

Ensuring Food Security of Russia in the Conditions of Sanitation: Economic and Environmental Aspects

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Abstract

The article is an analysis of the problems of ensuring of food security of Russia in terms of sanctions: economic and environmental aspects are considered. The authors conducted a theoretical analysis of the problem, revealed the factors underlying it, considered the key areas for ensuring Russia's food security soon, and suggested the measures for their implementation.

Keywords: Food security, economic security, environmental security, sanctions, agro-industrial complex (AIC), government regulation.

1 THEORY

The experience of developing of a national model of food security in Russia is of great interest because of Russia's special position on the geopolitical map of the world. In recent years, many steps have been taken in our country to ensure independence, including the area of food supply. At the same time, the problems of finding effective forms and mechanisms of state regulation and support of the agro-industrial complex (AIC) of Russia today are particularly relevant in view of the sanctions against Russia and the subsequent food embargo in response. Today, the state faces new challenges of building up and strengthening of the national food base in order to provide the country's population with food in the required quantity, high quality and environmental cleanliness. The problem of ensuring the food security in Russia in modern conditions is particularly relevant since in the world food has been used as a method of waging modern wars, an instrument of economic pressure and political deterrence.

In Russian academic literature, AA. Anfinogentova, E.N. Borisenko, D.F. Vermel, Yu.S. Khromov, I.G. Ushachev worked at the problem, the impact of the introduction of the food embargo on food self-sufficiency in Russia was investigated by Solodukha P.V., Maiorova E.A., Shinkareva O.V. The authors state that after the introduction of the food embargo in 2014, the self-sufficiency rate increases, but has not yet reached the target value [17]. Chaplyuk V.Z., Andryushchenko G.I., Sorokina L.N., Kukharenko O.G., Petrovskaya M.V. were engaged in the study of the impact of economic sanctions on the Russian economy. The authors note that enhancing the economic growth and solving the problems of import substitution is crucial for the transition from the export of raw materials to the intensive development [12].

The Doctrine of Food Security of Russian Federation formulated the concept of food security. The document clearly spelled out the goal of Russia's food policy - "the guarantee of satisfying the population's need for food mainly at the expense of domestic food products at a level sufficient for its normal life activity" [2]. In the draft of the New Food Security Doctrine, it is planned to expand the range of products and indicators that characterize food security, as well as bring the doctrine into line with the strategic planning documents. The approach to the assessment of food independence is changing. Instead of the share of domestic production in the total volume of resources it is proposed to calculate the self-sufficiency indicator [6]. According to the official position of the FAO [8], food security is interpreted as a state "when all people always have physical, social and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences to lead an active and healthy life" [8]. Food security levels are highlighted: local, country, regional, international and global. In Russian academic literature there are several approaches to this issue, but the positions of the most researchers are to some extent like the above.

The Economist Intelligence Unit conducts the annual monitoring of the food safety index for the countries around the world [10]. Thus, according to the classification proposed by the agency, the index of countries with a favourable food situation ranges from 90 to 70, while the best indicators

traditionally fall on the United States, Japan, the United Arab Emirates, South Korea and the EU countries. Russian Federation with the score of 63.8 pp has shown in recent years a significant strengthening of national food security, but still not as high as their level [14].

2 DATA AND METHODS

Analytical materials, statistical data of the Federal State Statistics Service of the Russian Federation were used as research methods for writing the article.

In order to determine the place and significance of food security in the general security structure, we shall use, as a heuristic tool of research, the scheme of security rings by C. Daaze. K. Daaze places environmental security between economic and human security. In our opinion, the latter, of course, is an important and necessary condition for food security. The degradation of the environment, and wider - climate change issues - are linearly dependent on providing the planet with food [13].

The country's food security level is closely interrelated with the state of the environment, soil fertility and production technologies. At the same time, now in Russia there is a deterioration of land conditions, a decrease in fertility, a decrease in the content of humus and nutrients in the soil. Increase in land areas with signs of degradation has reached a critical level [9]. The main negative processes leading to land degradation are both water and wind erosion, and soil erosion as a result of human exposure when using heavy equipment and the irrational organization of irrigation; desertification of the surface, as a result of an abrupt change in the water regime, leading to desiccation and great loss of moisture; waterlogging, land flooding, waterlogging, salinization and alkalinisation of the soil; toxification, i.e., soil contamination with pesticides, herbicides and other agrochemicals that adversely affect the soil, water bodies and groundwater; direct losses of productive agricultural land due to their withdrawal from circulation [16].

Environmental safety is defined as the state of protection of the natural environment and vital human interests from the possible negative impact of economic and other activities, natural and man-made emergencies, and their consequences [1]. In the Strategy for Environmental Safety, the main challenges and threats to environmental safety include increased degradation of land and soil, as well as a high degree of pollution and poor water quality of a significant part of water bodies [4].

"Strategy of the environmental safety of the Russian Federation for the period until 2025" designates the prevention of land and soil degradation as one of the main directions of the implementation of the state policy in the field of environmental safety. These processes are the subject to more than half of the total agricultural land of the country. The total area of polluted land in circulation is about 75 million hectares. The area of disturbed lands that have lost their economic value or have a negative impact on the environment is more than 1 million hectares. Desertification of lands is to some extent observed in 27 constituent entities of the Russian Federation on an area of more than 100 million hectares [4].

An important parameter in achieving food security is the economic affordability of food, i.e. the ability of all citizens of the state, regardless of income level, to acquire the necessary amount of food. The economic availability of food is the level of income and the scale of poverty of the population. Thus, the level of food consumption depends on the ratio of the growth rate of food prices and the growth rate of money incomes of the population [15]. So, if in 2011 the average food expenses in the country were 29.5%, and in 2013 - 27.7%, then by 2018 the situation had deteriorated sharply. Now the national average is 34%, reaching 44.9% in some households. Growth in food prices continues to outpace income growth [16].

Analysing the threats to the economic security of the Russian Federation, many authors note that the main threat to the national economy is the lack of total restructuring of the economic, political, social and spiritual structures of society. What manifests itself in the insufficient development of the newest branches of production, the failure to realize many priority national projects [14]. Until now, the country's economy depends on the export of oil and gas raw materials, food imports, tax increases. It harms the economic security of Russia. The main strategic directions to improve the situation are seen by many authors in the re-industrialization based on innovation and import substitution, the development of science and innovation. Thus, the subject of economic security is the provision of a high standard of living for the population on the one hand and the maintenance of the sovereignty of the state on the other.

3 RESULTS

Having reviewed the main points related to the implementation of the state policy in the field of food security in the context of sanctions, we identified five key areas for ensuring food security of Russia soon and proposed measures for their implementation:

1 - economic: monitoring of food security based on the rating of food security of all constituent entities of the Russian Federation (federal, regional and municipal); support productive farmers; reduction of tax and bureaucratic burden from entrepreneurs engaged in the production and sale of agricultural products; the development of various forms of consumer cooperation and the creation of conditions for the involvement of rural residents; creation of a developed financial and credit and banking infrastructure, private pension funds in the sphere of the agro-industrial complex; income support for agricultural producers at a level that allows for expanded reproduction and implementation of state rural development programs, etc.

2 - production: recreation of domestic seed and breeding bases; improvement of agricultural production technologies ("clean technologies"), intensification of agricultural production, that is, increase in livestock productivity, increase in crop yields. Rejection of manufacturing products based on GMOs.

Agricultural sectors need to be more productive by introducing efficient business models and building public-private partnerships.

3 - trade: integration into the world food system; ensuring a high level of protection of the national food and agricultural market; formation of a developed competitive environment; the creation of production value chains, including production, procurement, processing, sale; creation of conditions for deepening the specialization of regions that contribute to improving the performance of basic foodstuffs; government regulation of pricing for basic foodstuffs; maintaining state food reserves; improvement of all links of logistics, etc.

4 - environmental: improving the state of the environment (solving problems of greenhouse gas emissions, water use and waste); improving soil fertility and ensuring the sustainability of reproduction of soil fertility.

5 - social: implementation of special programs for the development of disadvantaged rural regions (improving access to educational, medical services, housing); legal support to farmers; ensuring the necessary standards for the consumption of basic foodstuffs for all groups of the population, regardless of their status; ensuring the proper diet of the population, necessary for an active and healthy lifestyle.

4 CONCLUSIONS

At the moment there are a large number of difficulties in the way of ensuring food independence of Russia, including: the lack of growth in the volume of state support for the agro-industrial complex; difficult domestic economic conditions; the impact of globalization on the food supply system; income stratification; deterioration in the quality of domestic food; export of certain categories of food with insufficient consumption within the country, etc. In the absence of environmental safety, all components of the concept of food security cannot be fully realized. The practical application of the above measures will improve the domestic agro-industrial complex, will give a new impetus to the development and implementation of rural development programs, will provide an expanded model of food production.

Thus, ensuring food security implies economic and environmental security. At the same time, economic, environmental, and food security are the most important components of state security, which is reflected in the National Security Strategy of the Russian Federation.

REFERENCES

- [1] Federal Law No. 7-ФЗ "On Environmental Protection", dated 10 January 2002 (as amended on 12/31/2017). http://www.consultant.ru/document/cons_doc_LAW_34823/5
- [2] The doctrine of food security of the Russian Federation. Decree of the President of the Russian Federation dated January 30, 2010 No. 120. <http://www.mcx.ru/documents/document/show/14857.19.htm/>
- [3] Presidential Decree of May 13, 2017 No. 208 "On the Strategy of Economic Security of the Russian Federation for the Period up to 2030". http://www.consultant.ru/document/cons_doc_LAW_216629/
- [4] Decree of the President of the Russian Federation dated 19.04.2017. № 176 "On the Strategy of the environmental security of the Russian Federation for the period up to 2025" http://kremlin.ru/acts/bank/41879_1
- [5] Decree of the President of the Russian Federation dated 19.04.2017. № 176 "On the Strategy of the environmental security of the Russian Federation for the period up to 2025" http://kremlin.ru/acts/bank/41879_3
- [6] Draft Decree of the President of the Russian Federation "On Amendments to the Doctrine of Food Security of the Russian Federation", approved by Decree of the President of the Russian Federation dated January 30, 2010 No. 120 (prepared by the Ministry of Agriculture of Russia on January 15, 2018) <https://www.garant.ru/products/ipo/prime/doc/56641501/8>
- [7] Declaration of the World Summit on Food Security. World Summit on Food Security (Rome 16–18 November 2009). Available at: <http://www.fao.org/tempref/docrep/fao/Meeting/018/k6050r.pdf>
- [8] FAO Statistical Pocketbook-2018 [Electronic resource] // FAO official Internet portal. URL: <http://www.fao.org/economic/ess/esspublications/essyearbook/en/#.XAU0eGZePR0>
- [9] Estimate of Support to Agriculture: Total Support Estimate (TSE), Percentage TSE (% of GDP). [Electronic resource] // Official Internet portal OECD. URL: <http://stats.oecd.org>
- [10] Global Food Security Index. URL: <https://foodsecurityindex.eiu.com/Downloads>
- [11] Batayev V. (2018) Prospects of development of system of early non-state pension provision in Russia. Russian state social University. Moscow, 2018
- [12] Chaplyuk V.Z., Andryushchenko G.I., Sorokina L.N., Kukhareno O.G., Petrovskaya M.V. (2016) Problems of the economy / Mediterranean Journal of Social Sciences. 2016. T. 7.№3. P. 206-211.
- [13] Christopher Daase. (2016) Von der milit? Rischen zur menschlichen Sicherheit // http://www.blz.bayern.de/blz/web/100111/135_154_daase_IP.pdf
- [14] Grigoriev V. V., Strukov, G. N. N., Slepokurova Y. I., Slepokurova A. A. (2017) UGUET. 2017. Vol. 79. No. 3. P. 238-252.
- [15] Gusareva N. B., Kukhareno, O. G., Zarytova K. G. (2017). Economic and legal journal. 2016. No. 2. P. 29-32.
- [16] Prokopiev M. G. (2018) Ecological component of the food economy / Problems of market economy. - 2018. - № 4. - p. 64-68.
- [17] Solodukha P.V., Maiorova E.A., Shinkareva O.V. (2019) In the collection: Ecological Agriculture and Sustainable Development Editors: Prof. Dr Litovchenko Viktor Grigorievich, rector of the South Ural State Agrarian University; Prof. Dr Mirjana Radovic Markovic, South Ural State University. 2019. pp. 233-241.