POLARIZATION OF THE REGIONAL SETTLEMENT SYSTEM AS A REFLECTION OF NEOLIBERAL URBANIZATION PROCESSES

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ABSTRACT

The settlement system in the regions of Russia is changing due to the influence of neoliberal urbanization processes and of the economic, social and institutional areas of society. Changes lead to structural shifts in settlement and to the arising of polarization. The main goals of this study were to analyse the results of changes in the settlement system of the Belgorod Region, to identify the causes of polarization, to assess the types of suburbanization and the development of gentrification processes in large cities. The study of urbanization processes using a systematic approach allowed to identify the causes and extent of migration from the periphery and the concentration of population in large cities, and to classify cities according to their development prospects. Spatial and temporal analysis of the rural population showed that foundations of the modern processes of rural settlement transformation were laid in the second half of the 20th century. The study of suburbanization revealed the predominance of the classical type and a weak development of the structural type. The study of the gentrification processes of the centre of Belgorod showed the dominance of the interests of large capital. The results of the work can contribute to the adoption of reasonable management decisions for the spatial development of the region.

Keywords: urbanization processes, settlement system, spatial development, polarization, sustainable development

INTRODUCTION

The settlement system largely determines the conditions and prospects of economic development of regions. The traditional settlement of Russian population was drastically changed in the post-Soviet era due to numerous factors, among which urbanization, market relations and inconsistent actions of government authorities have significant importance. A certain role was played by the population adaptive reactions, the demographic crisis, advanced technologies, which started to penetrate the heart of the country. It should be noted that any shifts in population settlement pattern occur gradually because any displacement is inertial.

Urbanization, growth of cities and municipal systems complexity are of interview of

In Russia, the impact of the neoliberal economy on urbanization processes remains to be scantily studied for social geographers. The country does not have yet radical division of the cities into "poles of well-being and poles of poverty", settlement because of inherited development is still socially homogeneous [2], but there are negative aspects in city centre gentrification processes and segregation of regional centre suburbation elaboration of a new state program for the integrated and sustainable development of rural areas should be accompanied by a system of measures aimed at improved quality of life, including efficiency evaluation using environmental indicators [8, 9]. nowadays demonstrates intensive traditional suburbanization [10], while not manifestations of structural suburbanization are insignificant. New processes generation transport and environmental problems, increase tensions in the labour markets of agglomerations, and require targeted research on emerging challenges.

This study aims to analyse changes in Belgorod Region settlement system, identify causes of polarization, evaluate types of suburbanization and the development of gentrification processes in big cities for effective spatial organization of the society.

DATA AND METHODS

Data used. The main sources are official materials of the territorial body of Federal state statistics service in the Belgorod region [11, 12], municipal statistics, and expeditionary surveys. Some field researches have been conducted in the rural settlements of six municipal districts (Belgorodskiy, Yakovlevskiy, Korochanskiy, Prokhorovskiy, Valuyskiy, Volokonovskiy) located in the central, semi-peripheral and peripheral parts of the Belgorod region.

Methods. Expert *interviews* with the heads of the rural settlements and the employers of the rural administration offices who are familiar with socio-demographic situation in rural settlements. The interviews made it possible to evaluate the proportion between the people engaged in the public economy and the informal employment (in personal subsidiary farm). By *combining the expert interview materials and the balance method* [13] it became possible to identify the population structure and the employment of the economically active population by industry. The share of circular labour migrants and seasonal workers (return labour migrations) as part of the working population estimated the geographical mobility of the rural population. For the solution of the main tasks the methods of space-time analysis, statistical, GIS-technologies were applied.

MINULTS AND DISCUSSION

Development trajectories of different types of cities. Analysis of development of different type cities has shown that the above-mentioned resettlement factors contributed to the large-scale changes in the Belgorod regional settlement system. For the development of cities, a certain role was played by their remoteness from the ngion's centre and the main lines of development (centre-peripheral position). It is revealed that the highest growth rates of the urban population were characteristic for the $10h \ 20^{th}$ century – 6-8% per year. The drivers for increased number of urban residents included intensive industrialization and rapid urbanization of the Belgorod region, which led to a drastic reduction in the rural population and transformation of the a tlement system (Table).

Indicators	Years						
	1959	1970	1979	1989	2002	2010	2018
Population, thous, people	1226.7	1265.8	1308.2	1378.3	1511.6	1530.1	1549.9
Average annual growth tate, %	-	0.3	0.4	0.5	0.7	0.2	0.2
Urban population, thous, people	232.5	440.0	681.7	865.3	985.6	1018.1	1044.5
Dynamic of average annual changes in the urban population, %	-	8.1	6.1	2.7	1.1	0.4	0.3
Rural population, thous.	994.2	825.8	626.5	513.0	526.0	512.0	505.4
Dynamic of average annual changes in the rural population, %	-	-1.5	-2.6	-1.8	0.2	-0.3	-0.2

Table. The number and average annual growth and loss rates of urban and rural population 1959-2018*

*Compiled and calculated by [11, 12]

Analysis of the results obtained for more than half a century can suggest that the current transformation processes of the urban and rural resettlement in the region were established in the seventies early 80s 20th c. The basis of the urban settlement of that period were small (by population) cities. The urban structure remained the same for a long time; it changed radically by the 1990 and remains constant in 21st c.: one major urban complex, one large, one medium and eight small cities.

A special role in the resettlement of the region in 21st c. began to play big cities, because they provide maximum benefits to the population and business. The development of the Kursk Magnetic Anomaly (since 1969) resulted in both population growth and higher economic potential of the cities Stary Oskol and Gubkin – centres for extraction and processing of iron ore, and the further development of Belgorod. In Belgorod and the city of Stary Oskol live 2/3 of the urban population (2018). The above-mentioned changes contributed to the transformation of the entire settlement system in the region. Small towns that have become unattractive to the population and business have entered the stage of stagnation or degradation. The general trend of the development of cities of all types of the 21st century has been the fall in the population growth rates (Figure 1).



Figure 1. Average annual population growth rates/losses 1970-2017 (%)

Rural resettlement. During the study period, the rural population has almost halved, the network of settlements has shrunk. According to the latest all-Russian population census 2010, 40.9 % of the settlements have small numbers of inhabitants (up to 100 people), 69 villages have no population at all ("dead" village). The settlement pattern has demonstrated the following new trends: the concentration of population around big cities – Belgorod and Stary Oskol has increased.

In the Belgorod region, which encircles the oblast centre, according to the 2002 census 5.2% lived in, in 2018 - 7.7% of the region's population [12]. The depopulation processes have covered most of the municipal districts. Analysis of the population growth/decline index by municipal districts has shown that there were some steady trends (Figure 2). Population decline tends to increase as one approaches the peripheral part of the region, which was mainly caused by the migration factor. Natural population movement is negative in all municipalities. The incentives for rural population migration include the level of socio-economic development, personal factors and circumstances [13], as well as regional space polarization.

The field surveys have confirmed the weak rural economy diversification, the presence of chronic unemployment in semi-peripheral and peripheral areas of the region. Lack of work leads to an increase in territorial and social mobility of the population. Section Ecology and Environmental Protection



Figure 2. Dynamics of the rural population and urban settlements, 2002-2017

In the suburban areas of the agglomerations, the circular migrants (commuters) make up to 4/5 of the economically active population. In the peripheral areas, the processes of leaving for seasonal work have been increasing.

Spatial settlement disparities of the Belgorod region. The accelerated growth of Belgorod and Stary Oskol led to their demographic, coological, infrastructural congestion, the decline of small cities and rural settlements. The neoliberal policy on social infrastructure enlargement and reduction was a certain factor in the problematic development of small towns and villages over the last decade (closure of small schools, medical stations). The support through allocations from the federal and regional budgets mainly to big agricultural and industrial business, as well as industrial methods of agricultural production led to the lack of competitiveness of farms, the occurrence of "extra" people in rural areas.

Centripetal flows of population and business towards big cities, the introduction of land sales and vehicle-to-population ratio contributed to the natural formation of two agglomerations are Belgorod and Stary Oskol-Gubkin. Moreover, the "agglomeration effect" [14] generated by those agglomerations has accelerated the intensive development. Outside the urban agglomerations the habitable and economically active space is compressed into separate areas, the socio-demographic semi-deserts are formed between them. The population density calculated for rural areas and regional cities (Figure 3) reflects its significant differentiation. It naturally decreases towards the castern peripheral part of the region where it is marked with two spots Alekseevsky and Valuisky districts. An increased density is because the urban population of the cities of Alekseevka (38 thous, people) and Valuyki (34 thous, people) is applied to the indicators of the districts.



Figure 3. Resettlement of the Belgorod region, 2017

The high population density is focal in nature, and this situation will worsen in the future. The population concentration tends to increase in the south-west of the region and in the suburban areas of the Belgorod agglomeration. A population density difference between the Belgorod suburban area and the peripheral Weidelevskiy and Rovenskiy districts is six-fold.

Descritication processes are still minor given the socio-economic and economic geographical location of the Belgorod region; however, there are obvious trends of settlement degradation outside the agglomerations. Spatial changes take place in the settlement pattern: the calculations of the behaviour of municipal district shares in the total population of the region for 2002-2018 have shown increase in the share of the Belgorod suburban area by 25 % and reduction in the share of the southenstern peripheral areas (Alekseevskiy, Valuiskiy, Weidelevskiy) on 11%.

The regional settlement system in the conditions of neoliberal economy and urbanization. Polarization of settlement and its "shrinkage" are deepened by the neoliberal policy pursued in the country with big capital being dominated. Some neoliberalism elements are manifested in the urbanization processes and the monopolistic position of agricultural holdings. Several large agricultural holdings in the Belgorod region produce 100 % of pork and poultry [11], thus enabling indirectly the growth of rural-urban migration and rural settlement degradation.

In the big cities of the region *gentrification* processes have intensified – city centres are often redeveloped to the detriment of the residents: in Belgorod, they destroy historical buildings and resettle the residents to the periphery of the city. The "targeted" construction has resulted in appearance of new multi-storey residential buildings in the

iontral municipal park; the city maternity hospital has been demolished and "kyscrapers" have been built instead, which reduced dramatically the capitalization of he surrounding residential buildings. The urban environment should be transformed but 'not turned into playgrounds for the very rich" [7].

An evaluation of *suburbanization* processes shows that out of two types of uburbanization it is only classical one ongoing, i.e. middle class movement to suburbs. Populations are allocated plots for individual housing construction with certain burdens. Analysis of the selected areas from 2007 to 2017 demonstrates that there is a trend of urther population concentration in two urban areas. Of the 34 thousand allocated sites, telgorod and the Belgorod Region account for 69%. Starooskolskiy-Gubkinskiy ugglomeration – 20%, and the rest of the region – 11%. An examination of the selected urburb areas shows that there is a lack of many social infrastructure elements and eserve areas to create new technological jobs, i.e. indicators of structural mburbanization. The study reveals that classical suburbanization has its own features: long with the city "sprawling" and privileged class movement to suburbs, the ndigenous inhabitants of the suburban villages are actively engaged in housing uilding.

CONCLUSIONS

The industrialization processes in 1970 coincided with urbanization development in the lelgorod region and led to accelerated dynamics of urban population growth and aubsequent transformation of the entire settlement system. Different pathways of urban levelopment have drastically changed the urban structure in the Belgorod region. because of the combined influence of various factors, the rural resettlement has indergone significant changes: settlements reduction in size, depopulation of the region scriphery and population concentration around big cities. The complex driving forces of he regional settlement system evolution have formed spatial development lisproportions and ekistical space polarization. The city centre is gentrified in the interests of large capital and to the detriment of the part of urban residents. The utbanization processes have entered the fourth phase of development in Belgorod Region [15]; however, they demonstrate clear dominance of classical suburbanization. The results of the study make it possible to forecast that the weak development of structural suburbanization will contribute to the formation of a number of socioinvironmental problems and move away from effective transition to sustainable levelopment in the future.

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