

Vector of Sustainable Development of the Agro-Industrial Complex of the Russian Federation

Yuliya A. Kuzlyakina¹, Valentina S. Zamula², Irina V. Petrunina³, Oksana A. Kuznetsova⁴

*The V.M. Gorbatov Federal Research Center for Food Systems of RAS, Moscow, Russia
yu.kuzlyakina@fncps.ru, v.zamula@fncps.ru, i.petrunina@fncps.ru, o.kuznecova@fncps.ru*

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Abstract: The article analyzes and provides information on the indicators for achieving SDG 2 "Eliminating hunger, ensuring food security, improving nutrition and promoting sustainable agricultural development" in the Russian Federation. The main monitoring indicators are highlighted and outlined. The transformation of agri-food systems is embedded in the long-term development documents of the country. The definition of the current situation of agro-food systems and their sustainable development in the Russian Federation is considered.

1 INTRODUCTION

The 2030 Agenda for Sustainable Development (Agenda 2030) is a large-scale transformation plan that includes 17 interrelated and inseparable goals (17 SDGs) aimed at eliminating poverty and hunger, maintaining and preserving the planet's environmental resources, ensuring the well-being of the population, and, with additional adjustments adopted in 2021–2023, contains 231 SDG indicators.

The Russian Federation is committed to the 2030 Agenda and is actively working to monitor indicators of achievement of the SDGs. In December 2016, a group of experts on information and statistical support for SDG monitoring was created. Currently, 116 of the 231 global SDG indicators are being developed, including 31 with regional disaggregation.

Worldwide, special attention is being paid to achieving SDG 2 "Eliminating hunger, ensuring food

security, improving nutrition and promoting sustainable agricultural development."


The state agricultural policy of the Russian Federation is aimed at unconditionally preventing the onset of hunger and all forms of malnutrition. The strategic goal of food security is to provide the country's population with safe, high-quality and affordable agricultural products, raw materials and food in volumes that ensure rational norms of food consumption (Liu, 2023).


Thus, the key sector of the country's economy is the agro-industrial complex (AIC), which provides the basis for ensuring food security and supplying the population with food. With the high growth of urbanization, agriculture becomes paramount (Kadomceva, 2024).


In this regard, legislative regulation has been adopted in the field of sustainable development of agro-industrial complexes (Figure 1).

Legislative regulation of the Russian Federation in the field of sustainable development of agro-industrial complexes

¹  <https://orcid.org/0000-0002-2152-620X>

²  <https://orcid.org/0000-0003-1634-1486>

³  <https://orcid.org/0000-0001-7287-3511>

⁴  <https://orcid.org/0000-0002-5048-9321>

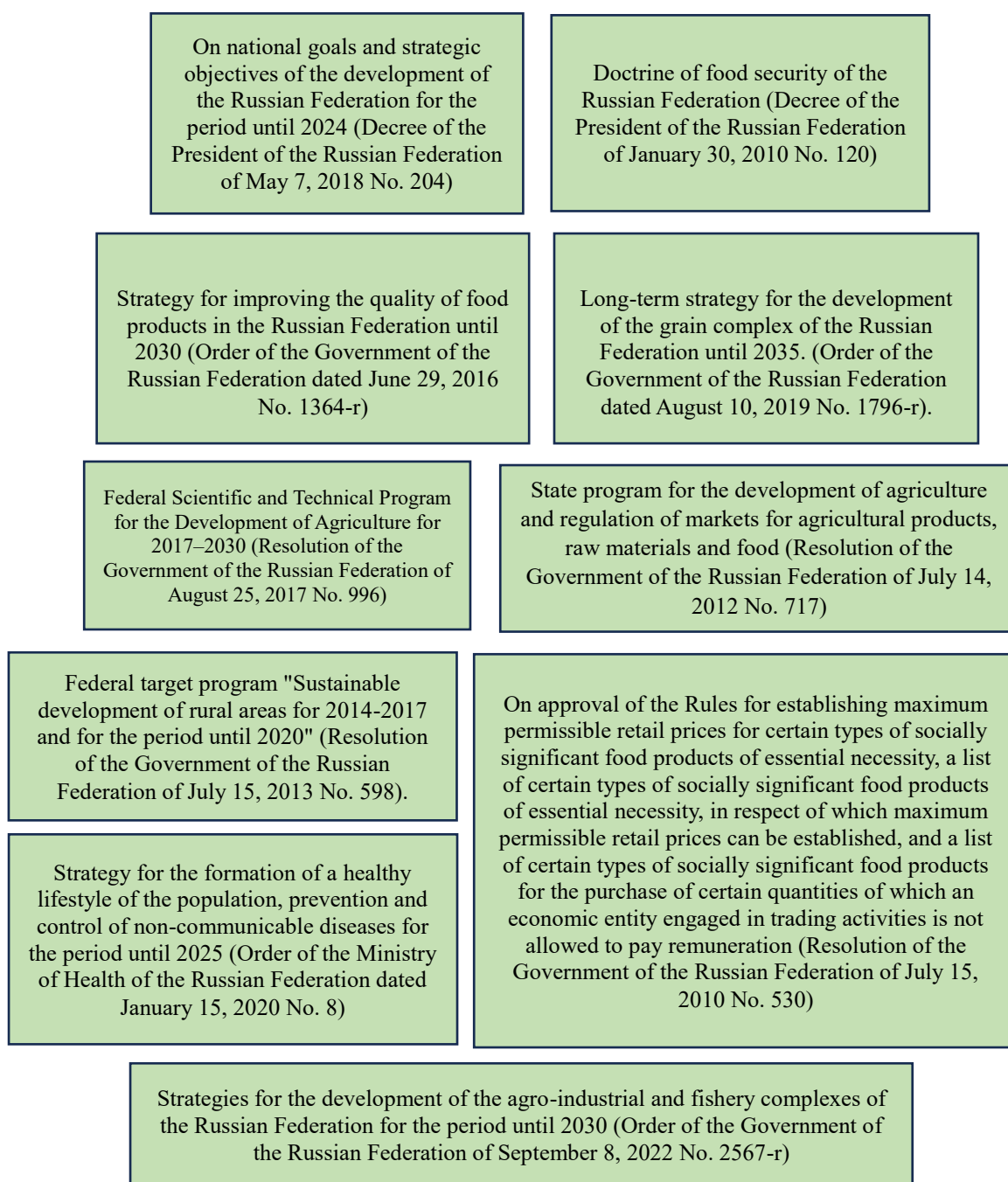


Figure 1: Legislative regulation of the Russian Federation in the field of sustainable development of agro-industrial complexes.

In addition, the level of food security is currently increasing within the framework of interstate interaction between the EAEU member States on the basis of agreed directions and measures, which meets the main goal of the coordinated (coordinated) agro— industrial policy of the Union (Liu, 2023).

May 2024 marked the 20th anniversary of the Treaty on the Eurasian Economic Union (hereinafter referred to as the Union, EAEU). This Agreement contains a special section defining the tasks and directions of the coordinated agro-industrial policy of the countries of the Union. The main goal of this

policy is the effective realization of the resource potential of the EAEU member states to optimize the volume of production of competitive agricultural products, food and increase exports. The Agreement, in particular, provides for the balanced development of production and markets of agricultural products and food; ensuring fair competition between constituent entities of the EAEU member states, including the creation of equal conditions for access to the single agricultural market.

As is known, over the past 20 years, many joint decisions have been made regarding the further development of trade and production projects in the agro-industrial complex. Let us recall some of them. Thus, in 2020, the heads of state of the Union determined the Strategic Directions for Developing the Eurasian Economic Integration until 2025, which provide for the formation of a balanced agricultural market through the development of integration processes in this area. The result of such development should be a significant increase in agricultural production and an increase in its competitiveness. In addition, one of the directions is the development of general principles for ensuring food security based on methodological approaches of the Food and Agriculture Organization of the United Nations. Taking into account these tasks, already in 2021, the decision of the Council of the Eurasian Economic Commission (hereinafter referred to as the EEC) defined general principles and approaches to ensuring food security of the Union member states (Andronova, 2022).

It is also worth noting the Declaration on Further Development of Economic Processes within the EAEU "Eurasian Economic Path" adopted at the end of 2023. In accordance with this Declaration, the EEC, together with the states of the Union, is developing and submitting for approval in 2025 a draft roadmap that should contain specific measures to develop economic cooperation in areas with integration potential.

It is obvious that almost all of the above documents have defined, basically, a long-term strategy of state cooperation within the framework of the EAEU. Therefore, to truly implement the intended goals, not only new solutions are needed, but also ensuring the effective application of specific economic instruments that take into account current political and social realities (Glazyev, 2020).

2 RESEARCH METHODOLOGY

The theoretical and methodological basis was the research presented in scientific articles and published in English and Russian in the Scopus, Elsevier, Google Scholar, Science Direct, eLibrary (RSCI) databases, as well as data from the Federal State Statistics Service of the Russian Federation, official legislative and regulatory acts of state bodies of the Russian Federation and specialized organizations aimed at solving the problems of sustainable development management and management of the agro-industrial complex.

The advanced literature search methodology used for the study consisted of two stages. At the first stage, a literature search was conducted in order to collect representative studies to achieve the purpose of this article; the second stage included a source selection process performed by analyzing the title and abstract of each publication by key words and phrases.

3 RESULTS OF THE STUDY

The sustainable development of agro-industrial systems is crucial for ensuring global food security. Using statistical data for the period 2010, 2015-2022, the indicators of sustainable development of agriculture in Russia are analyzed and presented.

It is worth noting a positive trend in the study of the prevalence of malnutrition. At the same time, in 2018, only 0.3% of the Russian population experienced acute food insecurity, and 6.2% experienced moderate or acute food insecurity (Talerchik, Zajcev, Shavanov, 2021). In 2020, 0.3% of the Russian population experienced acute food insecurity, and 5.7% experienced moderate or acute food insecurity. In 2021, 0.3% of the Russian population experienced acute food insecurity, and 4.6% experienced moderate or acute food insecurity. In 2022, 0.2% of the Russian population experienced acute food insecurity, and 4.1% experienced moderate or acute food insecurity (Figure 2).

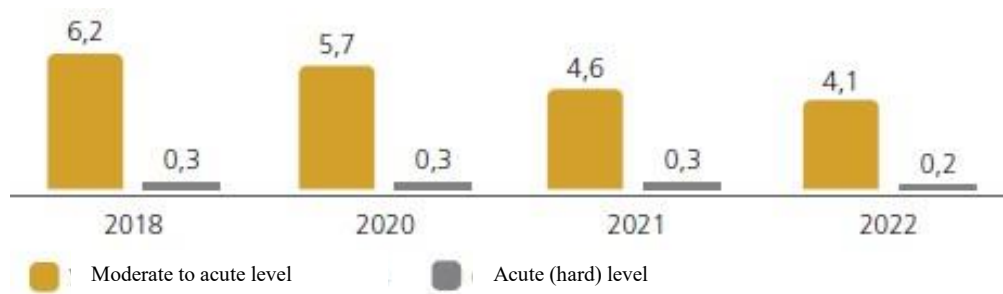


Figure 2: Food insecurity rates 2018-2022 (FIES, %).

The index of agricultural production in comparable prices to the previous year for the period 2010, 2015–2022 is shown (Figure 3) (Egorenko, 2022). In 2022 we see a sharp rise of 111.3%, in 2021 - 99.6%, in 2020 - 101.3%, in 2019 - 104.3% (Egorenko, 2022), in 2018 - 99.8% (Talerchik, Zajcev, Shavanov, 2021), in 2017 - 102.9%, in 2016 - 104.8%, in 2015 - 102.1%, in 2010 - 87.9%.

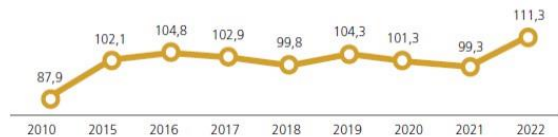


Figure 3: Agricultural production index for the period 2010, 2015-2022 (in comparable prices to the previous year, %).

It is necessary to highlight stability in reducing the value of the lack of money for food. In 2022, only 0.1% of households reported this, the same as in 2021 (Figure 4), compared to previous years where the data was significantly higher: 2020 - 0.2% of households, 2019 - 0.5% of households (Egorenko, 2022), 2018 - 0.9% of households (Talerchik, Zajcev, Shavanov, 2021), 2017 - 0.9% of households, 2016 - 1.0% of households, 2015 - 1.2% of households, 2010 - 1.8% of households.

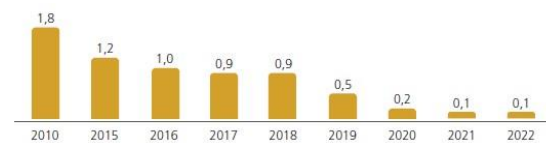


Figure 4: Households experiencing a lack of money for food for the period 2010, 2015–2022 (%).

Based on the data presented, the number of cases of anemia associated with pregnancy, childbirth and the postpartum period has decreased by almost a third in 2022 (Figure 5). Thus, in 2022, cases of anemia that preceded or occurred during pregnancy amounted to 414.1 thousand units, and cases of anemia that complicated childbirth and the postpartum period amounted to 313.2 thousand units. In 2021 - 457.1 thousand units and 350.0 thousand units. In 2020 - 473.8 thousand units and 365.1 thousand units. In 2019 - 497.0 thousand units and 379.3 thousand units. In 2018 - 531.7 thousand units and 400.8 thousand units. In 2017 - 537.0 thousand units and 420.9 thousand units. In 2016 - 577.1 thousand units and 457.1 thousand units. In 2015 - 592.7 thousand units and 446.6 thousand units.

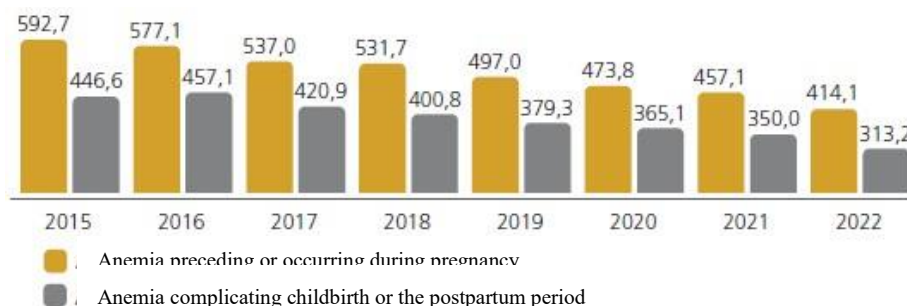


Figure 5: The number of cases of anemia (thousand units).

The share of domestically reproduced animals for agricultural production has increased significantly in 2022 - 96.9%, compared to the figures in 2021 - 94.3%, in 2020 - 93.4%, in 2019 - 93.4% (Egorenko, 2022), in 2018 - 93.5% (Talerchik, Zajcev, Shavanov, 2021). (Figure 6).

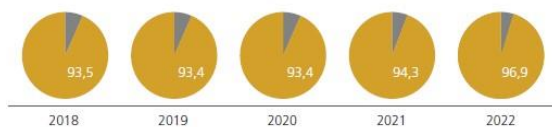


Figure 6: Share of domestically reproduced animals for agricultural production purposes for 2018-2022 (%).

4 RESULTS AND DISCUSSION

From the perspective of the strategic development of the state, the rational use of the agro-industrial complex determines the state of the national economic potential and the socio-economic situation of society. In this context, the AIC industries determine not only the economic security of the territory, but also the stability of the entire country, that is, the set of socio-economic parameters and their dynamics (Glazyev, 2020).

In the Russian Federation, continuous work is constantly underway to develop, form, expand and adjust national indicators of sustainable development and their compliance with the tasks of the agro-industrial complex.

Based on the considered analysis of the main indicators for monitoring the achievement of Sustainable Development Goal 2 in Russia, stable progress can be noted (Figure 7):

- sustainable reduction in the level of food insecurity of the population;
- reduction in the number of cases of anemia associated with pregnancy, childbirth and the postpartum period by almost a third;
- 0.1% of households report a lack of money for food;
- a significant increase in the agricultural production index in comparable prices compared to previous years;
- the share of domestically reproduced animals for agricultural production has increased significantly in 2022 - 96.9%.

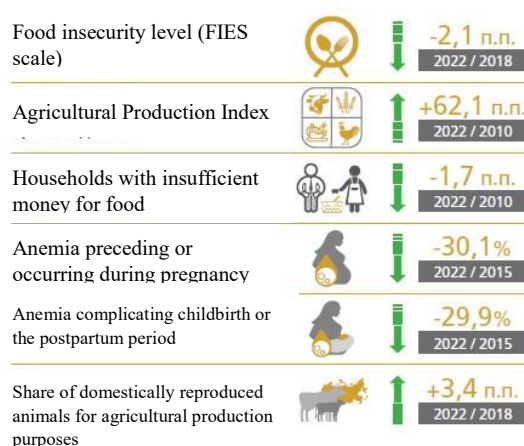


Figure 7: Comparative data of SDG 2 indicators.

5 CONCLUSIONS

Global agricultural systems are currently facing unprecedented challenges, in particular climate change, increased natural disasters, soil degradation and shortage of agricultural inputs, which together have led to insufficient diversity and low productivity, thereby impeding the achievement of Sustainable Development Goals.

The level of sustainability of the agricultural system of the Russian Federation demonstrates a constant trend towards stable growth. One of the key factors is the creation and implementation of strategic program documents at the legislative level.

For a long time, the assessment of sustainability in agriculture has focused mainly on environmental and technical aspects, thereby neglecting the economic and, above all, social aspects of sustainability, the versatility of agriculture and the applicability of results.

In modern realities, when Russian food security depends on many factors and challenges, various trends and topics of sustainable development and the achievement of SDG 2 were considered when evaluating and selecting indicators.

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