

ORGANIZATIONAL AND ECONOMIC MECHANISM OF MIGRATION REGULATION OF WORKING-AGED RURAL POPULATION (ON THE EXAMPLE OF THE SARATOV REGION), RUSSIA

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Abstract

Problems of migration of working-aged countryside population of rural territories are revealed. The organizational and economic mechanism of migration regulation of working-aged country people consisting of 2 modules – organizational and economic is developed and offered. The organizational module includes the directions of reduction of migration due to accounting of the major attracting and repellent factors. A basis of the economic module – fixing of professionals and working-aged population by means of creation of new and additional jobs in the village with using a wide package of measures. Use of the offered mechanism will allow to provide conditions for fixing of working-aged population in rural territories and to reduce migration.

Key words: labor migration, working-aged rural population, rural territories, attracting and repellent factors, organizational and economic mechanism

INTRODUCTION

In economic science many researchers dealt with problems of labor migration. The base of development of the migration theory many scientists recognize E.G. Ravenshtayn's works in which he formulated regularities of migration processes – in 1885 [2, 8] (the first edition), and further – in the second edition in 1889 [9]. He came to conclusion that: key motives of migration are economic; migration has step-by-step character; each migration flow generates a stream of an opposite direction; flows of migrants are sent from agricultural areas to the centers of the industry and trade. Ravenshtayn for the first time gave interpretation of the attracting factors as key motives of an attraction of migrants in the territory with safe conditions.

The different view on migration processes was developed by the American sociologist S. Stoffer. In 1940 it published article "The interfering circumstances: the theory of interaction of mobility and distance" in which the conclusion was drawn that not remoteness

of areas of resettlement influence intensity of migration flows, and quantity of the interfering circumstances (or obstacles – transport costs, a lack of information, a negative spirit from aboriginals, etc.) [13].

A bit later, in 1949 D.K. Zipf formulated gravitational model of migration which was widely adopted subsequently and began to be used by many researchers. The intensity of a migration flow between two objects in gravitational model depends on two sizes – distances (constant) and measures of the importance (as a rule, population). The feature of this model is that it does not consider extensive list of the interfering circumstances [18]. After the publication of this work mathematical modeling became universal for using in the research process of problems of labor migration.

It should be noted a significant scientific contribution of the theory of migration of Everett Li (1966). He rethought Ravenshtayn's theory, having allocated the pushing-out and attracting factors of migration flows [1]. Some factors of

economic character (unemployment, low income level, high taxes) can belong to pushing out; social and political (poverty, discrimination, restrictions for freedom of worship and religions, wars); adverse natural and climatic conditions, etc. Can be the attracting factors: high level of economic development, higher income, safety, an opportunity to get access to labor market (including in the informal sector that is especially important for illegal immigrants) and others.

It is necessary to mention works of William Arthur Lewis, the Nobel laureate, the author of two-sector model of economy which assumes allocation of the rural and city sector. The author pays special attention in this model to migration from rural areas to the city against the background of increase in production and employment in Third World countries [5].

The noticeable contribution to development of the migration theory was brought by the American geographer V. Zelinski. He analyzed migration processes according to social and economic development of regions on the basis of the Concept of the "mobile transition" disclosing the regularities in increase in territorial mobility occurring step by step which represent an essential element of process of modernization. It allocated 5 phases of migration transition: primitive traditional society, early mobile society, late mobile society, the developed society, the overdeveloped society [17]. What pushes on a conclusion about continuous historical evolution in migration processes.

In the 1990s there was a synthetic theory of the international migration which author is the American sociologist D. Massey and his co-authors. Migration in it is considered as result of processes of integration in political, economic and public life and also as a result of economic growth. The attracting factors are more relevant, than pushing out. At the same time, the difference in the income of the population will not be the main factor of sharp increase or reduction of intensity of migration flows. D. Massey pays considerable attention to the level of development of the

infrastructure created by migrants providing communication with the homeland, expat communities and also money transfers [6].

In Russia many scientists were engaged in problems of external and internal labor migration. It should be noted first of all works of the academician of Russian Academy of Sciences (RAS) G.V. Osipov and professor L.L. Rybakovsky which developed the author's theory of migration process (Institute of socio-political researches of RAS) [7].

It is also worth allocating the long-term works of V.A. Iontsev and his colleagues from the Center of the population of Moscow State University (MSU) devoted to problems of the international population shift and migration policy [4].

Big contribution to a research of problems of migration policy, the international migration, "brain drain", labor migration, employment of the population in the small Russian cities, illegal migration in border territories, migration mobility Zh.A. Zayonchkovskaya and her colleagues (Institute of Economic forecasting of RAS) brought [16].

At the present stage to teoretiko-methodological bases of this problem S.V. Ryazantsev, [11] Yu.M. Filatova [2] works are devoted. Influence of external labor migration on social and economic development of Russia is investigated in E.Yu. Hrustalyov's works [3], R. S. Tabasaranskiy [14], P. A. Smelov, [12] and many others.

The objective of the paper was to analyze the organizational and economic mechanism of migration regulation of working-aged rural population on the example of the Saratov Region, Russia.

MATERIALS AND METHODS

When carrying out a research on a problem of labor migration of agricultural workers information of the Ministry of Agriculture of the Russian Federation, municipal databases of Federal State Statistics Service was used. Works of the Russian and foreign scientists concerning interregional and intraregional migration of country people were used.

Studying of dynamics and current state of migration flows of working-aged rural population in agro-industrial complex of Russia and the Saratov region, in particular, leaned on economical and statistical and economic-mathematical methods of the analysis.

Definition of the directions of development and creation of the organizational and economic mechanism of regulation of migration of able-bodied country people was based on abstract and logical and calculation and constructive methods and also on use of a method of the sociological survey which is guided by recommendations about statistics of the international migration, developed by the UN in 1998 (Department on economic and social problems. Statistical department) [15]. Also, in a research of problems of labor migration of country people V.V. Patsiorkovsky's methodology (ISEPN RAHN) assuming a research of two groups of factors was used:

1) the first group – the territorial organization of rural population and migration flows.

2) the second group – socio-economic factors the defining standards of living of people and motives to labor migration.

RESULTS AND DISCUSSIONS

In the Commonwealth countries, as well as in the states of other regions of the world, population shift exerts a certain impact on change of number and structure of the population. At the same time for many years migration processes in the region of the CIS in general are characterized, first, by prevalence of the interstate migration making from 85 % in Azerbaijan up to 90 % of the total migration turnover in other countries. From 10 Commonwealth countries for 2010-2018 only at 4 countries the positive migration balance (Azerbaijan, Belarus, Ukraine, Russia) is observed. In Moldova in 2018 the quantity of left was made even to quantity driving to the country (Table 1). Despite high appeal of Russia to migrants from the neighboring countries of the CIS, in 2010 - 2018 inflow was reduced, the positive balance of migration decreased by 33.2 thousand people.

Table 1. Dynamics of balance of the international migration in CIS countries

Countries	Balance of interstate migration (thousands people)				
	2010	2015	2016	2017	2018
1. Azerbaijan	1.4	1.1	1.5	1.2	1.6
2. Armenia	- 37.3	- 25.9	- 24.8	- 24.0	- 18.3
3. Belarus	10.3	18.5	7.9	3.9	9.4
4. Kazakhstan	15.5	- 13.4	- 21.1	- 22.1	- 29.1
5. Kyrgyzstan	- 50.6	- 4.2	- 3.9	- 3.9	- 5.2
6. Moldova	- 0.5	- 0.6	- 1.1	- 0.4	0.0
7. Russia	158.1	245.4	262.0	211.9	124.9
8. Tajikistan	- 6.5	- 4.8	- 4.3	- 3.7	- 3.0
9. Uzbekistan	- 44.1	- 29.3	- 26.2	- 18.6	- 14.7
10. Ukraine	16.1	9.3	7.8	12.0	18.6

Source: calculated on the basis of data of Statcommittee of the CIS.

In the Russian Federation the greatest migration outflow is pointed in the Volga Federal District – from 37.7 to 62.1 thousand people from 2010 for 2018 the Saratov region entering this federal district stands up on the 2nd place among the neighboring areas on intensity of migration outflow of the population – from 3.3 to 7.8 thousand people for an above-specified period (Table 2).

The research of migration flows of working-aged rural population of the Saratov region was under construction in a section of 4 groups of administrative regions which were defined by the Concept of migration policy in the Saratov region until 2025 (of August 2, 2013 No. 375-P) [10]:

- 1 group – depressive (9 areas);
- 2 group – partially depressive (11 areas);

3 group – border (that is, on a number of socio-economic indexes, not entered into group of safe areas, but also left group partially depressive) (6 areas);

4 group – safe (12 areas).

On researches of migration flows in the Saratov region for 2010-2018 considerable migration outflow of the population in all

municipal districts (Table 3) is traced. In the majority of areas (with the 1st on the 3rd group) the tendency of excess of rate of migration outflow of the population in comparison with natural losses is traced.

Therefore, migration of able-bodied country people acts as primary factor of outflow of shots from branch of agriculture.

Table 2. Dynamics of migration flows in the Russian Federation

Federal Districts (FD)	Migration gain (decline in population) in absolute expression, persons.				
	2010	2015	2016	2017	2018
Central Federal District	103,502	119,382	126,734	85,226	124,902
North Western Federal District	7,653	35,771	38,351	38,537	45,072
Southern Federal District	...	18,234	20,117	36,989	17,373
North Caucasian Federal District	...	- 28,027	- 31,549	- 25,411	- 29,058
Volga Federal District	- 37,669	- 50,458	- 60,813	- 46,774	- 62,095
including Saratov region	- 3,301	- 4,368	- 7,169	- 5,609	- 7,810
Ural Federal District	- 8,410	- 13,432	- 20,450	- 15,879	- 20,013
Siberian Federal District	- 26,057	- 45,795	- 48,480	- 47,420	- 51,815
Far Eastern Federal District	- 30,439	- 35,675	- 32,816	- 25,268	- 24,366

Source: calculated on the basis of data of Federal State Statistics Service.

Table 3. A mechanical and natural population growth of the Saratov region (on groups)

Years	Mechanical gain (decrease) of the population (on average in group), persons.			
	1 group	2 group	3 group	4 group
2010	- 61	- 99	- 133	224
2015	- 148	- 108	- 264	246
2016	- 110	- 187	- 281	87
2017	- 115	- 246	- 290	- 211
2018	- 151	- 246	- 286	- 376
Natural increase (decrease) of the population (on average in group), persons.				
2010	- 160	- 164	16	- 440
2015	- 162	- 115	- 2	- 250
2016	- 152	- 149	- 7	- 302
2017	- 155	- 167	- 36	- 353
2018	- 131	- 183	- 73	- 417

Source: calculated on the basis of the Database of municipal statistics.

As a result of the conducted exit researches in 6 areas of the Saratov region relating to different groups and located in various climatic microzones of area it was revealed that loss of constant earnings and an opportunity to provide family as a result of bankruptcy of a number of the large agricultural and industrial enterprises (Table 4) is the main reason for migration outflow of country people of working-age.

For monographic studying of the main reasons for migration outflows by authors questioning of the population of the above-designated areas as a result of which survey of

105 women and 90 men aged from 23 till 61 year was conducted was carried out.

All respondents had the higher and secondary professional education. More than 70% of respondents are employees of the agricultural enterprises. Most of them (90%) noted that the gained income is enough only for acquisition of food, clothes and fees of housing and communal services. On a question "What objects of social and household infrastructure you would like to improve?" the vast majority answered that it is necessary to organize infirmaries (including,

mobile) and also to make capital repairs of the building of the available school.

It was revealed that among young workers from among interviewed (from 23 to 35 years) more than 85 % plan to make moving to the regional center in the short term. Act as the main motives (as ranging): higher level of the salary (more than 90% of answers), improvement of social conditions (more than 65 % of answers), availability of medical and

other social services (more than 35 % of answers).As a result of the conducted research, based on empirical data, polls and the existing standard legal status of regulation of labor migration in rural territories of the region, the organizational and economic mechanism which use will allow to reduce outflow of the population was developed, to increase effective employment and the income of residents of the village.

Table 4. Main reasons for migration outflow rural population of municipal districts of the Saratov region

Name of the municipal districts	Migration outflow, persons and % of country people	Outflow reasons
1. Krasnoarmeyskiy (4th group)	333 (1.6%)	The insufficient level of development of social and engineering infrastructure in the village, a low wage. 2 agricultural enterprises went bankrupt (since 2013): LLC Spring Agricultural Firm and LLC Ilovlya. Strong outflow of workers was traced at the enterprises: collective farm "Victory", JSC MTS Grain-grower, APC Gvardeyskoye
2. Petrovsky (3rd group)	415 (3.3%)	Falling of prestigiousness of complex work, outflow of the most effective workers to new sectors of economy. By 2018 7 agroenterprises, including 2 large were closed: JSC Ptitsesovkhoz Petrovsky and LLC Studenovskoye that led to reduction of 380 jobs. Strong outflow of workers was traced in LLC Artel, APO Abodimovsky, APO Niva, APO of V.I. Chapayev
3. Novouzenskiy (3rd group)	431 (3.0%)	Bankruptcy of brick-works, poultry farm and creamery; deterioration in a financial position of a number of the large agricultural enterprises. By 2018 7 agroenterprises, including 2 large were closed: CJSC Petropavlovskoye and CJSC GPP Algayskiy. It led to reduction of 209 jobs. Strong outflow of workers is revealed in CJSC Dyurskoye, CJSC Novaya zhizn, CJSC Krasny partizan.
4. Turkovskiy (1st group)	136 (8.4%)	Falling of prestigiousness of complex work, outflow of the most effective workers to new sectors of economy, absence of qualified personnel.
5. Baltayskiy (1st group)	83 (1.4%)	Lack of jobs
6. Voskresenskiy (2nd group)	42 (0.3%)	Rather low income of the population caused by the developed branch structure of economy

Source: calculated by authors according to regional 'The strategy of social and economic development till 2030', and Database of municipal statistics.

The developed organizational and economic mechanism of regulation of migration of working-aged rural population consists of 2 modules – organizational and economic and also includes standard legal support of administrative and managerial influence for implementation of solutions of objectives (Table 5).

The organizational module includes the following directions of reduction of migration due to accounting of the major attracting and repellent factors:

- 1) improvement of social infrastructure in the village which enters: the organization of free aid in capital repairs and the maintenance of objects of social infrastructure (schools, kindergartens, hospitals); providing experts with own housing on the terms of long-term employment contracts (not less than 10 years);
- 2) preservation and increase in stable earnings of country able-bodied population, namely: providing social guarantees for workers and "transparency" of system of compensation, expansion of a social package.

Table 5. Organizational and economic mechanism of regulation of migration of working-aged rural population of the Saratov region

Purpose: reduction of outflow of working-aged population of rural territories of the area		
Tasks:		
1. Increase in employment rate and growth in incomes of the population	2. Development and improvement of social infrastructure	3. Reduction of rates of migration outflow of the population
Subjects of influence: (the authorities having influence on social and economic development and position of rural territories in the region) – executive authorities of the Saratov region: Ministry of social development; Ministry of Economic Development; Ministry of employment, work and migration; Ministry of Agriculture; administrations of municipal districts		
<i>It is offered to create the interdepartmental commission on development of rural territories</i>		
DECISION-MAKING MECHANISM		
ORGANIZATIONAL MODULE: 1)improvement of social infrastructure in the village: - the organization of free aid for capital repairs and the maintenance of infrastructure facilities (schools, kindergartens, hospitals) - providing experts with own housing on the terms of long-term employment contracts (not less than 10 years) 2)preservation and increase in stable earnings of employees of economic entities: - providing social guarantees; - respect for "transparency" in the system of compensation; - expansion of a social package for the worker.	STANDARD LEGAL SUPPORT: 1) strategy, programs, plans of social and economic development of rural territories (federal, regional, municipal levels) 2)the laws, orders, provisions governing the economic and social and labor relations in the region 3) collective agreements, individual employment contracts.	ECONOMIC MODULE Implementation of investment projects in the main directions (the volume of investment provided in the Strategy of social and economic development of municipal districts of the Saratov region till 2030 in the studied areas – 6297.7 million rubles): 1) agriculture: - crop production (development of vegetable growing of the closed soil); - livestock production (expansion of a livestock of cattle and sheep, increase in production of fish and bird) 2)processing of production of agrarian and industrial complex: - modernization of grain flows and elevators; - construction of slaughter units, shops on deep processing of meat
ADMINISTRATIVE AND MANAGERIAL INFLUENCE		
Objects of influence: economic entities, able-bodied population, objects of social infrastructure, social and economic sphere of municipal districts (Red Army, Petrovsky, Novouzensky, Turkovsky, Baltaysky, Voskresensky)		
The expected results:		
1. Reduction of migration outflow due to accounting of the major attracting factors: level of income, existence of health service, general education organizations	2. Fixing of the population in the village due to creation of new and additional jobs on the basis of branches of agrarian and industrial complex	
<i>Reduction of outflow of working-aged population on 1009 people (70.1 %) and creation of 726 additional jobs</i>		

Source: it is developed by authors.

Basis of the economic module – fixing of experts and able-bodied population by means of creation of new and additional jobs in the village due to implementation of investment projects in the directions in crop production and livestock production, branches of processing of production of agrarian and industrial complex taking into account climatic and other features of municipal

districts, the scientifically based system of agriculture and placement of production, national cultural values and traditions. Monitoring of efficiency and realization of the mechanism of regulation of migration of able-bodied population in the territory of the Saratov region, we suggest to see off the interdepartmental commission on development of rural territories created on the

basis of the regional Ministry of Agriculture. The measures entering the organizational module will allow to reduce outflow of the population in the explored municipal districts by 1,009 people or for 70.1%. By means of use of the economic module of the social and economic development of municipal districts developed according to regional Strategy and implementation of priority investment projects in branches of agrarian and industrial complex, 726 additional jobs will be created. The developed mechanism of regulation of labor migration of country people will allow to introduce, on condition of its constant application and improvement, these system actions for other areas, considering their specifics and Development strategies on prospect. Thus, use of the offered mechanism will allow to provide conditions for fixing of able-bodied population in municipal districts of area and to reduce migration.

CONCLUSIONS

The mechanism of regulation of migration of working-aged population of rural territories combines elements of strategic planning of development of the rural territories and modeling repellent (unemployment, low level of income, bad condition of social infrastructure, etc.) and attracting factors of migration (availability of vacancies in labor market, good living conditions and so forth) which will allow to fix the population in the village. The mechanism is developed on the basis of municipal districts from groups of various types, according to the Concept of migration policy of the Saratov region (safe, border, partially depressive, depressive) and includes organizational and economic modules on reduction of migration outflow due to improvement of social conditions and to preservation of stable earnings, creation of new and additional jobs. As a result of operation of the mechanism in these areas migration outflow will be reduced by 1,009 people (for 70.1%) and 726 jobs are created. The developed recommendations have universal character.

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