Sustainable development of rural areas in the economic system of the region

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Abstract. The Rural development as a strategic direction economic regional policy, assumes the effective functioning of the branches of the agro-industrial complex, designed to provide the processing industry with raw materials, and, ultimately, with high-quality food for the population. Stimulating investments in the development of promising areas of the agro-industrial complex will satisfy the demand for agricultural products at affordable prices, increase the level of investment attractiveness of agricultural sectors; the level of employment of the rural population and the development of small forms of farming. The economic system of the region is a complex of interrelated and interdependent elements that are exposed to external and internal factors and are largely determined by the resource potential of the region. At the same time, the issues of self-sufficient development of regions do not lose their relevance.

1 Introduction

The Rural development as a strategic direction economic regional policy, assumes the effective functioning of the branches of the agro-industrial complex, designed to provide the processing industry with raw materials, and, ultimately, with high-quality food for the population. Stimulating investments in the development of promising areas of the agro-industrial complex will satisfy the demand for agricultural products at affordable prices, increase the level of investment attractiveness of agricultural sectors; the level of employment of the rural population and the development of small forms of farming. The economic system of the region is a complex of interrelated and interdependent elements that are exposed to external and internal factors and are largely determined by the resource potential of the region. At the same time, the issues of self-sufficient development of regions do not lose their relevance.

2 Materials and methods

The academic foundation of this learning was the works of native and foreign researchers-economists devoted to the growth local economic. The data base of the learning was complete up of numerical statistics from the Federal State Statistics Service, the Unified Interdepartmental Information Reference System, the Territorial Body of the Federal State

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Statistics Service for the Altai Territory, resources of methodical and applied conferences on the problematic under deliberation, magazines and special publications. The study used the following methods: abstract logical, economic and statistical, monographic, as well as methods of system analysis, economic comparison, expert assessments, economic modeling.

3 Results and discussion

One of the factors in the development of the territory is the construction of an economic system that allows “... to build economic relations between states, firms, households, aimed at providing and meeting the needs, historically determined, localized in socio-economic time and space. This will be possible provided that the development of business operations is managed both in domestic markets and in foreign markets.” [1] The region's economy includes an industry component, which largely determines the effectiveness of the development of the territory. Altai Territory is considered as an agro-oriented region according to the established specialization (Table 1) [2]

| agro-orientation rating of the region | The subject of the Russian Federation |
|---------------------------------------|-------------------------------------|
| 1                                     | Stavropol region                    |
| 2                                     | Rostov region                       |
| 3                                     | Voronezh region                     |
| 4                                     | Altai region                        |
| 5                                     | Krasnodar region                    |
| 6                                     | Belgorod region                     |
| 7                                     | Saratov region                      |

In the gross agricultural product of the Siberian Federal District, a quarter is accounted for by the products of the Altai Territory. Natural and climatic, resource, market factors contribute to the development of agricultural industries. Lands of the agricultural category amounted to 11.54 million hectares, including agricultural land 10.6 million hectares, of which 6.5 million hectares of arable land [3].

Altai Territory is a leader in the production of agricultural products in the economic system of the region, not only in the Siberian Federal District, but also in Russia, occupying 8th place in the all-Russian rating [4,5,6]

The achievement of these results was facilitated by the technical re-equipment of the farms of the region and the successful implementation of investment projects. (Fig. 1) [7,8]

![Fig. 1. Expenditures of agricultural producers for the purchase of agricultural machinery, billion rubles. [7,8]](image-url)
The beekeeping industry is of great importance for the Altai Territory, since it contributes to the diversification of economic activities in rural areas, to increase the sustainability of the development of rural areas (Fig. 2).

![Fig. 2. Dynamics of the volume of commercial honey production in farms of all categories of the Altai Territory, tons [7,9]](image)

The economic policy of the region contributes to the development of livestock production, carried out in recent years in the region, the supply of the population with high-quality food, and the provision of food security not only in the region, but also in the country as a whole. Taking into account the social and economic importance of dairy and beef cattle breeding, it is important to preserve the development of these subsectors as priority areas of the agrarian policy of the Altai Territory.

In 2019, the region produced agricultural products in the amount of 147.0 billion rubles, including crop production - 97.0% (106.1%), livestock - 103.0% (101.6%).

The total amount of state support for agriculture and the development of rural areas in the region for the period 2010-2019 within the framework of the implementation of state programs amounted to more than 51.7 billion rubles, incl. at the expense of the regional budget 13.6 billion rubles. Regional economically significant programs play a key role in stimulating the technological and technical modernization of agriculture.

"...When determining the amount of subsidies per hectare in the region, a differentiated approach was used to the maximum, taking into account the difference in the climatic conditions of production, as well as the need to provide additional support to farms affected by drought, dairy and beef cattle, engaged in the cultivation of sugar beets. There are 7 soil-climatic zones in the region, which differ significantly in the amount of precipitation, therefore, when distributing subsidies for unrelated support, the hydrothermal coefficient was taken as a basis (varies from 0.6 in the steppe zone to 1.6 in the foothill zone)." [10,11] (Table 3)

| Table 3. Indicators of the implementation of the state program "Development of agriculture Altai Territory "2019, [12] |
|---------------------------------------------------------------|
| Indicators                                              | Planned level Actual level | Planned level Actual level | %        |
| Agricultural production index in farms of all categories (in comparable prices) to the previous year, % | 91,2                      | 99,6                      | +8,4     |
| Index of crop production in farms of all categories (in comparable prices) to the previous year, % | 84,9                      | 97,0                      | +12,1    |
| Livestock production index in farms of all categories (in comparable prices) to the previous year, % | 100,7                     | 103,0                     | +2,3     |
| Food production index (in comparable prices) to the previous year, % | 102,0                     | 98,9                      | -3,1     |
| Beverage production index (in comparable prices) to the previous year, % | 101,5                     | 90,8                      | -10,7    |
Table 3. Continued

| Index of physical volume of investments in fixed assets of agriculture, % | 101,0 | 103,9 | +2,9 |
|-------------------------|-------|-------|------|
| Profitability of agricultural organizations (including subsidies), % | 19,0 | 21,7 | +2,7 |
| Average monthly wages of agricultural workers (excluding small businesses), rubles | 22100,0 | 25264,3 | 114,3 |
| Labor productivity index compared to the previous year, % | 91,2 | 96,2 | +5 p.p. |
| The number of highly productive jobs, thousand units | 8,574 | 19,352 | 225,7 |
| Disposable resources of households (on average per 1 household member per month) in rural areas, rub. | 13,21 | 12,41 | -0,8 |

“... The total amount of state support aimed at the development of agriculture and rural areas of the region in 2019 amounted to more than 4.6 billion rubles, incl. from the regional budget - about 1.6 billion rubles.” [13] The volume of budget allocations was distributed: to provide unrelated support to agricultural producers in the field of crop production - 892.6 million rubles; provision of subsidies aimed at increasing productivity in dairy farming - 287.5 million rubles; achievement of the target indicators of regional programs - about 1.2 billion rubles, including 394.2 million rubles for supporting the development of livestock breeding. [4, 12]

According to preliminary data of the Federal Customs Service of Russia for 2019, 308.7 thousand tons of grain were exported from the Altai Territory, which is 2.5 times more than in 2018, in value terms - 56.7 million dollars (an increase of 2.5 times) with the planned indicator of 43.0 million dollars (the target was exceeded by 29.5%). At the same time, wheat exported 194.3 thousand tons (2.8 times more), buckwheat - 25.7 thousand tons (24.9% less), oats - 14.1 thousand tons (1.7 times more), barley - 57.0 thousand tons (10.1 times more) [5].

Altai Territory ranks third in the rating of regions-exporters of milling products (share in Russian exports - 11.0%, in Siberian - 54.7%). The share of cereals exports accounted for 69%, in physical terms - 65.6 thousand tons, for a total cost of US $ 24.7 million. [10] The policy of sustainable development of rural areas of the agro-oriented region includes a number of target indicators presented in Table 4

Table 4. Target indicators of sustainable development of rural areas of the Altai Territory [8,11]

| Indicators | 2014 | 2018 | 2019 | 2019 |
|------------|------|------|------|------|
| Commissioning (acquisition) of housing for citizens living in rural areas - total, thousand m2 of total area | 72,2 | 30 | 38,4 | 128,0 |
| including for young families and young professionals, thousand m2 of total area | 45,3 | 21 | 21,3 | 101,4 |
| Commissioning of general educational organizations, student places | 448 | - | - | - |
| Commissioning of fieldsher-obstetric points and (or) offices of general practitioners, ed. | 34 | 8 | 8 | 100,0 |
| Commissioning of flat sports facilities, m2 | 22111 | 2614 | 4065 | 155,5 |
| Commissioning of gas distribution networks, km | 370,8 | 48,1 | 26,8 | 55,7 |
| Commissioning of local water pipelines, km | 244,5 | 19,9 | 31,1 | 156,3 |
| The number of settlements located in rural areas in which projects for the complex arrangement of sites for compact housing development have been implemented, units | 1 | 1 | 1 | 100,0 |
| Number of implemented projects of local initiatives of citizens living in rural areas that received grant support, units | 131 | 15 | 22 | 146,7 |
4 Conclusion

Thus, in order to solve the problem of sustainable development of rural areas, effective sectoral development of the agro-industrial complex is necessary. This direction is a strategic part of the economic system of the region and its policy for effective development. Which allows, ultimately, to solve socio-economic issues.

References

1. I. V. Kovaleva, T.V. Kucherenko, Development of industrial localization of rural areas, 157 (Barnaul, 2019)
2. Yu. A. Bugai, V. S.Khimochka, Regional Economy. South of Russia, 2, 40 (2018)
3. I. V. Kovaleva, A. A. Kovaleyev, Successes of modern science, 11, 48 (2016)
4. Strategy of socio-economic development of the Altai Territory until 2035: electron. text. Data, https://www.economy.gov.ru
5. Official site of the Altai Territory administration for food, processing, pharmaceutical industries and biotechnologies, http://www.ffprom22.ru
6. Official site of the Office of the Federal State Statistics Service for the Altai Territory and the Altai Republic, https://akstat.gks.ru
7. Official site of the Siberian customs administration, http://stu.customs.ru/
8. Official site of the CIS Statistical Committee, www.cisstat.com
9. State program of the Altai Territory "Development of the innovative territorial cluster" AltaiBio "for 2014-2016: approved by the resolution of the Altai Territory administration dated 10.10.2014 No. 459, http://www.altairegion22.ru
10. Export potential of the Altai Territory, Altai Regional Center for Coordination of Support for Export-Oriented Small and Medium-Sized Businesses, http://www.export22.ru
11. Territorial authority of the Federal State Statistics Service for the Altai Territory Retrieved from, http://akstat.gks.ru
12. Regions of Russia. Socio-economic indicators. Retrieved from, http://www.gks.ru
13. Agricultural production in 2020, http://rosstat.gov.ru