Agricultural products sales in the Arctic zone of the Krasnoyarsk Territory

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Abstract. In the article the problems of organization of traditional northern products sales are considered. An analysis of the activities of enterprises showed that most of them sell products within the region, and few go beyond it. Sale is limited to certain products limits, and many buy them from small businesses. In order to improve the sales efficiency and access to foreign markets, it is proposed to establish a wholesale distribution center that will, on the other hand, create jobs in the native-born population area.

1. Introduction
The problem of traditional northern products sale in the Arctic zone is particularly acute due to harsh climatic conditions, lack of normal transport network, high competition level of fishing and reindeer husbandry products, small number of consumers scattered in remote areas, unsatisfactory state of material and technical base of fishing industry, insufficient number of processing businesses. This is particularly important because the way of life of native born people is dependent on fishing. According to the All-Russian Population Census of 2016, the share of reindeer husbandry, fishing of small native born peoples was 15% in large and medium-sized agricultural businesses, in small forms of businesses 16,4 % [1].

Analyzing the state of development of traditional northern industries (table 1) it is worth noting the diversity of their dynamics.

Table 1. Production volumes of fisheries and reindeer husbandry in the Krasnoyarsk Territory.

| Types of products | 2016   | 2017   | 2018   | Relation to 2018 |
|-------------------|--------|--------|--------|------------------|
| Freshwater live fish, not a product of fish breeding, tons | 3028,2  | 2277,2  | 2226,6  | 73,5             |
| Number of domestic deer, thousand heads | 126,8  | 127,0  | 130,5  | 102,9            |

Thus, the decline in northern fish production is due to the depletion of resource potential and the presence of a catch limit. The small increase in the number of domestic deer is caused by the processes of providing state support to the industry. And this despite the fact that these products are considered environmentally friendly, and therefore can be competitive in the national market. Thus, besides deer meat, un-ossified antlers, endocrines -enzymatic raw materialsand deer blood are in great demand abroad.
As noted above, in order to support the reindeer husbandry industry, the Law "On State Support for Reindeer Husbandry in the Krasnoyarsk Territory" (No. З-868 of 11.12.2012) was adopted. However, its measures are minor for the effective development of traditional northern agriculture.

In foreign practice, there are few examples of effective economic management in the northern territories. For example, Finland uses the advantages of northern agriculture to produce environmentally friendly products. In the United States, Alaska agriculture is divided into three categories: traditional, state, and market. Each sector has its own reasonable barriers to production. As everywhere else, traditional agriculture does not generate large revenues and complicates the possibility of buying expensive equipment. The public sector has natural resource constraints, high costs and is not attractive to indigenous people. The market sector is poorly developed due to distance, investment unattractiveness, cost. In this regard, the State provides various levels of State support, taking into account these characteristics and forming conditions for the preservation of the traditional way of life of the population [2].

Sustainable development of traditional industries is impossible without solving the problem of effective sale. In order to form concentrated efforts to sell northern products, it is necessary to consider the logistics centers formation.

2. Literature Review
The basis of the establishment of wholesale distribution centers (WDC) was foreign analogues, which are a link between food producers and consumers. They offer farmers the opportunity to minimize the cost of selling products and to enter food markets, ensuring high purchase prices. These centers do not require farmers to comply with the technological cycle, taking more care about the environmental friendliness of the products. Their creation is carried out on a various basis, including using cooperative models.

The idea of forming such centers in Russia came in 2014, when the preparation of the corresponding subprogram started within the State Program for the Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Food Markets for 2013-2020. The concept of "wholesale distribution center" was enshrined in the regulatory documents as a complex of buildings, premises and accommodations intended for storage, conditioning, primary processing, reception, packaging and sale of agricultural products, raw materials and food, including in the system of internal food assistance to needy segments of the population of the Russian Federation, as well as for veterinary and phytosanitary control using automated electronic information and calculation systems, including internal and external engineering networks " (Resolution of the Government of the Russian Federation "On Approval of the Rules for Granting and Distributing Subsidies from the Federal Budget to the Budgets of the Constituent Entities of the Russian Federation for Reimbursement of Part of Direct Incurred Costs for the Creation and Modernization of Agro-Industrial Complex Facilities, as Well as for the Purchase of machinery and Equipment").

The conducted researches of category "wholesale distribution center" allowed us to specify this definition and to note that it is the organization having any legal form, founded on the principles of logistics which main goal is ensuring access of all categories of farms to a commodity distribution chain for the purpose of cost reduction and improving competitiveness [3]. The main positive factor in the WDC creation is the formation of an effective producer-consumer chain, in which the price mechanism is tuned to the manufacturer’s demands.

3. Data and methods
In order to assess the problems state of traditional industries products sale of native born population of the Arctic zone we will carry out analysis on the materials of Taimyr Dolgano-Nenets municipal district (table 2).

Thus, compared to 2018, the sales volume of the fisheries and reindeer husbandry businesses has slightly but increased. The products of northern producers are sold in intraregional markets, sometimes in close proximity to production. It is quite rare for producers to find market outside the region, most
often it is those who process reindeer meat, as well as unique northern fish breeds. In order to increase sales volumes and save on production funds, many large businesses buy products from small producers. Of these, only few supply products to educational institutions on tenders.

Table 2. Volumes of sold products by rural producers of Taimyr Dolgano-Nenets municipal district, tons.

| Types of products                  | Years     | Relation to 2018 |
|------------------------------------|-----------|------------------|
|                                    | 2016      | 2017           | 2018     | 2016, % |
| Fish of northern breeds, tons      | 1278,8    | 1319,7         | 1309,6   | 102,4   |
| Meat of domestic deer, heads       | 1400      | 1434           | 1500     | 107,1   |

Among other things, northern producers have a limit on the catch of northern fish. For example, the catch limit of northern fish breeds at LLC "North Harbor" is 72 tons per year, without taking into account seasonal restrictions for repopulation. It should be noted that this enterprise is one of the largest in the processing of meat of both wild and domestic deer and fish of various breeds living in the territory of Taimyr. Its production structure is typical for similar northern enterprises and consists of organized reception and procurement points (in the villages of Ust-Port, Kazantsevo, Karaul, Nosok, Baikalovsk, Vorontsovo), mini-plant, rented retail spaces (Norilsk, Kayerkan) (table 3).

Table 3. Balance sheet of commodity products of "North Harbor" LLC.

| Indicators                                               | 2016     | 2017     | 2018     |
|----------------------------------------------------------|----------|----------|----------|
| The remains of finished goods in a warehouse for the      | 0,38     | 0,34     | 1        |
| beginning of reporting year, tons                         | -        | 0        | 0        |
| Produced for the reporting period, tons                   | 138,52   | 105,71   | 102,41   |
| Sold, tons                                               | 162,92   | 175,64   | 185,46   |
| The remains of finished goods in a warehouse for the end | 0,1      | 0,1      | 0,1      |
| of the reporting period, tons                             | -        | 0        | 0        |
| Permissible catch limit of northern fish, tons            | 138,52   | 105,71   | 102,41   |

As many large northern businesses LLC "Northern Harbor" repurchases goods from other producers, as evidenced by exceeding the permissible catch limits for fish and the products sales volume.

The main channel of products sale is the local market, but the business has long-term contractual relations in the field of trade and with representatives of other regions.

The characteristics of the sales of this business show that it is possible to expand the opportunities of selling products with access to foreign markets if a cooperative logistics center is formed on its basis.

4. Results and Discussion

The establishment of a wholesale distribution center can be carried out in various organizational and legal forms, based on the intensity of trade turnover or forms of economic management of the entities of the association. Based on the fact that such businesses as LLC "North Harbor" buy products for sale from small producers, the acceptable choice is to organize on its basis a logistics center in the form of
an agricultural consumer cooperative. The activities of such a cooperative will consist of marketing, processing, supplying and servicing small businesses that are members of the cooperative.

The distinctive characteristic of the wholesale distribution center created on the basis of cooperation is presented in table 4.

Table 4. Characteristics of cooperative WDC.

| Basic positions                           | Characteristic                                                      |
|-------------------------------------------|---------------------------------------------------------------------|
| Responsibility for the project            | Full responsibility for construction and implementation              |
| Source of financing                       | The own funds of members of the cooperative, borrowed funds         |
| Distribution of created assets            | Belongs to the jurisdiction of the members of the cooperative       |
| Current financing, including emerging risks | Refers to the eligibility of members of the cooperative              |
| Rendering of services                    | Members of the cooperative and third-party customers use             |
| Взаимоотношения со сторонними клиентами    | Relationships with third-party customers                            |
| Profit from the activities                | Distributed among the members of the cooperative                    |
| State support                            | Subsidizing the interest rate on loans, compensation for construction costs |

The system of mutual settlements in such a cooperative can be based on factoring, when the WDC can receive short-term loans from the bank to provide an advance payment when buying products from agricultural producers. WDC products must be sold in accordance with the commission agreement. The price of products sold through such WDC can be set on the terms of an ex-warehouse, where the costs of transportation of cargo, loading and unloading works will be included, which can be attractive for members of the cooperative. Purchase prices should be determined at the level of the production cost established by the manufacturer and the regular rate of return, which implies extended reproduction.

The operation of the wholesale distribution center is not possible without the state support. To date, it can be obtained in the form of interest rate subsidies on investment loans, short-term loans for processing of products for producers, compensation of part of construction costs.

Table 5. Project performance indicators WDC.

| Index         | WDC   |
|---------------|-------|
| NPV, million rubles | 766,0 |
| IRR, %        | 30    |
| PI            | 2,71  |
| DPP, years    | 4     |

5. Conclusions
In conclusion, we’d like to note that the operation of wholesale distribution centers is a timely and necessary condition because it is one of the effective ways to solve the problem of traditional northern industries products sale. This is also due to the fact that the commissioning of the WDC will not only solve the issue of sale, but will also allow for the expansion of jobs in the northern territories for the native born population.
Reference
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[3] Ozerova M and Mazloew V 2015 Economics of agriculture of Russia 9 57-64