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**STRATEGIC APPROACH TO MULTIFUNCTIONAL DEVELOPMENT
OF AGRICULTURE AND FARMLANDS**

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Abstract

The article reveals the theoretical conceptual provisions for the formation of the multifunctional development strategy of the agricultural sector and farmlands (hereinafter - the Strategy), the innovative segment of their economic growth. The priority directions of the strategic development of agriculture were developed, taking into account the differentiation of farmlands, and four development scenarios were proposed for different types of farmlands (inertial, optimistic, innovative and harmonious) indicating the risks for each of them. The article identifies the priority direction of innovation in agriculture – the dairy cattle breeding industry, which is the driver of strategic development of both the agro-industrial complex and the economy of farmlands in general. The stages and the mechanism for managing the strategy of multifunctional development of the agriculture and farmlands were presented. A set of basic measures for agriculture were proposed, focused on the implementation of the main function (production) and supporting functions (social, economic, environmental, managerial), as well as breakthrough development of the agro-industrial complex, creating conditions to increase the share of small and medium-sized businesses in the rural economy, including various types of self-employment and diversification. The main target parameters of the development scenarios are calculated up to 2025 on the example of the Omsk Region (Siberian Federal District).

Keywords

Strategy – Multifunctional Development – Agriculture – Innovations – Dairy Cattle

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Introduction

Multifunctionality of agriculture is an important element in the system of the national economy of Russia. The significance of the problem is reflected in the strengthening of legislative and regulatory activities implemented in a number of strategic and regional programs developed on the basis of directives and regulations. Multifunctionality and qualitative characteristics of the agricultural sector contribute to the combination of environmental, economic and social principles of production and development of farmlands.

In addition, for ensuring food security and the raw material component of the processing industry, agriculture is a source of public goods and the main driver of the farmlands development. The degree of competitiveness and efficiency of agricultural production fully determines the socio-economic well-being of the territories, the level of employment, income and the rural population quality of life.

The question of ensuring the multifunctional development of agriculture was investigated by many authors: Y.N. Krivokora, O.N. Kusakina, A.A. Tyutyunikov, T.V. Zakshevskaya, L. Grega, S. Mann¹. The study and analysis of the international works shown that the all-Russian features of multifunctional development of agriculture and farmlands are comparable with the trends noted in many countries of the world, in particular in Bulgaria, Brazil, China and Finland².

The development of rural areas in the aspect of their multifunctionality was studied by I.N. Merenkova, V.N. Pertsev, I.I. Novikov, and they believed that this factor is the basis of the rural population sustainment³. Some scientists consider multifunctionality as a prerequisite for the formation of the rural economy diversification⁴. E. N. Criulina, S.I.

¹ L. Grega, "Multifunctionality of agriculture and co-production", *Agricultural Economics – Czech*, num 50 (9) (2004): 381-387; S. Mann, *Multifunctional Agriculture*. from: Thompson P.B., Kaplan D.M. *Encyclopedia of Food and Agricultural Ethics*. 2014; Y. N. Krivokora, "Ensuring the multifunctional nature of the development of agriculture". The sis for the degree of the Doctor of Economic Sciences. Stavropol State Agrarian University, Stavropol. 2015. 373; O. N. Kusakina y Y. N. Krivokora, "Systemic aspects of multifunctional agriculture", *Theory and practice of social development*, num 8 (2013). from: http://teoria-practica.ru/rus/files/arhiv_zhurnala/2013/8/ekonomika/kusakina-krivokora.pdf y A. A., Tyutyunikov y T. V. Zakshevskaya, *Multifunctional development of agriculture*. In the collection: *Scientific and personnel support for the development of agri-food complex. Materials of the All-Russian scientific-practical conference dedicated to the 65th anniversary of the training of economic and managerial personnel for the agro-industrial complex in Voronezh State Agrarian University*. Responsible for the release: Zakshevskaya E.V., Shirobokov V.G., Zagvozhkin M.V., Lubkov V.A., 2016. 346-351.

² Qiuzhen Chen; John Sumelius & Kyösti Arovuori, "The evolution of policies for multifunctional agriculture and rural areas in China and Finland", *European Countryside*, num 1 (2009): 202-209; R. Petkova, "Multifunctionality of Bulgarian agriculture". *Trakia Journal of Sciences*, Vol 8 num 3 (2010): 153-158 y A. Acevedo-Osorio, "Monofuncionalidad, multifuncionalidad e hibridación de funciones de las agriculturas en la cuenca del río Guaguarcó, sur del Tolima". *Revista Luna Azul*, num 43 (2016): 251-285.

³ I. N. Merenkova; V. N. Pertsev y I. I. Novikova, "Multifunctionality of rural areas - the basis of the livelihood of the rural population", *Bulletin of the Voronezh State Agrarian University*, 1-2(40-41) (2014): 273-278 y I. I. Novikova *Multifunctionality of rural areas and agriculture*. In the collection: *Actual problems of modern science. Collection of materials of the international scientific-practical conference*. 2011. 193-198.

⁴ O. V. Kosenchuk; Yu. I. Novikov y D. S. Nardin, "Agritourism as a perspective development direction for rural territories of West Siberia", *Actual problems of economics*, num 12(174) (2015): 213-219 y

Lugovskoy studied the multifunctionality of territories from the standpoint of ensuring regional sustainability of agriculture⁵. V.S. Bohutsky and I.V. Taranova considered it as the basis for improving the efficiency of the regional socio-economic potential⁶.

A number of researchers, shaping the strategy of the agricultural sector in the framework of economic policy, based on multifunctional agriculture, emphasize the development of this sector of the economy as a basic factor in order to increase regional competitiveness⁷.

According to the authors, the most promising researches are aimed at studying the relationship of multifunctional agriculture based on the integration processes in the agri-food sector with the effectiveness of rural development^{8,9}. Meanwhile, the issues of strategic development of farmlands on the basis of multifunctional agriculture are not sufficiently developed. This fact pushes to suggest that the study aimed at identifying mechanisms for the development and implementation of the multifunctional development strategy for agriculture and farmlands is relevant and will be of practical value to a wide audience.

The need for special attention to this aspect is determined by the actual situation, when the available capacity of the innovation potential for the agro-industrial sector and the priority direction (technological transformation of the dairy cattle breeding industry) are not fully realized in the region.

A. A. Anansky y N. A. Anansky, Multifunctionality of rural areas as a prerequisite for the formation of a diversified rural economy. In the collection: Forming a system of sustainable agricultural development based on the concept of strategic management (I Chaliapin's readings). Materials of the All-Russian Scientific and Practical Conference by Antsiferovoy O.Y. 2018. 12-18.

⁵ E. N. Criulina y S. I. Lugovskoy, "Multifunctionality of rural areas in the context of ensuring the sustainability of agriculture in the region", Russian economic online magazine, num 2 (2018).

⁶ V. S. Bogutsky, Multifunctionality of rural areas. In the collection: The current state and organizational and economic problems of the development of the agroindustrial complex. Proceedings of the international scientific-practical conference dedicated to the 65th anniversary of the Department of Economics of the Agrarian and Industrial Complex of the Faculty of Economics of the Voronezh State Agrarian University named after Emperor Peter I. Voronezh. 2019. 167-170 y I. V. Taranova, "Multifunctional development of rural areas, as a basis for improving the efficiency of the socio-economic potential use of the region", Bulletin of the Caucasus Peoples' Friendship Institute". Theory of Economics and National Economy Management, num 4(36) (2015).

⁷ D. Abler, "Multifunctionality, Agricultural Policy, and Environmental Policy", Agricultural and Resource Economics Review, num 33(1) (2004): 8-17; Multifunctionality in Agriculture: Evaluating the degree of jointness, policy implications (Paris: OECD Publishing, 2008) from: <https://doi.org/10.1787/9789264033627-en>; A. K. Apazhev y S. M. Pshikhachev, Multifunctionality of agriculture and the search for a new development paradigm. In the collection: Actual problems of the modern economy: international, intra-national and regional aspects. Proceedings of the VIII inter-university scientific-practical conference, 2014. 3-17; S. G. Golovina y L. N. Smirnova, "Multifunctionality of agriculture - the basis of the agrarian policy of the state", Bulletin of the development of science and education, num 12 (2017): 10-19 y S. V. Pugin y S. G. Golovina, "Multifunctional agriculture - the basis of regional competitiveness", Bulletin of the Kurgan State Agricultural Academy, num 2(18) (2016): 19-23.

⁸ E. N. Krylatyh, "Interrelation of the multi-functional nature and integration processes in the agricultural and food sector of Russia and in the World", Economy of agricultural and processing enterprises, num 9 (2013): 1-3.

⁹ S. Y. Trushchenkova, Multifunctionality of agriculture and rural development. In the collection: Science, business, power - a triad of regional development. Collection of articles based on the materials of the III International Scientific and Practical Conference. Executive editors Kirkorov L.A., Timofeev R.A. 2018. 155-163.

The problems and challenges facing agriculture, in particular, in the dairy cattle breeding industry, are highly relevant, which is emphasized by the statistics on innovation activities in the Omsk Region. The costs of organizations for technological, marketing and organizational innovations in 2017 for the agriculture sector amounted to 127.2 million rubles or 3.2% of the total costs of innovation in the regional economy. The share of innovative goods, works and services in the total volume of produced goods, performed works and services, on the average, was 2.9% in the Omsk Region in 2018, but in organizations of agricultural sector it was only 0.7%.

Special importance of the dairy cattle breeding results from its share in the gross regional product, which equals 17%, and the share of 18% in overall tax payments in the consolidated budget of the Omsk Region from the agriculture. In the long run, dairy cattle breeding has to become not only the strategic segment of rural areas, but also the main driver of complex regional agribusiness development, owing to the fact that this sub-industry uses the main competitive advantages of the region, which firstly are the vast farmlands, material and technical resources produced since USSR times until nowadays by implementing national projects, rural human resources and innovation potential of this industry.

But over the past years, the economic state of the sub-sector is expressed in zero or negative growth rates of the main production and socio-economic indicators, which indicates a prolonged stagnation, creating risks of not achieving the goals of the region's socio-economic strategy and food security, the risks of reorienting to the production of alternative agricultural products (grain and grain legumes) and the threat of non-competitiveness of the territory.

The purpose of the study is to develop conceptual provisions for the formation and implementation of the Strategy, forecast scenarios for the development of farmlands, taking into account the level of multifunctionality of agriculture in the conditions of the Siberian district, as well as the basic mechanisms for their promotion.

Material and methods

The information and empirical base of the research consists of the monographic research materials, implemented strategic documents, regional and municipal programs of socio-economic development, operational information of the executive authorities and local governments of the Omsk Region, as well as the results of our researches.

To achieve the goal of the work, the methods of general scientific and economic research were used: dialectical method, method of the monographic survey, abstract-logical method. The following methods were used to justify the results of the study: method of the system analysis, program-targeted method, formalized forecasting method.

Results

Based on the conducted research, conceptual provisions for the formation of the Strategy for multifunctional development of agriculture and farmlands were developed, in which the hierarchy of the management stages was built: strategic, tactical and operational.

One of the advantages of the study was, when analyzing strategic documents of regional development, using the example of the Omsk Region as a typical representative of Siberia, unique information was obtained for the first time, which allowed:

1. to complement the strategy for the development of agriculture with priority areas for the organization of personnel support for the production and processing of agricultural products, the introduction of innovations, and the digitization of business processes;
2. to identify the shortcomings of the regional development programs that reduce their informativeness and quality, hindering the effective implementation of the planned measures for the development of agriculture and farmlands;
3. to develop scenarios of multifunctional development of agriculture, taking into account the differentiation of farmlands in the Omsk Region: inertial, optimistic, innovative and harmonious.

For each of the proposed scenarios, a forecast was made for the development of agriculture and farmlands of the Omsk Region till 2025. Increasing the number of small businesses, created and developed at the expense of state support funds, increasing the innovation component to a greater extent in the dairy cattle breeding industry, as well as increasing the efficiency of agricultural production will help to achieve strategic goals. The planned budget efficiency (increase in tax payments to budgets of all levels), highly productive work places and an increase in the average monthly nominal wages of agricultural workers will improve demographic indicators in the farmlands of the Omsk Region, ensuring the necessary level of the life quality.

Discussion

At present, the constituent entities of the Russian Federation are developing according to the accepted for implementation concepts, strategies, programs and roadmaps. The study and analysis of ongoing programs for the development of municipal districts of the Omsk Region revealed deficiencies that reduce their informativeness and quality, which can lead to the mismatch of real indicators with the target. It was found that the level of the resource support is not taken into account at the municipal level and that the uniformity and interrelation of strategies and forecasts is blurred. There are process problems in the implementation of the main production and supporting functions by agriculture due to the insufficient specific planning of the program activities at the municipal level. In addition, the current system for monitoring the implementation of strategies at the regional and municipal levels does not help to obtain real assessments of the farmlands development and take effective management decisions. In order to eliminate the gap in managerial processes at the level of a constituent entity of the Russian Federation, as well as the risk of “substitution” and non-fulfillment of planned goals, we propose conceptual view on the formation of the strategy, figure 1.

The proposed conceptual approach is based on the requirements of adaptability, continuity and effectiveness, which provides a comprehensive understanding among all interested parties of the implemented measures logic and increases the manageability of the strategy realization. The essence of the strategy consists in the selection of a set of theoretical positions and developed on their basis recommendations for optimizing the processes of managing the implementation of agricultural functions and the development of the socio-ecological-economic system of the farmlands. When implementing measures to achieve goals and solve strategy problems, there are three levels of management: strategic, tactical and operational.

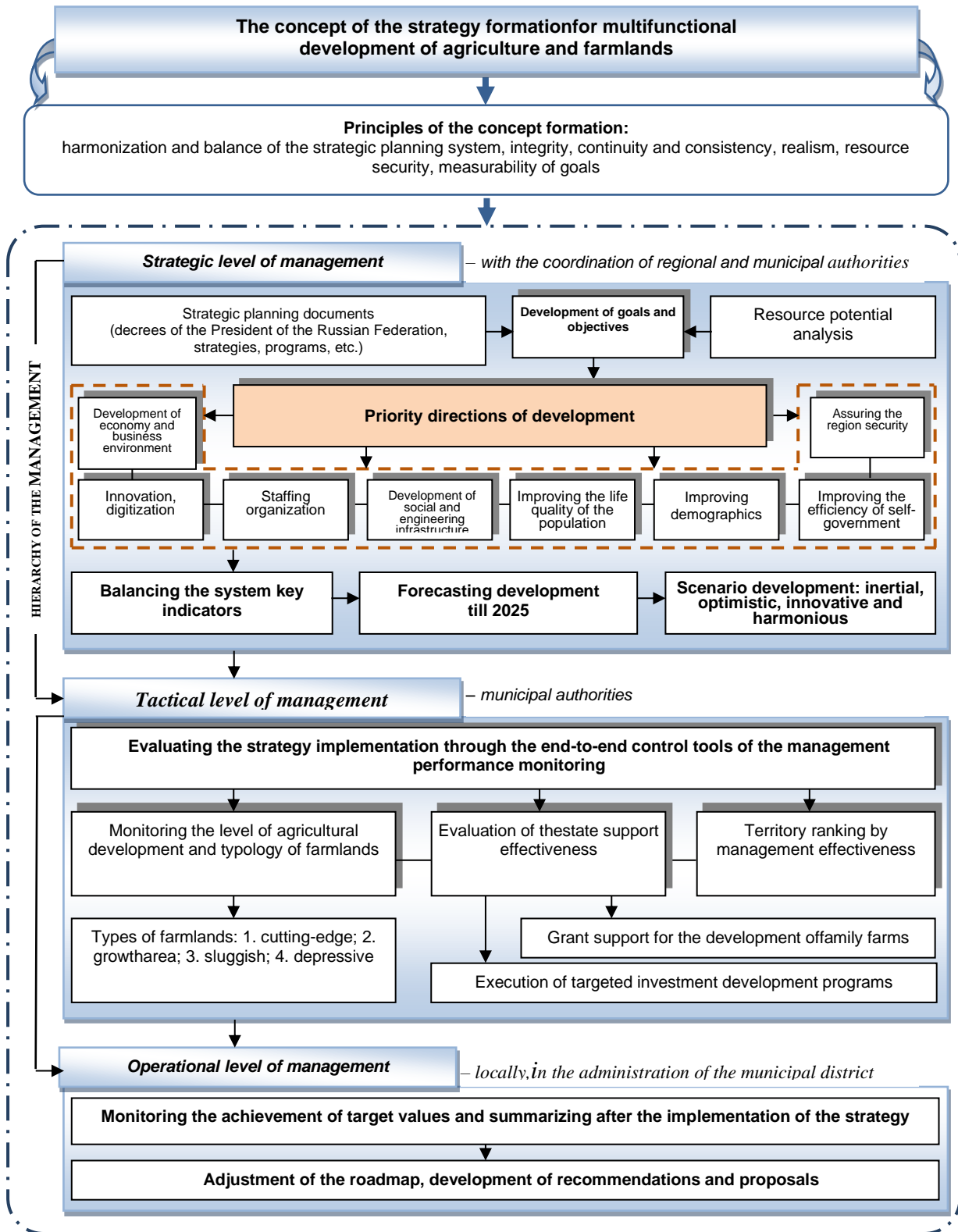


Figure 1 The concept of the strategy formation for multifunctional development of agriculture and farmlands (author's development)

The strategic level of management with the coordination of regional and municipal authorities implies long-term planning with the formulation of a specific goal and objectives for the development of the farmlands economic system. The basis is the strategic planning documents developed in the framework of forecasting and goal-setting: the annual budget message of the President of the Russian Federation to the Federal Assembly of the Russian Federation; decrees of the President of the Russian Federation; federal laws, regulations, concepts, doctrines, strategies, programs, roadmaps, etc.

The tactical level of management implies an assessment by municipal authorities of the carried-out activities within the framework of the implementation of the strategy, using various tools to justify management decisions for the short and medium terms and, if necessary, carry out separate adjustment of tasks. At this level, it is necessary to conduct a comprehensive analysis of the agriculture and farmlands state, which will help to determine the weaknesses in their development and the existing resource potential.

The operational level of management "locally", in municipal districts includes monitoring the achievement of the planned indicators and summarizing the results of the activities, carried out during one calendar year.

Within the framework of strategic planning, priority directions of development are determined, ensuring the fulfillment of functions, goals and aims by agriculture.

The main guidelines for the development of farmlands in the framework of *production and economic functions* are: "Development of the economy and business environment", "Organization of staffing production, innovation and digitization of the economy" and "Processing of agricultural products". There are several activities planned for the implementation of production and economic functions:

1. the development of efficient production in the agricultural and processing sectors, providing an increase in staff wages and economic well-being of the territory;
2. creating conditions conducive to the development of small and medium enterprises, including various types of self-employment and diversification of the rural economy;
3. active introduction of innovations into production, including modern digital technologies;
4. organizing the training of highly qualified specialists for the agro-industrial complex, obtaining the competences necessary to work with modern technologies.

The implementation of the *social function* will be made by the following priority areas: "Development of social and engineering infrastructure", "Improving the life quality of the rural population", "Improving the demographic situation". The complex of the planned activities will be aimed at:

1. improvement of the housing situation in the village;
2. the development of a market for social services in the villages;
3. improvement of the village through the construction and/or modernization/renovation of social facilities: medical and educational institutions, cultural, leisure and sports centers, housing and communal facilities, roads, etc.;
4. holding of mass cultural and sporting events of a higher level with the involvement of all segments of the rural population;
5. preservation and enhancement of the historical, cultural and spiritual heritage, to maintain the traditions and education of rural youth.

In order to improve the implementation of management and environmental functions of agriculture, a set of measures is being developed, aimed at assisting local governments and state authorities in solving social, ecological and economic issues of local importance at the municipal level, and at implementing regional policies for the development of farmlands, based on the multifunctionality of rural farms.

In the practice of regional development, a program-target method of public administration is used, which involves the development of scenarios that will effectively develop rural economic systems and make rational use of available potential. Monitoring the socio-economic status of municipal districts of the Omsk region helped to conduct the typologies in terms of the multifunctional development of agriculture and develop scenarios for further development: inertial, optimistic, innovative, harmonious, tabla 1.

Recommended scenarios/actions	Expected results
Inertial scenario – for farmlands of depressive type	
Development of agricultural production; diversification of the rural economy, in particular the development of rural tourism (agricultural, ecological), harvesting and processing of wild plants.	Creation of new jobs; increasing employment and incomes of the rural population; increasing the volume of paid services and tax revenues; increasing the investment attractiveness of agriculture; overcoming uneven development and degradation of farmlands in the region.
Optimistic scenario – for farmlands of sluggish type	
Modernization of existing enterprises of the agricultural sector; development of new industries, including deep processing of raw materials; attraction of investments; active growth of small and medium enterprises in the agro-industrial complex.	Development of agrarian and supporting industries and services; the increase in production volumes; “Transition” of the territorial budget from the subsidized financing; increased costs on rural infrastructure development; improvement of demography, social environment, living conditions in the countryside.
Innovative scenario** – for farmlands of the “Growth area” type	
Improving the organizational and economic mechanism of innovation. Active introduction of innovations and digital technologies in agricultural production; conducting research and broadcasting positive results to stakeholders.	The development of large enterprises on the basis of an effective innovation process; the organization of high-performance jobs and increased productivity; improving the quality of products, contributing to the growth of demand for it and the expansion of markets; increasing income levels; increase in tax deductions; increasing investments in the development of social and engineering spheres and improving the living conditions of the local population.
Harmonious development scenario – for territories of the cutting-edge type	
Integrated industrial and post-industrial development; large-scale implementation of the business processes informatization in agricultural production; the introduction of resource-saving technologies using the digital economy and labor automation.	Attraction of highly qualified specialists in the agrarian sector; diversification, industrialization and digitalization of the economy; active development of rural infrastructure, the achievement of high standards of the life quality; increasing the attractiveness of agrarian territories, both for potential investors and for the rural population.

Tabla 1
Recommended scenarios of multifunctional agricultural development
for different types of farmlands

It should be noted that in the *inertial scenario*, agricultural production remains the main activity in the countryside, but at the same time diversification of the rural economy can be an additional source of income for the rural population, especially in peripheral areas with weak financial sustainability, in particular by developing agricultural agrotourism or harvesting and processing of wild plants. The conducted research in the Omsk region revealed promising opportunities for the growth of the rural economy from the development of existing natural resource wealth. Potential leaders for the successful implementation of this direction are: Tarsky district (northern natural-climatic zone of the region), Muromtsevsky and Bolsherechensky districts (northern forest-steppe zone), Kalachinsky district (southern forest-steppe), Odessa and Cherlak districts (steppe zone).

Development risks in the inertial scenario:

1. the growing backlog of enterprises from the leaders in technological development and the emergence of risks connected to the production of non-competitive products;
2. shortage of personnel with required qualifications and imbalance in the labor market;
3. insufficient level of social development;
4. gradual cessation of production activities by agricultural producers due to the complete depletion of themainfunds, the degradation of human resources and its stagnation, comparingto other scenarios.

The optimistic scenario can be described as a recovery or modernization option for the development of agriculture with the subsequent “rehabilitation” of the farmlands. It involves overcoming negative trends in demography in the countryside, disproportions in social policy and stagnation in the economy of the industry. The priority driver of this scenario are both the modernization of existing enterprises of the agricultural sector, and the organization of new industries, including the deep processing of agricultural raw materials, production of the higher added value products. A necessary condition for this is the improvement of the organizational and economic mechanism of interaction between economic entities, as well as the management of economic processes that contribute to the effective development of forest and agro-industrial complexes in the Omsk Region.

The inflow of investments in the food and processing industry is expected, as well as the gradual growth of small and medium-sized businesses, their cooperation, which will serve as a stimulus in the development of supporting industries and services. In addition to the development of basic industries based on the natural and cultural potential of the Omsk Region, the rural economy will be diversified.

Due to the increase in production and sales of goods and services, the budget of the territory will gradually shift from a subsidized to a surplus financing strategy, the budget for the development of rural infrastructure will increase.

This scenario will stop the outflow of the rural population, increase employment in rural settlements and comfortable living environment in rural areas, mobilize the necessary resources (production, financial, personnel, etc.) for further effective development of agriculture and farmlands.

Development risks in the optimistic scenario:

1. insufficient use of the scientific potential, accumulated in the region, and poor implementation of scientific research in the field of agricultural production, which require scientific support and adequate staffing;
2. personnel shortage of the most demanded specialists in agriculture (agronomists, zoo-engineers, veterinarians, etc.) and skilled workers;
3. the absence or non-compliance with quality standards of roads and insufficient development of transport and logistics infrastructure, distance from the main sales markets increases the share of logistics costs in the final products prices and reduces the competitiveness of goods and enterprises in the market.

The innovative scenario is the most complex and capital-intensive variant of strategic development, accumulating financial resources in areas that provide a rapid breakthrough in agriculture and a positive change in the position of the territory due to the generation and widespread introduction of innovations into production. Innovative development will be provided through the inflow of investments for research and development and the introduction of positive R&D results and best practices in high-tech production. In this case, the support in this direction will be served by large financial investors: large enterprises, regional and federal budgets.

Innovative activity in the Omsk Region is carried out by 59 organizations, about 200 objects of innovation infrastructure were created - resource centers, business incubators, small innovative enterprises, technology parks, innovation and technology centers, engineering centers, technology transfer centers, core facilities centers, research laboratories, scientific and technical information centers, innovation consulting centers, research and educational centers.

The Omsk Region has a significant scientific potential, which is characterized by the presence and close interaction of academic, industry and university science.

The basis for the innovative development of the agriculture industry and the basis for the implementation of this scenario are:

- significant scientific, technical and educational resources of Omsk State Agrarian University named after P.A. Stolypin and the Omsk Agricultural Research Center, the system of secondary vocational education;
- the possibility of training, professional retraining and advanced training;
- the presence of organizations with high technological and production parameters;
- the presence of dealer companies and representatives of manufacturers of highly recommended technologies and means of production;
- high potential for export of products to other neighboring and far-distanced regions of the Russian Federation.

The crucial moment is in the determining the necessary level and type of innovation, which helps, at a certain stage, to use financial and material resources more efficiently to achieve strategic goals.

In this regard, the construction of the organizational-economic mechanism of innovative development is highly important, providing the solution of the above-mentioned task and the observance of such principles as:

- long-term planning horizon;

- the individual nature of the mechanism in the framework of a single economic system;
- the principle of focus on the tasks of innovative development, the need to achieve major goals related to the development of innovative processes;
- the choice of development directions based on the maximum possible use of existing competitive advantages;
- the principle of efficiency and costs and resources saving, provided that the requirements for the quality of results are maintained;
- identification of the current state of the innovation sphere and the potential of innovative development.

Considering the importance of mentioned above for the creation of required living standards, it is proposed to focus efforts on the organization of a regional Council for the innovative development of the dairy industry, which will help to concentrate additional investments, administrative and budgetary resources on this vector of strategy.

The centers for the development of the innovation economy of the region should determine the areas of growth in the municipal districts of the region, where it is possible to provide a multiplicative effect on other sectors of the economy and the social sphere, basing on the accumulated production potential. The task is to create a mechanism of state regulation that will help to attract investments in a sufficient strategy for solving problems.

At the same time, it is necessary to take into account the location of economic-producing industries located close to transport routes that contribute to the successful sale of agricultural products. These development drivers include a number of areas: Omsk, Kalachinsky, Tyukalinsky, Cherlaksy, Azovsky, Isilkulsky, Tarsky and Krutinsky. In the strategic dairy industry development, the main driver is the raising of investments for the construction of new dairy complexes with modern milking facilities, based on a wide range of digital technologies and the modernization of existing livestock farms should become the new drivers of the development, tabla 2.

Farmland type	Volume of the planned investments, mln. RUB							In total for the period 2019-2025
	2019	2020	2021	2022	2023	2024	2025	
Cutting-edge	150	310	240	170	150	130	80	1230
Growth area	160	175	335	180	150	70	40	1110
Sluggish	55	75	80	140	185	60	60	655
Depressive	30	40	80	120	125	–	–	395
In total	395	600	735	610	610	260	180	3390

Tabla 2

The volume of planned investments in innovative development of dairy cattle breeding in different types of farmlands of the Omsk Region

In the strategic period, the volume of investment in the dairy cattle breeding industry, only in terms of the construction of new dairy complexes with modern milking facilities, will be about 3.4 billion rubles. At the same time, 36.3 and 32.7% of investments will be used by the territories of “cutting-edge” and “growth area” types, respectively. In the territories of the “sluggish” type, capital investments will amount to 655 million rubles (19.3%), which is caused by a less attractive area for investors, due to poorly developed material, technical and resource base in production and also social and engineer infrastructure. Depressed areas, due to insufficient funding and low technological development, will receive only 395 million rubles (11.7%). At the same time, investments will help to accelerate the development of this type of farmlands and move to a new level of development.

Due to large-scale investments in innovative modernization of production, including large dairy complexes and enterprises for deep processing of agricultural raw materials, there will be an increase in product quality, which in turn will contribute to the expansion of the sales market and the development of logistics distribution centers.

The development of large innovative enterprises and the growth of high-tech services will have a positive effect on the employment of the rural population through the creation of new jobs. Employees will have the opportunity to increase their income levels, to study the necessary competencies for working on advanced technologies, and rapid career growth.

Tax deductions to the territorial budget will increase, which will make it less dependent on budget financing (subsidies) and will increase investment in the development of the social sphere, improving the living conditions of the local population. As a result, outbound migration will slow down, the demographic situation will stabilize and natural population growth will be achieved.

This scenario corresponds to the “May” Decree of the President of the Russian Federation, May 7, 2018, No. 204 “On the national goals and strategic objectives of the development of the Russian Federation up to 2024”, including such priority areas as: the development of innovations and the introduction of digital technologies in the economy and social sphere.

Development risks for the innovative scenario:

1. insufficiently developed organizational and economic mechanism for integrated work with counterparties of the innovative infrastructure of the Omsk Region;
2. large transition costs for research and transfer of other innovations, which can make barriers to large-scale innovative and technological development of agriculture in the region;
3. lack of highly qualified personnel;
4. uneven concentration of scientific, social, cultural and economic potential in farmlands;
5. a significant gap in the investment attractiveness of rural areas and the lack of their own financial sources for the implementation of innovation projects, which does not allow them to unify the implementation of this scenario.

The harmonious development scenario involves breakthrough multifunctional development of agriculture. This scenario is focused not only on the development of the raw materials economy and the primary processing of agricultural raw materials in the region, but also on the integrated industrial and post-industrial development. This is due to the global influence of digitalization of the economy in various industries and areas, the increasing importance of computerization and information technology.

This scenario involves the use of resource-saving technologies with the automation of labor, and the involvement of highly qualified specialists.

The strategic objective in the implementation of this scenario is the improvement and development of rural infrastructure and the achievement of high standards of the life quality. This factor will increase the attractiveness of farmlands, both for potential investors and for the rural population.

The implementation of the harmonious development scenario will create rational use of the available resources of the farmlands, implementing diversification, industrialization and digitalization of the economy, increasing the well-being of the population, improving the demographic situation and the competitiveness of the region in general.

It is assumed that these scenarios are interrelated and, taking into account the scale of the region and the differentiation of economic entities, they can be carried out simultaneously over the entire territory of the Omsk Region by segments, depending on the level of economic development, with corresponding target indicators ensuring the solution of strategic tasks.

In each of the presented scenarios there are interesting development prospects, but at the same time they face serious risks and limitations. Therefore, whatever scenario is selected, it is necessary to conduct a comprehensive assessment of its implementation. To eliminate the identified gaps between the objectives of the long-term forecast and actual resource support, strategic planning suggests using end-to-end management performance monitoring tools, including a system of end-to-end monitoring of multifunctional agriculture and farmlands development of municipal districts, assessment of the management efficiency and the funds spending for achieving strategic goals.

These tools allow us to carry out the necessary effectiveness analysis of the selected scenario implementation, justify the adjustment of the implemented measures and, in general, optimize the multifunctional management processes in agriculture, as well as the development of farmlands and social infrastructure.

One of the most important stages in the strategy formation is the development of a development forecast. Planned values for different types of farmlands are calculated on materials of the Omsk Region for a five-year period up to 2025, table 3.

Indicator	Scenario								In the region	
	Harmonious development		Innovative development		Optimistic development		Inertial development			
	fact 2017	forecast 2025	fact 2017	forecast 2025	fact 2017	forecast 2025	fact 2017	forecast 2025	fact 2017	forecast 2025
Number of districts in the group, units	11	15	8	12	10	5	3	0	32	32
Gross product of crop production, mln. RUB	1641 9,6	2350 9,9	1281 6,9	2119 5,9	6471,9	3567 ,6	680,4	–	36388 ,8	4827 3,5
Gross product of livestock production, mln. RUB	2621 7,2	3753 8,3	4375 ,0	7235 ,2	1440,4	794, 0	82,5	–	32115 ,2	4556 7,4
Small businesses annually created at the expense of state support, units	17	24	11	18	11	16	6	–	45	58

Profitability of agricultural organizations (including subsidies), %	28,4	45,7	20,1	32,4	16,0	25,8	9,3	–	20,7	37,6
The share of state support in the total amount of income, %	65,1	50,4	73,5	56,9	78,4	60,7	80,0	–	72,8	54,4
The share of profitable organizations in the total number of agricultural organizations, %	86,3	88,0	77,0	85,0	52,9	61,3	16,7	–	67,1	82,7
Tax and non-tax revenues, mln. RUB	2559,0	3664,0	1240,1	1953,2	1135,3	596,0	253,3	–	5187,8	6213,2
Average monthly nominal wages of agricultural workers, RUB	26458,5	33768,5	22789,2	29085,4	18264,1	23310,1	13373,40	–	20221,3	30378,2
The number of economically active population employed in rural areas, number of people	60949	83278	28420	42715	27273	32793	6201	–	122843	158786
Migration balance, ppm	-4,8	+5,8	-5,1	+3,6	-7,1	+2,5	-9,2	–	-6,6	+4,0

Tabla 3

The main parameters of the forecast scenarios for the development of agriculture and farmlands of the Omsk Region till 2025 (fragment)

The forecast indicators will be reached with a complex of additional measures ensuring a more effective realization of the agricultural functions:

- improving the mechanism for managing the development of the multifunctional agriculture (managerial function);
- improving the system of grant support for farmers (production, economic and social functions);
- stimulating business entities to invest in the development of social services in rural areas and environmental protection (social, environmental, and economic functions);
- development of human resources in agriculture (production function).

According to the compiled forecast of agricultural development till 2025, production indicators are expected to increase, including: gross crop production by 32.7% and livestock production by 42.2% (or 11884.7 and 13452.2 million rubles, respectively), profitability of agricultural production by 16.9 percentage points, up to 37.6%.

The share of profitable organizations will also increase to 82.7%, the number of small businesses in agriculture will grow to 58 units (+28.9%), which will be annually created through grant support. The average monthly wages of agricultural workers will increase by 50.2% and amount to 30378 rubles, tax payments to the budgets of all levels will increase by 19.8% and reach 6,213.2 million rubles.

Positive changes in the production and economic sphere will not only stabilize the demographic situation in the farmlands of the region and overcome the migration outflow of the rural population, but also contribute to the development of the farmlands through the effective implementation of the basic and supporting functions of agriculture.

Conclusion

The authors proposed a strategy of multifunctional development of agriculture and farmlands, which will help to level the deficiencies in the systems of goal-setting and control for strategic planning, improving connections of the target and budget processes, as well as to promote the active development of regional and municipal strategic initiatives. The implementation of the proposals for the development of this strategy allows us to conclude that there are great opportunities to reach positive socio-economic effect in the region, consisting in increasing the level of employment and well-being of rural residents by introducing innovative technologies in agriculture, increasing production volumes and providing new jobs. This strategy will also help to create conditions for the investment attractiveness of the territory due to the improvement of strategic manageability and the involvement of all stakeholders, including government authorities and business entities.

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