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## **MAPPING THE NORTH CAUCASUS: DEMOGRAPHIC GRADIENTS AND INVESTMENT RISKS**

**Abstract.** The article examines approaches to the creation of geoinformation support in the field of socio-demographic and investment development of polyethnic territories on the example of the North Caucasus. With the help of the created geodatabase and maps, an assessment is made of the influence of ethnic mosaicism, the nature of the demographic and migration processes of municipalities on the investment development of the region.

**Key words:** geoinformation monitoring, demographic processes, investment potential, conflicts.

**JEL CODES:** J00, R11

### **I. Geoinformation support of research and issues of information sources**

The Northern Caucasus is one of the most peculiar regions of Russia from the social and demographic standpoint. Here in a comparatively small area there are developed, stable peripherally and stably lagging regions / municipalities. Understanding the essence of these issues is impossible without system analysis based on the use of diverse spatial data and geoinformation technology. The paper uses the “open” geoinformation platform QGIS. It is based on the processes of updating data from diversified sources, spatial analysis, the production of final cartographic works.

Diversified sources of information are used in the paper: official Rosstat and regional statistical departments data, actual materials from household registers of municipalities, data from social networks, as well as a number of other statistical sources. The key idea of creating a geodatabase is to collect, systematize and process information at the municipal and settlement levels, which

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undoubtedly gives an opportunity to expand the research potential of the socio-demographic and investment landscape of the North Caucasus.

This approach is primarily due to the extremely low quality of official statistics. For example, the difference between *de facto* residing and *de jure* registered in some parts of the North Caucasus can range from 15 to 35%. The reason is the per capita financing of municipalities. Often, the authorities are directly interested in the fact that official sources of information do not record the true extent of the decline in the population [Belozerov et al., 2010; Belozerov et al., 2014; Kolosov et al., 2016; Shchitova, Chikhichin, 2014].

Another group of reasons is the change in accounting systems used by Rosstat itself. Thus, in 2001, the registration of ethnic aspects of the natural movement of the population (the form AO3 — born and died by nationality) ceased to exist. In 2007, Rosstat abolished statistics describing the ethnic composition of migrants (the form P12 MN1 — arrived migrants by ethnicity, the form P12 MN1 — departed migrants by ethnicity). It is important to note that the arrival / departure coupons of migrants and the records of births and deaths still contain a graph of ethnicity and are filled in many municipalities, but Rosstat does not process this data.

Thus, modern research of demographic and migration processes requires a cautious approach to the choice of sources of information. This fact has particular importance for an objective analysis of the situation in multi-ethnic areas, where the nature of socio-demographic development directly affects the formation of conflict potential.

## II. Demographic and migration processes

The North Caucasus is a region with a particular character of ethnodemographic and migration processes, which has an impact on the sustainability of Russia's spatial development as a whole.

We examine demographic and migration processes within the natural (slopes of the Caucasus mountains) and economic (shaped during the decades) borders of the Northern Caucasus. Here exist the areas of compact and mixed living of different ethnic groups, stable economic and ethno-cultural ties between them, and a variety of reproductive behavior.

In terms of birth and death rates, the North Caucasus is quite clearly divided into a “relatively successful South” and “a dysfunctional North.” The range of the total fertility rate ranges from 25–26 to 10–11‰. In all the republics of the North Caucasus this indicator, despite a slight decrease, remains quite high. When moving to the northwest, the birth rate falls and reaches its minimum in the Krasnodar Krai. At the same time, one can not fail to notice the positive trend of slowly growing birth rates in the lowland regions, which is indicative not so much of the improvement of the social and economic situation here as the

change in the ethno-demographic structure of the population. At the same time, it should be noted that in all the regions of the North Caucasus, as well as in the country as a whole, in the 1990s and early 2000s, the birth rate was noticeably lower than nowadays, and a kind of negative peak came to the very border of the centuries, which was a reflection of the widespread long-term demographic crisis caused by serious political and socio-economic upheavals (Fig. 1).



Fig. 1. Birth rates in cities and regions of the North Caucasus (2010–2016).

Mortality of the population in the Krasnodar and Stavropol Territories is slightly lower, but close to average Russian indicators, while in the republics the rates of the crude death rate are minimal. Its values depend on at least two characteristics of the population.

First, on the life expectancy, which is the highest in the North Caucasus republics: In Ingushetia — almost 81 years, in North Ossetia — almost 79 years, in Daghestan, Kabardino-Balkaria and Karachay-Cherkessia — 78 years.

Secondly, mortality directly depends on the age structure of the population. For example, the share of residents under the working age in the Stavropol Krai is 18%, and of pensioners — 22%, in Chechnya these figures are 35% and 9% respectively, in Ingushetia — 31% and 10%, in Daghestan — 27% and 11% [Kolosov et al., 2016].

From the regions of the North Caucasus, and indeed the country as a whole, the highest natural increase in the population is in the following republics: in Chechnya — 19.9 ‰, in Ingushetia — 17.7 ‰, in Daghestan — 13.3 ‰. In the Stavropol Krai, the natural growth rate is 0.9‰, in the Krasnodar Krai — 0.3 ‰, and in Adyghea there is a natural decline in population (Figure 2, 3).



Fig. 2. Death rates in cities and regions of the North Caucasus (2010–2016).

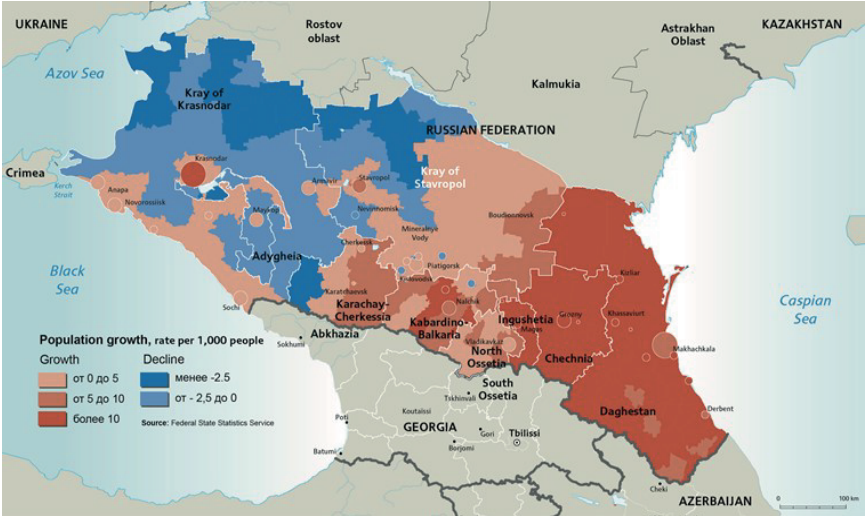


Fig. 3. Population growth in the cities and regions of the North Caucasus (2010–2016).

On the migration map of Russia, the North Caucasus serves as a transition zone for migrants from the South Caucasus states. Its regions found themselves on the path of a powerful ethnic migration stream, which for a long time was dominated by forced migrants, including ethnic Russians.

Simultaneously, the plains are a kind of “corridor of migratory winds” between the unstable North Caucasian republics and the rest of the country. Being at the forefront of the Caucasian issues, the Krasnodar Krai, and especially the Stavropol Region, turned out to be a Russian springboard in the Caucasus and at the same time a buffer that mitigates the severity of the ethno-political and socioeconomic crisis [Belozеров, Suprunchuk, 2012]. The direct location near the hot spots of Chechnia, Daghestan, the Ossetian-Ingush conflict zone, etc., as well as no less powerful centers of interethnic tension in the South Caucasian states (Georgian-South Ossetian, Azeri-Armenian, Georgian-Abkhazian) caused a massive influx of forced migrants into the Stavropol region, the Don and Kuban. Gradually, the stressful factors of migration lost their significance. The geopolitical lull, positive changes in the socio-economic and ethno-political situation have increased the influence of the economic factor on the course of migration processes.

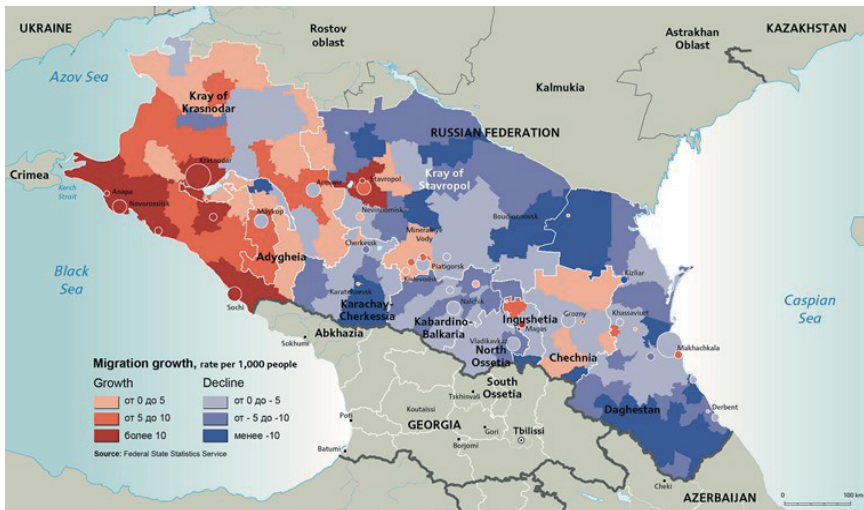


Fig. 4. Migration rate in cities and regions of the North Caucasus (2010-2016)

The complex modern nature of the economic development of most of the municipalities of the North Caucasus, the significant regional disparities in the distribution of investment and the national characteristics of demographic behavior (primarily a significant increase in the population due to natural growth in the national republics) determined the nature and extent of intra-regional migration.

On the map (Figure 4), the “regional trends” of migration are clearly visible: “village-to-city”, “small city-to-big city”, “big city-to-regional capital”, “East-to-West”. It is also clear that the cities continue to grow at the expense of rural

areas. The resource of “donors”, though, is almost exhausted. Plus, the suburbs of the regional capitals are actively growing: Mikhailovsk, Kaspiisk, and so on. This is because the cities are “clamped” in their administrative borders and almost do not have free land for housing construction.

The key, and most tragic feature of migration processes in the North Caucasus is the outflow of North Caucasian youth to the ranks of ISIL. According to various estimates, from 2012 to 2015 the migration flow from the regions of the North Caucasus was about 8 thousand people. (according to official data of the Federal Security Service, FSB — about 3 thousand people). At present, the migration vector is one-sided, most die in battle [Kolosov et al., 2016]. Examples of the return of people to their homes have been single cases, and practically, they are not voiced by official authorities. At the same time, there is a possibility of reverse migration, when well-trained and ideologically brainwashed people will be able to use the experience gained in the struggle for the redistribution of resources in the Caucasus. In addition, in the context of the economic crisis and the general decline in the standard of living, the proportion of the population that is loyal to the radical struggle for Islamic values in the North Caucasus is growing.

In general, the overall scale of migration has decreased because of the depletion of migration resources of the countries of Transcaucasia and other regions of the post-Soviet space: all those who wanted and could leave there have already done so. At the same time, interregional migration growth in the plains regions will remain positive because of the high demographic potential in the republics. The population, and above all young people, will leave there, choosing more economically developed territories as their new residence.

Thus, in general, the North Caucasus has a powerful and growing demographic potential. Practically all regions of the North Caucasus demonstrate population growth, while the rest of Russia is characterized by a negative population growth trend. However, it must be borne in mind that the mismatch of economic and demographic “well-being” is becoming a source of one of the key contradictions that increase the instability of the socio-economic and political development of these territories.

The main source of increase in the population of the republics of the North Caucasus is natural increase. However, per capita incomes lag behind population growth, despite some revival in the economy. High fertility and life expectancy increase the dependency burden on the economically active population, in the structure of which the unemployed begin to predominate.

The mismatch of demographic and socio-economic trends is becoming a source of political instability for the republics. The concentration of regions with high fertility and youth age structure of the population in one place requires an adequate response from federal authorities. Demographic policy should take into account regional specifics, and measures aimed at smoothing contrasts



in social and economic development and quality of life of the population should take into account ethno-demographic features.

### **III. “Anchor” investment projects: risks and potential for their implementation**

The first few years of the State’s activation in the area of economic policy in the North Caucasus have convincingly demonstrated that not all standard mechanisms for attracting investments and development of territories work in this region. At present, priority is still given to large “anchor” projects, which are designed to immediately response most of the burning issues in the employment and filling of regional budgets. The multiplier effect on the economy of the regions of the North Caucasus is expected from such projects.

In the first year of the existence of the North Caucasus Federal District, two powerful development institutions were created to radically change the investment landscape of the entire region: OJSC North Caucasus Resorts (NCS) and OJSC North Caucasus Development Corporation (NCDC). Both companies are organized as a subsidiary of Vnesheconombank and JSC “Special Economic Zones” and have stable financial background.

Between 2012 and 2016 there were over 30 projects in the investment portfolios of two companies totaling 1.2 trillion rubles, including the “Tourist and recreational cluster” (Arkhyz, Veduchi, Elbrus-Bezengi, Mamison, Caspian coastal cluster, Lagonaki, Matlas, Tsori, SEZ in the Stavropol Territory) actively promoted by Aleksandr Khloponin, the Vice Prime Minister and the Authorized Representative of President Putin in the North-Caucasus Federal District.

The logic of the strategic priorities for the development of the North Caucasus economy is distributed along the following lines: agro-industry, tourism, construction and the construction materials industry, small-scale energy, transport. Each of these directions is provided with a well-defined channel of state support, and a pool of potential investors has formed (the practicability of which is extremely difficult to judge. Thus, for example, none of the declared projects of the Interros Group has ever ventured to start investing in the Caucasus).

The first wave of problems faced by the authorities was due to the poor quality of drafting documents on the implementation of investment projects. Financial models, business plans and socio-economic grounds simply could not stand the criticism of experts involved in shaping the list of priority projects. Against this background, the level of lobbying and pressure on the authorities behalf local elites, wishing to get state guarantees for the implementation of their own (often on ethnical grounds) businesses at all costs, was off scale. Hence the scandalous nature of the elaboration of the Strategy for the Socioeconomic Development of the North Caucasus until 2025. The realism of its activities was simply impossible to estimate and measure [Kolosov et al., 2016].

The second group of problems appeared where they were not expected - on the ground. The matter is that the implementation of projects with state support is possible only on a juridically “clean” plot of land. For example, in Dombai (a logical place for a cluster), such a site simply was not found. In many respects, the choice in favor of Arkhyz is related to the relatively easy procedure of obtaining the required territory. But even there there was a strong resistance from the local population, including shepherds, traditionally engaged in pasturing cattle. This problem has a special resonance at the present time both in the Caspian and other regions of the North Caucasus.

The third and most important is the underestimate or explicit ignoring of the ethnodemographic, migration, economic and socio-political features of the North Caucasus. Few of the developers of such projects were aware of the social landscape of a cluster, a factory, a hotel, etc. If geology and engineering investigations were more or less quickly solved, other factors of the development of the territory were simply not taken into account. In this sense, mega-construction projects (like Olympic sites in Sochi or the APEC Summit) here pose colossal risks, and many of them resemble time bombs. Therefore, the absolute majority of projects are in a frozen or semi-frozen state (Fig. 5).

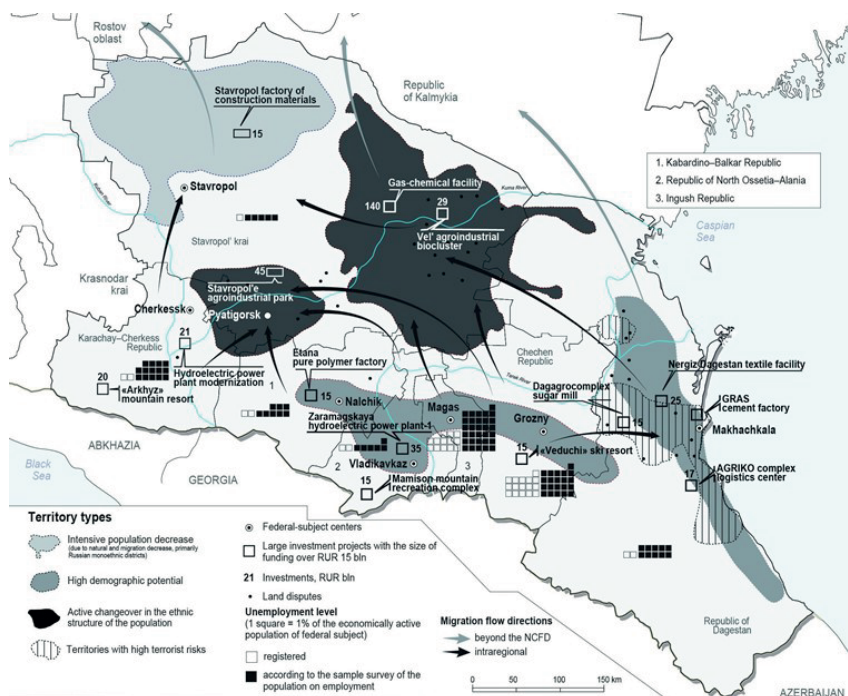


Fig. 5. “Anchor” investment projects of the North Caucasus (2012–2016).



The “anchors” are expected to provide jobs to local residents and stop the outflow of young people, but in fact it turns out on the contrary. The fact is that the mechanism for the appearance of large business is often different. Before entering the municipality, players try to negotiate vertically and horizontally with regional and local authorities. Often, this is a guarantee of stability and investment security. Accordingly, the holders of key competencies in government bodies should not change. Local elites, primarily the government, are actively involved in business activities. The authorities are gradually beginning to carry out not their direct responsibilities related to the management of the territory of the municipality, but is engaged in the development of a particular business.

Regretfully, this fact is typical for most of the country, but for municipalities where ethnic factors strongly affects economic development it is doubly risky.

Since large business is closed, and small and medium businesses do not have sufficient resources, business activity in the municipality is not being formed. Small business is strongly disconnected and focuses mainly on providing services to the public. Most entrepreneurs at the municipal level are not satisfied with the current state of their businesses. Many of them associate a reduction in their incomes with increased competition and a decline in the population. For many, the problem is the underestimated, in their opinion, social status and insufficient attention to their problems behalf the local authorities. As a rule, castes do not mix. Examples of successful municipal businessmen coming to power are rather few.

As a result, human, managerial and business lifts are clogged, and large projects have the opposite effect - there appears a social tension that leads to a migration outflow of the population.

Of course, the local population and their businesses should be built into the process of forming investment “cores”. It’s about local businesses within projects: shops, restaurants, rentals, etc. Without observing this condition, social tension will continue to grow. Residents are with good reason afraid that they will be pushed back by the big players.

At the stage of planning investment projects, the interests of the local population must be clearly identified and formulated. For them, options for participation should be developed. And it is necessary to focus not only on those living in a conditional 30-kilometer zone, but also much further. For the population of such territories, other proposals are needed, for example, the organization of traffic flows in accordance with routes, the creation of local points of attraction, the production of ecological and traditional food products, souvenirs, etc.

Therefore, it is necessary to take into account factors such as land, ethnic, religious, clan relations, which have a huge impact on the economy of the North Caucasus. And most importantly - it is necessary to take into account the specifics of each individual settlement.

The municipal level of power is closest to the people, but it is also the most complex. Most municipalities are deeply subsidized territories with extremely low management efficiency, and, unfortunately, almost nothing has changed over the entire post-Soviet period: executives mostly exist within the framework of the Soviet management paradigm, many can not and do not want to change.

Swapping heads of subjects can not change everything: the devil hides in details, and in this case — on the lower level of power. And in the North Caucasus this takes a very special form, since the boundaries of municipalities and even the subjects of the federation do not coincide with the boundaries of traditional resettlement, which means that the same investor does not have a ready answer to the main question: with whom to negotiate?

These factors until recently were not taken into account in the investment agenda in the North Caucasus, but they are forming a high conflict potential. Effective businessmen react to them more sensitively than the authorities, and do not go to those territories where this potential exists — for example, there is not a single large cattle-breeding holding that would work in the eastern regions of Stavropol, although theoretically the opportunities for their appearance are very good.

As before, small and medium-sized businesses in the North Caucasus are largely in the shadow or semi-shadow zone, and there are practically no convincing examples of them. One of the tools for this is the creation of industrial parks and production clusters, when a concentrated group of residents, including local producers, is formed on a small territory.

In recent years we've seen a number of such attempts in the North Caucasus, but mostly they ended up with appearance of big players affiliated with the authorities and a significant part of the local asset was left behind. The big players, in turn, play cautiously — with an eye on the sanctions, the ruble rate and so on. We've got another paradox: businessmen of the North Caucasus invest in the economy of other regions of Russia and abroad, but there is no opposite investment vector. Therefore, there is no impressive economic success in the North Caucasus from the implementation of “anchor” investment projects.

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