Sustainable development of agrarian and forestry sectors of economy as a condition for security insurance of the Russian Federation

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Abstract. The agricultural and forest sectors of the economy of the Russian Federation have a number of peculiarities in development, which lead to the same problems that stand in their way. The rural and forest spheres of activity have similar problems in the production of their own products. The solution to these problems is also in general terms the same thing, it consists in applying an innovative approach, which is a factor in ensuring sustainable development.

Sustainable development of any economic system can only be achieved in motion, in the dynamics of change, taking into account the combination of factors of the external and internal environment, as well as with properly selected mechanisms that trigger the transition of the economic system to the development of a sustainable type. In modern economic conditions, import substitution points can be attributed to such mechanisms.

1. Introduction
The rural and forestry sectors of the economy of the Russian Federation have a number of peculiarities in development that lead to the same problems that stand in their way. Due to geographical and climatic factors, the rural and forestry areas of activity have similar problems in the production of their own products. The solution to these problems is also in general terms the same thing, and consists in applying an innovative approach, which is a factor in ensuring sustainable development [1].

The concept of sustainable development, which arose on the basis of the ideas of the Russian philosopher N I Vernadsky, is extremely consonant with the traditions, spirit and mentality of Russia. At present, ideas of sustainable development can play a key role in consolidating Russian society, in determining state priorities and prospects for socio-economic transformations in Russia, in choosing regional development strategies that are shaped in the context of modern challenges and threats. Sustainable development is a process of change, where the scale of resource exploitation, investment direction, technical development orientation and institutional change are consistent with current and future needs.

For the sustainable development of the agrarian and forestry sectors of the economy, the most preferable scenario is the innovative one. Considering the problems of the forest and rural sectors of the economy, it is possible to identify common problems facing the industry, namely the need for an innovative approach to the production of products.

In accordance with the chosen concept, the global objectives of the agricultural and forestry sectors should be considered, namely, meeting the needs of the Russian market for high-quality products,
increasing the economic contribution from the forest sector to the economic development of the country, and directly participating in ensuring state security.

Innovative type of reproduction determines the rate of acceleration of growth of both the economy and the level of well-being of the population of the state. Innovative development is a factor in the stable economic growth of the agricultural and forestry sectors. Assuming that new technologies are used in production, the employment problem is also solved at the same time. As a result, these processes create high-paying jobs [2].

Sustainable development of any economic system can only be achieved in motion, in the dynamics of changes, taking into account the combination of factors of the external and internal environment, as well as with properly selected mechanisms that trigger the transition of the economic system to the development of a sustainable type. In modern economic conditions, import substitution points can be attributed to such mechanisms.

The processes of import substitution were noted in Russia in the early 2000s, but intensified only with the introduction of counter-sanctions by Russia. Therefore, the system of import substitution in the agrarian and forestry sectors has not yet been formed and there are many unregulated issues. However, it should be borne in mind that in modern conditions import substitution is one of the means to achieve security, as well as a key direction of innovation policy [3].

The concept, advantages and risks of import substitution processes have been considered by many domestic and foreign scientists. The most common is the definition of import substitution as a reduction or termination of imports of certain goods in connection with the organization of the production of the same or similar goods in place.

So, O A Mironova in his article says that the idea of import substitution has already passed practical approbation by various countries of the world whose experience can be regarded as more or less successful. Most often, this process followed the path of replacing imported food products, products of light industry and simple technological products. In particular, the strategy of import substitution in the countries of East Asia, Mexico developed in this direction, and Russia, the BRICS partners of Brazil, India and China also followed this road [4].

N N Zudin, M G Kuzyk, Yu V Simachev [5], believe that the period of implementation of import substitution ideas in these countries was the growth of the economy, their diversification, the reduction of dependence on imports in the market for final products, but the economic situation became less stable due to the accumulation of debt and increasing dependence on imports in the market of intermediate and investment goods.

Thus, the results of the implementation of the import substitution policy are largely determined by the level of development of the country's economy, tactics and strategy of this process.

The development and improvement of the efficiency of agricultural and forestry production according to A V Prokopyev, T N Chernyshova, and L A Borisskova [6,7] is an indispensable condition for ensuring food and industrial safety of any state. In this connection, import substitution in the agricultural and forest sectors of the economy, as well as the search for ways to reduce import dependence in these sectors, should be considered as the most important areas of innovation policy both in Russia and in the world.

In our opinion, import substitution in the agricultural and forestry sectors of the economy should be considered as one of the strategic directions of the Russian innovation policy, within the framework of which domestic products are replaced in the domestic market that are competitive and not inferior in quality and price characteristics of the world market to domestic products.

The objectives of this work are: consideration of the problems of the agrarian and forestry sectors and the argumentation of the concept of their development; development of a model that ensures the creation of such conditions under which the potential of these sectors of the economy will be fully realized and import substitution is ensured along the entire value chain; proposal of measures to stimulate import substitution in the agricultural and forestry spheres.
2. Results and discussion

Innovation policy of the state has a global goal in raising the overall level of competitiveness of the state economy as a whole in the situation of the world market. The total set of objects and subjects of innovation, which interact with each other in the processes of creation and marketing of products of the innovation sphere in the framework of the established state policy on innovation, form an innovation system.

Objective reflection of economic development are the processes of expanded reproduction. In the expanded reproduction of the rural and forest sectors of the economy, two types are distinguished: intensive and extensive. Intensive type is determined by qualitative changes in real and personal factors of production. Thus, this refers to his transition to a new technical base. With the intensive type of reproduction, the degree of use of resources increases, and the growth of resource availability.

The extensive type of reproduction is manifested in the process of increasing the number of functional tools and objects of labor with a constant technical base. The time of use of resources increases, and at the same time there is a quantitative increase in animal labor.

Using the example of the agrarian and forestry sectors, the extensive type of reproduction will manifest itself in a direct increase in the number of employed workers, in the growth of livestock numbers. In the total mass, the number of labor tools will also increase, and the territories will be more involved in the processing of the land itself. This type of reproduction has rigid unshakable limitations, since the factors listed are finite.

A similar problem has been exhausted with an intensive type of reproduction, since an increase in the number of products in the same areas of land and with the same number of workers can be achieved by introducing the results of modern science. We are talking about advanced technology and technology. Scientific and technological progress is a major factor in increasing the efficiency of resource use, the use of new production management technologies.

The process of expanded reproduction of the intensive type over time has become an objective reflection of the innovative type of economic development in both the rural and forestry sectors, as well as in relation to other areas of activity and production.

We will analyze the import substitution in the agricultural and forestry sectors of the economy, which is one of the strategic directions of Russian innovation policy.

At the end of 2017, food self-sufficiency indicators for grain amounted to 170.8%, vegetable oil - 153.1%, sugar - 105.2%, meat and meat products - 93%, potatoes - 87%, vegetables - 85.9%, milk and dairy products - 82%. From these figures it follows that in a number of positions - vegetables and fruits, dairy products, meat - the level of self-sufficiency of our country is still not high enough [8].

There is a steady positive trend in the production of frozen fruits and vegetables. The production of fruits, berries and nuts increased by 2.6 times in 2018, 2019. For this type of product, the level of self-sufficiency in the Russian Federation in 2015 was only 36%, with an extremely critical value of this indicator equal to 70%. This state of affairs testified to a high level of import dependence and created a threat to food security at both the national and regional levels.

It is necessary to work consistently to ensure that Russian manufacturers expand their presence in the domestic market and master external products, so that domestic products are competitive in their quality and price characteristics and use sustainable, growing demand from customers both in the country and abroad. Today, exports of agricultural products amount to $ 20 billion. The target for the country by 2024 is to increase exports of agricultural products to $ 45 billion, while export growth should be a result of the increasing quality of domestic goods and their global competitiveness.

The Ministry of Industry and Trade published data on agricultural machinery for 2018. The results showed that today every second combine produced in Russia, with the ministry's target indicator by 2030 is the production in the domestic market of eight out of ten machines that cultivate arable land. Today, agriculture remains one of the fastest growing sectors of the Russian economy, import substitution in this sector is being implemented at a high rate. One of the most important growth impulses that ensure the positive dynamics of the competitiveness of Russian companies, along with other support measures, is government subsidies. According to experts, state support allows agricultural enterprises
to increase and modernize their fleet of agricultural equipment. The record growth rates of Russian agricultural machinery production since 2000s are based on high-tech models of all-wheel drive tractors, grain-harvesting, forage harvesters and other equipment, as well as the state program of demand stimulation, developed and put into mass production with state support. For the period 2014-2016 agricultural production grew by 11%, and by the end of 2017, the growth amounted to about 3%. In 2017, the subsidy program was allocated 15.7 billion rubles for this purpose and 26.3 thousand units of agricultural equipment were purchased.

In 2018, Russian agricultural machinery manufacturers exceeded the production indicator by 21%, that is, by more than 107 billion rubles. Exports amounted to about 8 billion rubles, which is 14% higher than last year. Over the past year, more than 150 models of new equipment were introduced to the market, 20 investment projects were launched to meet growing domestic demand and further develop exports. In 2018, the Russian exposition was presented at the world's largest exhibition Agritechnika in Hanover, while the Russian representation was among the leaders both in the number of companies represented and the range of agricultural machines produced, and in the number of visitors who visited the stand [9].

The main task facing the Russian agro-industrial complex today is to provide the population of the country with high-quality food products, as well as the fruits and berries of its own production in this sector, while imports are the leaders. Since the beginning of the implementation of the state program for the development of the agrarian sector in Russia, more than 60 thousand hectares of perennial fruit and berry plantations have been planted; by 2025, more than 100 thousand hectares are planned to be laid. According to the data for the first decade of October, about 7.5 thousand hectares of gardens were laid in the country, and the expected volume by the end of the year will be about 15.7 thousand hectares. In annual terms, it is planned to collect 106 million tons of grain in net weight, which corresponds to the planned indicators of the state program and exceeds the average annual indicator of a ten-year period, which is 99 million tons per year (this amount is sufficient to ensure internal needs countries as well as export rates). Growth in prices for wheat and barley in the current year is projected to be 21-26.5%. The predicted values of the yield of oilseeds are about 16 million tons, which also exceeds the average values over several years.

Positive dynamics persists in the livestock industry: for the period January-September 2018, the production of livestock and poultry meat in live weight in farms of all categories amounted to 10.3 million tons, which is 356 thousand tons more than last year's period. At the end of the year, it is planned that the total volume of production will be 15.1 million tons and will surpass the figure for 2017 by 3.6%. Milk production for 9 months of 2018 amounted to 24.7 million, showing a slight increase (0.3%), respectively, the overall increase in production in annual terms will be more than 400 thousand tons and will be 31.6 million tons.

For most types of livestock products there is a more or less pronounced positive dynamics of production. The maximum growth is observed in such products as sea and live fish (42.4% for 2017-18 and 24.6% for 2018, 2019) and smoked fish (3.8% and 16.4%, respectively). Also, there is an annual increase in production by 11-12% of chilled beef and pork. For other types of products, there has been a decline in production, or an unstable, weakly expressed positive trend.

For the period from 2016 to 2018 there is an increase in dependence on imports for two groups of products of agricultural origin - vegetables by 2%, live animals - by 7%. At the same time, there is a reduction in the import supplies of food in the majority of items, the most significant - in such types of products as meat and meat products, products from flour and cereals (50 and 43%, respectively). These trends contribute to enhancing the national security of the Russian Federation in the field of food.

Statistics show that in recent years there have been qualitative changes in the Russian agricultural sector, from the prevailing prevalence of imports to the realization of their own export potential, and for some, the threshold values exceed the indicators of the current Food Security Doctrine. In 2017, exports of products of the Russian agrarian sector amounted to 21.6 billion dollars, which exceeded the planned figures, but this result was obtained mainly due to record grain yields. For the implementation of the state program, the Ministry of Agriculture of Russia has developed a passport of the national project
“International cooperation and export-port” in terms of the export of products of the agrarian complex. The document includes 4 main areas: increasing production and processing of agricultural products for export, building an effective export-oriented agro logistical infrastructure, removing tariff and non-tariff restrictions in key export markets and creating a system for promoting the agricultural sector in foreign markets. For the period 2019–2024 The amount of financing to support the export of products is planned in the amount of 350 billion rubles. The list of priority sub-sectors of agriculture with the greatest export potential is highlighted: these are cereals, oil and fat, meat and dairy products, fish and seafood, food and processing industries, including confectionery.

However, modern technologies produced in Russia are not yet widely used in the Russian agribusiness sector. Modernization of agriculture is designed to create an “export-oriented agro-industrial sector” on the Russian market; the basis of this process will be the federal scientific and technical program for the development of agriculture until 2025. Import substitution in priority agricultural sectors should, first of all, be aimed at providing domestic seeds with seeds. Today, the share of seed potatoes in the national market is 80%, which is explained by the low competitiveness of domestic varieties, as well as the lack of modern infrastructure and material and technical base. The share of seeds of hybrids of foreign selection in the country is 98%, and the selection and genetic material of broiler poultry farming is imported completely. A similar situation exists for a number of other types of products, raw materials and food.

In addition to getting out of the recession, in 2017 there was a minimum inflation of 2.5% in the history of the country. However, this figure has little to do with the forest sector of the economy. According to official statistics of Rosstat, timber producers’ costs for forest raw materials increased by 20-35% (conifer logs on average in all regions rose by 35% to 2100 rub./m³, by 30% to 2300 rub./m³ without VAT - increased in price birch plywood ridge).

Unfavorable weather conditions aggravated the situation with timber supply in a number of regions of the European part of Russia in 3–4 quarters of 2017. The producers of wood-based panels faced an increase in the chemical component in the production of products: melamine film, resins, paper grew during the year by an average of 15%. The cost of pre-rates of raw materials and transportation of finished products increased by 15-20%.

But even in such conditions, the woodworking industry remains one of the fastest growing sectors of the economy: the woodworking production index in Q2 2018 grew by 11%, in June 2018 - by 15%, which is more than any other manufacturing Russian industry [10].

Against the background of a slowdown in housing construction in Russia (in 2017, the Ministry of Construction: - 0.7%, -2.1% - Rosstat) and a reduction in production volumes in the furniture industry, forest-industrialists were again helped by favorable conditions in export markets. The weakening of the Russian ruble against the US dollar (- 13.2% in 2017) was offset by high prices for forest products in world markets.

The prices of commodities and commodities on world markets have peaked in the last ten years. The dynamics of export prices for Russian lumber, plywood, pellets, pulp, paper and cardboard from the beginning of 2017 was also positive. Prices for Russian softwood lumber in China reached a peak at the end of 2017. Demand for lumber in China still exceeds supply. Against this background, prices for Russian fir logs from the Northwest reached a level of $ 285 / m³ (1-4 SF, port of Shanghai) in November 2017, for European spruce lumber the price reached $ 295 / m³. A moderate but growing price trend persisted in the first half of 2018, with minor fluctuations, but a more restrained basis for further growth.

Obviously, the Russian forest industry remains highly dependent on export market conditions. In 2017, the forest sector of the Russian economy produced goods worth 1.64 trillion rubles ($ 28 billion), of which timber industry exported goods worth $ 11.3 billion to foreign markets, while imports to Russia amounted to $ 3.2 billion [11].

For four years, Russia reduced its dependence on imported timber products by a factor of 1.77. This was influenced by the devaluation of the national currency, the reduction in real disposable money incomes of the population, the decrease in consumer demand and the import substitution of certain
products (OSB, MDF / HDF, certain types of securities). However, until now, Russia is highly dependent on imported high-quality paper, cardboard and products based on them, which are not produced in Russia - they account for 75% of the total value of imports of forest products. In 2017, Germany and Finland provided 36% of the total imported volume of cardboard and paper products to Russia (by value). After three years of decline in the value of imports of timber products, in 2017, growth in foreign supplies was again noted (+ 7%).

On the other hand, Russia still remains an exporter of primarily commodities or primary wood products. In 2007, the Russian government set a course for the development of wood processing within the country (export duties on round wood were introduced, new forest legislation was adopted). However, up to 2017, the volume of revenue from export sales of sawn timber has not exceeded the revenue from sales of round wood products received in 2007 when they were exported (for 2007, the historical peak of raw wood exports from Russia to volume of 51 million m).

The total revenues from export sales of forest products received in 2017 also did not exceed the peak of 2007 ($11.3 billion in 2017 and $11.5 billion in 2007). At the same time, the product structure of export sales has not changed significantly[12].

**Figure 1.** Model of import substitution provision - interconnection of elements of the agricultural and forest sectors of the economy as a system
Import substitution cannot take place without simultaneously improving the business climate. It is about developing a small and medium business (SME) through import substitution, creating jobs, introducing new technologies. Import substitution is not possible without cooperation with big business and state-owned companies. Many players are now too closed, information on promising projects and technologies is not being received outside, there are no specific plans to replace the products of foreign manufacturers. In this regard, we propose a model that will ensure the creation of such conditions under which the potential of the considered sectors of the economy will be fully realized (Figure 1). All components of the model presented in Figure 1 are not investigated in isolation, but are represented as subsystems of the overall system [13].

A significant moment of the model is the provision of import substitution throughout the value chain in the agricultural complex (starting from forage, seed and breeding base, equipment and ending with the production of the final product) and the forest sector (starting from forest growing, logging, equipment and ending with the production of the final product). It is possible to achieve the effective use of the country's resources by implementing an import-substituting strategy in the agricultural and forest sectors, provided that it is formed at the federal and regional levels of government.

3. Conclusions
In the context of the introduction of an embargo, the development of one's own production and the formation of an effective system of import substitution become necessary and urgent, since the share of imports in the resources of food and non-food products in Russia remains significant. In the development of the system of import substitution in the agricultural and forestry spheres, state subsidies are of great importance. However, analysts say, mainly large projects are financed, while it is still difficult for small businesses to achieve state support.

If you fully use the potential of the agricultural and forestry sectors in Russia, you could not only implement import substitution, but also, with the most favorable economic conditions, reach a number of products for significant export volumes.

Given the lack of federal budget funds allocated to support the agricultural and forestry sectors, the solution to the problem of import substitution can be seen in the innovative development of the sectors of the economy under consideration. The reduction of technological import dependence is a significant obstacle to an effective system of import substitution. By stimulating technological modernization of production and, as a result, increasing its efficiency and ensuring import substitution, the task of increasing the competitiveness of domestic products will be largely solved, new growth points for the Russian economy will be identified, and a sufficient level of economic security will be provided for the state [14].

Considering the problems of the agrarian and forestry sectors, it is possible to identify common problems facing the industry, namely, the need to apply an innovative approach to production. The most preferable scenario for their development is innovative.

In the agrarian sector of the state, new production methods are needed, implying the use of the latest innovative achievements. The introduction of innovative achievements in the rural sector of the Russian Federation will make it possible to carry out technical re-equipment of enterprises, introduce high-performance production technologies, and in general increase the economic efficiency of the sector.

In accordance with the chosen concept, the global objectives of the forest complex are determined to meet the needs of the Russian market for high-quality forest products, to increase the economic contribution of the forest complex to the economic development of the country, and to directly participate in ensuring the state’s environmental safety.

In the current situation, measures to stimulate import substitution in the considered sectors could be:
- development of the mechanism of state support;
- budgetary regulation of insurance of investors in the agricultural and forest sectors of the economy from adverse production conditions;
- formation of cluster structures.
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