. Due to that fact, the urban territories of resource regions are presented by cities and towns the considerable part of which (more than 30%) are mono-industry cities (mono cities). The development of regions infrastructure had a focal nature and was localized at mining sites. Generally, a concentration of settlements and a high population density are specific for the southern districts located

¹ Calculated by data: «Regions of Russia. Social-economic indicators»: Statistical compendium. / Rosstat. – M., 2016. – 1326 p.; Website Statdata.ru, URL http://www.statdata.ru/nasel_regions

along federal transcontinental transport corridors – railways and highways, where megacities and large cities with the population over 500 thousand people were built.

The other fundamental factor determining spatial development of eastern resource regions of Russia is the predominance of vertically integrated monopolistic companies in the whole structure of key economic activities. It predetermines the low level of competition at regional markets. Corporations operating in the region are primarily developing the first processing stage with the low added value and tend to take the further production stages outside the region territory. It establishes the non-diversified pattern of the economy of urban settlements of resource regions, reduces their economic development` potential and enhances the dependence of the level of economic development from the volatility of world prices for raw materials.

One of the factors that partially equalize the resource pattern of the economy is the location of the enterprises – manufacturers of high-tech dual-use products on the territory of resource regions. These productions are surrounded by small towns of innovative profile. The negative trend is that final assembling productions are allocated in regions and they do not have any stable system of intra-regional inter-branch cooperation.

We can distinguish *several types of processes of urbanization in the resource regions of Russia*: agglomerative development, suburbanization, development of new industrial areas, and urbanization of remote settlements.

Agglomerative development is connected with the growth of population concentration in megacities, cities and regional centers. The main reason for agglomerative development was high unemployment rates in towns and rural localities of Siberia. Accordingly, under the low density of population, the existing development of services on these territories was not able to compensate the loss of workplaces in real economy. Consequently, the commuting from rural localities to cities occurred, associated with the availability of workplaces and higher incomes in cities. As the result of such centripetal urbanization, the majority of small towns and rural localities of Siberia faced the severe depopulation within the last 25 years.

Suburbanization is the process of expansion of private housing construction in the suburban areas and adjacent rural settlement lands connected to the "flight of the population" away from contaminated territories of the cities. The other suburbanization factors are the intensification of ecological problems due to the increased vehicle-to-population ratio, the availability of vast undeveloped areas around towns and long distances between cities.

Development of new industrial areas. This trend is stipulated by disproportions in resources allocation (in the north) and population concentration (in the south) which are specific for resource regions of Siberia and the Far East. For the development of new mineral deposits and implementation of costly investment projects in the northern territories, the temporary migration flows of able-bodied and skilled people are formed, and these people are employed for the whole period of the territory industrial development.

Urbanization of remote settlements. It is a process of adoption of urban lifestyle by rural people of the remote areas with the low transport accessibility. Basic factors of the process of remote settlements urbanization are the availability of considerable number

of rural settlements on the territories of Siberia and the Far East, lacking year-round transport connections. This is common to northern territories, covering 4/5 of Siberia.

Interregional asymmetry as the result of urbanization in resource regions. The competitive advantages of resource regions connected to factors of “original nature” – such as the availability of natural resources and the geographical position, provide the concentration of economic activities in cities and urban settlements [11]. Low density of allocation of urban settlements within the territories of large regions as well as poor transport accessibility, contributes to the increased interregional asymmetry. It is expressed in inequality of the subjects of the region (municipalities and urban districts) by indicators of their social-economic development. It is also demonstrated by the results of econometric analysis of inter-regional economic asymmetry given on the Fig. 1. The analysis was carried out on the basis of differentiation of *integral index of economic development* calculated for each municipality.

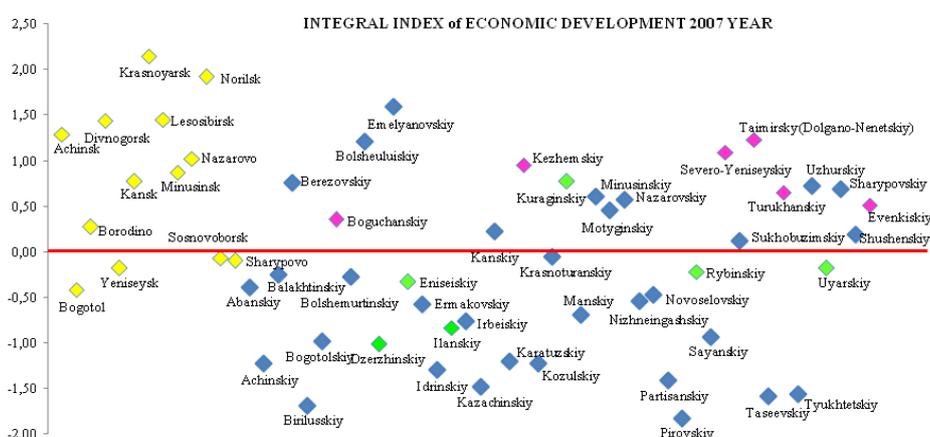


Fig. 1. Distribution of integral index of economic development of municipalities relative to the average value of the region – Krasnoyarsk Krai in 2007².

The analysis of integral indexes of economic development shows the high rate of asymmetry, which varies in the range [-1.83; +2.15]. The higher level of social-economic development is presented by urban territories of the Krai: cities, territories of the new industrial development, municipalities adjacent to the Krasnoyarsk agglomeration and cities and municipalities where urban settlements are the administrative centers. However, the extent of inequality of economic status of territories within the region largely depends on institutional changes in the frames of federal economic and spatial policy.

Public economic policy in the field of spatial development. In the 1990s public economic policy had no clearly defined economic spatial priorities. Key government measures were directed to mitigation of social inequality of regions and were implemented by budget policy tools through allocation additional financial subsidies to

² In Fig. 1.2 x-axis (rubricated) represents the average value of the integral index for all municipal districts of the Krai. Individual values of the integral indexes for the subjects are marked by dots (markers). To display the individual values for cities a yellow marker was used; rural municipalities – it was the blue marker, and for the municipalities, which include urban settlements – a green marker, new industrial areas – a pink marker. The more individual value of integral index exceeds the average regional level, the higher is the marker on the ordinate axis.

regions from the state budget. Changes in spatial economic development were influenced by the investment policy of major companies, targeted at increase in the extraction of natural resources, intended for export.

At the beginning of the 2000s new directions and principles of territorial administration were being developed connected with the distribution of responsibilities for spatial development between the Federation and regions. They were specified in a number of federal laws. So, the Federal law “On the General Principles of the Organization of Local Self-Government in the Russian Federation” (2003) defines the city district for the urban area, municipal district for rural territories. The RF Tax Code (1999) and the RF Budgetary Code (1999) established sources of income for regions and municipalities. Town Planning Code of the Russian Federation (2004) defines the relationship related to urban planning as the direction of territories development, including foundations for designing general locality plans for urban settlements and development for infrastructure patterns for territories.

The economic policy of Russian spatial development within this period is based on the concept of a differentiated approach to state support of the regions with maintaining the tools for alignment of fiscal capacity of regions. Public investments in the development of infrastructure of regions- growth points- became the main tool of economic policy. However, the expected outcomes in resource regions have not been achieved, despite significant funding. The main obstacle was the implementation of the economic growth model based on export of natural resources. It was consistently performed through the state large-scale investment projects to the regions where corporations monopolists in resource industries operate.

On the one hand, it was as an impulse for urbanization of the territories for new industrial development, on the other – it has led to the degradation of a number of towns and cities. As a consequence, polarization of economic space both between Russian regions and inside these regions has increased. Furthermore, as the example of Krasnoyarsk Krai presents, the level of inter-regional asymmetry of the economic situation in towns and cities has grown. Thus, if in 2007 according to integral index of an economic situation 9 cities of the Krai were above the regional average (Fig. 1), in 2014 – there were only 3; the variation of the integral index of economic development has growing and the variance is [-3,14; 2,17] (Fig. 2).

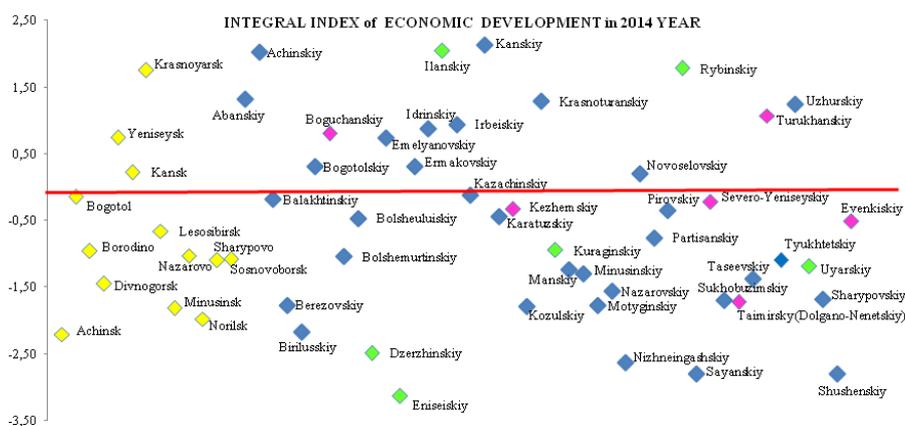


Fig. 2. Distribution of integral index of economic development of municipalities relative to the average value of the region – Krasnoyarsk Krai in 2014.

Within the last 5 years the new Russian spatial policy approaches have been defined, based on project and program-oriented management of territorial development. The policy starts to be implemented via national programs for development of certain regional groups such as the Far East and the Baikal region, the Arctic zone. Separately are being implemented projects on the state support of territorial entities significant for the economic development: special economic zones, priority economic development areas, territorial innovation clusters, mono-cities. The projects are implemented through the government investments and tax preferences for the local business. However, this direction of public policy has limitations in the number of regions participating in the projects, and in the number of significant projects supported in a particular region. So, the federal program for establishment of priority development areas incorporates only 20 regions, and the only one project on development of an innovation technologies cluster in Zheleznogorsk was supported in the Krasnoyarsk Krai.

Smoothing urbanization's negative effects would be possible within the framework of a polycentric approach to the development of a great number of regional centers for economic growth. Practically all regional metropolises can be considered as such centers. At present the agglomeration processes are actively going on around the eastern cities of the country, including the city of Krasnoyarsk [12]. However, the lack of federal legislative basis hinders the development process. Besides, based on the experience of foreign countries, it is necessary to promote horizontal communications between towns and cities, improve their role as local centers of rural areas' growth and become system integrators in the interaction with rural areas on development and controlling rural depopulation.

CONCLUSIONS

- 1) Urbanization as a complex socio-economic process is different in the Russian regions of various types. Urbanization in Russian resource regions is determined by its historical specialization, particularities of settlement pattern, profiling of towns and cities, priorities of economic activity of corporations, and export-oriented raw materials.
- 2) The main types of urbanization in the resource regions of Russia currently are: the formation of agglomerations, suburbanization, development of new industrial areas, and urbanization of remote settlements.
- 3) Low density of urban settlements and underdeveloped transport network are the foundation for high inter-regional asymmetry and growing inequality of territories within the resource region, as it is evident by the example of Krasnoyarsk Krai.
- 4) The state support in establishment of multiple centers for economic growth within regions, both from among agglomerations and towns and cities can become the tool of the public economic policy aimed at mitigation of negative effects from the process of resource regions urbanization. It will provide the development of polycentric pattern of resource regions' economy.
- 5) It is essential to support more extensively the program-based and project-based forms of development of particular areas and territorial integrations within the resource regions.
- 6) The public policy should be focused on active processes of shaping the legislative framework for establishment of agglomerations and horizontal consortia of towns and cities with rural areas, as well as project forms of regional administration.

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