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# Socio-Economic Problems of Depressed Settlements of Kazakhstan: an Empirical Analysis

**Aissulu T. Moldabekova [1], Galiya G. Seitkan [2*], Dinara M. Mussayeva [1], Aigerim Yessentay [1]**

*[1] Institute of Economics CS MES RK, 28 Shevchenko Str., A25K1B0, Almaty, Kazakhstan*
*[2] Al-Farabi Kazakh National University, 71 Al-Farabi Ave., A15E3B4, Almaty, Kazakhstan*

## Abstract

In the conditions of sustainable development, special attention is paid to the balanced development of the territory. In regional studies, the study of the state of depressed settlements has scientific and practical relevance. In this regard, the conceptual analysis of the concept "depressed region" and "vulnerability of settlements" allows us to define important parameters for the study. The aim of the article is an empirical analysis of the socio-economic problems of vulnerable settlements. Based on the literature study, the conceptual bases of depressiveness and social vulnerability of settlements are highlighted, and the main parameters of its assessment are singled out. The method of data collection was a questionnaire. As a result of a sociological survey of the population, the sample consisted of 300 respondents from vulnerable areas in East Kazakhstan, Zhambyl, and North Kazakhstan regions. According to the results of the survey, several socio-economic issues among the settlements can be identified: lack of livelihood, there is no opportunity for development, poor infrastructure, lack of jobs and opportunities to earn money, poor living conditions, poor environment, problems with getting vocational education, retraining, etc. According to the survey, it is important to develop infrastructure. To address the development of depressed and vulnerable settlements, it is necessary to create transport and social infrastructure: road network, communications, Internet, development of organizational and economic mechanisms: increasing state support for local businesses, strengthening the role of local authorities, providing soft loans and subsidies to the population, providing settlements with social facilities, providing grants for the development of their businesses.

*Keywords:* Depressed Region, Regional Economy, Social Vulnerability, Vulnerability Framework, Socio-Economic Development, Territorial Development

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*** Corresponding author: Seitkan G.G.** – PhD candidate, Al-Farabi Kazakh National University, Almaty, Kazakhstan, 87479763742, e-mail: galeka_07_96@mail.ru

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# Қазақстанның депрессивтік аймақтарының әлеуметтік-экономикалық мәселелері: эмпирикалық талдау

**Молдабекова А.Т.** [1], **Сейткан Г.Г.** [2*], **Мусаева Д.М.** [1], **Есентай А.** [1]

[1] *ҚР БҒМ ҒК Экономика институты, Щевченко 28, A25K1B0, Алматы, Қазақстан*
[2] *әл-Фараби атындағы ҚазҰУ, әл-Фараби, 71, A15E3B4, Алматы, Қазақстан*

## Түйін

Тұрақты даму жағдайында аумақтың теңгерімді дамуына ерекше көңіл бөлінеді. Регионалдық зерттеулерде қолайсыз елді мекендердің жай-күйін зерттеудің ғылыми және практикалық маңызы бар. Осыған байланысты «депрессиялық аймақ», «елді мекендердің осалдығы» ұғымдарын тұжырымдамалық талдау зерттеу үшін маңызды параметрлерді анықтауға мүмкіндік береді. Мақаланың мақсаты-осал елді мекендердің әлеуметтік-экономикалық мәселелерінің эмпирикалық талдауы. Әдебиеттерді зерттеу негізінде елді мекендердің депрессиясы мен әлеуметтік осалдығының тұжырымдамалық негіздері бөлініп, оны бағалаудың негізгі параметрлері анықталды. Деректерді жинау әдісі сауалнама парағы болды. Халықтың әлеуметтік сауалнамасы нәтижесінде іріктеме Шығыс Қазақстан, Жамбыл және Солтүстік Қазақстан облыстарының осал аудандарынан 300 респонденттен тұрды. Сауалнама нәтижелері бойынша елді мекендер арасында бірнеше әлеуметтік-экономикалық проблемаларды бөліп көрсетуге болады: өмір сүру қаражатының болмауы, даму мүмкіндіктерінің болмауы, инфрақұрылымның нашарлығы, жұмыс орындары мен ақша табу мүмкіндіктерінің болмауы, тұрмыс жағдайының нашарлығы, экологияның нашарлығы, кәсіптік білім алу, қайта даярлау проблемалары және т. б. Күйзеліске ұшыраған және осал елді мекендерді дамыту мәселелерін шешу үшін көлік және әлеуметтік инфрақұрылымды: жол желісін, байланысты, Интернетті дамыту, ұйымдық-экономикалық тетіктерді дамыту: жергілікті бизнесті мемлекеттік қолдауды ұлғайту, жергілікті билік органдарының рөлін күшейту, халыққа жеңілдікті кредиттер мен субсидиялар беру, Елді мекендерді әлеуметтік мекемелермен қамтамасыз ету, өз бизнесін дамытуға гранттар беру қажет.

*Түйін сөздер*: депрессиялық аймақ, аймақтық экономика, әлеуметтік осалдық, осалдық шеңбері, әлеуметтік-экономикалық даму, аумақтық даму

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*** Хат-хабаршы авторы: Сейткан Ғ.Ғ.** – PhD докторант, әл-Фараби атындағы ҚазҰ, Алматы, Қазақстан, 87479763742, e-mail: galeka_07_96@mail.ru

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# Социально-экономические проблемы депрессивных регионов Казахстана: эмпирический анализ

**Молдабекова А.Т.** [1], **Сейткан Г.Г.** [2*], **Мусаева Д.М.** [1], **Есентай А.** [1]

[1] *Институт экономики КН МОН РК, ул. Щевченко 28, A25K1B0, Алматы, Казахстан*
[2] *КазНУ имени аль-Фараби, пр.аль-Фараби 71, A15E3B4, Алматы, Казахстан*

**Аннотация**

В условиях устойчивого развития особое внимание уделяется к сбалансированному развитию территории. В региональных исследованиях изучение состояния неблагополучных населенных пунктов имеет научную и практическую значимость. В связи с этим, концептуальный анализ понятия «депрессивный регион», «уязвимость поселений» позволяет определить важные параметры для проведения исследования. Целью статьи является эмпирический анализ социально-экономических проблем уязвимых поселений. На основе изучения литературы выделены концептуальные основы депрессивности и социальной уязвимости поселений и выделены основные параметры ее оценки. The method of data collection was a questionnaire. В результате социологического опроса населения выбор состоял из 300 респондентов из уязвимых районов Восточно- Казахстанской, Жамбылской и Северо-Казахстанской областей. По результатам опроса можно выделить несколько социально-экономических проблем среди населенных пунктов: отсутствие средств к существованию, нет возможности для развития, плохая инфраструктура, отсутствие рабочих мест и возможности заработать, плохие условия жизни, плохая экология, проблемы с получением профессионального образования, переподготовки и т.д. Для решения вопросов развития депрессивных и уязвимых населенных пунктов необходимо развитие транспортной и социальной инфраструктуры: дорожной сети, связи, интернета, развитие организационно-экономических механизмов: увеличение государственной поддержки местного бизнеса, усиление роли местных органов власти, предоставление населению льготных кредитов и субсидий, обеспечение населенных пунктов социальными учреждениями, предоставление грантов на развитие своего бизнеса.

*Ключевые слова:* депрессивный регион, региональная экономика, социальная уязвимость, рамки уязвимости, социально-экономическое развитие, территориальное развитие

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***Корреспондирующий автор: Сейткан Г.Г.** – PhD докторант, КазНУ имени аль-Фараби, пр.Аль-Фараби 71, A15E3B4, Алматы, Казахстан, 87479763742, e-mail: galeka_07_96@mail.ru

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## Introduction

The concept "depressed region" has different definitions by various authors. There is no clear definition of "depressed region". Shtulberg defined the term depressed region as a specific territory with above-average economic potential, industrial production in the economic structure, a high level of qualified specialists, high rates of decline in the economy of basic industries, below average investment activity, unemployment, low levels of real income of the region compared to the national average and low levels of budgetary security (Shtulberg, 1997). According to such authors as Seliverstov, Bandman, and Guzner, a depressive region is a developed region that has lost its position as a leader today (Seliverstov et al.,1996). Yakovenko believes that depressive regions are considered to be special typological groups with signs of entering the phase of socio-economic instability, and a decline in the steps of cyclical rhythm (Yakovenko, 2013). Asmus defined the concept "depressed region" - the subjects with infrastructural, human, scientific, technical, climatic potential, the growth rate dynamics of the leading indicators of which have been reduced by the established standard for the last five years (Asmus, 2008). The following indicators of the definition of a depressive region were identified: growth rate, budget sufficiency, income per capita, investment attractiveness, employment of the population, personal income, and indicators of production growth rates. According to the definition given by the scientists, Surkova and Shusharina depressive region is the territory in which the resource and production base has entered the stage of steady decline while excluding the emergence of subsequent development incentives (Surkova & Shusharina, 2009). Balakrishna defined a "depressive region" as a problem region characterized by crisis processes, low economic activity, a decrease in the population's quality and standard of living, and a reduction of production volumes in traditionally specialized industries (Holodkova et al., 2020). In depressed regions, there are not enough sources to revive the depressive conditions, either there are no resources at all.

However, depressed regions, according to scientists, have a significant share of industry, a significant number of specialists, and accumulated economic potential. Scientist A.G. Granberg most accurately defined the essence of the concept of "depressed region" (Granberg, 2003). Scientists believe the regions have different problems and combinations, such as social, economic, financial, and others. Problem regions are divided into two types: depressed and backward regions. The distinction between backward regions lies in the fact that depressed regions took a leading position in the branches of the state economy in the past. In contrast, backward regions had the same values of socio-economic indicators. By the coincidence of various circumstances and times, developed regions have lost their former importance and become depressed. The foreign experience of depressed regions is the reason for their emergence, which can include a small degree of uneven development of economic sectors and industrial diversification (Sankovets, 2011).

According to the Resolution of the Government of the Republic of Kazakhstan dated December 7, 2001, No. 1598, "On the Concept of Regional Policy of the Republic of Kazakhstan" the following criteria were defined: depletion or lack of resource base; underdeveloped production infrastructures; not very favorable environmental conditions; a volume of industrial production per capita below 20% of the average republican value; the unemployment rate for the last three years above the average republican indicators by 50% and others. When studying the issue of "depressed regions" of Kazakhstan, it is necessary to divide these regions into two categories. An example of the first category of depressed areas is the Aral Sea region; that is, these are regions in which there is an increase of negative aspects in employment, ecology, demography, and others. The second category includes settlements, which are the point of depressive growing tension on the map of the republic region. Zhangeldy and Amangeldy regions, famous for their cattle-breeding activities, have recently been in crisis.

In Kazakhstan, on September 5, 2003, a program for developing small towns was drawn up with Resolution No. 903 "On the Action Plan to Implement the Program of the Government of the Republic of Kazakhstan". To find out the actual situation in depressed and vulnerable settlements as part of the assignment, a sociological survey was conducted among the population of villages and cities of the regions of Kazakhstan (the example of East Kazakhstan, Zhambyl, and North Kazakhstan regions). Respondents from depressed and vulnerable areas were selected for the analysis. Based on the analytical review of the literature, it was concluded that social surveys are a more concrete way to identify the state of a depressed region because it is the population that is the primary evaluator. The aim of the article is an empirical analysis of the socio-economic problems of vulnerable settlements. A survey was conducted among vulnerable areas in East Kazakhstan, Zhambyl, and North Kazakhstan regions.

## Literature review

Economic development of depressed regions is critically important because if the depressed state of the area is not adequately prevented, it poses a threat to regional differentiation. Therefore, the acceleration of regional development processes and innovations in depressed regions leads first to improving the quality of life of the people living in the region. Boschma and Lamba considered the evolution of the old industrial regions based on interactive learning (Boschma & Lambooy, 1999). Shin and Hassink analyzed the restructuring of old industrial areas (Hassink & Shin, 2005). Such scholars as Steiner, Iking, Tsipouri, McGahey, and Vey have investigated the formation of old industrial regions (Steiner, 1985; Iking, 2004; Tsipouri, 2005; McGahey & Vey, 2008). Birch, MacKinnon, and Cumbers considered the experience, condition, and problems of old industrial regions of Western Europe (Birch et al., 2010). In the works of Kazakh scientist Sultanova, the economic development features of Kazakhstan's regions and the state measures taken are considered (Sultanova, 2020).

Vulnerability is a complex terminology that includes both socio-economic determinants and physical determinants that affect the susceptibility of a particular territory (Adger, 2006). The definition of "vulnerability" varies across disciplines, from psychology to economics. In general, the concept of "vulnerability" is defined as susceptibility to harm (Füssel & Klein, 2006). Also, "vulnerability" is interpreted as the interaction between sensitivity, adaptive capacity, and exposure (Abson, 2012). Sensitivity is considered a system subject to the influence of stressors, exposure is studied as a system susceptible to external pressure, and adaptive capacity is characterized as the ability to adapt and cope with the changes available (Eakin & Amy, 2008). Social vulnerability is considered economical and social aspects, focusing on understanding vulnerability (Birkmann et al., 2013). Social vulnerability is considered to locate a particular society's threat and identify vulnerability (Ribot, 2014). According to scholars, different dimensions influence approaches to studying social vulnerability (Nguyen et al., 2017; Füssel & Klein, 2006). Researchers have identified the following dimensions in conceptualizations of vulnerability:

1) the domain of knowledge that distinguishes socioeconomic vulnerability from physical vulnerability;

2) the domain is divided into external (environment, topography, sea level rise) and internal factors (education, household income, social networks);

3) spatial scale (SVI studies are conducted at the international level (Abson, 2012), at the national level (Ribot, 2014), at the local level (Nguyen et al., 2017);

4) data sources (use of secondary data).

Let us distinguish the factors influencing social vulnerability: infrastructure density, intensive and expansive land use, inequality (social status), many regional residents, and inequality (socio-economic status). The most well-known classification of factors forming social vulnerability is considered and proposed by Hallisey (Flanagan et al., 2011). According to this classification, four main areas should be distinguished. The classification is presented in figure 1.

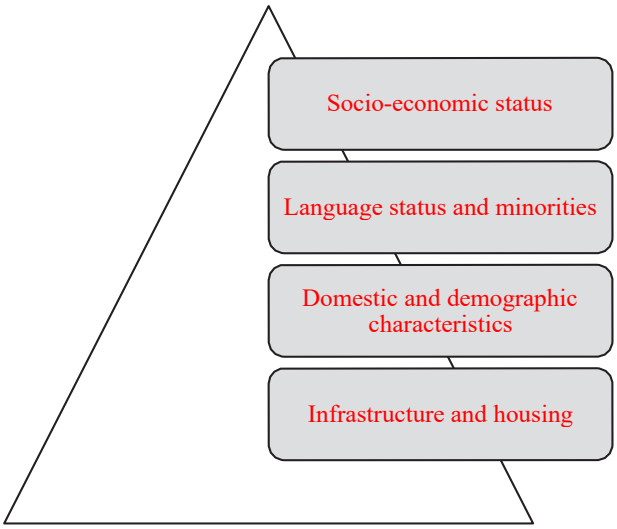


**Figure 1** - Classification of factors forming social vulnerability Note - compiled by the author from the source (Flanagan et al., 2011).

The structure and population size distribution characterize the demographic domain. For example, it includes gender, age, family composition, and housing. This domain uses economic factors to identify socio-economic indicators (Wu et al., 2002). The socio-economic environment is characterized by measuring the financial positions of specific groups of people and individuals. Indicators such as employment, poverty, per capita income, and education are measured here (Flanagan et al., 2011).

The infrastructure and housing domain includes the following indicators: electricity, water supply, percentage of mobile homes, and crowding rate (Tierney, 2006). The quality of infrastructure and housing are the main factors in assessing social vulnerability. Infrastructure and housing are more

related to the wealth of homeowners. Consequently, the housing of vulnerable populations is, in many cases, mobile homes or poorly constructed, vulnerable to physical threats.

## Methods and data

The study used a quantitative research method, which allows us to estimate the prevalence and magnitude of the studied parameters. A questionnaire is the method of data collection for quantitative research. The goal of quantitative studies is to precisely capture details of the empirical social world and express what we find in numbers (Djamba & Neuman, 2002).

The data collection method is a questionnaire, which allows you to collect primary data. As a result of a sociological survey of the population, the sample consisted of 300 respondents from vulnerable areas in East Kazakhstan, Zhambyl, and North Kazakhstan regions. The choice of these regions is generalized because, according to the statistical analysis results, depressed areas were identified precisely in these regions (Kireyeva et al., 2022). In this regard, special attention is paid to studying the socio-economic problems of depressive targeted prescriptions. For the temporal representativeness of the sample, a target quota was formed considering the gender categories of the population, and the total sample was distributed according to this proportion. Socio-demographic characteristics describing the sample are presented in Table 1. The data show that the survey covered various groups of people according to several characteristics (socio-demographic): age, gender, marital status, and level of education regions of Kazakhstan.

**Table 1**- Socio-demographic characteristics of respondents, N=300

| Questions | Total | % |
|---|---|---|
| Gender | men | 47,5 |
| | women | 52,5 |
| Age | 18-29 years old | 12,1 |
| | 30-45 years old | 46,6 |
| | 46-55 years old | 30,7 |
| | 56-65 years old | 10,7 |
| The level of education | No education, primary | 1,4 |
| | Partial secondary (basic) | 2,8 |
| | Secondary general, vocational school | 3,4 |
| | Secondary specialized (technical school, college, college, etc.) | 15,5 |
| | Incomplete Higher | 4,8 |
| | Higher (including bachelor's and master's degrees) | 72,1 |
| How many children are in your family? | 1-2 | 56,7 |
| | 3-4 | 39,6 |
| | 5 or more | 3,6 |
| Specify your region | East Kazakhstan | 33,8 |
| | North Kazakhstan | 32,1 |
| | Zhambyl | 34,1 |

Note – compiled by authors

The distribution of respondents by financial situation, presented in Table 12 of households, indicates that the survey covered the population with different financial conditions: both with a difficult financial situation, with an average financial situation, and without financial difficulties.

It is noted that a large number of the resident population is experiencing financial difficulties (56.5%).

**Table 2** - Distribution of respondents according to the financial situation of the household

| Answer options | % |
|---|---|
| Can afford food, clothes are difficult to buy | 25,5 |
| It would be difficult to buy a TV, refrigerator or washing machine now | 22,4 |
| Our earnings are enough for everything, except for such expensive acquisitions as an apartment/house | 18,3 |
| There is enough money for large household appliances, but we could not buy a new car | 11,4 |
| Refusal to answer | 10 |
| Not even enough money for food | 8,6 |
| We do not experience any financial difficulties. If necessary, could buy an apartment/house | 3,8 |

Note – compiled by authors

Thus, according to the target sample, a survey was conducted among residents of vulnerable areas in East Kazakhstan, Zhambyl, and North Kazakhstan regions. The data were processed using the SPSS25.

**Results**

In territories with signs of vulnerability and depressiveness, the respondents stated that agriculture is the predominant industry in their settlements (42,1%). The public sector (akimat, school, hospital) (30.0%) and trade (17.9%) are also primary sectors. Only 5.5% of the respondents chose the option "industry" (Figure 2).

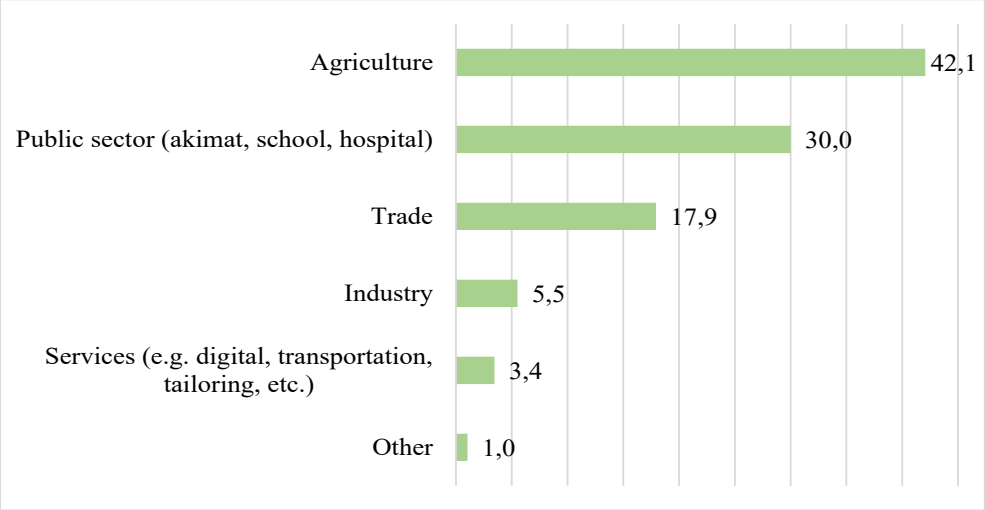


**Figure 2** - Distribution of answers to the question "Which industry or area of activity is predominant in your city or village?", %

Note – compiled by authors

On the whole, it can be noted that in the majority of studied settlements, primary sources of income of a family are state payments, allowances, pension (43.2%), public service (15.1%), subsidiary farming (12.3%), and individual entrepreneurship (8.0%).

Figure 3 shows the distribution of respondents' answers to the question "What are the main problems of your family?".

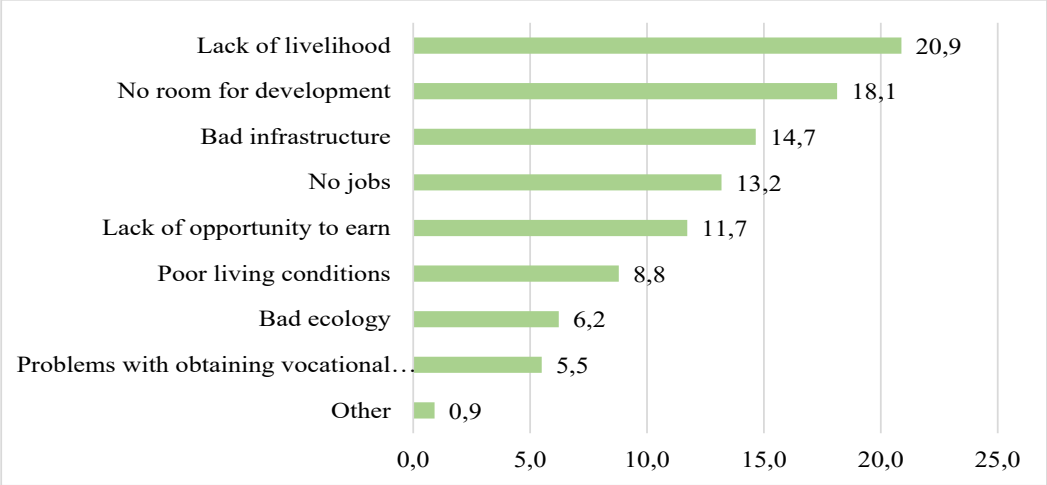


**Figure 3** - Distribution of answers to the question "What are the main problems of your family?", %

Note – compiled by authors

According to the survey results, several of the most acute unresolved socio-economic issues among the settlements can be identified. Thus, respondents from each group of settlements identified a material problem in the family - "lack of livelihood" - 20.9%. Further, the next group of respondents noted that "there is no opportunity for development" in their settlements " - 28.4%.

As can be seen from the results obtained, some respondents noted unresolved socio-economic and infrastructural problems in settlements. In particular, poor infrastructure (14.7%), lack of jobs (11.7%) and opportunities to earn money (11.7%), poor living conditions (8.8%), poor environment (6.2%), problems with obtaining vocational education, retraining (5.5%). In a more detailed examination of the answers, some respondents identified other unresolved issues: the availability of loans, lack of housing, lack of money, health problems, and some subsidiary farms having problems with heating and drinking water.

Another important evaluation indicator is a public opinion survey about significant problems of a city or village. Figure 4 shows the distribution of respondents' answers to the question "What are the main problems of your city or village?"

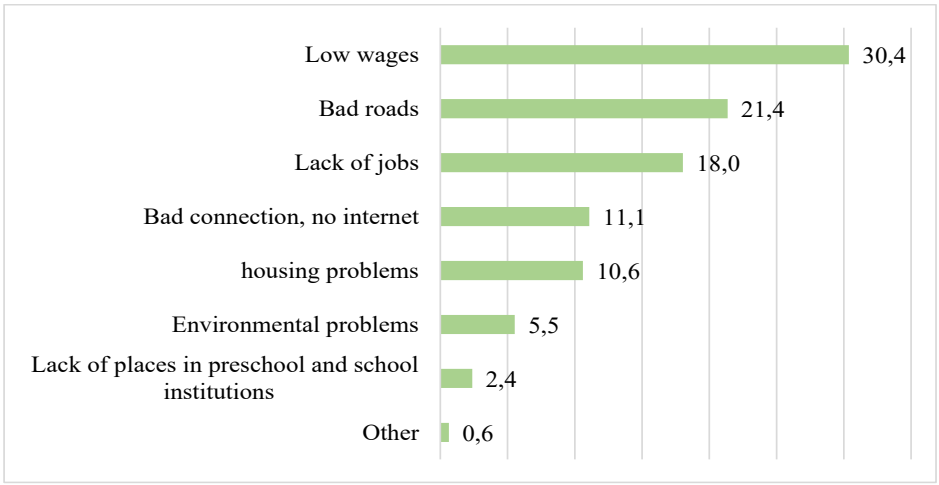


**Figure 4** - Distribution of answers to the question "What are the main problems of your city or village?", %

Note – compiled by authors

The results of conducted research prove that salary in most settlements in North Kazakhstan region, East Kazakhstan region and Zhambyl Region remains a severe problem, and a specific part of the population is dissatisfied with their financial situation. The majority of respondents o the question "What are the main problems of your city or village?" pointed out "low wages" - 30.4%, in the second place - "bad roads" - 21.4%, in the third place - "lack of jobs "- 18.0%, on the fourth - "bad connection, lack of Internet" - 11.1%, on the fifth - "problems with housing" -10.6%. Accordingly, social and economic tension are key reasons remain unemployment and poverty. Issues surrounding ecological problems- 5,5%, shortage of places in preschools and schools -2,4% are relevant to respondents to a less degree. It is also noteworthy that some respondents outlined a set of other problems - lack of public water supply, poor quality of medicine, and lack of Kazakh schools.

The further significant direction of the research is public opinion assessment on the degree of poverty of their settlement. Figure 5 there is presented a distribution of answers of respondents to the question "In your opinion, what is the reason for the high level of poverty in your city or village?"

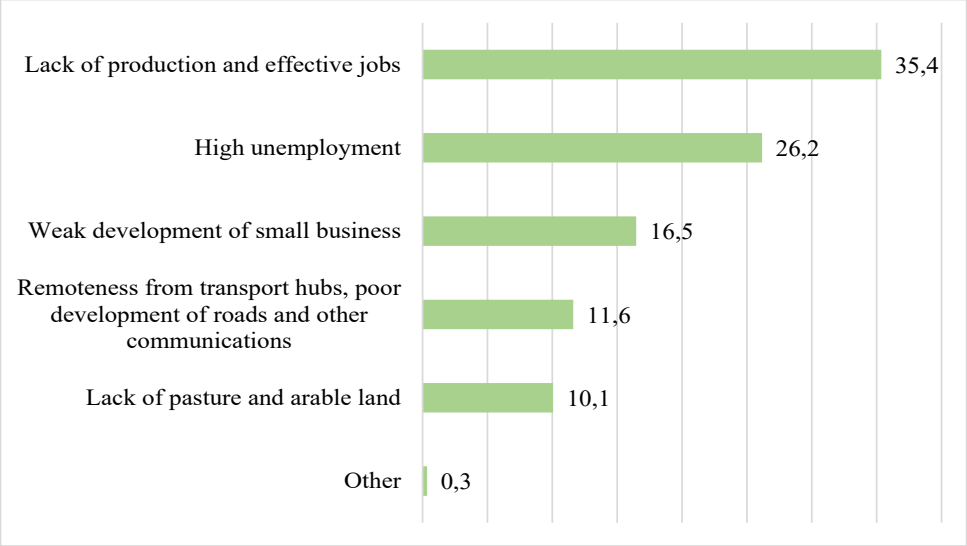


**Figure 5** - Distribution of answers to the question "In your opinion, what is the reason for the high level of poverty in your city or village?", %

Note – compiled by authors

One of the critical problems of many depressed settlements is the analysis of the level of population migration. Figure 6 shows the distribution of respondents' answers to the question, "In your opinion, what are the reasons for the high level of migration from your locality?".

Based on the results of the analysis of respondents' answers, it was revealed that the main reasons for the high level of migration from depressed and vulnerable settlements are: job search (41.5%), low level of living comfort (lack of gas supply, central heating, etc.) (23.6 %), lack of necessary social (educational and healthcare institutions) and transport infrastructure (16.2%). Also, essential problems include the following environmental issues: environmental degradation (6.3%), low access to drinking water (5.2%), man-made environmental disturbances, and others (3.7%).

In the responses to the question about the level of poverty of the population, the absence of industries and practical jobs (35.4%) stand out by a wide margin. This is followed by a high unemployment rate (26.2%) and weak small business development (16.5%). It is seen that for settlements, especially rural areas, the problems of remoteness from transport hubs, poor development of roads and other communications (11.6%), and lack of pasture and arable land (10.1%) are also relevant.

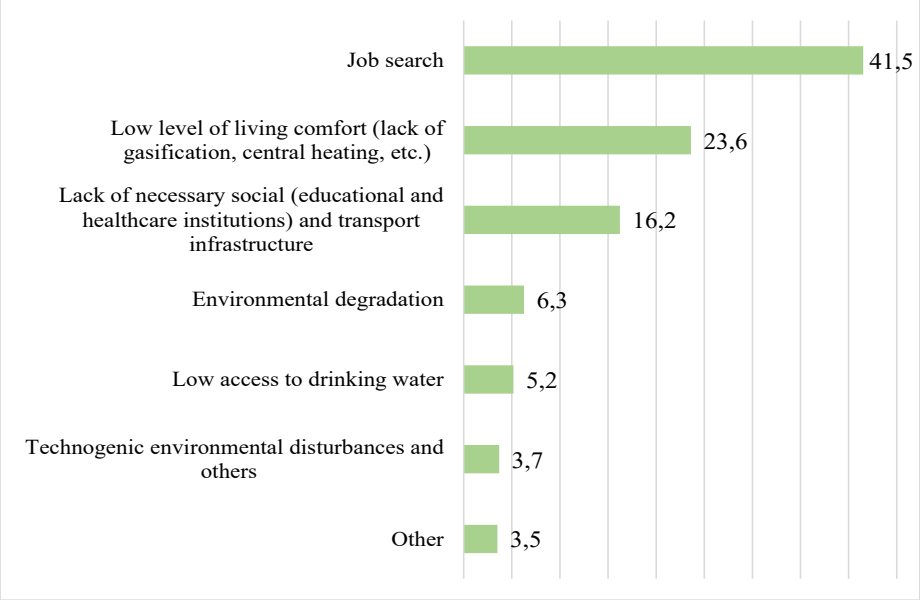


**Figure 6** - Distribution of answers to the question "In your opinion, what are the reasons for the high level of migration from your locality?", %

Note – compiled by authors

Based on the population survey in the settlements, it is important to develop infrastructure and solve the social problems of the population. According to the results of the analysis of the answers it was revealed that for active development of depressive and vulnerable settlements, first of all, it is important to develop infrastructure – development of road network, communication routes, the Internet, and secondly, the development of organizational and economic mechanisms to increase state support for local businesses, strengthen the role of local self-government, granting the population preferential crediting and subsidizing. In addition, vital importance is given to the following measures: settlement provision with social welfare institutions, providing grants for the development of their own business, organizing courses to teach the population business skills, crafts, etc.

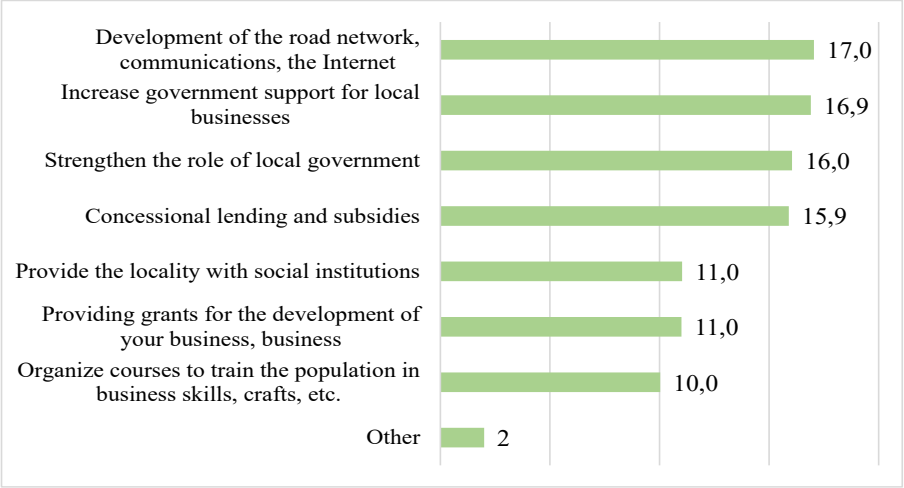


**Figure 7** - Distribution of answers to the question "In your opinion, what measures should be taken to develop your city, or village actively?", %

Note – compiled by authors

## Conclusions

The analysis of the results shows that the level of development of settlements is not satisfactory for residents. Ultimately, the primary focus of the population concern is on socio-economic problems, low level of development of transport, and social infrastructure in cities and villages.

Thus, a sociological survey of residents of settlements in the regions of Kazakhstan (North Kazakhstan, East Kazakhstan, Zhambyl Region) made it possible to draw the following conclusions: in settlements with signs of vulnerability and depression, the predominant industry and areas of activity are agriculture, the public sector (akimat, school, hospital). Family members are partly provided with the jobs, and the majority of the population have financial issues; material problems - low wages, lack of livelihood, lack of development opportunities, lack of jobs, difficulties with obtaining education, opportunities to earn money, retraining are among significant socio-economic problems of the inhabitants of the settlements of the regions. The population has issues with loans, housing problems, lack of money, health problems, and problems with heating and drinking water as well.

Primary infrastructural and environmental problems of depressive and vulnerable settlements are poor roads, poor communication, lack of Internet, housing problems, poor living conditions, environmental problems, drinking water quality, and lack of places in preschool and school institutions.

The outflow of the population from depressive and vulnerable settlements to more prosperous villages and cities is affected by the following reasons: job search, low level of living comfort (lack of gas supply, central heating, etc., lack of the necessary social (educational and healthcare institutions) and transport infrastructure, deterioration environmental situation, low level of access to drinking water, technology-related environmental disturbances and more.

Thus, considering the survey results among people in vulnerable and depressed regions (East-Kazakhstan, North-Kazakhstan, Zhambyl), the following negative aspects were identified: the presence of socio-economic problems, a weak level of infrastructure, and environmental development. To solve the issues of formation and development of vulnerable and depressed areas, it is essential to promote transport and social infrastructure. Since the development of the road network, communication routes, and the Internet, the development of organizational and economic mechanisms can contribute to improving regional policy to overcome the depopulation of strategically important settlements in Kazakhstan. Moreover, as a set of measures, it is suggested: to direct efforts towards the formation of institutions for the development of dying settlements, which should be provided with a group of measures, retraining of the population; support of the people through the development of small businesses; it is necessary to direct efforts to create a new high-tech environment in single-industry towns and small towns to be more actively involved in solving the problem of employment

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**Information about the authors**

**Aissulu T. Moldabekova –** Researcher, Institute of Economics of the CS MES RK, Kazakhstan, e-mail: kazsocium01@gmail.com, https://orcid.org/0000-0003-4330-5595

***Galiya G. Seitkan -** PhD candidate, Al-Farabi Kazakh National University, Kazakhstan, e-mail: galeka_07_96@mail.ru**,** ORCID ID: https://orcid.org/0000 0002 5674 4901

**Dinara M. Mussayeva** – PhD candidate, Institute of Economics CS MES RK, Kazakhstan, e-mail: d_i_n_mus@mail.ru, ORCID ID: https://orcid.org/0000-0002-8349-213X

**Aigerim Yessentay** – PhD candidate, Institute of Economics CS MES RK, Kazakhstan, e-mail: aigera588@mail.ru, ORCID ID: https://orcid.org/0000-0003-3969-4284

**Авторлар туралы мәліметтер**

**Молдабекова А.Т**. - ғылыми қызметкері, ҚР БҒМ ҒК Экономика институтының, Қазақстан, e-mail: kazsocium01@gmail.com, ORCID ID: https://orcid.org/0000-0003-4330-5595

***Сейтқан Ғ.Ғ. -** PhD докторант, әл-Фараби атындағы ҚазҰ, Қазақстан, e-mail: galeka_07_96@mail.ru, ORCID ID: https://orcid.org/0000 0002 5674 4901

**Мұсаева Д. М.** - PhD докторант, ҚР БҒМ ҒК Экономика институты, Қазақстан, e-mail: d_i_n_mus@mail.ru, ORCID ID: https://orcid.org/0000-0002-8349-213X
**Есентай А.** - PhD докторант, ҚР БҒМ ҒК Экономика институты, Қазақстан, e-mail: aigera588@mail.ru, ORCID ID: https://orcid.org/0000-0003-3969-4284

**Сведения об авторах**

**Молдабекова А.Т**. **-** научный сотрудник, Институт экономики КН МОН РК, Казахстан, e-mail: kazsocium01@gmail.com, https://orcid.org/0000-0003-4330-5595

**Сейткан Г.Г.** – PhD докторант, КазНУ имени аль-Фараби, Казахстан, e-mail: galeka_07_96@mail.ru, ORCID ID: https://orcid.org/0000 0002 5674 4901

**Мусаева Д. М.** - PhD докторант, Институт экономики КН МОН РК, Казахстан, e-mail: d_i_n_mus@mail.ru, ORCID ID: https://orcid.org/0000-0002-8349-213X

**Есентай А.** - PhD докторант, Институт экономики КН МОН РК, Казахстан, e-mail: aigera588@mail.ru, ORCID ID: https://orcid.org/0000-0003-3969-4284