Geography

УДК 910

TRENDS OF THE SETTLEMENT PATTERN CHANGES IN ARMENIA IN THE POST-SOVIET PERIOD

G. G. GHAMBARYAN [*]

Chair of Social-economic Geography, YSU, Armenia

During the Soviet years a well-established unified settlement network had been formed in the Republic of Armenia (RA), with a multilevel settlement system and equalization trends. However, the landmark events that occurred in the last years of the Soviet period, as well as the geopolitical and socio-economic conditions shaped after gaining independence have initiated a powerful wave of emigration, a demographic crisis and, as a result, depopulation of the country.

Under the conditions of the new realities, the settlement pattern of the RA has undergone significant transformations. The article is dedicated to the study of its specifics, trends, problems, as well as territorial differences.

The research revealed that the problems of depopulation, migration and the demographic crisis have different manifestations and transformations in different types of settlements and territorial zones of Armenia. Vulnerable territories of the RA (mountainous and high-altitude areas, territories with unfavorable natural-geographical and socio-economic conditions, with problems related to border security and life support, territories outside the zones of influence of the settlement system) react more acutely to negative and undesirable processes, resulting even to total depopulation. At the same time, a number of settlement areas in Armenia with competitive comparative advantages are becoming to hubs of population growth and economic development, rather than depopulation centers.

As a result of the ongoing processes, there is a sharp polarization of the settlement patterns in the RA. It has become an existential problem and requires comprehensive solutions in regional policy.

https://doi.org/10.46991/PYSU:C/2022.56.3.182

*Keywords***:** settlement pattern, rural settlement, urban settlement, depopulation, territorial polarization, unequal development.

Introduction. The modern appearance and features of the settlement patterns of the Republic of Armenia (RA) have been formed as a result of the synergistic impact of numerous natural and geographical, socio-economic and historical-demographic factors. Like any phenomenon, settlement pattern is a continuous process Being a part of the social system (in complex relationships of cause-effect, direct or reverse connections, direct or indirect influence and interaction), it becomes

---

[*]   E-mail: gohar.ghambaryan@ysu.am

the bearer and participant of the changing reality, the consequence of these changes and the cause of other changes and processes.

Over the years of independence, the settlement pattern of the RA has significantly transformed. The article is dedicated to the study of its specifications, trends and problems, as well as territorial differences.

Materials and Methods. The issues and problems of the settlement pattern of the Republic of Armenia have always been in the focus of attention of the scientific community. There are a lot of works covering this area (Ghambaryan G.G. [1, 2], Mkhitaryan V.G. [2], Potosyan A.H. [3–7], Potosyan V.A. [6, 8], Manasyan M.G. [9], Grigoryan V.V. [10] and others).

To accomplish the objectives of this article, a number of theoretical, analytical and research works have been considered. The research has been carried out based on statistical data. Diagrams and new calculation tables have been compiled.

A number of research approaches have been used in the work: spatial, typological, temporal, historical and problem-oriented, as well as a number of research methods (analysis and synthesis, statistical, comparative, etc).

Research. In Soviet Armenia, especially after the Second World War, the population increased steadily under the conditions of economic growth and development, as well as repatriation organized by the government and a high level of natural growth.

During 1980s contrary changes have been observed. In the result of a slowsown of socio-economic growth, steadfast immigration the Diaspora Armenian communities, as well as the inflow to motherland from different countries of the USSR. Moreover, alongside with the slowdown of immigration into Armenia, an escalation of emigration of the population from Armenia was observed, including the one-time repatriants. The softening of prohibitions on emmigration from the USSR furtherd this process, especially after the Helsinki Summit in 1975.

As a result of the ongoing processes, in 1980s a negative balance of migration in Armenia was registered which, according to official data, totalled to around 8 to 10 thousand people per year. However, the outflow of the population in the mentioned period, comprising only 0.3% of the country's population, as compared with 15–17% natural growth did not exercise significant negative impact neither from socio-economic, nor from demographic points of view. The population of Armenia continued to grow steadily [11].

The positive socio-economic developments and the growth of the population in Armenia during the Soviet period resulted in the expansion of the settlement system.

During the aforementioned period the following settlement transformation tendencies have been observed:

1) system-forming processes of settlement are activated, settlement systesms of various sizes and levels of development with their centers are formed;

2) a unified settlement network is being formed taking into consideration the characteristics of the mountainous surface of the country;

3) a concentration of population and settlement areas along the main highways and around the capital is observed;

4) new settlement centers are being created in peripheral regions as a result of socio-economic development.

It can be stated that during the period of existence of Soviet Armenia, the following trends of settlement pattern development were observed.

➢ Existing urban and rural settlements developed and increased, meanwhile new ones were created and depopulated settlements were populated. As a result, the settlement network expanded.

➢ Processes of both concentration and active decentralization of settlements underwent. As a result, there was an active alignment of uneven territorial development.

Since 1988, crucial events have taken place in Armenia such as the Artsakh crisis, followed by war, the Spitak earthquake, the collapse of the USSR, the transport and energy blockade, the transition of the economy to market relations, the economic shock therapy, de-industrialization and radical structural changes.

The mentioned developments contributed to the activation of migration flows: immigration and emigration.

In 1988–1991, the migration balance was negative, but relatively moderate and amounted to about 20 000 people [11].

During the mentioned period, due to political reasons, about 420 thousand people immigrated to Armenia (360 thousand Armenian refugees from Azerbaijan, the rest from other territories of the former USSR), and about 170 thousand Azerbaijanis living in Armenia emigrated [11, 12].

Based on socio-political reasons, approximately 250 000 people emigrated from Armenia, mostly for permanent residence, and about 30 000 people immigrated. Among the emigrants were those who wanted to reside abroad, but who were refused in the Soviet years, as well as highly qualified specialists, businessmen, many representatives of the Russian-speaking population [11, 12].

Due to the disastrous earthquake in 1988, about 200 000 injured persons (mostly women and children) were evacuated. About 50 000 of them did not return to their homeland; later, especially in 1992–1994, this caused a powerful wave of migration, with the aim of reuniting family members and relatives in their host countries [11, 13].

In 1988–1991 negative migration demonstrated an almost proportional change in the sex and age structure, as a result of which there were no significant changes in the demographic structure.

The natural growth was high (more than 50 000 people per year) and even with a negative balance of migration, the population of Armenia increased.

In 1991, Armenia became independent and a new historical period began.

It would seem that gaining independence should have been a powerful incentive for the repatriation from the numerous Armenian Diaspora and the desire of Armenian citizens to live and give rise to the country. However, in reality, big waves of emigration rided Armenia, which becoming the inseparable companion throughout the existence of the independent country. Over the years, the migration balance of Armenia amounted to more than 1 million people [14].

It should be noted that 610 thousand out of 1 million emigrants left the country in the first three years (1992–1994) of independence: during the Artsakh war,

the destruction of the economy, mass unemployment and impoverishment of the population (emigration from Armenia amounted to more than 980 thousand, immigration – about 370 thousand, mostly remigrants, and the balance of migration amounted to 610 thousand people) [11, 12].

At this stage, as a result of a large volume of emigration with an essential share of young people, there are significant disruptions in the demographic structure of the country's population, leading to a demographic crisis. The proportion of young people in the age and sex composition of the population is significantly decreasing, and, as a result, the birth rate and natural increase are declining.

The negative balance of population migration is supplemented by low rates of natural growth, thereby marking the beginning of a rapid depopulation of the newly formed Republic of Armenia (Figs. 1–4).
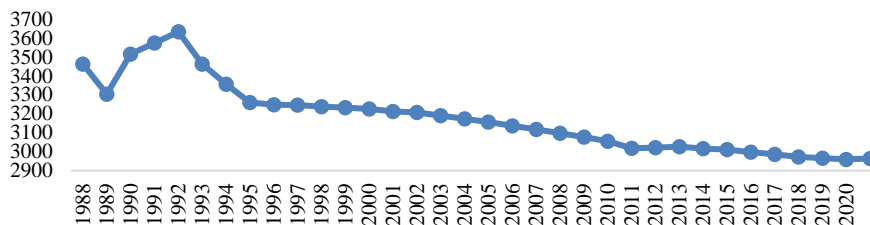

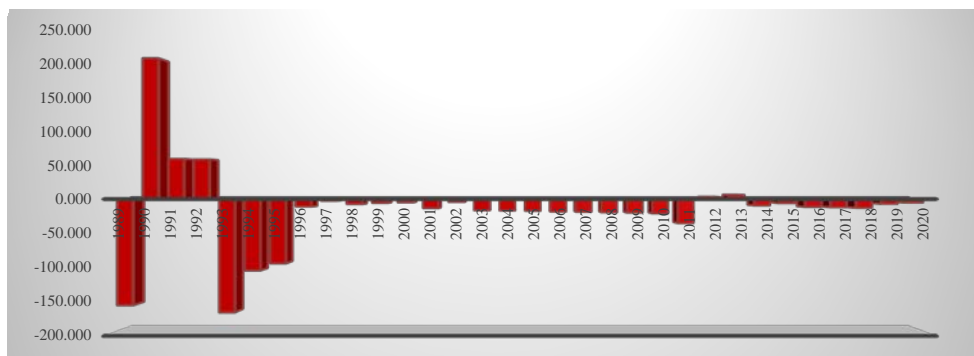Fig. 1. Dynamics of the RA population, thousand people [15].

Fig. 2. Population growth dynamics in RA, persons [15].

After 1995, the betterment in the socio-economic situation and the improvement in the standard of living of a significant part of the population (mainly due to emigrants' remittances) lead to a certain stabilizing impact on the depopulation which, from time to time, shows signs of deterioration due to economic crises and political instability.

As compared to the 1980s, the birth rate has now decreased by about twice and varries between 12–14‰ (in 2021 it was 12.4‰). At the same time, mortality increased by about 1.5 times and reaches 9 to 11‰ (in 2021 it was 11.7‰). The natural growth has decreased by about five times and is 3.5–4‰ (in 2021 it reached a minimum of 0.7‰).
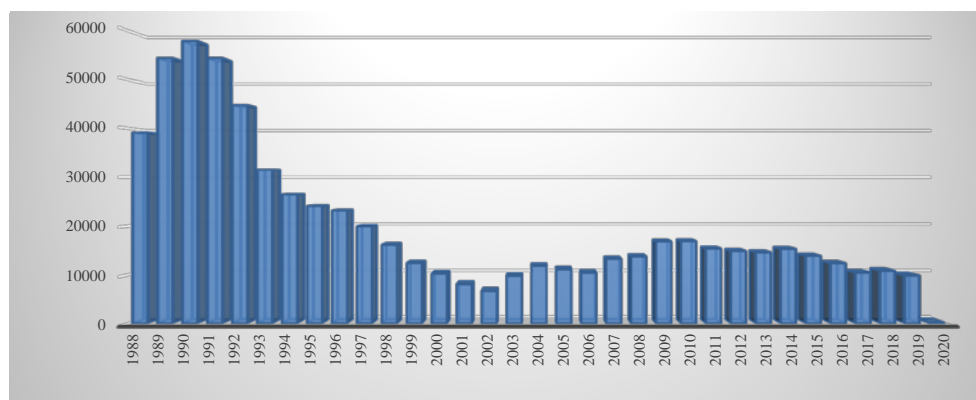
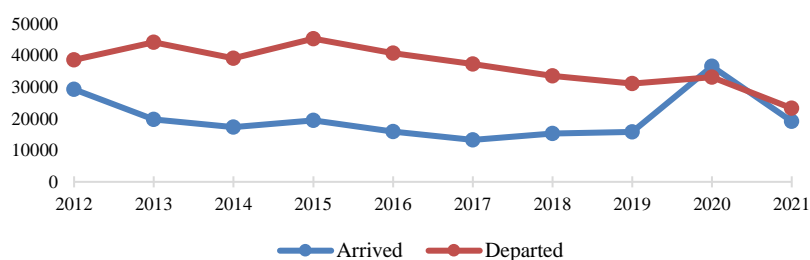Fig. 3. Dynamics of natural growth of the RA population, persons [15].

Fig. 4. Dynamics of migration of the RA population, persons [15].

In the aftermath of the 44-Day war in 2020, due to geopolitical turmoil, the emigration outflow of the population of the RA is again increasing; yet, at the same time, immigration also reaches significant amounts. However, the majority of immigrants are foreign citizens: Russians, Ukrainians, Indians, etc.

The ongoing depopulation, the negative balance of migration, the demographic crisis (low birth rate, high mortality, declining natural growth rates) have become strategic and existential threats, and require complex and multifaceted solutions through tools of regional policy.

An important observation was made during the research process: along with the general trends noted above, the problems of depopulation, migration and the demographic crisis have different directions and transformations in different types of settlements and territorial zones of Armenia.

Being a mountainous country, Armenia has significant territories with unfavorable natural-geographical and socio-economic conditions for life and economic activity; it has territories with problems of border security and existential threats, as well as territories outside the zones of influence of settlement systems, which are more vulnerable and sensitive to social-economic, geopolitical and demographic processes and changes. The settlement network that has been formed in these zones reacts to the ongoing negative and undesirable processes and crises more sharply and painfully, up to the depopulation of settlement areas.

At the same time, a number of settlements in RA, having competitive comparative advantages, on the contrary, have become centers of population growth and economic development, and not scenes of depopulation.

Thus, as a result of various typical and territorial transformations of settlements, the features of settlement pattern that developed during the Soviet period has changed significantly and became more polarized.

For the RA, the polarization of settlement is more than problematic. This is based on the fact that in Armenia, which has quite limited territorial resources, 17.2% of the territory is located above 2500 *m*, with unfavorable conditions for life, 10.7% – at an altitude of 2251–2500 *m*, with very limited opportunities (3 rural settlements and 0.004% of the population of the RA), 14.6% – at an altitude of 2001–2250 *m* with restricted opportunities (101 rural settlements and 2.4% of the population of the RA). Basically, only about 60% of the territory of the RA is favorable for life and economic activities. Negative changes in the settlement network reduce the possibilities for effective development and development of territories. And the depopulation of the border zone in the conditions of constant Azerbaijani aggression creates problems of security and existentiality.

As a result of the study of population dynamics in 1988–2021 it turns out that in different types of settlements in the RA transformations also proceeded differently: the cities turned out to be more vulnerable (Fig. 5).
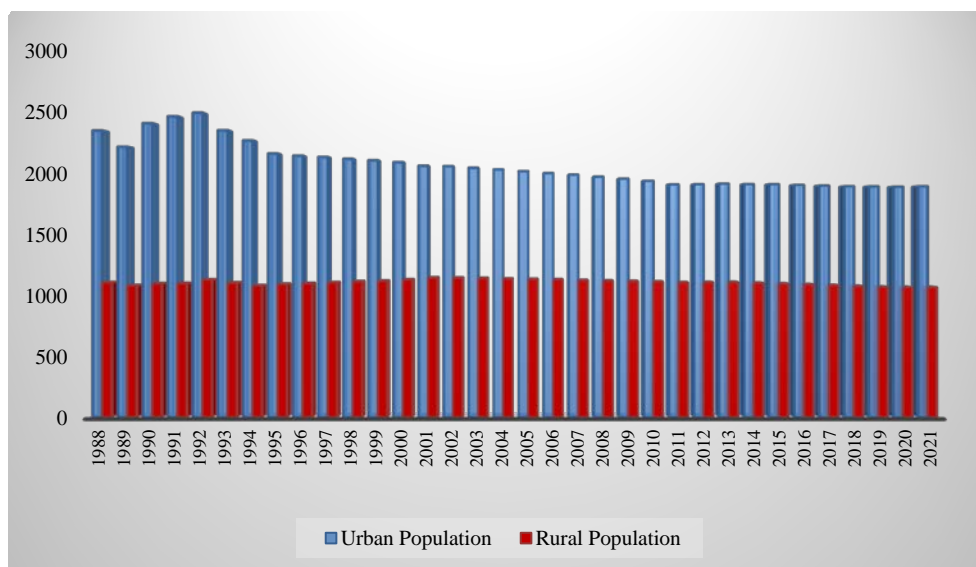
Fig. 5. Dynamics of the urban and rural population of the RA, thousand people [15].

The decrease in the population of the RA occurred mainly due to the outflow of the urban population. As compared to 1988, the urban population has decreased by more than 460 thousand people, and the rural population by about 40 thousand people. As a result, the ratio of urban and rural population has changed in favor of the rural population. In 1988 it was 68% and 32%, and in 2021– 64% and 36% [15].

Positive population growth tendencies were observed only in five of the 49 cities of the RA, which are located either in the Yerevan agglomeration zone or in areas with low absolute heights, favorable natural and geographical conditions and an advantageous geographical position. A decrease in population was registered in 7 cities by -60– -40%, in 19 cities – -39– -20%, in 18 cities – -19– -1% (Tab. 1). In the second and third largest cities of Armenia – Gyumri and Vanadzor, during the study period, there was a decrease in the population by 51.5 and 55%, respectively, and in the capital Yerevan – about 8%.

Table 1

Dynamics of the population of RA cities in 1988–2021 [15]

Dynamics of the population, %	Number of cities	Dynamics of the population, %	Number of cities
-60– -40	7	0–10	2
-39– -20	19	11–20	3
-19– -1	18	total with positive dynamics	5
Total with negative dynamics	44	total number of cities, RA	49

As already mentioned, the trends in population number change in rural settlements were not simple. During the years of independence of the RA, 26 settlements were completely depopulated and currently do not have a permanent population. 8 settlements were and remain without a permanent population during the study period. In 368 settlements (39% of the rural settlements of the RA) the population decreased, and in 563 settlements (60% of the rural settlements of the RA) it increased, 15 settlements were repopulated or resettled (Tab. 2).

Table 2

Dynamics of the population of RA rural settlements in 1988–2021 [15]

Dynamics of the population, %	Number of rural settlements	Dynamics of the population, %	Number of rural settlements	Dynamics of the population, %	Number of rural settlements
Depopulated (-100%)	26	0–19	208	new settled or repopulated	15
-99– -80	40	20–39	211	total with positive dynamics	563
-79– -60	60	40–59	86	without permanent population	8
-59– -40	55	60–79	32	total number of rural settlements, RA	954
-39– -20	55	80–99	8		
-19– -1	132	100–200	13		
Total with negative dynamics	368	201–300	5		

The problem of depopulation of rural settlements is of concern not only because it includes about 40% of the country's settlements, but also as there are 88

settlements in the RA belonging to the vulnerable category with a population of up to 100 people, the continuous depopulation of which in the near future may add the number of settlements without a permanent population.

To find out the trends in the transformation of settlement, the dynamics of the population by the size of rural settlements and by altitudinal zones was studied as well.

Based on the data obtained (Tab. 3), it becomes clear that settlements with a decreasing population make up the largest share in groups with a population of 101–500 and 501–1000 people, and account for –55% and –45%, respectively. Along with the increase in population, the share of settlements with negative population dynamics is decreasing.

T a b l e 3

Dynamics of the population of RA rural settlements in 1988–2021 (by size of settlements) [15]

Population	Number of settlements			Number of settlements, %	
	with negative dynamics of population	with positive dynamics of population	total	with negative dynamics of population	with positive dynamics of population
< 100	19	35	54	35	65
101–500	165	136	301	55	45
501–1000	85	124	209	41	59
1001–2000	67	152	219	31	69
2001–3000	22	69	91	24	78
> 3000	10	62	72	14	86
Total	368	578 (563+15)	954 (946+8)	39	61

T a b l e 4

Dynamics of the population of RA rural settlements in 1988–2021 (by altitude zones) [15]

Altitude, *m*	Number of settlements			Number of settlements, %	
	with negative dynamics + (without permanent population)	with positive dynamics of population	total	with negative dynamics of population	with positive dynamics of population
< 1000	60	185	245	24	76
1001–1500	95+(2)	136	233	42	58
1501–2000	154+(5)	215	374	43	57
> 2001	59+(1)	42	102	59	41
Total	368+(8)	578	954	39	61

According to Tab. 4, it becomes clear that the proportion of settlements with negative population dynamics prevails at altitudes of 2000 *m* and above and amounts

to 59%. As the altitude decreases, the specific share of the latter decreases significantly and amounts to only 24% at absolute altitudes up to 1000 *m*.

In studies on urban settlement in terms of the size of settlements and along altituIn urban settlement studies by the size of settlements and altitudinal zones certain patterns of population dynamics are not revealed. The reason is that the dependence of urban development on the environment, absolute height and population is much weaker than that of rural settlements. The crucial factors of urban development are industry and socio-economic conditions. After gaining independence, each city of the RA reacted in its own way to the socio-economic changes that took place in the country and the de-industrialization of the economy. The highest rates of negative population dynamics were recorded in Shamlugh – 60%, Vanadzor – 55%, Gyumri – 51%, Alaverdi – 50%, Jermuk – 45%, Akhtala – 41%, Gavar – 41%, and high rates of positive dynamics – in Ijevan – 21%, Yeghvard – 18%, Vedi – 17%, Ararat – 9%, Masis – 3%.

Conclusion. The political, socio-economic and demographic processes that took place in Armenia in the post-Soviet period caused completely new transformations of settlement pattern. *The leveling* tendencies of settlement in the Soviet period (under the conditions of development of settlements and population growth) were transformed into a trend of *polarization* (under conditions of depopulation).

Transformations in urban and rural settlements are heterogeneous, since the factors influencing them are different.

The research confirms that the Matthew polarization effect operates in the transformations of rural settlement [16], according to which those having advantages continue to improve and increase their advantages, while those deprived of them, on the contrary, continue to have limited opportunities for development. The polarization between "prosperous" and "problematic" settlements of the RA is increasing. The *divergence* process is occurring (increasing the difference in values).

The polarization in rural settlement in the RA occurs in two directions:

1. "Prosperous" areas become even more prosperous and the population grows, "problem" areas become even poorer and the population decreases (according to the classic example of the absolute effect of Matthew).

2. "Prosperous" settlements are getting poorer and the population is decreasing, but "problem" settlements are getting poorer even faster and the population is declining.

The research also confirms that the transformation of urban settlement occurs in two ways.

1. *The polarization* that is observed between the capital and hierarchically lower urban settlements. The population of the capital is declining at a slower rate than the population of the second and third largest cities of the RA, the difference between which was significant even before.

2. *Leveling* is observed between urban settlements with the exception of the capital. The population of large cities is declining at a faster rate than the population of small towns. In this case, *convergence* occurs in the transformation of urban settlement – the process of reducing the difference in values, in the context of the general trend of depopulation.

Summing up the results of the study, it can be stated that the current changes of settlement pattern are undesirable. Moreover, in the realities of the RA they are problematic and of existential character. Active measures of public administration and regional policy are needed.

REFERENCES

1. Ghambaryan G.G. *Problems of Economic Development of RA in the Context of Concept "Growth Poles and Centers"*. Yerevan, YSU Press (2020), 270 (in Armenian).
2. Mkhitaryan V.G., Ghambaryan G.G. *Resettlement; Population Density, Urban Resettlement, Industry. Maps in Geographic Atlas of Armenia*. Yerevan. (2015), 36–39 (in Armenian).
3. Potosyan A.H. *Economical and Social Geography of the Republic of Armenia*. Yerevan, YSU Publishing House (2022), 546 (in Armenian).
4. Potosyan A.H. *The Rural Population and Settlements of the RA (the Complex Geographical Study of the RA Rural Settlement)*. Yerevan, YSU Press (2017), 466 (in Armenian).
5. Potosyan A.H. The Influence of Population Dynamics of the Republic of Armenia on the Balanced Territorial Development. *Proceedings of the YSU. Geol. and Geog. Sci.* **54** (2020), 187–194 (in Armenian).
   https://doi.org/10.46991/PYSU:C/2020.54.3.187
6. Potosyan A.H., Potosyan V.A. Contemporary Tendencies and Current Problems of Rural Settlement Pattern Transformation in the Republic of Armenia. *Proceedings of the YSU. Geol. and Geog. Sci.* **55** (2021), 129–136 (in Armenian).
   https://doi.org/10.46991/PYSU:C/2020.55.2.129
7. Potosyan A.H. The Characteristic Features of Rural Areas and Settlement of the Republic of Armenia as a Mountainous Country. *Bulletin of the Association of Russian Social Geographers* **7** (2018), 111–123 (in Russian).
8. Potosyan V.A. *Settlement Pattern Development Problems in RA Borderlands, Mountainous and High Mountainous Areas*. PhD Thesis (Geography). Yerevan (2019), 72 (in Armenian).
9. Manasyan M.G. *The Settlement System of the Republic of Armenia*. Yerevan, YSU Press (2005), 398 (in Armenian).
10. Grigoryan V.V. The Problem of Placement of the Population and Settlements Development of the Territory in Republic of Armenia. *Proceedings of the YSU. Geol. and Geog. Sci.* **55** (2021), 137–143 (in Armenian).
    https://doi.org/10.46991/PYSU:C/2020.55.2.137
11. *Migration and Skills. Armenian National Report*. Italy, Turin (2012), 111.
    https://www.crrc.am/wp-content/uploads/2019/03/Arm-Migration-and-Skills-Report.pdf
12. *United Nations Development Programme, Migration and Human Development: Opportunities and Challenges*. National Human Development Report 2009. Yerevan (2010).
13. Yeganyan R., Davtyan L. *An Assessment of the External Migration Situation of Armenia. Publications of International Seminar on Demography of Armenia between Two Centuries*. Dilijan 2000. UNFPA, Yerevan (2001), 30–37.
14. Onorati M., Kershbaumer F., Sunhva Yi. *Armenia. Policy Summary. Better Understanding International Labor Mobility* (2019), 18.
    https://documents1.worldbank.org/curated/en/402321574328607652/pdf/Armenia-Better-Understanding-International-Labor-Mobility.pdf
15. https://www.armstat.am/
16. Merton R.K. The Matthew Effect in Science. *Science* **159** (1968), 56–63.
    http://doi.ord/10.1126/science.159.3810.5

Գ. Գ. ՂԱՄԲԱՐՅԱՆ

ՀԱՅԱՍՏԱՆԻ ՏԱՐԱԲՆԱԿԵՑՄԱՆ ՓՈԽԱԿԵՐՊՄԱՆ ՄԻՏՈՒՄՆԵՐԸ ՀԵՏԽՈՐՀՐԴԱՅԻՆ ՏԱՐԻՆԵՐԻՆ

Ամփոփում

Խորհրդային տարիներին Հայաստանում ձևավորվում է բավականին կայացած տարաբնակեցման միասնական ցանց՝ բազմամակարդակ տարաբնակեցման համակարգով ու համահարթման միտումներով: Խորհրդային շրջանի վերջին տարիներին տեղի ունեցած բեկումնային իրադարձությունները և 1991 թ. Հայաստանի անկախացումից հետո ստեղծված աշխարհաքաղաքական, սոցիալ-տնտեսական պայմանները Հայաստանում սկիզբ են դնում արտագաղթի հզոր ալիքի, ժողովրդագրական ճգնաժամի և, որպես արդյունք, բնակչության դեպոպուլյացիայի:

Նոր իրականության պայմաններում ՀՀ տարաբնակեցումը էականորեն փոխակերպվում է, որի առանձնահատկությունների, միտումների, հիմնախնդիրների և տարածական տարբերությունների ուսումնասիրությանն էլ նվիրված է հոդվածը:

Ուսումնասիրության արդյունքում պարզվում է, որ բնակչության դեպոպուլյացիայի, միգրացիայի և ժողովրդագրական ճգնաժամի հիմնախնդիրները Հայաստանի տարբեր տիպի բնակավայրերում ու տարածական գոտիներում տարբեր ընթացք և փոխակերպումներ են ունենում: ՀՀ խոցելի տարածքներում (լեռնային և բարձր լեռնային, կենսագործունեության համար ոչ բարենպաստ բնաշխարհագրական և սոցիալ-տնտեսական պայմաններով, սահմանային անվտանգության ու գոյապահպանական խնդիրներով, ինչպես նաև տարաբնակեցման համակարգի ազդեցության գոտիներից դուրս գտնվող տարածքներ) բնակավայրերն առավել սուր և հիվանդագին են արձագանքում տեղի ունեցող բացասական և անցանկալի գործընթացներին՝ ընդհուպ մինչև բնագրկում: Միևնույն ժամանակ, ՀՀ մի շարք բնակավայրեր, ունենալով մրցակցային համեմատական առավելություններ, դառնում են ոչ թե դեպոպուլյացիայի, այլ ընդհակառակը, բնակչության աճի ու տնտեսական զարգացման օջախներ:

Г. Г. ГАМБАРЯН

ТЕНДЕНЦИИ ИЗМЕНЕНИЯ РАССЕЛЕНИЯ АРМЕНИИ В ПОСТСОВЕТСКИЙ ПЕРИОД

Резюме

В советские годы в Республике Армения (РА) сформировалась хорошо налаженная единая сеть расселения с многоуровневой системой расселения и тенденциями выравнивания. Однако переломные события, произошедшие в

последние годы советского периода и сформировавшиеся после обретения независимости, геополитические и социально-экономические условия иницииировали мощную волну эмиграции, демографический кризис и, как следствие, депопуляцию населения.

В условиях новой реальности расселение в РА существенно трансформировалось. Статья посвящена изучению его особенностей, тенденций, проблем, а также территориальных различий.

В результате исследования выяснено, что проблемы депопуляции, миграции и демографического кризиса имеют разные проявления и трансформации в разных типах поселений и территориальных зонах Армении. Уязвимые территории РА (горные и высокогорные районы, территории с неблагоприятными природно-географическими и социально-экономическими условиями, с проблемами безопасности границ и жизнеобеспечения, территории вне зон влияния системы расселения) более остро реагируют на негативные и нежелательные процессы, вплоть до обезлюдения. В то же время ряд населенных пунктов, которые обладают сравнительными конкурентными преимуществами, становятся центрами роста населения и экономического развития, а не центрами депопуляции.

В результате происходящих процессов наблюдается резкая поляризация расселения РА. Она превратилась в экзистенциальную проблему и требует комплексных решений региональной политики.