

# VULNERABILITY ASSESSMENT FOR SUSTAINABLE DEVELOPMENT OF RURAL MOUNTAIN COMMUNITIES IN ZEMO RACHA, GEORGIA

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## Abstract

*Zemo Racha, a mountainous region in the historical and geographical heart of Georgia, is experiencing a severe demographic crisis caused by long-term declines in birth rates and widespread emigration. Between 1989 and 2024, the population of Oni Municipality fell by 58.7%. The situation is particularly severe in rural areas, where the average population age is 53.7 years. In 20 of the municipality's 64 villages, more than half of the population is aged 65 or over. Due to its proximity to the Russian border, Zemo Racha is strategically important for Georgia's security. Despite its natural potential for economic growth, including energy resources, biological resources and recreational opportunities, unfavourable geographical factors and shortages of relevant personnel hinder significant investment, especially in the tourism sector. The Georgian government's 2015 law, 'On the Socio-Economic and Cultural Development of High-Mountain Regions', has played a partial role in reducing out-migration. Despite these efforts, depopulation continues due to negative population movement indicators. This research project aims to investigate the opinions of the local population on the effectiveness of measures taken to combat depopulation, and to explore any spatial differences in these perspectives. Field surveys and interviews were conducted among local communities, a method that is less commonly used in geography. The study employed geographical selection of target zones to identify differences in population opinion within the research area. The study area was divided into clearly defined, relatively homogeneous geographical zones. This article presents an analysis of the survey results and examines the zonal characteristics of population viewpoints. This work was supported by the Shota Rustaveli National Science Foundation of Georgia (SRNSFG) under grant number FR-23-13630 for the project titled "The Depopulation of Rural Settlements in Racha (the Northern Province of Georgia): Spatio-temporal Changes and Modern Problems".*

**Keywords:** vulnerability assessment, mountain rural settlements, Zemo Racha, depopulation, local's opinion

## I. Introduction

Racha is one of the fastest depopulating province of Georgia. It is located between the Greater Caucasus Range and its branches, therefore it is geographically remote from the country's central economic zone – Intermountain Plane.

The upper part of this region Zemo Racha is distinguished by particularly difficult conditions. A large part of the territory is mountainous and high-mountainous (1,000–4,000 meters above sea level). The amount of land suitable for cultivation is limited, and its fertility is relatively low. Mineral resources in the region are diverse, but reserves are limited, which makes extraction economically unprofitable. Unemployment is high, and incomes are low. The region is experiencing a long-term population decline.

In 2015, the Parliament of Georgia adopted the Law On the Development of Mountainous Regions, which provides certain material and social benefits for the local population. By the tenth year of the law's implementation, statistical data indicated a slowdown in the outmigration of the population from Zemo Racha. In any case, the population decrease is now caused not by emigration but by negative natural growth rates.

Despite some social progress, the problem of retaining young people and attracting them back is far from being resolved due to limited economic opportunities. Apparently, overcoming the problem requires the planning and implementation of a special program to stimulate economic activity.

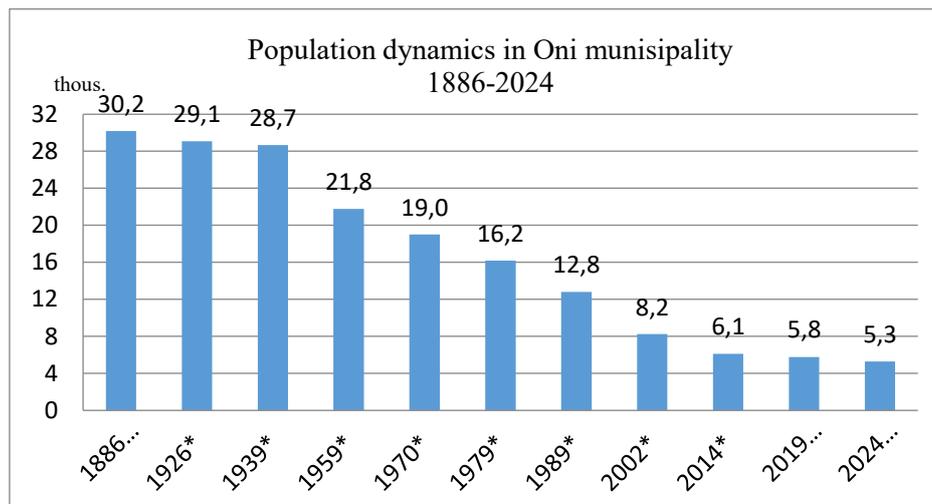
As global practice shows the effectiveness of state programs supporting high mountainous regions is strong when the study of problems, the planning, and implementation of activities are based on knowledge of regional and local specificities and on consideration of the interests of local communities. This approach inherently requires the active participation of local populations throughout all stages of the program, particularly in its initial phases. The main goal of the research conducted by the group of authors of this article was to study and spatially structure the specific features of Zemo Racha—its nature, demography, economy, and the interests of the local population and to represent them within a spatial framework.

To achieve this research goal (specifically, to study demographic problems, assess the effectiveness of the state program, and share the perspectives of the local population regarding the challenges), surveys of local residents were conducted in 23 out of 64 villages of the Oni Municipality in Zemo Racha. The survey covered all five geographical zones of the study area:

1. The settlement zone of the upper Rioni River Gorge;
2. The central zone along the Rioni River;
3. The settlement zone on the right slope of the Rioni Gorge;
4. The settlement zone on the left slope of the Rioni Gorge;
5. The high-mountainous zone of the Racha Range. A zonal analysis was conducted on the survey findings.

## II. Demographic Background of the Study

In Zemo Racha (within the current boundaries of Oni Municipality), population decline began as early as the 19th century [8] and continued throughout the 20th century. As a result of well-known events in Georgia during the 1990s, the population of the municipality decreased drastically—by 25% (see Fig.1). The causes of this development were negative trends in natural population movement and large-scale emigration. This trend continued in the following years, and as a result of the emerging situation, Racha came to be classified among the “demographically dying” provinces [11].



**Figure 1:** Population Changes in the Zemo Racha<sup>1</sup> Source: \* Census Data. National Statistics Office of Georgia. \*\* Current Registration Data. National Statistics Office of Georgia. \*\*\* *Svod statisticheskikh dannyykh o naselenii Zakavkazskogo kraia, izvlechennykh iz posemeinykh spisikov 1886 goda. Tiflis, 1893. P. 125 (in Russian).*<sup>2</sup>

According to the available data, birth rates in Oni Municipality have been falling steadily over time (see Table 1).

**Table 1:** Natural Population Change in Zemo Racha

Years	Crude birth rate (per 1000)	Crude death rate (per 1000)	Natural change (per 1000)
1950	22.0	10.0	12.0
1957	18.0	9.0	9.0
1970	16.8	12.5	4.3
1980	14.7	14.9	-0.2
1985	14.3	17.1	-2.8
1990	14.4	18.6	-4.2
1995	9.2	17.8	-8.6
2000	7.7	23.7	-16
2005	8.7	23.8	-15.1
2010	10.7	26	-15.3
2015	9.3	25.4	-16.1
2020	8.7	31.3	-22.6
2023	8.4	23.6	-15.2

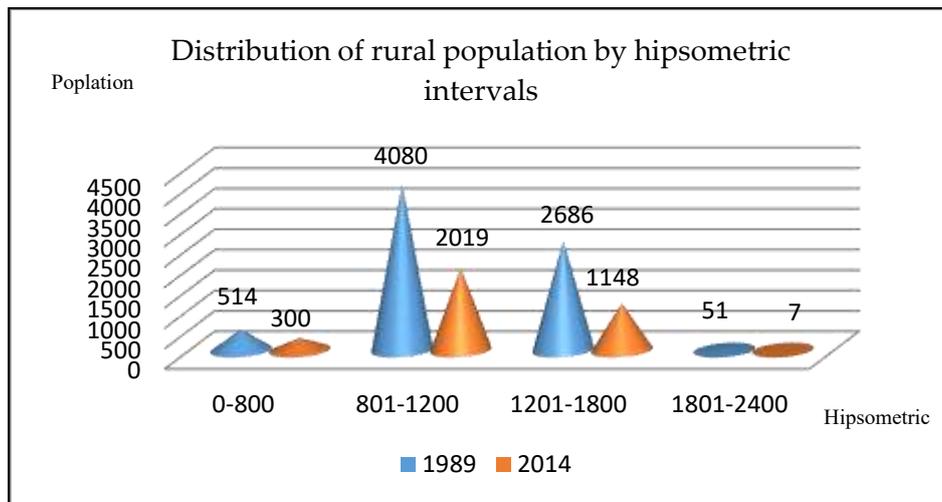
Source: \* National Statistics Office of Georgia. \*\* Jaoshvili V. *Proceedings of the Institute of Geography*, 1961, p. 84; Lolashvili M. *Problems of Demography and Sociology*, Vol. 1. Lolashvili M. *Demographic situation in Raha-Lechkhumi // Problems of demography and sociology. Collection of works. Vol. 1. Tbilisi, 2001. P. 202 (in Georgian).*

<sup>1</sup> Zemo Racha (Oni Zone) did not constitute a separate administrative unit within the territorial-administrative division of the Russian Empire – Oni District encompassed the whole of Racha. In 1926, the Oni District was established, approximately within its current boundaries. Since 2005, the term "district" (raioni) has been replaced by municipality.

<sup>2</sup> \*\*\* *Summary of Statistical Data on the Population of the Transcaucasian Region Extracted from the 1886 Household Lists. Tiflis, 1893, p. 125. (in russian)*

Recent data indicate that the crude birth rate in Oni Municipality has reached critically low level. In 2023, it stood at 8.4‰, which was 1.3 times lower than the national average. This figure was 1.8 times below the replacement level (15‰) required for simple population reproduction. The crude death rate was notably high. In the year under review, it stood at 23.6‰, which was two or more times higher than the level recorded in Georgia. The critical situation in the field of mortality is mainly explained by the high level of demographic aging of the population. The negative trends in both birth and death rates have directly affected natural population growth, which has been negative since the 1980s (see Table 1).

Between the 1989 and 2014 censuses, the rural population in all elevation zones of Oni Municipality declined significantly (Fig.2).



**Figure 2:** Distribution of the Population of Oni’s Villages by Hypsometric Levels;  
 Source: National Statistics Office of Georgia.

According to the 2014 census data, there are no longer any medium-sized villages—defined as those with populations between 201 and 500 inhabitants—within the boundaries of Oni Municipality. Four villages were recorded as uninhabited, while the number of very small villages—defined as those with 1 to 50 inhabitants—rose to 40, representing an increase of 17 compared to 1989 (Table 2).

**Table 2:** Classification of Rural Settlements by Population Size

	Grouping of rural settlements by population number					
	0	1-50	51-100	101-200	201-500	501-1000
1989	1	23	22	8	8	2
2014	4	40	12	4	4	0

According to our analysis, in 20 of the 64 villages within Oni Municipality, individuals aged 65 and older constitute more than half of the population. Based on the 2014 census data, the average age across the municipality was 49.5 years—44.0 years in the town of Oni and 53.7 years in rural settlements. Compared to 1989 figures, these averages reflect increases of 6.4, 8.4, and 5.1 years, respectively.

The primary driver of village depopulation in Zemo Racha is prolonged emigration. Unfortunately, since the 1990s, the National Statistics Office of Georgia (GeoStat) has not published internal migration data at the municipal level, limiting detailed analysis of migration patterns within the region. Our indirectly calculated migration balance shows that emigration was

particularly high during the period from 1994 to 2000. In that timeframe alone, the population decreased by 5,600 solely due to migration. From 2001 to 2013, the migration balance remained consistently negative.

Since the 2014 population census, a certain stabilization has been observed in migration processes. This was partly influenced by the enactment of the Law "On the Development of Mountainous Regions". All settlements in Oni Municipality have been granted the status of a mountainous settlement, which provides residents with certain social benefits.<sup>3</sup>

Despite certain positive signs, most notably the slowdown of emigration, the depopulation process has not yet been halted due to persistently low birth rates.

### III. General Regional Factors of Depopulation in Zemo Racha

The analysis of the demographic situation revealed that the continuous decline of Zemo Racha's population was primarily caused by a prolonged trend of labor emigration among local residents. The main factor behind this was the urbanization process that developed in the country, which became evident in Georgia starting from the 1870s—following reforms implemented in the Russian Empire—and has continued at varying rates up to the present day.

Among the factors hindering population retention in the study area, the following are notable:

- The region's peripheral location. It is situated at the northern edge of the country, surrounded by the high ridges of the Caucasus mountain system, and is somewhat isolated from both the country's internal and external economic centers.

- The harsh natural conditions of Zemo Racha. Winters are heavy with snowfall, and periodic destructive natural disasters (earthquakes, floods, landslides, mudslides) cause significant damage, while the environmental safety system does not function effectively. A tragic example of the impact of natural hazards is the Shovi resort disaster. In August 2023, a tragedy occurred at the Shovi resort, where a landslide resulted in the loss of more than 30 lives and rendered the area unsuitable for future recreational and tourism activities. This event caused a significant decrease in the number of tourists visiting Racha. Despite this setback, research indicates that local residents remain optimistic about the municipality's tourism development. This optimism is reflected in the opening of numerous new guesthouses [3].

- Natural resources are scarce—the economic reserves of minerals (barite, chalcedony, and others) are largely depleted; favorable flat surfaces for cultivation are limited due to fragmented terrain; the soil is not particularly fertile; pastures are mostly privatized (no longer considered public property); during heavy snowfall winters, villages scattered across mountain valleys and ravines are practically isolated.

- After the collapse of the planned "national economy," the new market economy functions only sporadically, mainly in the form of small and medium-sized businesses. These include the collection of conifer cones, the establishment in recent years of Georgian-Swiss livestock farms and pork production facilities in several villages—specifically in Sori, Ghari, Shkmeri, and Glola. The renovation of former resorts, such as Shovi and Utsera, faces significant challenges.

- The stabilization of the birth rate is hindered by the low number of women of reproductive age. The economy faces an acute shortage of young, energetic, educated, competent, and creative labor force, as well as a lack of service technologies and professional experience. In addition, there is a significant deficit of both public and private investment.

However, Zemo Racha also possesses economic resources that can support development, among which the following are noteworthy:

Significant tourism and recreational potential: appealing and healthy (healing) nature: high mountains, glaciers, mountainous rivers, temperate broadleaf, as well as coniferous forests, mineral

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<sup>3</sup> The law has been in effect since January 1, 2016.

waters with therapeutic effect, fresh air, favourable climate, proper steepness of mountain slopes for winter tourism, yet underexplored karst massifs on the Racha Range with diverse features (caves, ice caves, subterranean rivers, vaucuses, travertines). The hospitable local population, cultural traditions, seasonal crowdedness in summer periods, which is mainly due to the previously migrated population.[3]

Zemo Racha has significant hydro power resources to support the local economy; however, due to vulnerable local ecosystems, their utilisation should be moderate, primarily focused on constructing small and medium hydro power plants, based on efficient ecological assessment.

On a national level, several social programmes have been elaborated.<sup>4</sup> Among these, the Law of Georgia “On Development of High Mountainous Regions” is the most prominent and has had a certain positive social impact; However, there is no visible economic impact, without which this province cannot attract young people and investors. As a consequence, there is a need for a targeted state strategy to support entrepreneurial development, including various types of tourism, such as leisure tourism, wellness tourism, rural, agri, and adventure tourism, as well as agricultural activities (animal husbandry, viticulture, and winemaking).

These are the general regional-level factors of the critical depopulation in Zemo Racha.

#### IV. The Results of the Survey

To determine how the current socio-economic conditions and their regulatory state policy and mechanisms are reflected in the population’s status, migratory attitudes, and how state support programs correlate with the interests of the population, a field study was conducted in August of 2024 to survey the opinion of the population of Zemo Racha. The villages of this province that are prone to depopulation were selected as the main geographical study area. The population of the only city (Oni) in the province also took part in the survey. The representatives of the local administration, the local youth, and local actors engaged in tourism-related services were surveyed separately.

In addition to the survey, the in-depth interviews and Key Informant Interviews (KII) were also conducted.

In total, 23 out of total 64 villages in Oni Municipality were selected for the survey, covering five distinct geographical zones in Zemo Racha, in particular: 1. The settlements of the upper Rioni river gorge; 2. The settlements in the central zone along the Rioni River; 3. The settlements on the right slope of the Rioni Gorge; 4. The settlements on the left slope of the Rioni Gorge; 5. High-mountainous settlements of the Racha Range.

In total, 82 rural residents were surveyed, including permanent (67.1%) and seasonal (32.9%) dwellers, the latter meaning the temporary stayers in Racha during the summer period. The temporary stayers were primarily people who had previously migrated from Racha. The target villages were selected in such a manner as to ensure equal representation from all five geographic zones.

The respondents are relatively sparsely distributed. Most respondents were surveyed in the village of Ghebi (10 respondents) – the largest among the Upper Rioni gorge settlements. Nine respondents were surveyed in the village of Shkmeri, while one respondent per village was surveyed in the villages of Zemo Gona, Kharistvali, Mravaldzali and Khideshebi. Due to outmigration, these villages experience the most significant population decline.

Women (51.2%) outnumber men (48.8%) among the surveyed respondents, which is somewhat similar to the gender distribution in the total population.

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<sup>4</sup> In particular: *The Law of Georgia “On Development of High Mountainous Regions”, “The 2023-2026 Oni Municipality Priority Document”, “The 2024-2028 Oni Municipality Local Development Strategy”, The survey of the needs, challenges, interest and resources of the youth”.*

The age distribution of the surveyed rural dwellers is as follows: 30- to 45-year-olds represent 24.4% of the respondents, 46- to 65-year-olds – 45.1%, while adults aged 65 and over – 30.5%.

The majority (48.8%) of the surveyed respondents have a higher education degree, which is quite a substantial share. However, this is primarily driven by the seasonal residents. Among the other respondents, 19.5% had technical/vocational education, 24.4% had secondary education, 2.4% had incomplete higher education, 1.2% had incomplete secondary education, and 3.7% had basic education.

The agriculture sector (horticulture and animal husbandry) was the primary source of income for 47% of the surveyed respondents, followed by 17.6% of the respondents reporting work in the public sector, 13.7% - education, and 7.8% - tourism. For one respondent, an additional source of income was a small private enterprise in operation, while for another respondent, the author's honorarium.

The majority of respondents (52.6%) derive their additional income from the state pension, followed by supplementary state support, as per the law “On Development of High Mountainous Regions” – 35.1%, and tourism and hospitality industry – 12.3%.

It is worth noting that the majority of respondents (43.4%) fell into the highest income category on our scale, i.e., over 1000 GEL per month (equivalent to approximately 370 USD), while only 5.3% fell into the low-income category that is less than 300 GEL per month (approximately 110 USD). Considering that the social security and pension combined amount to approximately 400-500 GEL<sup>5</sup>, we can assume that this category includes the unemployed or those without other basic income. It is worth noting that, based on the Geostat data, in total, 1769 households are registered for state-provided social security, while 903 households receive financial payments in Zemo Racha (Oni Municipality) (Geostat, 2024).

Concerning the respondents' positions on population decline in Zemo Racha and the experiences of their families in this process, the analysis has revealed that:

- Among all surveyed households, 117 household members have left their permanent place of residence, including 12 household members who have migrated internationally. Among the main countries of destination were Germany, France, Italy, Greece and Russia. The other migrated family members have settled in different regions of Georgia. In 22 cases, the migrated household members live in the same dwelling, while in the other 9 cases, they live separately.

- The vast majority of the surveyed (89.7%) do not have a desire to move to another Georgian region or abroad. Among those considering leaving their permanent places of residence, 8.8% of all surveyed would have moved to Georgia's capital, Tbilisi, and 4.4% would have chosen to live abroad.

- The main motivation for family members to leave Zemo Racha was “work search” according to more than half of the surveyed (52.1%), another 18.9% mentioned “improving living conditions”, 17.9% mentioned educational reasons, 7.1% - treatment/medical care, 4.3% - family reunification and 1.7% - other reasons.

- It is also interesting to consider the respondents' views on the reasons for high migration from Racha in general. The majority of respondents identify the acute lack of employment opportunities as the main cause of population outflow (91.5%), followed by unfavorable natural conditions and limited resources (such as harsh winters, fragmented terrain, low soil fertility, etc.) – 72.0%, lack of healthcare and educational resources – 65.8%, the remoteness (isolation) of Zemo Racha from the country's main economic, cultural, and educational centers – 35.4%, and the poor condition of the internal road network – 30.5%. Seeking employment remains the primary motive for outmigration from Zemo Racha, which is understandable considering the dramatic economic decline over the past three decades.

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<sup>5</sup> The state pension in the high mountainous Oni Municipality is 400 GEL for the pensioners under 70 years of age and 540 GEL for people aged 70 and over.

- A total of 98.8% of respondents believe that their material conditions need improvement. Nearly half of them (48.8%) assess their income as “unsatisfactory,” while 42.7% consider it “satisfactory.” Only 7.3% are satisfied with their income: 1.2% rate it as “very good,” and 6.1% as “good.”

Respondents’ attitudes toward the state’s social and economic programs are mixed. Most respondents view positively the support provided to villages in mountainous regions through the benefits granted under the “Mountain Law” (such as pension supplements, salary increases for teachers and medical personnel, etc.). However, 41.5% consider this support insufficient. According to them, greater assistance is needed from state institutions.

A large portion of respondents sees a major flaw in social programs: they believe that social assistance “kills the incentive to work,” “destroys agriculture,” and “makes peasants and farmers lazy,” since cultivating arable land, pastures, and hayfields is associated with many challenges and high costs. As a result, agricultural lands are no longer used and have become overgrown. This attitude was also revealed during in-depth interviews.

### **Spatial Differences**

The criterion for distinguishing the geographical zones of rural settlement in Zemo Racha is the general accessibility to income-generating resources. This includes factors such as: availability of natural resources and environmental conditions; economic-geographical location; conditions for private business development; presence of industrial companies and farms offering employment opportunities; proximity to public-sector organizations for employment; and availability of alternative income sources. The zoning in this study was done based on the geographical distribution of these factors.

Moreover, since complete data on the mentioned economic factors (statistics, registries, reports, etc.) are not always available, the study did not prioritize individual factors but rather selected characteristic combinations of them.

### **The Settlement Zone of the Upper Rioni River Gorge**

This zone comprises the upper part of the Rioni River gorge, stretching in a northwest-southeast direction, and includes the villages situated on the southern slope of the main Caucasus watershed ridge: Ghebi, Chiora, Gona, Glola, and Shovi. These are the surveyed villages. The area is located at elevations ranging from 1250 to 1700 meters above sea level. This zone is relatively distant from the province’s economic and administrative centers, Oni and Ambrolauri.

The population is traditionally engaged in peasant, subsistence, mostly natural (non-commercial) agriculture, with a focus on dairy and meat livestock farming, mixed crop and vegetable farming (corn and beans), and tourism (the resort of Shovi and the villages of Glola and Ghebi). The most profitable activity is considered to be the collection of conifer cones. In this zone, a small hydropower plant – “Chiorahesi” with a capacity of 15.85 MW – operates on the river Chveshura, though it does not serve as a significant source of employment.

Among the surveyed villages, the largest is Ghebi (296 residents)<sup>6</sup>, followed by Glola (279), Patara Ghebi (128), and Chiora (116). The village of Gona is practically empty - 1 family (in 2025), it is a small resort with a seasonal population, which, as a result of the natural disaster of 2023, is currently not functioning.

### **The Central Zone Along the Rioni River**

The central settlement zone extends along the Rioni River and the adjacent main road, located on the river’s first and second terraces. The elevation ranges between 900 and 1100 meters above sea

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<sup>6</sup> The population size is based on the 2014 census. The results of the 2024 census are not yet available.

level. The main activity here is traditional (peasant, mainly subsistence) agriculture — livestock farming, corn and bean cultivation, and to a lesser extent, fruit and viticulture. There is relatively high potential for therapeutic and wellness tourism, especially the resort of Utsera, its surroundings, and the slopes of Mount Shoda (with potential of winter tourism).

Due to their proximity to the municipal administrative center, the city of Oni, residents of villages in this zone have the opportunity to work in urban sectors — in trade, construction, and public sector organizations (administration, education, healthcare, etc.).

There are plans to build a large hydropower cascade on the Rioni River in this zone, with a total capacity of 206.1 MW. However, this project is disconnected from the local economy and will not serve as a significant source of employment.

The surveyed villages in this zone were: Utsera (260 residents), Zudali (32), Ghari (349), and Kvemo Bari (50 residents).

### **The Settlement Zone on the Right Slope of the Rioni Gorge**

This third zone includes settlements located on the right slope of the narrow Rioni River gorge (Shoda Ridge), mainly in the gorge of the Sakaura River. Elevation ranges from 1100 to 1450 meters above sea level. The terrain is highly dissected with minimal flat areas. The slopes are predominantly southeast-facing.

The area is rich in natural resources, including forests, mineral waters, hydro-energy, and tourism-recreational potential. Residents' economic activity is limited to agriculture: livestock farming (mainly cattle) and crop production — corn and beans.

In this zone, a small hydroelectric power station — "Sakaurahesi" with a capacity of 4.75 MW — is in operation. The survey in this zone covered the villages of Sakao (77 residents), Khideshlebi (29), and Mazhieti (24).

### **The Settlement Zone on the Left Slope of the Rioni Gorge**

This zone includes villages located on the left slopes of the Rioni River. Unlike the right slope, the terrain here offers relatively better conditions for agricultural production, which is why the number of rural inhabitants is higher. The elevation ranges from 950 to 1200 meters above sea level. Natural resources include forests and water. Residents' economic activity is limited to agriculture: livestock farming (mainly cattle), crop cultivation (corn and beans), and to some extent, viticulture and fruit growing. The survey in this zone included the villages of: Bokva, Zemo Bari, Kvashkheti, Gunda, Kvedi, Kvedrula, and Pipileti.

### **The High-Mountainous Zone of the Racha Range**

This zone comprises rural settlements located on the high slopes and plateaus of the so-called "Maghran-Dvaleti Caucasus," Kedela Range (eastern part of Shoda-Kedela), and the Racha Ridge. The elevation ranges from 1200 to 1900 meters above sea level. In the past, the economy of this zone was primarily connected with the extraction and initial processing of mineral resources (barite in the village of Iri). Manganese deposits have been surveyed in the area surrounding Shkmeri.

A distinct advantage of this zone is its better located transport links: a main road passes through here, connecting eastern Georgia to Zemo Racha via mountain passes. In the past, before the occupation of northern Shida Kartli by Russia, this road entered via the village of Iri. Currently, it enters through a newly built road passing via the village of Shkmeri.

Today, residents' economic activities are limited to dairy and meat livestock farming (mainly cattle), and partially to crop cultivation — corn, beans, and potatoes. The survey in this zone included the villages of: Mravaldzali (7 residents), Shkmeri (23), Iri (43), Tsedisi (53), and Kharistvali (14).

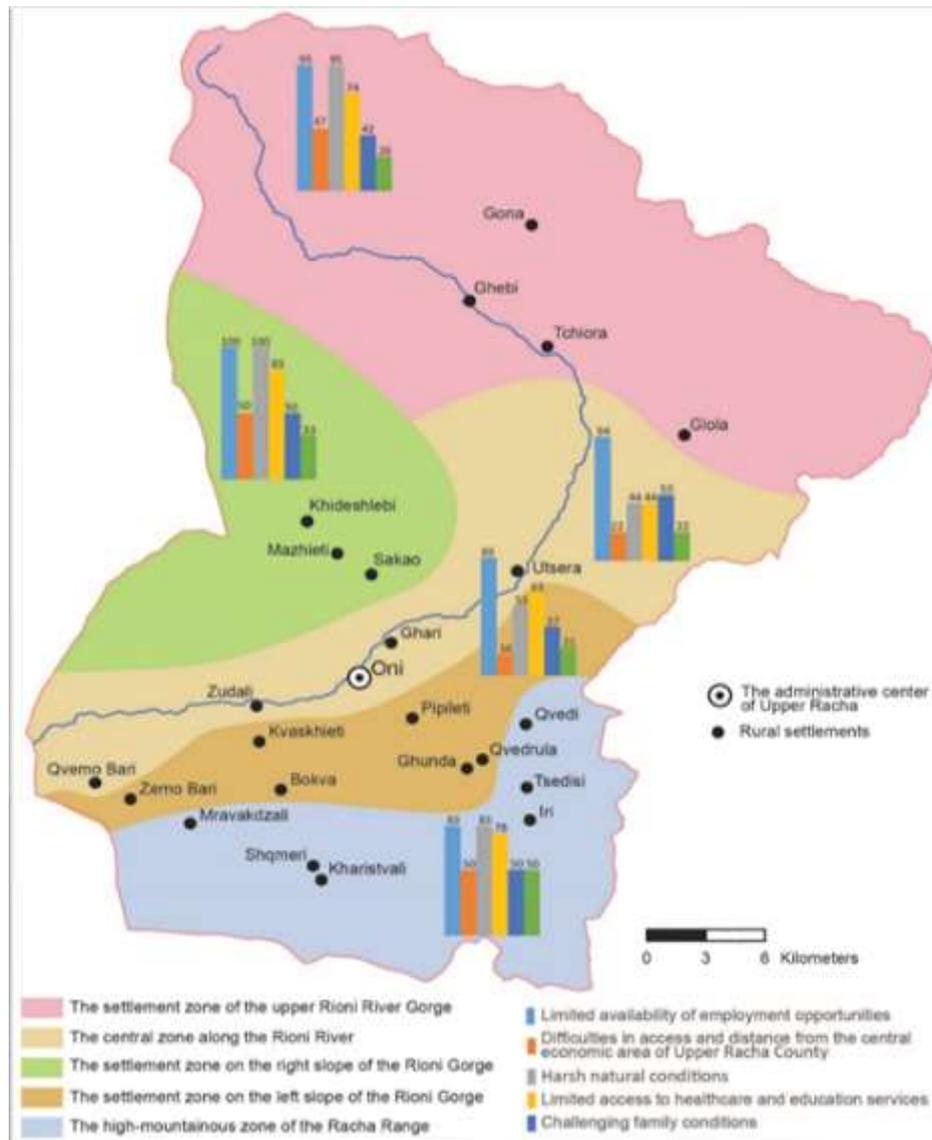


Figure 3: Distribution of Rural Residents' Perspectives on Migration Causes by Geographical Zone

In all respondent groups, the most significant reasons for migration were identified as “lack of employment opportunities” and “harsh natural conditions” (the latter being considered somewhat less significant by respondents from the second (central) and fourth (left slope) zones).

Unemployment is a critical issue, as only a small portion of the remaining population in Zemo Racha is employed. For example, according to the official statistics of Oni Municipality for 2023, only 828 individuals are employed in the business sector, which represents just 15.3% of the municipality’s total population. The importance of employment has grown particularly since the 1990s, when the traditional rural economy based on agrarian household production collapsed, and opportunities for employment in agriculture (kolkhozes, sovkhoses) and state-owned mining enterprises disappeared.

As for the harsh natural conditions of Zemo Racha, they manifest in heavy snowfall during winter, a lack of flat land suitable for farming, and frequent, destructive natural disasters. This factor

is especially significant in Zone 1 – the upper, high-mountain section of the Rioni Gorge, Zone 3 – the right bank, which is relatively steep, and Zone 5 – the highland plateaus and basin settlements.

Geographic location (distance from Georgia’s central regions) is a major factor for villages in Zones 1, 3, and 5, which are relatively remote from Zemo Racha’s only main road.

Social factors (such as limited access to healthcare, education, and social services) are considered less significant in the central (second) zone. This is explained by the proximity of villages in this zone to Oni – the administrative center of Zemo Racha, where such services are concentrated.

## V. Conclusion

Data from the period since 2014 shows that emigration has significantly decreased. Currently, population decline is occurring not due to outmigration of local residents, but rather due to a sharp drop in birth rates. This phenomenon can be explained by the specific effects of the “Mountain Law.” In particular, the social benefits and professional bonuses defined by this law do not necessarily contribute to the overall retention of the local working-age population (migration tendencies still persist among them) or to attracting young people, but rather to the settlement of pensioners and people employed in public sector professions. This, in turn, alters the age structure of the region’s population and contributes to demographic “aging”.

The crisis in the villages of Zemo Racha over recent decades has been exacerbated by the decline of traditional peasant farming and the agro-industrial complex.

There may be prospects for the villages of Zemo Racha through the purposeful development of the region’s recreational potential. Locals consider tourism to be the main pillar of the economy in the future. Despite the Shovi tragedy, the sector is gaining momentum, with accommodation and food facilities being constructed.

The survey revealed that the rural community cannot influence local government decisions. The community is politically, economically and socially inertial - it is guided by the old relationships, which is generally characteristic of post-Soviet societies. Families remaining in these villages tend to adapt to limited living conditions. At the same time, the research showed that the local community has developed its own views on the problems of Zemo Racha, which sometimes differ from official narratives, and its members are aware of their own interests.

### CONFLICT OF INTEREST.

Authors declare that they do not have any conflict of interest.

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