Efficiency of the wild plant market in modern economic conditions

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Abstract. At the present stage of economic development in a market economy, the most urgent problem is the rational using of the economic potential of the regions to meet the needs of the population in food, as well as other goods and services. The implementation of the food program should be carried out not only through the growth of agricultural production, the efficient operation of food and processing enterprises, the expansion of personal subsidiary farms, but also through the using of other sources of food resources, in particular, for example forest products. The severity of this problem is determined by the huge scale of the Russian economy, on the one hand, and the constant increase in prices for food raw materials, on the other.

1. Introduction

In Russia, as in other countries, there is a steady trend of increasing interest in the consumption of food and therapeutic and preventive drugs from environmentally friendly raw materials. Natural plant raw materials - mushrooms, nuts, medicinal herbs, fruits and berries, as well as spicy flavors and essential oils, biologically active bee products - have been recognized and are widely used in the food and medical industry. There is a growing demand for plant-based biostimulants and bioenergy supplements.

Russia has 815 million hectares of forest, which is 20% of the world's sown area, and Russia has significant potential for the development of wild plants harvesting of wild fruits, berries, nuts, mushrooms, seeds, birch juice and other plant. When paying the existing rates of non-personal units of forest area for harvesting wild plants, the economic assessment of these resources is not taken into account, which distorts the economic forest relations between the country and business [1-3].

Preparations made from local raw materials have a much greater impact on the people living in this territory. Such products increase the body's resistance to extreme situations, normalize mental and physical performance. This phenomenon may soon lead to a revision of the entire national strategy for the development of the food industry. Forest resources are designated by the common name "wild plants".

The lack of biologically active substances in the diet of the Russian population is sufficiently one of the reasons for the low level of health and a reduction in life expectancy. Local plant biologically active raw materials reduce the effects of adverse factors of both the external and internal environment of the body.

2. Overview of the wild plant industry in Russia

Hundreds of forest food resources and medicinal plants grow in the forests of Russia. Among the most common operational reserves, the "State Forestry Agency" is 7.4 million tons, and biological reserves...
are 13.4 million tons. The socio-economic value of all these resources is widely used by the population, and in many regions Russia simply provides a source of income for the villagers who are located in this area.

Among the most popular wild berries and berry plants are cranberries, raspberries, mulberries and blueberries. In addition, about 3 thousand species of mushrooms grow on the territory of Russia, of which more than 200 are edible. And the area of all these mushrooms annually occupies about 81.8 hectares, and the biological reserve is 4.3 million tons. You can collect about 60 types of mushrooms. Taking into account the biological factors and the economic feasibility of the collection, 7.4-8.5 million tons of wild plants can be harvested in Russia per year [4-6]. According to experts, only 6% of this volume is used today. The extent to which reserves are developed varies by region and product. At the level of the Russian Federation, this indicator is estimated: mushrooms 4-10%; nuts 4%; cranberries 2.5%; cowberry 1.5%; blueberries 1.3%.

No less important and useful wild-growing flowering plant is birch. In our country, there are about 40 species, but for industrial juice extraction, hanging and fluffy birch are mainly used. The largest reserves of juice are concentrated in the Siberian (42.4% of the total population), Ural (21.7%) and North-Western (15.5%) federal districts. It is also worth noting that about 200 plant species are used in scientific medicine, of which 65% are wild. The sources of many medicinal plants are very large. For example, the total area of cedar forests in Russia is 38.9 million hectares. Cedar forests are found in 32 regions of the Russian Federation. Consider the source of Siberian cedar is: Western Siberia; Eastern Siberia; Central Altai.

The area of available pine forests for nut production in the Siberian Federal District is 10.7 million hectares, 40.4% of the area is occupied by cedar forests. In the administrative department, the average yield of nuts is from 32 to 52 c/ha. Operational resources are estimated at 357,200 tons. Square is 29 million hectares. Annual production capacity is 165,000 tons.

Currently, the main share of processed "wild plants" in the Russian market is imported. The largest importer is mushrooms, whose share in foreign products is about 90%. The main suppliers are Poland, the Netherlands and China. If we talk about mushrooms, then the leadership here belongs to Poland. The most famous are such Polish brands as Hortex, Hortino, Zgoda. China is a leader in the production of blanched mushrooms and processed nuts. Cultivated berries are imported from Poland, the USA and Canada. All products coming to Russia from abroad are grown industrially with the help of chemical fertilizers and growth promoters.

The collection of wild plants is carried out today in three regions of the world: Eastern Europe (mainly Russia), Asia (mainly 8 countries) and South America.

In the Russian market, there are dozens of enterprises engaged in the collection and processing of wild plants [7-10]. In general, three main centers for the collection and processing of wild plants have been established in Russia.

The first is the north-western region, in particular, Karelia and the Arkhangelsk Region. Investments in the collection of wild plants here came from the countries of Northern Europe, such as Sweden, Finland and Norway. There are about 40 small and medium-sized mining companies here. However, the development of processing did not work out, because the country's investors are interested in raw materials and are engaged in processing.

The second is the central district, focused mainly on the Moscow market. The leaders among canned food are the companies "Ecoproduct" and "Bogorodskaya trapeza". The leader among frozen berries and mushrooms is the company "Cantarella".

The third center is Siberia. The main direction of collecting and processing wild plants not only in Siberia, but also in Russia, the main player in the Tomsk region is the Tomsk Food Company. The company processes a wide range of products, which include berries, mushrooms, nuts and other types of wild plants. The company is the only one in the Tomsk region that is not limited to collecting and selling products of its own strong brand and extensive network.

Trends in the development of the wild plant market in the regions
The Siberian, Far Eastern and Ural Federal Districts have the largest reserves of biological resources. However, the extent to which reserves are developed can vary greatly from region to region. This is due to a number of factors and features, which include: the area of the region and forest areas, climatic features, the size and diversity of wild plant stocks geographical location, proximity to sales markets (including foreign ones), the number of rural population, the presence of existing programs for the development of the industry, state support for enterprises engaged in the collection and processing of wild plants, the presence of major players in the region, the activity of local authorities, the business community and the population.

According to experts, one of the fastest growing markets for wild plants is the Tomsk Region and the Republic of Karelia. At the same time, in these regions, the maximum volume of harvesting possible at the current level of infrastructure development has already been almost reached. Further growth in the collection of wild plants in the region requires investment - primarily in the procurement infrastructure.

The Tomsk wild plant market is one of the largest and most developed in Russia. According to the Ministry of Agriculture in the Russian Federation, in 2019, the Tomsk wild plants accounted for 10% of the total Russian processing volume. The regional market produces more than a thousand products based on wild raw materials, while manufacturers are constantly bringing new products to the market.

The business model that contributes to such a successful development of food forest resources is based on three components. The first component is the complex nature of the use of wild plants: each year the volume of their harvest differs, so to maintain a constant income in the region, various types of wild plants are collected and processed. The second component of the model is the use of different types of processing of raw materials and, first of all, deep processing with high added value. And the third component is the maximum involvement of the population in seasonal work.

Significant amounts of wild plants are concentrated in the Tomsk region: 2/3-40% of cranberries, mushrooms; 1/4 of Siberian pine nut reserves 54,852 tons. Annual potential volume of forest use for harvesting food resources (pine nuts, mushrooms, berries) in accordance with the Forest Plan of the Tomsk Region in 2019-2028 is 38,156.7 tons; it is planned volume of harvesting for the period of the plan. The achievement of the set goals will ensure an increase in the collection of wild plants by two times compared to the actual indicator of 2009-2018 of 16,656.5 tons. The increase in the collection of wild plants is explained by the positive dynamics of demand for pine nuts, wild berries (cranberries, blueberries, and cowberry), white mushrooms, chaga.

According to the latest data, during the summer season of 2020, 1.6 thousand tons of wild plants were collected in the Tomsk region, which is 500 tons more than in the same period of 2019. The collection of pine cones was increased by 2.5 times (up to 20.7 tons). The collection of coniferous paws was increased by 35.7% (up to 715 tons). Almost twice as many mushrooms were harvested – 65.5 tons. At the same time, the berry harvest remained within the average annual values (367.9 tons), and the volumes of ivan-tea and chaga harvest decreased by 75% (to 69.7 tons) and 59%, respectively. The negative dynamics is associated with a reduction in the demand of other regions in the Russian Federation for Tomsk wild plants due to increased competition from local producers.

Products from the Tomsk wild plants are supplied to 27 countries of the world, including the CIS. The proximity to foreign markets, primarily Kazakhstan and China, contributes to the development of the region's export potential. Pine nuts have the greatest export potential: in processed form, they are sent to China, Pakistan, Germany, Poland, Kazakhstan, and the Czech Republic. The second place in terms of exports is occupied by mushrooms; their deliveries are made to China and a number of European countries: France, Austria, Italy, Germany, and Poland. Juices, jams, nectars, concentrated fruit drinks, drinks with fir cell juice are in demand in Kazakhstan, Belarus and the Baltic countries. In Korea, India, Turkey, and the CIS countries, consumers demonstrate demand for chaga processing products, berry jelly, and dietary supplements. The largest companies in the industry make a great contribution to the export development of wild plants: LLC “SAVA”, LLC “Eco-factory Siberian Cedar”, LLC “Forest gifts of Pervomaisk”, LLC “Price-T”.

Problems of development for the wild plant market
The development of wild plants harvesting and processing industry is hindered by a number of legal and socio-economic factors.

1. Socio-economic aspects

The lack of a methodology for a comprehensive assessment of forest areas and the assessment of property rights arising from the using forests for the harvesting of wild plants reduces the management effectiveness.

Despite the relatively low minimum rent for some types of food forest resources in the area, the procedures for purchasing forest plots for rent for local people and businesses remain complex and attractive [11-15]. The population avoids formal contractual relations with state forest management bodies.

The federation of subjects for non-wood, food forest resources and medicinal plants per unit volume of the minimum fee is set by the government in the center.

The minimum rate is a kind of absolute natural rent that the owner (the Russian Federation) annually withdraws from users of forest resources. In the price of the final product, the share of the minimum rate is 5-10%. You can increase the minimum rate on the auction several times.

Currently, there is no reasonable criterion for the compatibility for different types of forests used in the same forest area, which leads to conflicts both between forest users and between forest users and the population.

When paying the existing rates of non-personal units of forest area for harvesting wild plants, the economic assessment of these resources is not taken into account, which distorts the economic forest relations between the country and business.

The reduction in the number of able-bodied population of forest settlements, the lack of motivation and the loss of the ability to collect wild plants in industry in volume significantly complicates the organization of enterprises for the commercial harvesting of trees, food, forest resources and collections of medicinal plants.

2. Legal aspects

Forest legislation requires the free placement of citizens on land obtained from the collection of forest funds, and the fruit plantations themselves, that is, for the use of forest resources for non-commercial purposes.

Federal laws do not clearly define the rights of citizens to collect and harvest wild fruits, berries, nuts, mushrooms and other forest resources for moderate consumption (mainly food and forest resources), as well as non-wood forest resources for their needs.

The procedure for harvesting food forest resources collected by citizens and medicinal plants for their needs is established by the Law of the subject in Russia, but this law does not define the concept of "their needs". In addition, there are no reliable data on the actual extraction of forest resources by citizens for their own needs. The rules of free use can be significantly changed in the regions of the Russian Federation.

Commercial harvesting of wild plants can be carried out after the conclusion of a lease agreement for a forest plot, according to the results of which participation in the auction can be accepted. Before the auction, the forest plot must be put on cadastral registration in the budget from the cost of registration in the fund, and this procedure is complex and expensive. There is no alternative to the procedure for obtaining forest plots for use.

Given the current practice of rental relations, it is likely to assume that these are unacceptable and impossible conditions for the population and small and medium-sized enterprises [16-18].

The main reasons that hinder the legal access of entrepreneurs to forest resources:

- Long procedure for obtaining the right of using forest land for commercial purposes, a large amount of start-up costs (0.5 billion rubles);
- Various documents production, the development of a forestry project and skills annual reports on the use of forests and other mandatory procedures related to the harvesting of trees with no other;
• The complexity of the maintenance of leased forest land in the preparation and submission of a forest declaration, the development of fire-fighting sanitary and hygienic measures in the Imji district, the implementation of measures for the complex of temporary buildings (structures) and improvement of the forest territory, the maintenance of appropriate conditions for forest roads and vehicle parking, etc.;
• Minimum long-term lease (10 years) - the system of annual payments for the lease of forests does not take into account the harvest season, the yield (depends on 50-100 kg/ha), depending on climatic conditions, creates an additional financial burden on forest users;
• A forest plot of annual change, which is carried out as a practice of harvesting wild plants, a leased forest plot of the entire region, based on the calculation of rent for the entire year at a strictly defined time of year;
• The delivery of wild plants by the population to harvesting stations is classified as a commercial activity and is subject to declaration and taxation;
• Processors of wild plants produce food, but are not able to produce agricultural products, it is much more difficult for them to get a bank loan and they will have to pay VAT at the rate of 18%, not 10% (as agricultural producers);
• The forest plots lease for harvesting wild plants does not prohibit citizens from remaining free from these rental plots and collecting forest resources, they also have conflicts, etc.

Prospects for the development of wild plants as an industry
There are two main directions - increasing consumer awareness of the organic products benefits and increasing their availability.

Organic products have long been represented in supermarkets and discounters, pharmacies, and public catering establishments. The COVID-19 pandemic has also increased consumer interest in organic products that are considered beneficial to the body, in particular for strengthening the immune system.

Today, the volume of the Russian market of organic products is less than 1% of the world market, but it shows steady growth: since 2017 — 8-10% per year. In the early 2000s, the market for organic products in the Russian Federation was estimated at 16 million euros (approximately 14.8 million US dollars), and all products were imported. In 2020, this figure reached 183 million euros (approximately 209 million US dollars), with 20% accounted for by domestic certified products.

So far, Russia ranks the 22nd place in terms of the market for organic products and 39th place in terms of its consumption per capita. However, the country with the largest forest territories and rich reserves of wild plants may well become one of the world leaders in this segment of the organic products market. The high potential of the industry and export opportunities do not cause doubts among both market participants and representatives of the authorities [19-21]. That is why in recent years, the issue of food forest resources has been raised at the government level and efforts have been made to solve current problems.

A positive signal for the market was the decision on its departmental affiliation: since November 2019, the Ministry of Agriculture of the Russian Federation has the authority to regulate it. This simplifies the process of interaction with the authorities for enterprises engaged in harvesting and processing wild plants, and gives the industry companies the opportunity to count on receiving state support under state programs in the field of agriculture.

3. Conclusion
The wild plant market in Russia is characterized by large harvesting volumes of food forest resources and the investment attractiveness of the industry. The companies receive state support and increase their export potential. At the same time, market participants see further prospects for its development in increasing the volume of wild plant harvesting and concluding new contracts with foreign partners.
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