PLANNING IN GROWTH PARADIGM FOR SHRINKING AREAS: UNREASONABLE EXPECTATIONS. THE CASE OF ZVEREVO, SOUTHERN RUSSIA

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Goal. The aim of this research is to investigate how the phenomenon of shrinkage is understood in the most affected areas, such as mining cities, so-called one company towns, in Southern Russia and what kind of responses addressing the issue have been developed in special programs, strategic plans and plans of territorial development.

Methods. For the analysis of demographic trends in Southern Russia the data from the Federal Statistic Service was used: the results of the three censuses of 1989, 2002 and 2010, but also the annual statistic. The data on economic development was analyzed through the indicators presented in the statistical database, in programming documents and media sources. Federal, regional and municipal programs related to demographic and economic decline, as well as strategic and territorial plans of the Rostov region and municipality, were analyzed in order to find special responses to the shrinkage issue.

Results. The research has shown the stability of depopulation trends in the municipality of Zverevo and Rostov region, the lack of awareness of causes and consequences of urban shrinkage among policy makers and planners and, accordingly, the absence or inadequacy of the responses to the shrinkage challenge in the strategic documents.

Scientific novelty. The scientific novelty of the paper is in the results obtained through a framework of content analysis of municipal and regional strategic documents developed for the municipality of Zverevo in terms of consideration of the shrinkage issue. The research aimed to verify the intention to develop the planning documents according to a paradigm of growth despite the actual population and economic decline.

Key words: shrinking city, one-company town, economic decline, urban planning, Russia.

Introduction

At the turn of the century, urban planners and policy makers in many countries faced a new challenge: shrinking cities. Obviously, urban decline has always been one of the possible scenarios of city development and different theories on linear or cyclic urban evolution have been created [1]. However, the phenomenon which historically appeared as the development path of individual cases has been spreading in different countries and continents. The causes lying behind each particular case of urban shrinkage are so variable and complex [2], often combining different factors provoking urban decline, that the concepts and the definitions of urban shrinkage developed by scholars are always questioned and are far from being widely agreed upon [3]. However, despite the variety of factors provoking shrinkage, there are two general aspects at the macro-level: globalization and demographic transition.

Population change in cities is very often the direct effect of the globalization process [1], which causes international flows of financial and human resources attracted by big economic centers – global cities [4] and creates oceans of shrinkage in the less economically successful parts of the world. Thus, large areas in the old industrial countries experience a continuous economic and population decline (such as the Ruhr area in Germany or the Rust belt area in USA). Globalization has resulted also in the transitional process of the economies and political systems of post-socialist countries, causing intensive outmigration flows.

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Another macro process influencing regional and urban population decline is the second demographic transition. According to the theory of the second demographic transition, introduced by Ron Lesthaeghe and Dirk van de Kaa in 1986, social changes and progress have provoked a transformation in demographic structure and reproductive behavior: reduced fertility, delayed births, changes in family model and aging lead to a natural population decline [1]. The second demographic transition brings natural population decline mainly in developed countries: for example, in Europe, without immigration a population decline would already have started in most countries and cities [5].

The impact of these macro processes at a local level is very important for understanding: urban shrinkage occurring because of them [6] may hardly be faced by the efforts of local stakeholders. For planning and policy making this aspect plays a crucial role. The importance of these macro processes may vary at regional and local levels: in some areas globalization and, accordingly, economic and migration processes contribute more to the shrinkage (e.g. USA) while in others demographic transition takes a leading position in its causes (e.g. Europe, Japan). The negative effects of the macro processes are much more devastating in small cities [7] that are usually not successful in their integration to the global city network and are more dependent on one major sector of their economy.

Why should we worry about shrinkage as posing specific conditions for planning? Since its appearance, urban planning has been functioning as a managing tool for growth. It has always served growth, development, progress and expansion. In the common view, every city can achieve growth [1] and every city sets growth as the main goal in developing its strategic view of the future. Thus, the perception of urban shrinkage is very negative [8] and no local authority would like to plan for future shrinkage. Europe is the most successful region in terms of policy makers' awareness of the phenomenon and its consideration in local and regional strategies [9]. However, most of the strategies for shrinking cities are created with the goal of shifting the development path back to growth again.

Since the end of the USSR, Russia is among shrinking countries. Population decline in Russia in the Soviet past was caused mainly by dramatic political events such as the Revolution, Civil War, Collectivization and WWII. Despite huge population losses Russia would recover and continue growth. Population decline appeared after the collapse of the USSR provoked by the phenomenon called "Russian cross", when the natality rate became lower than mortality rate. This new population loss differs from the process of the previous periods by its stability and the causes lying behind it. At the national level the demographic situation does not seem so negative as in other ex-socialist countries, such as Bulgaria or Lithuania, for example: Russia has always been quite attractive for international migrants that partly compensated the natural population decline. At the same time, the regional diversity in terms of population change is huge: a few growing regions pumped out the population of neighboring and remote regions. A closer analysis of the situation at settlements level shows a huge variety of population change and economic development patterns, but for most Russian settlements population decline has become the main trend in the last 25 years [10]. Russia represents a case of the biggest shrinking urban system in the world [11], but every city has its own unique profile formed by different combinations of shrinkage's causes and consequences.

Mining towns, being usually one-company towns, demonstrate the most severe and the most hopeless cases of urban shrinkage not only in Russia, but in other countries as well. The specificity of Russian mining shrinking cities is population shrinkage caused both by natural population decline and out-migration. The perception of the phenomenon's nature at local level is usually fragmented, because economic decline caused by mining industry failure seems the only reason of a negative population change while the processes behind it are more complex. Accordingly, for local authorities the question of priorities in their policies becomes very challenging.

Mining cities of Eastern Donbass: from flourishing to failure.

The paper demonstrates a specific aspect of population development in the region of the Eastern Donbas, which is the part of Rostovskaya oblast in Southern Russia. Southern Russia itself (region including Southern and Northern-Caucasian Federal districts) is characterized by a relatively positive demographic development compared to the other federal districts of Russia: the region has always been attractive for internal migrants [12]. However, demographic change represents a variety of patterns at the level of subjects of the federation and, accordingly, at the settlements' level.

The population change in Rostov region in 1989–2015 after the USSR collapse was not significant: compared to 1989 the population of 2015 decreased by 1.2%. Nevertheless, considering the population development during the Soviet period characterized by continuous population growth, the trend's change demonstrates serious structural transformations in the demographic process. What are the components of the population change in Rostovskaya oblast? Data analysis shows that the net migration rate in Rostovskaya oblast was positive for most years since 1990 while the indicators of natural population growth have always been negative. The flows of in-migration were very intensive during the first decade after the end of the USSR: the region with a favorable climate and a developed diversified economy attracted migrants from the Northern and Far-Eastern regions of the country. However, since the

2000s the number of in-migrants was significantly reduced and could not compensate natural population decline anymore: the region started to demonstrate a constant population decline. The natural population decline rate in the Rostov region is the highest among the Southern subjects of the federation and higher than average in Russia. It is explained by the region's industrialization and, accordingly, an earlier start of the second demographic transition compared to other Russian regions [13].

During the Soviet period the Rostov region was the most industrially developed in Southern Russia due to its specialization in mechanical engineering and a strong demand for its production [13]. After the system's destruction, the production level decreased significantly. Most of the cities in the region are specialized in industry and, consequently, a sharp decrease in demand for their production has become a cause for the economic decline and following outmigration. The severest economic decline appeared in the mining cities of the Eastern Donbass: the decrease in coal production started in 80s due to the shift to oil and gas consumption turned into a complete collapse of the sector with the end of the Soviet Union. In 1991–1993 in the Eastern Donbass 51 large mines out of 64 active ones were closed [14]. The result was in a large contingent of unemployed: ex-miners and a young population entering working age.

There are 23 cities in the Rostov region, seven of them are mining cities of the Eastern Donbas area: Gukovo, Donetsk, Zverevo, Kamensk-Shakhtinsky, Krasny Sulin, Novoshakhtinsk and Shakhty. The total population of these cities was 611.5 thousand people at 01.01.2016 or 21.6% of regional urban population. The total population of the mining cities grew by 3.1% in 1989–2015, but this growth was just a result of a formal change of the cities' borders by inclusion of the adjacent rural settlements. Those changes were done mainly in 2004 due to the municipal reform and transformed the constitution of five out of seven mining cities: Donetsk, Kamensk-Shakhtinsky, Gukovo, Novoshakhtinsk and Shakhty. Therefore, the apparent increase in population in reality is not a positive sign. For example, the city of Kamensk-Shakhtinsky increased its population by 25.9%, but the population of the villages included in the city's border constituted 30% of its population, which means an actual population decline of the city itself. Actually, all of the mining cities of the Eastern Donbass experience population decline.

Why is the case of Zverevo interesting for investigation? The city's shrinkage is caused by both economic decline and the second demographic transition, these trends have been stable enough for a long period and the relative population loss was the most significant not only among mining cities of Rostovskaya oblast', but also one of the severest among all cities of Southern Russia (including both Southern and North-Caucasian Federal districts). By relative population loss during the period 1989–2015 Zverevo is in third position after Tyrnyaus in Republic of Kabardino-Balkaria, which had an economy based on a now closed mining and processing plant, and the city of Grozny in the Chechen Republic, where population decline was caused by the Chechen War.

Zverevo case

Zverevo is the smallest city of the Rostovskaya oblast with a population of 20.4 thousand people [15]. The municipality of Zverevo has a status of urban okrug meaning it is directly subordinate to the regional government. Geographically the city is located 110 km from the regional capital Rostov-on-Don to its North and 20 km from the national border with Ukraine to its West. Zverevo is included in the network of mining cities of the Eastern Donbass and distances between Zverevo and other mining cities/towns of Rostov region are quite short: the longest one between Zverevo and Donetsk is about 76 km. The closest town Gukovo is located 17.3 km from Zverevo.

Zverevo obtained the status of an urban settlement in 1989, right before the collapse of the USSR. Interestingly, its urban status appeared as satisfying the requirements of the miners participating in Obukhovskaya strike, one of many miners' strikes which happened in 1989 in different cities of the USSR [16]. Thus, Zverevo is the youngest city in Rostov region as well. Its development during the Soviet period is typical for small towns that were transformed from rural to urban settlements. Starting as a village at the beginning of the 20th century, Zverevo received the first stimulus for its development from the construction of the railway station necessary for the transportation of goods. Later in the sixties several coal pits were constructed in Zverevo's surroundings that brought about the foundation of a new working village Novo-Mikhaylovka close to the old village Zverevo. That new working settlement grew quickly due to the development of the mining industry and attraction of new working in-migrants. It overgrew the boundaries of its general plan and in 1989 at a national level it was decided to unite Novo-Mikhaylovka and Zverevo, assigning the new settlement the status of "city". In this new "city" three villages were included. The history of Zverevo is an excellent demonstration of the artificial form of urbanization during the Soviet period. In the Rostov region most mining cities and towns represent cases of artificial unification of villages, and this is clearly seen in these cities' planning structure: often there is no city core, the cities' districts are isolated one from another and have their own social facilities.

Population change.

The population of Zverevo was 20.437 people at 01.01.2015, which was just 72.5% of its population in

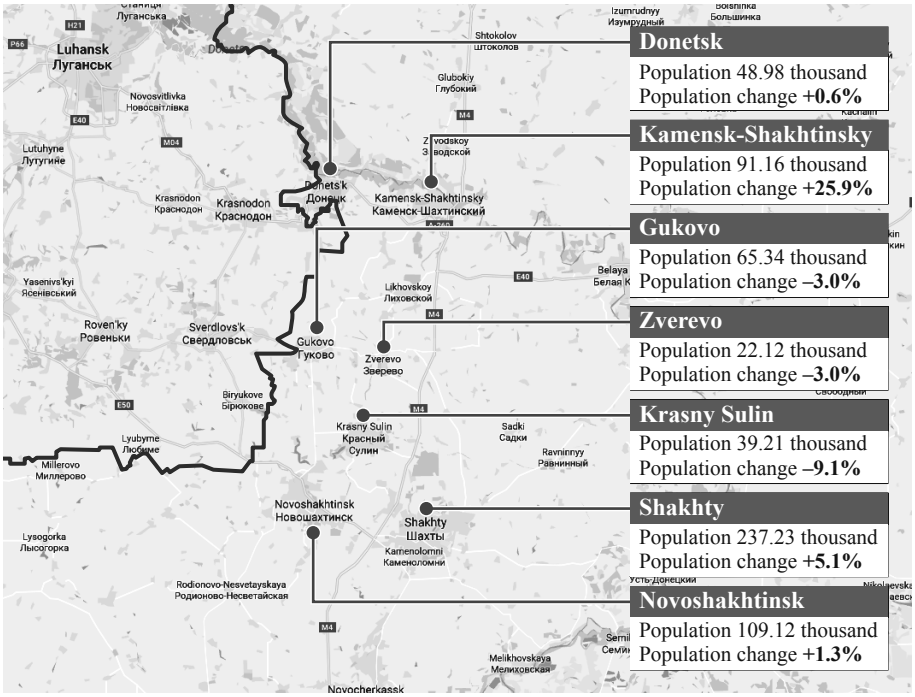


Figure 1. **Mining cities/ towns of Rostov region, their population number (thousand people) and population change 1989–2015 (%).**

Population change in 2000' due to inclusion into the city boarder villages:

a) Donetsk: in 2004 the village Gundorovsky is included into the town with the population number of 5.2 thousand people (11 % of city's population).
b) Kamensk-Shakhtinsky: in 2004 and 2005 two villages Zavodskoy and Likhovskoy were included into the city with the total population of 22.6 thousand people (30 % of city's population).
c) Gukovo: in 2004 the village Almazny is included into the town with the population number of 3.1 thousand people (5 % of city's population).
d) Novoshakhtinsk: in 2004 three villages Krasny, Sambek Sokolovo-Kundryuchensky were included into the city with the total population of 16.5 thousand people (16 % of city's population).
e) Shakhty: in 2004 three villages Ayutinsky, Maysky and Talovy were included into the city with the total population of 28.6 thousand people (13 % of city's population).

1989. During the Soviet period Zverevo was a constantly growing settlement and its population growth continued for a few years after the USSR collapse: in 1998 city's population reached 32.2 thousand people [17]. However, that positive situation was soon replaced by a marked population decline: the first Russian census in 2002 showed a population reduction of 10 % compared to 1989 [15]. Totally, in 25 years Zverevo's population loss was 27.5 % (since 1989). Compared to 1998, the year of the peak in population number, the city's demographic loss was almost 37 % in 17 years. The population decline is continuing: estimation done by the regional statistic service shows a population reduction to 19.9 thousand people at 01.01.2016 or by 2.5 % in just one year [15].

In addition to the decline in the number of inhabitants, the age structure of the city's population changed significantly. The percentage of working-age population fluctuated from 59 % in 1989 to 65 % in 2004 and to 62 % in 2011. The most notable change was in the components of dependents' groups: starting from the same percentage of population above and below working age in 1998 (about 20 % for each group), the age structure changed by a marked reduction in the number of children (to 14.1 %) and a growth in the above working age group (to 23.6 %).

Drivers of population change.

What are the factors behind the population change in Zverevo?

As aforesaid, the second demographic transition started earlier in the Rostov region than in many other Russian regions. Accordingly, in urban areas this process was even faster than in rural ones. Zverevo has been experiencing natural population decline during the whole period after the USSR collapse and there was no year characterized by a birth rate higher than death rate. The best indicator of natural population growth of –2.4 per

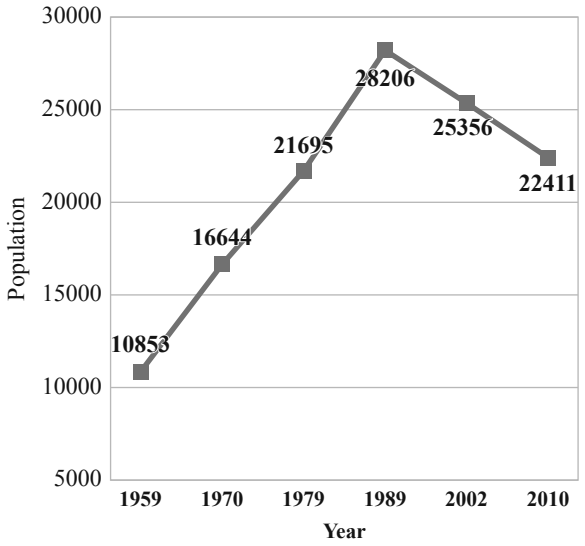


Figure 2. **Population change in Zverevo according to censuses of 1959, 1970, 1979, 1989, 2002, 2010 and 2015 population data.**

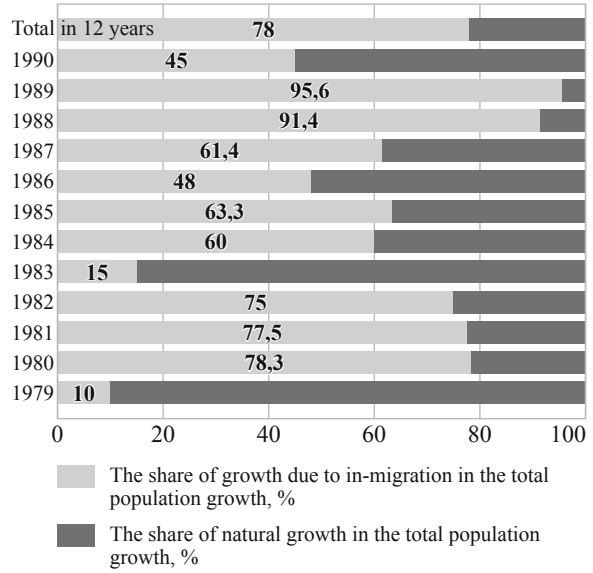


Figure 3. **The share of natural population growth and in-migration in total population growth, 1979–1990.**

1000 inhabitants was achieved in 2010 and was negative in any case.

The analysis of the economic situation at a municipal level in Russia faces a lot of difficulties due to the lack of data. Therefore, it may be examined through indirect indicators, such as the dynamics of economic development of local enterprises, the number of employees and unemployed, the relation between average salary and living wage [18], the cost of housing etc.

Since the beginning of Zverevo's industrial development, its population growth has been based on in-migration rather than on natural population growth. The graph below shows the share of natural population growth and in-migration in total population growth of Zverevo during the period 1979–1990.

Governmental support of developing industries became a negative factor after the Soviet system's destruction: cities left without governmental patronage and resources faced the impossibility of confronting challenges at the local level brought by the new economic system. The economic failure became the main cause of out-migration in Zverevo.

The city's economy has always been based on the work of one big enterprise – the coal mine Obukhovskaya, where 2.099 employees were working in 2015 (about 32 % of the total number of working people in Zverevo). The coalmine "Obukhovskaya" started functioning in 1978 with a production capacity of 3.0 million tons of raw coal per year. In 90' the volume of production was reduced significantly and every year it continued to decline, as did the number of employees. All the same, the production of the coalmine "Obukhovskaya" represents between 73 % to 90 % of the total domestic production of large and medium-sized enterprises in Zverevo

Other companies in Zverevo work in industry, agriculture, construction, trading and services; but they all are small companies. All the enterprises have been experiencing difficulties in their economic success and the situation

Table 1. **Coal mining by year by coalmine "Obukhovskaya" and number of employees [19].**

	2005	2006	2007	2008	2009	2010	2011
Coal mining, thousand tons	1048.3	937.2	943.2	539.3	721.4	530.5	333.6
% to 2005		89.4	90	51.5	68.9	50.6	31.9
Number of employees, people	2745	2545	2336	2047	1899	1748	1620
% to 2005		92.9	85.1	74.6	69.2	63.7	59.1

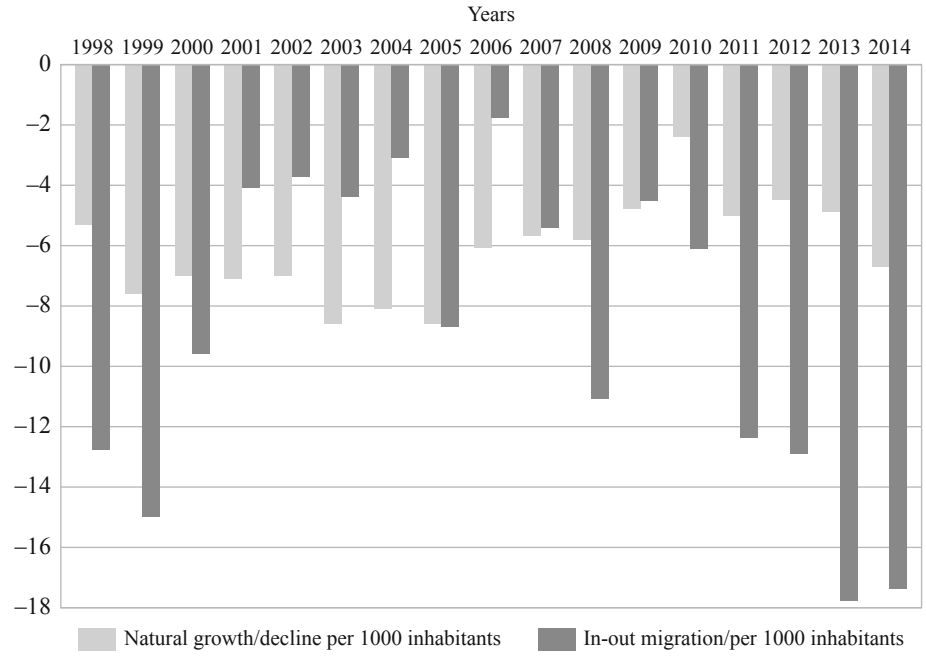


Figure 4. **Components of population change in Zverevo in 1998–2014.**

tends to worsen. Thus, the share of unprofitable enterprises in Zverevo after the crisis of 2008 reached 100 %. Analysis of the local budget shows its high dependence on gratuitous receipts from federal and regional budgets. The percent of these receipts in some years reaches 100 %.

In 2009 Zverevo officially got a status of "monogorod" – one-company town. According to the government resolution № 709 from 29.07.2014 [20], a one-company town should be an urban settlement or urban okrug with a population greater than 3.000 people with no less than 20 % of all employees working in one enterprise; the specialization of the main company should be in mining (with the exception of oil and gas extraction) or industrial production.

The data on unemployment is not representative: the official statistic shows people registered in the Employment Service. Some specialists state that the real level of unemployment in Russia is usually higher, sometimes by as much as 50 % to the official one. Officially the level of unemployment in Zverevo is not very high, it was less than 2 %. However, representatives of local and regional authorities claim that the level of unemployment in Zverevo is twice higher than average in the region [21]. Notably the percentage of working age people employed in Zverevo has constantly diminished almost the whole period after the collapse of socialism. The local statistic does not include the information on people working outside the town, but according to tax office data, in 2009 about 4,000 [21] of Zverevo's citizens were working in other cities (one quarter of the working-age population). It is possible to assume that the dwindling number of people working in Zverevo implies a growing number of people working outside the town: the town's location close to larger cities creates conditions for commuting.

The average salary in Zverevo is one of the lowest among the cities of Rostovskaya oblast'. During the whole period under review, the average salary has been growing, but the dynamic of its growth was very low. The analysis of a relationship between the average salary and living wage is more representative: from 1998 to 2011 this relation grew insignificantly from 1.79 to 2.2, which value corresponds to the poorest regions of the country [18].

Zverevo also demonstrates the lowest housing price per square meter in Rostovskaya oblast', which is much less even in comparison to the rural areas in the region. Thus, for the first quarter of 2016 the average price per square meter in Russia was 36.000 rubles and 35.257 rubles for Rostovskaya oblast [22]. In Zverevo the average price for the same period was 19.500 rubles: almost twice less than average for the country and the region. In 2015 when the average price in the rural municipal districts of Rostovskaya oblast' was at a level of 29–32 thousand rubles, in Zverevo it reached 19.3 thousand rubles [23].

The analysis of the demographic and economic situation in Zverevo lets us classify the city as a "downgrading area" [8] characterized by both economic and population decline. Looking at the data on the components of population decline it is easy to see that the indicators of natural population change have not been changed significantly, even if in the 2000s natural decline has played the crucial

role in demographic change. However, the dynamic of out-migration has deteriorated considerably in recent years.

This dynamic clearly demonstrates the worsening of the economic situation in Zverevo and the decreasing quality of its citizens' life.

Shrinkage consequences.

As Bontie and Musterd correctly noted, it is very complicated to distinguish between causes and consequences of the shrinkage phenomenon for a city [9]. Thus, for example, economic decline provokes out-migration and, vice versa, declining population makes a city less attractive to investments due to the lack of labor force. Degrading urban infrastructure is a direct consequence of economic decline and deficit of the city budget, but it may also be a cause for out-migration for the citizens searching for the better quality of urban environment. However, the most visible features of shrinkage attracting attention are expressed through the degradation in physical infrastructure and urban environment: abandoned houses, unused land plots or surplus infrastructure. Generalizing, it is possible to say that urban shrinkage itself is a result of the impossibility of the physical city's fabric quick adaptation to rapidly changing socio-economic conditions.

Unfortunately, analyzing the actual presence of abandoned property and vacant land in Russian municipalities is a challenging task, because most municipalities do not have any database on abandoned property: usually they started making an inventory recently and do not have the full information. Moreover, the process of determining property's ownership is far from being completed: even the registration of rights is not finished everywhere. Nevertheless, a visual analysis of the city's territory demonstrates the features of physical shrinkage in the municipality.

In Zverevo the network of social facilities has been notably reduced: the number of kindergartens decreased from 15 [17] to six [24], the number of schools has fallen from nine [17] to four [24], the capacity of the local hospital has been reduced from 360 to 125 beds [17]. There are abandoned buildings of different functions and property within the city's borders: kindergartens, the House of Pioneers, office buildings of various services and industrial buildings.

Analysis of municipal and regional documents and mass media publications lets us make a conclusion about serious problems existing in engineering infrastructure development and maintenance in Zverevo. As in many small towns in Russia, in Zverevo the capacity of the engineering infrastructure has not reached a minimum level for serving existing buildings. The main problems Zverevo has been experiencing have been due to actual absence of a city sewage treatment plant [25] and the high level of deterioration of the water supply and sewage systems. According to the governor's claim, in 2010 in Zverevo 57 percent of the water supply to consumers was lost because of bad conditions of the water supply network [21]. As written in "Strategy of socio-economic development of the municipality "The City of Zverevo" for the period until 2020" [19], the construction of apartment buildings in Zverevo stopped in 1991 due to the exhaustion of capacity limits of wastewater treatment plants. The Strategy named a high level of deterioration of engineering infrastructures or their absence as the main limit for the town's development.

There is no information about abandoned houses and apartments in Zverevo, but analysis of official documents and information in media demonstrates a presence of demand for new housing due to the bad conditions of the existing dwellings and mismatch of housing provision to modern standards of living conditions. The housing market in Russia is still far from being satisfied. At the same time, there is almost no new construction in Zverevo, because of infrastructural limits and the low purchasing power of local population. In spite of a minimal dynamic of dwelling construction, the number of square meters of housing pro capita becomes higher every year due to the depopulation factor. Thus, in 2011 in Zverevo there were 23.1 square meters pro capita that was more than the average number in Rostovskaya oblast' (21.9 sq. m per capita). The growth of the indicator in 1994–2011 was 134 % [17]. This indicator is one of those used for the evaluation of municipal efficiency, so, in this case shrinkage formally results in a positive indicator of the local authority's work.

The city's disadvantageous economic position and the negative aspects of its demographic development are serious challenges for its future. These challenges have been amply discussed by the local and regional government, but the situation is continuing to worsen. Analysis of the current and projected trends of demographic and economic development does not give any reason for optimism about the possibility of a radical change of the situation and a return to growth. That means a necessity to consider shrinkage in planning and policy making not only at a local level, but at a regional and national level as well. However, existing documents do not represent an example of a realistic view of the future.

Strategies, plan and programs at national and regional levels and their importance for Zverevo

As aforesaid, the macro processes aggravating urban shrinkage at the local level are difficult to face by the local authorities. Accordingly, it is important to know which efforts are done at the regional and the national levels of governance and which advantages they bring to the municipality.

First, the demographic development in Russia has been a subject of the national policy for quite a long period:

the Russian demographic crisis has been widely discussed by scientists and policy makers, it is considered as a factor influencing national security and the level of awareness about the problem is quite high. The policies at different levels of governance in Russia dealing with demographic problems are represented by demographic, social and family policies addressing different aspects of demographic development. Thus, demographic policy aims to affect self-reproduction of the population: the focus of demographic policy is the natural aspects of population reproduction. Social policy deals with employment, level and quality of life, support of the social sphere and prevention of social conflicts. Family policy as a part of social policy focuses on support for families, strengthening of the family institution, development and protection of its rights and interests, development of legal regulations and social guarantees. All three directions of governmental policy are strongly interconnected, nevertheless, their components are represented differently in regional and municipal policies: different regional governments and local authorities see the priorities in the development of policies affecting demographic development in different ways. This specific attitude is implemented in the structure of government and local authorities: the presence of departments dedicated to particular aspects of demographic question.

In 2007 the principal document of Russian national demographic policy was approved: "Demographic policy concept of the Russian Federation for the period until 2025" [26], which had as goal the improvement of the main demographic indicators. The different programs and initiatives have been developed according to specific concepts, such as the provision of maternal capital [27], for example. The effects of the national policy are questioned and discussed by demographers, there is no clear answer if the improved demographic situation has been the result of the national demographic policy or if it was the natural consequence of the demographic structure change of the Russian population. Nevertheless, this policy has been supported at the regional level in all subjects of federation.

In Rostovskaya oblast the demographic policy is under the jurisdiction of the Ministry of Labor and Social Development and its Department of demography, labor force and the development of human resource capacity. The objective of the demographic policy of the Rostov region is to stabilize the population for the period from 2016 up to 2025 and the creation of conditions for its growth in 2025, as well as improving the quality of life and increasing life expectancy from 70 years in 2016 up to 75 years in 2025 [28]. The demographic policies both at national and regional levels envisage the work of many ministries and consider a lot of aspects influencing demographic development that result at a local level in the development of social infrastructure, housing construction support, financial help to families etc. In reality, such programs tend to create equal rights for all citizens of Russia and do not prevent out-migration from particular cities.

Regarding economic development, the main goal seen by local authorities and regional government is diversification. Zverevo is included in the list of one company towns and in the federal program of support for such towns. It is classified in the second category of one-company towns that risk a worsening economic situation [20]. The idea of the regional government is to save the coalmining industry with the development of new industrial enterprises of different profiles: surplus infrastructure created for the coalmine industry may become an advantage for new actors. Different programs at a regional level for the attraction of investments and small business development have been approved. However, hopes for active appearance of new small business face the inertia of the local population whereas the implementation of new big industrial projects takes time: economic returns will be possible decades later. Moreover, implementation of ambitious projects is vulnerable to the macro economic and political processes that make it difficult to attract investments. Since 2012 in Zverevo a project of modernization of the coalmine "Obukhovskaya" has been ongoing: the volume of coalmine production has increased significantly since 2012. Despite this positive change, out-migration in recent years became even more intensive. All other investment projects offered for Zverevo are at the stage of discussion and design and the possibility of their realization is very uncertain.

The regional strategic documents are represented by the Strategy of Socio-Economic Development [29], the Scheme of Territorial Planning of Rostovskaya Oblast [30] and the Scheme of Territorial Planning of the Internal Western Area (Eastern Donbass) [31]. In all three documents Zverevo is classified as the city with the worst conditions for future development, and economic diversification with saving the coal mine as the leading sector seems the main solution for the area. There is also a very optimistic assumption in the regional territorial scheme about the possibility for Zverevo to become a new center for the coal mine industry. Notably, there are no demographic projections in these documents, the Strategy of Socio-Economic Development and the Scheme of Territorial Planning both refer to the Concept of Demographic Policy in its part concerning future demographic situation, which do not include the demographic projections for the cities of Rostovskaya oblast as well.

Local policy in Zverevo

A vicious circle appearing in a shrinking city creates difficulties in identifying the priorities in policy. In the local strategic documents and programs the mono-sectorial character of Zverevo's economy is defined as the main

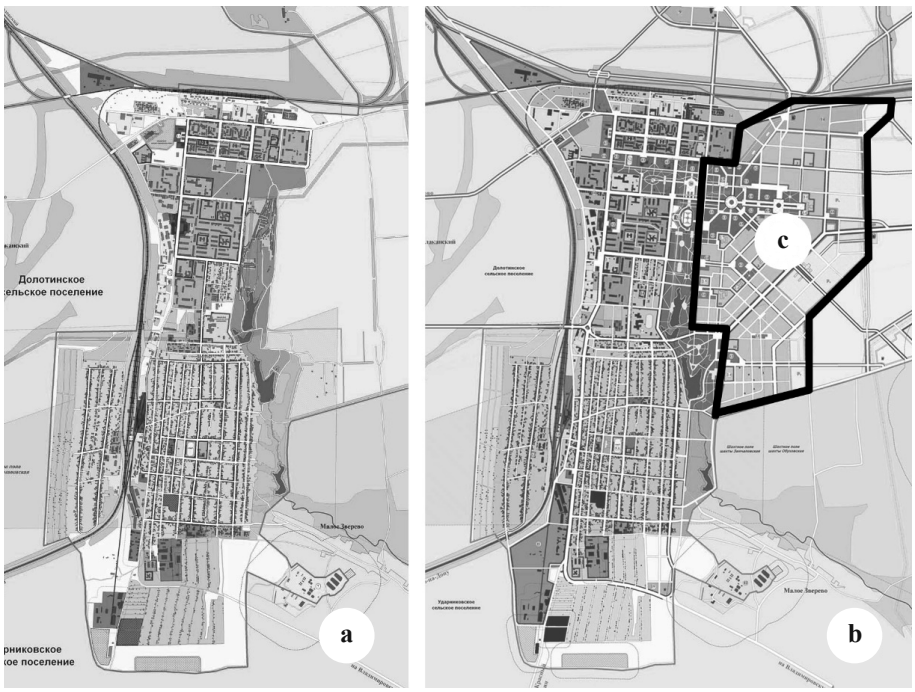
weakness of the municipality that provokes out-migration [19][24], but, at the same time, the high level of out-migration and the consequent reduction in the numbers of the economically active population are listed among risk factors for investors.

At a local level two strategic documents have been approved: the Strategy of Socio-Economic Development [19], which is quite an unusual document for small cities, and the General Plan [32].

The Strategy of Socio-Economic Development was approved in 2012 and sets the following main goals in economy: creating an innovative industrial complex for deep processing of coal, development of a processing industry of agricultural products and development of transport and logistics functions. The part of the document concerning demographic development is based on the assumption of a possible improvement of the situation due to economic diversification, but there is no population projection. The document refers to the regional Concept of Demographic Policy.

The general plan of the urban okrug "Zverevo" was developed in 2009 and approved in 2011. Interestingly, the document includes the analysis of the previous city's general plan of 1991. It is noted that the general plan of 1991 assumed a population growth from 30.7 thousand people in 1991 to 49.0 thousand people in 2011. The planners emphasized this "fundamental mismatch" of planned and actual indicators and the fact that depopulation trends had not been considered in the document. However, the new general plan does not consider the current demographic situation as well and constructs its demographic projection on a simple assumption of possible future economic development and in-migrant flows and improvement of natural demographic indicators due to the better socio-economic situation. The general plan predicts growth in Zverevo's population to 30.0 thousand people in 2030 for the municipality (29.8 thousand for Zverevo itself) and to 35.0 thousand people in case of a successful economic renaissance, were Zverevo to become a center of the settlements' network. Accordingly, the general plan designed for the city's expansion and for the development of green fields. The area covered by housing according to the document should be increased from 285.4 ha to 427.6 ha or by 1.5 times. The housing floor area should grow from the existing 520.1 thousand square meters (2009) to 900 thousand square meters or by 1.7 times. The General Plan also envisages the construction of many objects of social infrastructure: the number of schools is projected to increase from five in 2009 to eight in 2030 (in reality the number has decreased to four since 2009), the number of kindergartens should increase from seven in 2009 to nine in 2030 (in reality the number has declined to six).

On the contrary, the population of Zverevo has declined since from 23,262 in 2009 to 19,920 in 2016 or by 14%. Current trends already clearly demonstrate the impossibility of reaching the projected indicators by 2030. However, the green field development for the housing construction is included in the city's investment program.



a. Plan of current use of the territory
b. Plan of the perspective development
c. The area of new development

Figure 4. **Drawings from the general plan of the urban okrug «The city of Zverevo» [32].**

Attempts to develop this area as a residential one were done 10 years ago and several land plots were formed, but due to infrastructural limits and low incomes of the local population, the development of this area is frozen.

Conclusions

Although the population decline and urban shrinkage are both phenomena presented in many Russian cities, the policies at different levels of governance include just fragmented efforts addressing some problems caused by shrinkage and there are no strategies considering shrinkage phenomenon as a complex multidimensional issue.

The survey presented in this paper shows an inconsistency of planning and programming documents at a national, regional and municipal level and their disregard for the current demographic situation and its future development. Despite the presence of an analytical description of demographic development in most documents, their measures do not appear to be an adequate response to the appearing challenge. Population decline caused by macro processes cannot be addressed at local level, but the policies developed at the state level are too general and do not consider the local specific.

Despite the gravity of the demographic situation in Zverevo, strategic documents do not pay enough attention to it. The total absence of adequate population projections, of the tools for monitoring and adaptation of the local strategies to the changing situation, an excessively optimistic view of the future and exaggerated expectations of the state support's possible positive effects are the weaknesses of Zverevo's policy. Zverevo is a good example of the growth paradigm as the only one considered in planning in Russia, in which shrinkage must be stopped or avoided [9]. In this scheme, population growth is a measure for success [8] and, accordingly, there is no space for pessimistic projections. In Russian current situation we are far from planning for shrinkage, because the phenomenon has not been recognized and even discussed among planners and policy makers. Working according to growth paradigm, planners and policy makers do not have the appropriate background for facing the challenges provoked by urban shrinkage and planning in such new conditions [33].

References:

1. *Martinez-Fernandez, Cristina, Ivonne Audirac, Sylvie Fol, and Emmanuèle Cunningham-Sabot*. "Shrinking Cities: Urban Challenges of Globalization." International Journal of Urban and Regional Research 36, no. 2 (March 1, 2012): 213–25. doi:10.1111/j.1468-2427.2011.01092.x.
2. *Haase, Annegret, Dieter Rink, Katrin Grossmann, Matthias Bernt, and Vlad Mykhnenko*. "Conceptualizing Urban Shrinkage". Environment and Planning A 46, no. 7 (2014): 1519–34. doi:10.1068/a46269.
3. *Olsen, Aksel K*. "Shrinking Cities: Fuzzy Concept or Useful Framework?" Berkeley Planning Journal 26, no. 1 (January 1, 2013). http://escholarship.org/uc/item/9cd585dr.
4. *Sassen S.* The Global City: New York, London, Tokyo. Princeton University Press. 1991.
5. *Lesthaeghe R.* The unfolding story of the second demographic transition. Popul Dev Rev.2010;36(2):211–251.
6. *Rink D.* (coordinator). Shrink Smart – The Governance of Shrinkage within a European Context. (2012). Collaborative research project. Leipzig, Germany.
7. *Fol S., Cunningham-Sabot E.,* "Déclin urbain" et Shrinking Cities : une évaluation critique des approches de la décroissance urbaine ", Annales de géographie 4/2010 (No 674) , p. 359–383.
8. *Wiechmann, Thorsten, and Karina M. Pallagst*. "Urban Shrinkage in Germany and the USA: A Comparison of Transformation Patterns and Local Strategies: Urban Shrinkage in Germany and the USA." International Journal of Urban and Regional Research 36, no. 2 (March 2012): 261–80. doi:10.1111/j.1468-2427.2011.01095.x.
9. *Bontje, Marco, and Sako Musterd*. "Understanding Shrinkage in European Regions." Built Environment 38, no. 2 (June 1, 2012): 153–61. doi:10.2148/benv.38.2.153.
10. *Volkova O., Sokolov A., Terentiev I.,* "Issledovanie RBC: Kak vymitrayut Rossiyskiye goroda" (RBC Survey: How Russian Cities are Dying), (January 22, 2015). URL: http://www.rbc.ru/special/society/22/01/2015/54c0fcaf9a7947a8f1dc4a7f
11. *Clémentine Cottineau*, « A multilevel portrait of shrinking urban Russia », *Espace populations sociétés* [En ligne], 2015/3-2016/1 | 2016, mis en ligne le 20 mars 2016, consulté le 11 mai 2016. URL : http://eps.revues.org/6123.
12. *Batunova*. "Shrinking Cities of Southern Russia: Specifics of the Shrinkage Pattern," 2015. doi:10.13140/RG.2.1.4671.2160.
13. Russian regions: what social space we live? Independent Institute for Social Policy, Moscow, Pomatur, 2005.
14. *Makarenko V.* Blesk i nischeta antratsita (Shine and poverty of anthracite). Novaya Gazeta, №54, 21 May 2014. URL: http://www.novayagazeta.ru/society/63641.html
15. Database of the Federal State Statistic Service, [e-resource], URL: http://www.gks.ru/
16. *Lurie, P*. Great Russia. All cities from Kaliningrad to Vladivostok. Litres, 2015.
17. Database "Multistat", [e-resource], URL: http://www.multistat.ru/
18. *Sokolov A., Terentiev I., Volkova O.* "Issledovanie RBK: samyie bogatyie I samyie bednyie goroda Rossii (RBC survey: The richest and the poorest cities of Russia). URL: http://www.rbc.ru/special/society/13/04/2015/552a6a419a79471fcb568dc8
19. Strategy of socio-economic development of the municipality "The City of Zverevo" for the period until 2020. Approved by City Council decision №102 from 31.07.2012.
20. Russian Federation Government Resolution dated July 29, 2014 N 709, Moscow, "On the criteria for inclusion of

municipalities of the Russian Federation to the single-industry (one company towns) and on the categories of single-industry municipal formations of the Russian Federation (one-company towns), depending on the risk of deterioration of their socio-economic conditions".

21. Fragments of the speech of the governor V. Y. Golubev at a meeting in the city administration of Zverevo, August 20, 2010. URL: http://www.donland.ru/Default.aspx?pageid=92135
22. Order of the Ministry of Construction and Housing and Communal Services of the Russian Federation (Ministry of Construction of Russia) dated December 28, 2015, N 951, Moscow. "On the norm of the cost of one square meter of living space in the Russian Federation in the first half of 2016 and the indicators of average market cost of one square meter of living space across the Russian Federation subjects in the I quarter of 2016".
23. Resolution of the Administration of the Zverevo № 993 dated 28.12.2015 "On approval of the average market price of 1 square meter of housing in the 1st quarter of 2016".
24. Investment passport of the municipality "The City of Zverevo" of Rostovskaya oblast. 2014.
25. *Soloviyov M. Y.* Sostoyanie vodosnabzheniya i vodootvedeniya naselyonnyh mest Rostovskoy oblasti (Conditions of water supply and wastewater systems in the settlements of Rostovskaya oblast). Kachetvenny product. 2010. URL: http://www.kprodukt.ru/node?q=node/482
26. Demographic policy concept of the Russian Federation for the period until 2025. Approved by Presidential Decree dated October 9, 2007 № 1351.
27. Federal law from 29.12.2006 N 256-FZ "On additional measures of state support for families with children".
28. Demographic policy concept of the Rostov region for the period until 2025. Approved by the Administration of the Rostov region from 16.12.2009 № 672.
29. Strategy of socio-economic development of the Rostov region for the period until 2020. Approved by the Resolution of the Legislative Assembly of the Rostov region from 30.10.2007 № 2067.
30. Scheme of territorial planning of Rostovskaya oblast'. Approved be the Resolution of the Administration of the Rostov region from 21.12.2007 N 510.
31. Scheme of territorial planning of Western interregional area (Eastern Donbass), 2008. URL: http://www.donland.ru/Default.aspx?pageid=89328
32. General plan of the urban okrug "The City of Zverevo". 2009. Approved by City Council decision № 69 from 24.11.2011.
33. *Pallagst, Karina, Terry Schwarz, Frank J. Popper, and Justin B. Hollander*. "Planning Shrinking Cities." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, October 26, 2009. http://papers.ssrn.com/abstract=1616130.