

The Development of Agriculture as a Mechanism for the Development of Food Security of a Country

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Abstract – This article is devoted to the relevance of the development of the agro-industrial complex of Russia as one of the most important sectors of the country's national economy, the functioning of which is a decisive condition for ensuring the food security of the Russian Federation. The relevance of food security is due to many economic and political reasons. Existing economic sanctions against Russia are forcing a deeper engagement in food security issues. The suspension of interstate trade relations in connection with the fight against viruses (for example, coronavirus) can also lead to a shortage of food in the country. Sufficiency of food products can be ensured by the development of agriculture, which is the main source of raw materials for the food industry. The authors consider the attitude of the state to agriculture at various stages of the country's socio-economic development. The article shows the need and urgency in the development and implementation of significant measures of agricultural support by the state, including assistance in obtaining affordable credit resources, the involvement of highly qualified specialists in agriculture and the processing industry (the formation of human capital in the agro-industrial complex), distribution of leasing and agricultural machinery, approval of tax benefits for agricultural producers. Such targeted activities state will significantly strengthen the country's food security and improve living standards.

Key words – *agroindustrial complex, agriculture, food security, integration, globalization, state regulation, economic security.*

I. INTRODUCTION

The study was conducted on the basis of statistical information, taking into account the results of key international meetings. The authors analyze the development indicators of agriculture as the most important sector of the economy that provides food to the country's population. Particular attention is paid to the impact on the level of food safety of biotechnologies, including the production of genetically modified products, the problem of processing food crops into alternative fuels. The existing and forecasted regional differences in the global food security system as an element of the national security of the state are determined. The study focuses on the importance of Russia's agro-industrial complex as one of the most important sectors of the country's national economy, the functioning of which is a decisive condition for ensuring the food security of the Russian Federation. The authors consider the attitude of the state to agriculture at various stages of the country's socio-economic development. The article defines the directions for the favorable development of the agro-industrial complex of

Russia. In addition, the study examined the problems of agricultural lending. The main problem of agricultural lending is the introduction of EU sanctions against Russia and the introduction of retaliatory anti-sanctions. The main creditors of the agro-industrial complex are Russian Agricultural Bank and Sberbank. They have a fairly large share in lending to seasonal field work. The loan portfolio of the Russian Agricultural Bank and Sberbank in relation to the agricultural sector is presented. For the Russian agro-industrial complex, state support is needed in the form of subsidies and various credit benefits.

Note that the restriction of food supplies to the country may also be due to the fight against viruses (for example, coronavirus), when countries stop intercountry trade for a considerable time, including food.

II. MATERIALS AND METHODS

In the study, theoretical methods were used, such as: analysis, analogy, generalization, classification, forecasting and hypothesis, which involve the processing of existing material through logic, as well as practical / empirical methods, such as: description, comparison, questioning, employees to obtain new data empirically, in practice. At present, it is necessary to realize that state policy, including state agrarian policy, is aimed at the economic development of the country's agricultural sector. State agrarian policy can be subdivided into: a) agri-food policy; b) socio-economic policy for the sustainable development of rural areas; c) personnel and scientific and technological policy. At the same time, the state agrarian policy itself is an integral part of the state socio-economic policy aimed at the sustainable development of agriculture and rural territories. The importance of personnel policy in this relationship should also be noted, since without highly qualified specialists it is difficult to predict the stable development of the agricultural sector of the economy. It is this factor that is decisive for ensuring food security and the provisional independence of the Russian state. The problem of providing qualified personnel to agribusiness entities due to aging and retirement of specialists for other reasons will become more acute in the very near future. Therefore, it is necessary both at the federal level and at the level of the constituent entities of the Russian Federation to adopt special comprehensive state programs for the training and retention of young specialists in the organizations of the agro-industrial complex system. The introduction of amendments and additions to federal laws governing the participation of a

constituent entity of the Russian Federation in financing the training and laboratory facilities should also be noted and, especially, the acquisition of modern agricultural machinery and equipment for agricultural universities in the country.

III. RESULTS AND DISCUSSION

The agro-industrial complex in the Russian Federation (AIC) is the largest inter-industry complex that unites several sectors of the economy aimed at the production and processing of agricultural raw materials and the production of products brought to the final consumer.

At different stages of the socio-economic development of the country, the attitude of the state to the AIC and agriculture has changed significantly. However, one can note a number of stable trends characteristic of the role of the agrarian sector in the Russian economy. Agriculture throughout the history of the country has been the basis for the development of the national economy.

Based on historical data, it can be noted that in pre-revolutionary Russia, agriculture was the predominant sector in terms of the number of employed people and the volume of output. Its role in the pre-war economy of Russia was dominant, since about 70 % of the country's income to agriculture and 30 % belonged to industry. However, Russia was, is and will be in one way or another an agrarian country, regardless of how industry develops, as it has favorable natural conditions, as well as vast areas suitable for agricultural production [4].

Based on this, the role of the AIC should be considered from various perspectives: social, environmental, political and economic [5].

Of course, agriculture is an important component of the AIC, for which a number of characteristic features can be distinguished:

- dependence on natural conditions;
- seasonal nature of production and high capital intensity;
- constant risk in obtaining a stable income;
- price inelasticity of demand for many types of products;
- the gap in the time interval between the costs incurred and the receipt of finished products, which leads to the uncompetitiveness of the AIC and reduces their investment attractiveness.

All of the above features require constant attention from the state. The treatise posed and solved the problems of theoretical and methodological substantiation of the management of modeling of the provision of vital functions of the population and the functioning of national economic entities. An approach to modeling the level of vital activity and stability of dynamic systems of regions is presented. Studies have established that the level of economic viability of the population is a priority indicator in characterizing the level and quality of public administration and determining the

differentiation of a region (territory). As a result of the analysis, we came to the conclusion that the solution of the problems of increasing the sustainability of the economic development of regional economies should be associated with the following processes: strategic management as a continuous process of substantiation and selection of promising goals for sustainable development of regions and the development of specific plans and programs to achieve these goals; financial modeling as a system of forms, methods and techniques for managing cash flows, financial and material resources of the region aimed at ensuring sustainable development of the territory; optimization of production and technical activities as a set of methods, principles and management tools for the transition to modern technologies and environmental quality standards; legal regulation as a process of targeted impact on social, economic, environmental and social relations occurring in the region, with the help of legal institutions; formation of the organizational structure and strengthening of the administrative resource (intensification of the impact of socio-political forces on socio-economic development). In these conditions, one of the guarantors of the implementation of measures to achieve balance and sustainable development should be local authorities [1].

In recent years, special attention has been paid to measures taken to support the AIC, such as financial recovery of enterprises, development of leasing, subsidizing of interest on credit rates, approval of tax benefits for agricultural producers, implementation of a program for social development of the village, all this has improved the situation in rural areas country economy [6]. Currently, the domestic AIC operates in difficult socio-economic conditions. The introduction of EU sanctions against Russia was associated with events in Ukraine and the entry of Crimea into the Russian Federation. The Russian government was forced to retaliate, and on August 7, 2014, a package of retaliatory measures was created for the sanctions of the European Union, the USA, Australia, Canada, and Norway. "However, the difficulties of the economy are associated not only with the application of economic sanctions against Russia, as it might seem at first glance. Deep in the economic system, structural deformations occurred, overcoming of which requires the creation of a new industrial base" [3]. The list of countries that cannot import agricultural products, raw materials and food to Russia includes Albania, Montenegro, Iceland, Liechtenstein and Ukraine. These restrictions are aimed at the distribution of special economic responses to individual states, taking into account the degree of their involvement in the sanction regime against our country. The anti-sanctions introduced by Russia will help expand the sector for domestic agricultural producers, which is reflected in an increase in the production of livestock and food products. Mostly anti-Russian sanctions adversely affected the financial and investment conditions for the development of Russia's AIC. The sanctions have affected Russian agricultural lending. The imposition of sanctions against the Agricultural Bank, which provides loans for field and seasonal work (65 % of the total loan portfolio of the AIC, 35 % were allocated for general lending to the agricultural sector), as well as against Sberbank, which share is 30 % for lending to field and seasonal work in general agribusiness loan portfolio. This has led to a significant reduction in their ability

to attract external financial resources. This situation led to a decrease in the availability of “domestic” loans for the agricultural sector due to the actual doubling of interest rates. In order to prevent a credit crisis, the Government of the Russian Federation increased subsidizing loans for agriculture to 15 %, and the Agricultural Bank received assistance in the amount of 15 billion rubles, which led to a reduction in the credit and investment base for the implementation of the Food Security Strategy of Russia until 2020, the investment potential of which, according to experts, exceeds 4 trillion rub. [7, 13]. It should be noted that the Agricultural Bank is a leader in credit and financial services to the AIC and implementation of state policy in the field of agriculture. It is also a participant in the mechanism of preferential lending, implemented with the support of the Russian Ministry of Agriculture. The Ministry of Agriculture of Russia allocates a list of banks that participate in the program of concessional lending to farmers. In addition to the Russian Agricultural Bank and Sberbank, about 20 credit organizations participate in the agribusiness lending program, including: UniCredit Bank, Gazprombank, VTB, Alfa Bank, Otkritie Bank, Raiffeisenbank [15, 16]. The listed commercial organizations satisfy the requirements of the Federal Law “On the Procedure for the Formation and Use of the Target Capital of Non-Profit Organizations” dated December 30, 2006 N 275-FZ, in particular, they have more than 20 billion rubles of equity and have “special credit products” for farmers. An important direction in strengthening the food security of the state and import substitution processes is to improve the functioning of agriculture, the basis of which is optimization in order to improve the investment attractiveness of agriculture of state support forms and mechanisms, as well as innovative development of the industry. The need to develop in-country agriculture is also due to the restriction of the import of goods into Russia, including food, in connection with the development of the world of coronavirus. The restriction in the global economy of the supply of goods, due to the restriction of the spread of the virus, is also a good reason for the need to develop agriculture in the country, as the main source of raw materials for the food industry.

Currently, especially in the context of sanctions and import substitution for the Russian AIC, state support is needed in the form of subsidies and various credit facilities. In the Russian Federation, agricultural financing from the federal budget is lower than in the United States and EU countries. But in Russia, agricultural support is not limited only to budget funds. The state should support the innovative activity in the agricultural sector, where preferential lending to organizations, developed tools for renting agricultural equipment, and mechanisms for stimulating leasing operations that will bring economic benefits to producers are needed [17]. Thus, the problem of ensuring food security of the Russian Federation under the conditions of sanctions should be solved on the basis of meaningful long-term and systemic decisions, research and implementation of an effective long-term strategy for the development of agriculture which task is to increase the living standards of the country's population. However, despite all this, the authors believe that the state should pay more attention to the development and regulation of foreign economic activity, improving the mechanism for protecting

domestic producers from foreign competition in the domestic market, as well as creating favorable conditions for the export of agricultural products. The AIC as a whole and its basic industry, agriculture, are the leading system-forming spheres of the country's economy as a whole. They form the food market, provide food and economic security of the country, the labor potential of rural territories [8, 12]. The personnel policy is currently becoming particularly relevant, since without highly qualified specialists it is difficult to predict the sustainable development of the agricultural sector of the economy. This factor is also crucial for ensuring food security and the provisional independence of the Russian state. The problem of providing qualified personnel to agribusiness entities due to aging and retirement of specialists for other reasons will become more acute in the very near future. It seems necessary, both at the federal level and at the level of the constituent entities of the Russian Federation, to adopt special comprehensive state programs for the training and retention of young specialists in organizations of the AIC, i.e. the formation of the human capital in agriculture, considering it as one of the most significant elements of development [14]. It is also necessary to initiate the introduction of amendments and additions to federal laws governing the participation of a constituent entity of the Russian Federation in financing the training and laboratory facilities and, especially, the acquisition of modern agricultural machinery and equipment for agricultural universities of the country. The state personnel policy in the agrarian sector must undergo serious changes and shift from a static state to the stage of modernization and active positive development. The main socio-economic function of the AIC of Russia is to ensure the country's food security [9]. The definition of food safety of the Russian Federation defines food security as the state of the country's economy, which ensures food independence of Russia, guarantees the physical and economic availability for every citizen of the country of food products that meet the requirements (GOST) and the legislation of the Russian Federation on technical regulation, in volumes not less rational food consumption standards needed for an active and healthy lifestyle. Food security is a significant element of a country's national security. To achieve a high level of food security in Russia, 80–95 % of consumed food products should be produced by their own agricultural sector. Currently, there is a threat to food security in the Russian Federation, which is due to the low level of productivity of agricultural products. Taking into account statistics, on average, since the beginning of 1990s, production halved, and the share of imports in the structure of consumption, on the contrary, increased [11]. As a result, the domestic producers were being replaced by foreign suppliers, requiring enhanced state control. However, it should also be noted that the effective functioning of the modern economic system of any state is impossible without its inclusion in the integration process. This is due to the solution of agricultural development issues in close cooperation with other economically developed countries. The authors believe that cooperation in the field of agriculture reflects the common goals and principles of relations between countries, which are built on the basis of equality and mutual benefit of all countries and serve to enrich the forms and methods of economic development in the interest of increasing the welfare

of the people. Currently, scientific and technical cooperation of economically developed countries in the field of agriculture is constantly being improved [2]. New prospects are opening up for its development in connection with the development and implementation of long-term target programs, which include the main tasks and areas of cooperation in the most important sectors for the long term. Based on the growth of production, the consumption of agricultural products per capita increases, namely: livestock products, vegetables, fruits, as well as the nutritional structure improves qualitatively. Thus, in the country there is a process of reducing the number of agricultural workers on the basis of industrialization of agricultural production, which means that the increase in production is achieved only through an increase in labor productivity [10]. In addition, high rates of production growth and increased labor productivity are ensured by strengthening the material and technical base. Noting the foregoing, we can confidently say that the priority areas of economic integration in the agricultural sector of Russia are the implementation of an agreed agricultural policy; development of normative, legal and scientific and methodological support; creation of infrastructure and information support of the common agricultural market; the formation and implementation of interstate cooperation programs in the agricultural sector; creation of integrated formations. For the further favorable development of the country's agribusiness, it is necessary to indicate the following areas, such as:

- strengthening the instruments of state regulation in trade in agricultural products of Russia, in particular, customs and tariff regulation in order to protect the domestic market from increased imports and increase competition for domestic producers;
- stimulating the growth of own production of agricultural products in order to provide the country with necessary food;
- Promoting the development of agro-industrial integration in agricultural cooperatives;
- expansion of scientific research on problematic issues in the field of agriculture;
- improvement of technologies used in the agricultural sector.

IV. CONCLUSIONS

Analyzing the foregoing, we can draw the following conclusions.

1. High food prices form the main socio-economic contradictions that undermine global food security. This problem is especially relevant for the least economically developed countries that have a difficult demographic situation and an uneven income distribution. The main factors behind rising food prices are considered to be highly dependent on food imports in the least developed countries of Asia and Africa. At the general price level, the increase in the cost of food products is adversely affected. The formation of these trends was promoted by an increase in prices, including for sowing resources, fertilizers, and fuel; increase of technical

and transport components in the final price of goods. Transportation costs also directly depend on the dynamics of oil prices which have grown significantly. The conditions for the transportation of perishable goods in a number of countries in Asia and Africa also have a negative impact on price dynamics: only 1/5 of the cargo is transported in refrigerators. The reduction in food supply during the crisis has exacerbated the importance of the demographic factor.

A long-term plan regarding the dynamics of the world population allows calculating food requirements and, based on the minimum acceptable dietary value, determine the necessary volume of food production. To provide the growing population of planet with food products, their production volume will be increased by 70 % compared to 2009. To create the necessary basis for the development of the AIC, primarily in Asia and Africa, the world community is forming specialized foundations accumulating funds for mechanization, development of personnel potential, irrigation systems, R&D and other areas.

2. Another of the extremely negative factors influencing the dynamics of prices for food crops is the development of biofuel production. The volume of commercial crops that are used to process this raw material is increasing in arithmetic progression. In some countries, such as Brazil, this reduces the dependence of the transport sector on the hydrocarbon market. Similar trends in other countries are demonstrated by the manufacturers of the product. Ecological benefits derived from the use of alternative fuels are leveled by deforestation in order to expand the acreage of these crops (APR).

3. In order to increase agricultural productivity, as early as the mid-90s of the twentieth century. Plant genetic engineering technologies are used. At present, it is becoming apparent that the world agribusiness of the 21st century is hardly able to satisfy all needs without the use of biotechnology. The rapid spread of genetically modified crops makes it possible to achieve a significant increase in productivity (up to 31 % in 1996-2008). In the technological context, this is ensured by creating varieties that are immune to the specific natural conditions of vegetation. Along with this, the development of the market of genetically modified products is characterized by two negative factors. The first one is due to the main part of the development in the field of biotechnology is carried out and controlled by huge private companies—the GMF market is monopolized. Significant obstacles to entering the industry, a high concentration of participants determine the rigidity of pricing policies, as well as the specifics of the organization of production. Another factor is the lack of information regarding the possible properties of this product for the human body. Some countries (mainly the countries of Western Europe) refuse to consume GMFs.

It is obvious that the role of agriculture as an engine of economic growth and a factor in strengthening food security in the long term will remain extremely high. The value of the AIC is manifested not only in the prism of food production, but also in the creation of additional jobs, increased incomes, and the support of the urban population's nutrition system.

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