

Artículo de investigación

Ensuring Food Security in The Russian Federation in The Context of Import Substitution Policy

Обеспечение Продовольственной Безопасности в РФв Условиях Политики Импортзамещения
Garantizar la seguridad alimentaria en la Federación de Rusia en los términos de la política de sustitución de importaciones

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Abstract

Food policy is an element of the implementation of the mechanism of strategic management of food security and the development of the national food supply system. It involves a set of coordinated measures aimed at changing the productive capacity of the agri-food sector of the national economy in accordance with the resource capabilities and market needs. The purpose of this study is to analyze the factors that have the greatest impact on food security in various countries. The study has allowed the authors to identify the factors that have the greatest impact on ensuring food security. The restrictive impact of these factors on ensuring national economic security has been analyzed. Financial and non-financial measures to support agro-industrial production in the context of import substitution policies have been highlighted. In this paper, the authors have used a methodological approach to the development of proposals for the development of agri-food policy, based on the integrated improvement of the production structure of the regional food supply system.

Keywords: food security, agro-industrial production, import substitution, agriculture, government regulation.

Аннотация

Продовольственная политика как элемент реализации механизма стратегического управления продовольственной безопасностью и развитием национальной системы продовольственного обеспечения предполагает совокупность скоординированных мер, направленных на целевое изменение производственных возможностей агропродовольственного сектора национальной экономики в соответствии с ресурсными возможностями и потребностями рынка. Целью данного исследования является анализ факторов, оказывающих наибольшее воздействие на обеспечение продовольственной безопасности в различных странах. Исследование позволило выделить факторы, оказывающие наибольшее воздействие на обеспечение продовольственной безопасности проанализировано ограничительное влияние этих факторов на обеспечение национальной экономической безопасности. Выделены финансовые и нефинансовые меры поддержки агропромышленного производства в условиях политики импортзамещения. В данной работе использован методический подход к разработке предложений по

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развитию агропродовольственной политики, основанный на комплексном совершенствовании производственной структуры региональной системы продовольственного обеспечения.

Ключевые слова: продовольственная безопасность, агропромышленное производство, импортозамещение, сельское хозяйство, государственное регулирование

Resumen

La política alimentaria como un elemento de la implementación del mecanismo de gestión estratégica de la seguridad alimentaria y el desarrollo del sistema nacional de suministro de alimentos implica un conjunto de medidas coordinadas destinadas a cambiar la capacidad productiva del sector agroalimentario de la economía nacional de acuerdo con las capacidades de recursos y las necesidades del mercado. El propósito de este estudio es analizar los factores que tienen el mayor impacto en la seguridad alimentaria en varios países. El estudio permitió identificar los factores que tienen el mayor impacto para garantizar la seguridad alimentaria y se analizó el impacto restrictivo de estos factores para garantizar la seguridad económica nacional. Se destacan las medidas financieras y no financieras para apoyar la producción agroindustrial en el contexto de las políticas de sustitución de importaciones. En este documento, utilizamos un enfoque metódico para el desarrollo de propuestas para el desarrollo de políticas agroalimentarias, basadas en la mejora integrada de la estructura de producción del sistema regional de suministro de alimentos.

Palabras clave: seguridad alimentaria, producción agroindustrial, sustitución de importaciones, agricultura, regulación gubernamental.

Introduction

In 2014, the Russian Federation Government adopted import substitution policy in response to the sanctions of the outside world against Russia, as well as the subsequent decline in prices for domestic raw materials, depreciation of the ruble, and the partial suspension of projects with foreign partners. Import substitution can be considered as an integral part of the overall strategy to improve the competitiveness of Russian agribusiness. It should become an effective impetus that will accelerate the development of the economy and contribute to the formation of self-replicating economic growth of the country. Rosstat(Russian Federal Statistics Service) has published data indicating that at the end of 2016, due to the increase in productivity of the agro-industrial complex, achieving economic growth became possible, i.e., against the background of other economic sectors, the contribution of agriculture appeared to be the most significant. The agricultural production index in 2017 amounted to 102.4, though it was less than in 2016. Experts attribute this lag to adverse weather conditions.

Materials and methods

In this article, a methodological approach is used to the development of proposals for the agrifoodpolicy-making, based on the comprehensive improvement of the production structure of the regional food supply system, optimization of production capabilities and the regional market based on the prediction of the parameters of the problem sectors of the agrifoodmarket.

Results and discussion

Evaluation of the practices of agrifoodpolicy implementation based on the optimization of production capabilities and market needs of the region has shown that there are quite many problematic aspects in this area.

Thus, B.Dillon and Ch. Dambro(2017)note that in the era of structural transformation of the 1980s and 1990s, the agricultural policy of the governments of the Sub-Saharan African countries consisted usually in leaving the markets of agricultural crops in order to attract private traders and encourage competition. Since then, the degree of competition in crop markets

has become a central challenge for decision-making bodies, donors, and researchers. The authors of the present article believe that it is not enough to consider the problems without assessing the situation, developing the conceptual framework and system analysis. The authors adhere to the fact that crop markets are competitive and dominant in their individual types while trading profits vary widely, trader entry and exit rates are high, while price fluctuations between markets suggest relatively effective levels of competitive behavior. It is quite possible that the high costs of entering the market, noncompetitive conditions at the level of large intracity and cross-national trade mean the creation of certain necessary conditions through the mechanism of agrifood policy.

Researchers M. Kan, F. Tosun, A. Kan, H. Gokhan Dogan, I. Ucum and C. Solmaz (2019) considered the agrifood policy tool called "Young Farmers Project Support" (YFPS) implemented in Turkey. Structural problems of the Turkish agricultural sector, such as the reduction of human capital in the agricultural sector are particularly important in the national food supply system. To address these issues, the noted YFPS policy tool was developed, which was implemented in 2016 within the national agricultural project. The aim of the concerned study was to evaluate the criteria used when selecting beneficiaries to support young farmers under the YFPS program in Turkey. The authors prepared a study to determine the specific features of its application and how young farmers benefit from the support project, in which the selection criteria met the objectives of the support program. The survey was conducted in June-August 2017 in the TR 71 region, which is located in the central part of Turkey. A total of 248 young farmers were interviewed, among whom 139 farmers had received support, while 109 were not selected for providing such support. The obtained results have shown that the applicants, who benefited from the YFPS project, were distributed in the following order: women > married > aged 18-30 > people from rural areas with a population of fewer than 1,000 > persons with education in agricultural production > disabled/relatives of trainees / as well as enterprises with an annual income of 10,000 TL or less. Thus, to some extent, YFPS has breathed new life into agriculture by encouraging young people in rural areas, but this support should be aimed at creating economically sustainable and viable enterprises.

The authors A. Kijek, T. Kijek, A. Nowak, and A. Skrzypek (2019) considered an agricultural

policy from the standpoint of factor productivity. This study reflects the change in the total factor productivity of agriculture in the 25 member states of the European Union (EU) from 2004 to 2016 based on Färe-Primont index. It also attempts to answer the question of whether during the period under review, the levels of total productivity factors of member states in this sector were similar. For this purpose, panel module root tests were used. The study has shown that total factor productivity (TFP) in the new EU member states was relatively lower than that in most EU-15 member states. It was also revealed that the convergence occurred in agricultural productivity in almost all EU countries.

The authors R.A.Z. Tama, A.R. Dhar, and I.A. Begum (2018), when considering the issues of agrifood policy from the standpoint of assessing the export potential of aromatic rice in Bangladesh, identified the main factors affecting the gross profit from the production of aromatic rice. About 45 aromatic rice farms were selected from five villages in the Dinajpur district using the stratified sampling method for the study. The data were analyzed using a combination of descriptive statistics, as well as mathematical and statistical methods. Cobb-Douglas production function has shown that three of the seven independent variables have significant impact on the gross profit from the production of aromatic rice. Significant variables included education, the cost of the cultivator, and the cost of fertilizers. An analysis of the domestic resource cost (DRC) has shown that Bangladesh has a comparative advantage in the production of aromatic rice both in terms of exports and in terms of import substitution, as DRC amounts to 0.51 and 0.64 for import and export parity prices, respectively. The study proposes to maintain the prices of fertilizers, seeds and other input recourses, as well as to minimize marketing and trade costs and barriers to expand the aromatic rice production capacity in Bangladesh.

Indian researchers A. Panghal, N. Chhikara, N. Sindhu, and S. Jaglan (2018) consider food safety from the standpoint of the production system of food safety management. They state that the contemporary system of agriculture which uses mechanized labor and advanced marketing is not able to provide sufficient guarantees for the safety of produced food products, whereas the high prevalence of digestive tract diseases in people emphasizes the serious concerns of consumers regarding the safety of food products. The main concern of scientists is associated with unmarked, but patented genetically engineered

products available on the market. In the context of globalization, government policies of some countries do not take into account the consequences of such food production for the health of the population, taking care just about the preservation of the food supply chain. To ensure the quality of food and improve the reliability of the food supply system, the authors critically analyze the legal requirements, norms and quality standards that are constantly being improved and developed in the food production. They make it clear that the need for new laws and quality standards is an indispensable component of the food security system development. Scientists note the revolutionary changes in the delivery speed of food directly from the manufacturers to the consumers. They emphasize the importance of complying with ISO 22000 to ensure the safe production, distribution, and consumption of food products in a reliable and reasonable manner.

A research team from Germany and Italy T.Brück and M. d'Errico consider the food security and hunger problem in countries with ongoing military conflicts. They note the reduction of the hunger problem in various countries from the standpoint of food security. While 1.2 bln people were undernourished worldwide in 1991-92, this number fell to 991 mln in the 2000s and to 821 mln in 2017. At the same time, the number of people facing chronic food shortages has increased over the past three years. In addition, more than 124 mln people are facing systemic crises related to food security. Thus, at the beginning of 2017, hunger was declared in South Sudan, high risks of hunger were noted in the North-Eastern part of Nigeria, Somalia, and Yemen.

German scientists Ch.P. Martin-Shields and W.Stojetz in their scientific article "Food security and conflict: Empirical challenges and future opportunities for research and policymaking on food security and conflict" (2018) also see a clear relationship between the deterioration of food security indicators and the presence of military conflicts in the region. They note the lack of sufficient information on social, political, economic, and institutional variables.

The authors provide convincing evidence of an understanding of the cause-consequence mechanisms of the relationship between food security and the existence of military conflicts in the region, including both economic and non-economic channels, which underlie them. Researchers note that there is an essential lack of reliable data required to analyze programs and

interventions by the authorities in conflict zones, and note serious practical and ethical challenges. They note many cross-national activities related to food security and sustainability, which have been successfully completed by the authorities in the conflict zone. However, the particular food security status is often just assumed rather than rigorously tested.

Thus, despite the approaches implemented in the field of state regulation and general agrifoodpolicy, methodological tools in this area need to be improved.

Discussion

In 2017, the Deloitte research center published a rating of problems in agriculture in Russia (Obzorynkasel'skogohozyajstva, 2017). According to this rating, the main problems are the lack of state support and funding, despite the fact that for the period of 2013-2017, 342,464,330 mlnrubles were allocated in agriculture. The shortage of qualified personnel was also noted among the problems hindering agriculture development. It is worth paying attention to the imperfection of state regulation of agriculture in 2017, as well as the problem associated with the growth of the currency risk, which has been observed since 2014 after falling in the ruble. This problem is particularly relevant because the agricultural sector depends on the import of agricultural machinery, as well as the imported selection and breeding stock (bulls, pigs, turkeys, chickens, fish, etc.). After the fundamental domestic selection industry was completely destroyed in the 90s, Russia is forced to buy seeds and livestock abroad. Agricultural machinery industry is poorly developing that leads to obsolescence and wear of equipment, and this, in turn, leads to crop losses of up to 11%. Further slowdown was noted in 2018 due to the devaluation of the ruble and the increase in the cost of imported equipment. Therefore, the main priority trends in the agriculture development in 2018-2020 should be focused on the technical modernization of the industry (Tulcheev, Zhevora, Gordienko, 2018; Ministry of agriculture, n.d.)

One should bear in mind the problem of the high cost of energy resources, which directly affects the development and functioning of agribusiness sectors, as well as insufficient purchasing power.

There are financial and nonfinancial measures to support agricultural production in terms of import substitution policy. The nonfinancial measures include the following.

First, assessing the effect of conducted activities, allocated subsidies, and other allocations on key indicators of import substitution policy, analyzing the investment attractiveness of agribusiness sectors and making them more accessible to investors by means of investment platforms including those available through the Internet, as well as assessing the effectiveness of the invested funds and understanding to what extent they are interrelated with the results of the pursued policy, are considered to be important issues.

Second, the problem with the rational use of farmland and timely implementation of land into an agricultural turnover is also rather an acute issue. To do this, it is necessary to ensure the rational use of land, as well as to tighten relations with foreign tenants (China, Korea, etc.) of national agricultural land, and to collect rent in full.

Third, it is necessary to actively involve scientific institutions in research in the field of agribusiness, and implement the obtained results. It is also advisable to increase the technological availability of sowing material, expanding capacities to update and replace seeds and livestock with those more productive and resistant to climatic conditions. At the beginning of 2018, it became known that the Ministry of Agriculture of the Russian Federation was going to establish a Fund for the development of innovation in the agribusiness¹⁰⁹. This Fund can be called Agrarian Skolkovo, which will be aimed at, in particular, solving the problems, which are defined in the Federal Scientific and Technical Program for the Development of Agriculture for 2017-2025. Within the framework of this program, it is planned to develop new varieties of plants and breeds of animals, as well as to develop new agricultural means of production. The Fund will start operating in 2-3 years, the state investments will amount to 30 bln rubles. This can be considered one of the ways to solve the problems related to selection and increasing technological imports. Also in the cattle breeding industry, it is necessary to ensure the timely receipt of funds, allocate additional funding for the development of breeding cattle, and pedigree stock.

Returning back to the issue of increasing imports of foreign agricultural machinery, one may offer

to direct this process to the localization and assembly of this machinery in the Russian Federation. Thus, the synergistic effect will help not only agribusiness but also other related industries and will lead to an increase in GDP in the country.

Fourthly, it is necessary to solve one of the logistical problems of agribusiness, to analyze the availability of the necessary number of warehouses, enterprises for agricultural products production and storage by product types and by the Russian Federation entities, and to develop a plan to reduce the deficit of certain capacities. As an example, one can cite the situation occurred in the autumn of 2017 when after a record harvest of grain, there were not enough silage facilities to preserve the harvest.

Fifth, it is necessary to ensure the pace of construction of winter greenhouse complexes, expanding existing and modernizing obsolete ones in order to substitute import and provide population with year-round greenhouse vegetables, as well as to consider the possibility of expanding cooperation between the Russian Federation and Asian countries (China, Vietnam, and Korea).

Sixth, the regulatory framework for import substitution policy needs to be further improved.

Financial measures to support agricultural production in terms of import substitution policy include the following measures:

- Continued funding of the agribusiness, developing a new regional program to support small and medium-sized agricultural producers, as well as developing production modernization programs.
- Facilitating the opportunities to obtain subsidies and increase them to compensate part of expenses for payment of credit interests and direct costs incurred, as well as considering at the legislative level the provision of an opportunity for financial institutions, when providing credits, to take into account future state subsidies confirmed by public authorities.
- In order to reduce the risk of weather conditions, it is necessary to develop insurance programs for farmers. This will

¹⁰⁹ Agricultural Portal. Retrieved 09.05.2018 from <https://сельхозпортал.рф/news/analog-skolkovo-planiruyut-sozdat-dlya-selskogo-hozyajstva-rossii/>

lead to the stimulation of small and medium-sized production businesses, which will get guarantees. These insurance packages should be inexpensive and subsidized in part by the state for the period of the import substitution policy.

- To develop the food and processing industry, namely, flour and cereal, bakery, meat, dairy, sugar, fruit and vegetable, fat and starch, it is necessary to create, reconstruct, and modernize the processing industry, implement innovative and saving technologies, reimburse partially the interest on credits (loans).
- To implement and advance innovative and saving technologies, the Federal scientific and technical program for the development of agriculture for 2017-2025 was created (Decree of the Government of the Russian Federation of August 25, 2017 No. 996, On approval of the Federal scientific and technical program for the development of agriculture for 2017-2025). It is aimed at ensuring sustainable growth of agricultural production obtained through the use of seeds of new domestic varieties and breeding production (material), production technologies of high-quality feed and feed ingredients for animals, and medicines for veterinary use, pesticides and agrochemicals of biological origin, processing and storage of agricultural products, raw materials and food, modern diagnostic tools, quality control methods of agricultural products, raw materials and food, as well as genetic material examination.

Conclusion

The development of import substitution in contemporary Russia was in 2014 when western states imposed sanctions against Russia. The creation of government commissions on import substitution in Russia began since August 4, 2015. A package of regulations aimed at supporting the Russian producers by the state was developed and approved. By 2017, the Government managed to achieve the level of self-sufficiency of agricultural products with respect to many positions in accordance with the adopted Doctrine. This concern, for example, domestically produced grain, fish, sugar, vegetable oil, and other products of which many have become key export items. Nevertheless, it is worth paying attention to the production of milk and dairy products, meat and meat products,

especially the production of cattle meat, since in terms of meat, noted level was basically achieved due to the increase in poultry meat production.

Current forecasts have shown an increase in agribusiness production. Thus, the volume of agricultural production in 2020 will be about 7,024 bln rubles, production of poultry meat – 5,245.48 thousand tons, while milk – 31,083.62 mln tons. But these figures can be achieved only with the proper distribution of financial resources provided by both the state and investors.

According to experts, the main problems in agribusiness include the following ones: dependence on the exchange rate of the ruble, since national breeding and agricultural machinery is not developed, and thus Russia needs to focus on imports. Also, one should bear in mind the problem of the modern rural unskilled personnel working at agricultural enterprises. The level of wages also leaves much to be desired. Also, the main constraints to the development of agribusiness are the existing obstacles to market entry by medium and small-sized entrepreneurs, as well as by private small-scale farmers.

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