Advantages of formation and perspective models of agricultural cooperatives in the Republic of Kazakhstan

Ventajas de los modelos de formación y perspectiva de cooperativas agrícolas en la República de Kazajstán

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ABSTRACT:
The article considers the current state and problems of the development of the agro-industrial complex in the Republic of Kazakhstan, the necessity of improving the economic relations of agricultural, processing and servicing enterprises of the agrarian and industrial complex, the development of the most effective organizational and legal forms of their cooperation on a cooperative basis, new approaches to the mechanism for the formation and effective functioning of promising models agricultural cooperatives as applied for the new economic conditions. For the development of agricultural cooperation system have been developed possible options for combining agricultural commodity producers, a mechanism for the formation and functioning of perspective models of agricultural cooperatives in the Republic of Kazakhstan. The recommended model for the creation of a cooperative for the livestock fattening and slaughtering in the practical activities of livestock farms will contribute to stabilization of the economy of sector, including an increase in amount of livestock, the production of meat and milk. The model for the creation the cooperative on chicken cultivation and production of

RESUMEN:
El artículo considera el estado actual y los problemas del desarrollo del complejo agroindustrial en la República de Kazajstán, la necesidad de mejorar las relaciones económicas de las empresas agrícolas, de transformación y de servicios del complejo agrario e industrial, el desarrollo de los más efectivos formas organizativas y legales de su cooperación en una base cooperativa, nuevos enfoques del mecanismo para la formación y el funcionamiento efectivo de modelos prometedores de cooperativas agrícolas aplicadas a las nuevas condiciones económicas. Para el desarrollo del sistema de cooperación agrícola se han desarrollado posibles opciones para combinar productores agrícolas de productos básicos, un mecanismo para la formación y funcionamiento de modelos de perspectiva de cooperativas agrícolas en la República de Kazajstán. El modelo recomendado para la creación de una cooperativa de engorda y sacrificio de ganado en las actividades prácticas de las explotaciones ganaderas contribuirá a la estabilización de la economía del sector, incluido un aumento en la cantidad de ganado, la producción de carne y leche. El modelo para la creación de la cooperativa de cultivo de pollos y la producción de carne de ave es una de
1. Introduction

In the agrarian and industrial complex of the Republic of Kazakhstan, one of the important problems of developing the agrarian sphere is the underdevelopment of procurement and marketing system, and processing of agricultural products. The current state of developing this sphere of agrarian and industrial complex is characterized by unsystematic and spontaneous nature. This is explained by the fact that in exchange for the destroyed system of procurement and marketing, market structures for the movement of agricultural products were not created, which are necessary to ensure a guaranteed sale by commodity producers. All this led to the strengthening of the role of intermediaries in the implementation network, practically displacing the procurement system, while the relationship between producers and processors of raw materials is completely excluded. Low purchase prices for agricultural products dictated by processing enterprises do not stimulate an increase in their production volumes, which, in the end, leads to an unloading of capacities and capacities of grain elevators, meat processing plants and mills, and a decrease in the efficiency of their operation.

Due to the requirements of high-quality, affordable and well-packed products, small and medium-sized enterprises are not in a position to successfully compete with regular suppliers. The traditional weak coordination of the actions of enterprises in different spheres of the agrarian and industrial complex and the contradictions of their interests also hamper the implementation. The organization of own processing of meat, milk and other products to most farms is beyond the strength of lack of funds and experienced personnel, the necessary sanitary requirements and strict tax conditions, high unit costs, and the losses in barter transactions from the participation of intermediaries. Affects the lack of own trading network, the creation and maintenance of which is not available to every enterprise.

Small-scale nature of agricultural production, underdeveloped market infrastructure contributed to the strengthening of monopoly processing and trade organizations, the emergence of numerous intermediaries, reducing production volumes for virtually all types of agricultural products. In addition, there have also been changes in its structure by farm categories: in agricultural enterprises and peasant farms, plant growing is mainly developed, and livestock production is concentrated in the households of the population.

All these problems justify the need to improve economic relations between agricultural, processing and servicing enterprises of the agro industrial complex, develop the most
2. Methodology

In the process of research were used various methods: monographic - in the analysis of methodological and methodological approaches to the functioning of agricultural, processing and servicing enterprises of the agro-industrial complex, generalization of the world and domestic experience in effective functioning of agricultural cooperatives; comparative and system analysis - in determining the main advantages and identifying promising their models, taking into account industry and regional characteristics; economic-statistical - in analyzing the current state, the existing problems and the development of agricultural, processing and servicing enterprises of the agro-industrial complex; computational and constructive - when analyzing economic indicators, calculating the effectiveness of creating recommended prospective models of agricultural cooperatives.

Thus, the analysis of methodological and methodical approaches to the functioning of agricultural, processing and servicing enterprises of the agro industrial complex confirms the effectiveness of using cooperative principles with the aim of their integration (Winged 2010; Tkach 2003; Telnova and Kobozev 2010). The study of the world experience of the functioning of various models for agricultural cooperatives also confirms their immense importance for solving the economic and social problems of small forms of farming engaged in agricultural production (Busygina 2016; Getmanchuk and others, 2016).

The generalization the works of agricultural economists scholars allowed us to formulate the essence of the effectiveness of functioning cooperative formations, which consists in the fact that they provide the conditions for uniting people who have set themselves the goal of improving their economic and social situation, that is, they promote the development of free entrepreneurial activity and business, to protect the interests of agricultural producers at various levels of government (Paptsov 2009; Mindrin 2009).

The study of the organizational and economic mechanism of the functioning of agricultural cooperatives shows that the effectiveness of the activities of agricultural cooperative formations is the final beneficial effect of using the resources of production of cooperating organizations on the basis of social and economic relations that allow satisfying the needs of their members (Models of economic relations of enterprises of agroindustrial complex in the system of integrated formations. 2004; Ermakova 2009).

3. Results

In the Republic of Kazakhstan, agricultural production cooperatives, the number of which amounted to 1,397 as of 01/01/2016, were developed agricultural service cooperatives in the form of 1,751 rural consumer cooperatives (SPK) and 346 rural consumer water user cooperatives (SPCV). The share of agricultural cooperatives in the total number of agricultural enterprises is 1.4%, which is confirmed by the low level of cooperation.

Since the beginning of 2016, a new stage in the development of agricultural cooperation has begun, which was due to the adoption of the new Law of the Republic of Kazakhstan "On Agricultural Cooperatives" received in October 29, 2015, effective from 01/01/2016 (Law of the Republic of Kazakhstan "On Agricultural Cooperatives" of October 29, 2015). The draft of this law was developed by the employees of the Kazakh Research Institute of Agroindustrial Complex Economy and Development of Rural Areas and submitted to the Ministry of Agriculture of the Republic of Kazakhstan. The bill was discussed in a wide circle of the public, with the participation of representatives of rural commodity producers, state bodies (MoA and other ministries and departments, regional and regional akimats), deputies of the Parliament of the Republic of Kazakhstan, foreign experts - the Union of Cooperatives Raiffeisen (DGRV), OECD, Scientific research institutes and universities.

Problems of small-scale nature of agricultural production and development of the storage system, processing and marketing of agricultural products can be solved in the republic only
by cooperating small forms of management. Over the past period (more than 1.5 years), enough measures have been taken to implement this law, in particular, about one thousand agricultural cooperatives of various activities have been created - for the production and marketing, storage, and primary processing of agricultural products. The State Program was adopted for the development of the agro industrial Complex in the Republic of Kazakhstan for 2017-2021, also adopted on February 18, 2017, one of the main program activities of which named "The involvement of small and medium-sized farms in agricultural cooperation" (State program for the development of the agro-industrial complex of the Republic of Kazakhstan for 2017-2021, 2017). According to this program, agricultural cooperatives are given priority with state support in the form of subsidies, investment subsidies and concessional lending.

Based on the existing problems and the condition of development the agricultural cooperation system, we are recommending the following perspective models of agricultural cooperatives in the Republic of Kazakhstan (Table 1).

Table 1
Perspective models of agricultural cooperatives and their advantages

<table>
<thead>
<tr>
<th>Cooperative model</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative for fattening and slaughtering cattle</td>
<td>- the possibility of combining livestock farms with the aim of expanding the livestock population, improving the breed composition of the main breeding stock, fattening the youngsters;</td>
</tr>
<tr>
<td></td>
<td>- the possibility of organizing a slaughterhouse, a meat processing workshop and the organized sale of products to the trading network without intermediaries;</td>
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<tr>
<td></td>
<td>- combining efforts to ensure feed;</td>
</tr>
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<td></td>
<td>- the interest of each participant in increasing the weight gain, the receipt of income from the sale of meat and other favorable conditions</td>
</tr>
<tr>
<td>Cooperative for growing chicken and meat production</td>
<td>- the possibility of a single technological cycle &quot;incubation of eggs&quot; - growing chickens - slaughtering poultry - the implementation of meat and poultry;</td>
</tr>
<tr>
<td></td>
<td>- the founders of the cooperative are the economy of the population;</td>
</tr>
<tr>
<td></td>
<td>- the incomes and employment of the rural population increase</td>
</tr>
<tr>
<td>Co-operative for the breeding sheep and the wool production</td>
<td>- possibility of the association of sheep farms for the purpose of breeding purebred sheep and the production of fine wool;</td>
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<tr>
<td></td>
<td>- Concentration of agricultural commodity producers in a cooperative association with the purpose of carrying out selection-breeding work, artificial insemination, veterinary services, shearing and buying sheep, organized sale of the produced wool;</td>
</tr>
<tr>
<td></td>
<td>- production of export-oriented quality products</td>
</tr>
<tr>
<td>Co-operative on marketing of agricultural cooperations</td>
<td>- the creation of a marketing cooperative is the simplest variant of an association that does not require significant material costs;</td>
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<td>- ensuring stable sales of the products;</td>
</tr>
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<td></td>
<td>- Reduction of costs for transportation of raw materials, losses of raw materials and finished products both for the producer and for the processor;</td>
</tr>
<tr>
<td></td>
<td>- Improving the quality of products and interest of processing enterprises in order to load production capacities</td>
</tr>
<tr>
<td>Co-operative for primary processing of agricultural products</td>
<td>- provision of services for the primary processing of agricultural products (cooling, pasteurization of milk, slaughter, cleaning, drying, sorting of grain,</td>
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<td></td>
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</tbody>
</table>
3.1. The model for creating a cooperative for fattening and slaughtering cattle.

One of the priority directions of livestock development is the enlargement of enterprises and creation of specialized feeding complexes from 5,000 to 10,000 heads. However, such projects require significant investments from the state budget, since in addition to the construction of the industrial complex itself, it is necessary to create a highly productive stock of livestock, which is difficult to ensure in the next 10 years, accelerated creation will require the purchase of livestock from abroad. In addition, the independent functioning of a specialized fattening farm is complicated by the fact that the main livestock is kept by small producers and in private households, so the purchased young will be hybrids and in different ages, which will affect the efficiency of fattening. In this regard, we recommend the creation of a cooperative for fattening and slaughtering cattle. At the initial stage, it is proposed to create a cooperative at the level of one rural district, which over time can influence the regional and oblast levels for the production of meat of various animal species (Figure 1).

The organization of these co-operatives with a single production for fattening from 500 to 1000 head of cattle gives great opportunities in increasing the production of meat and the productivity of livestock of personal subsidiary farms. This concentration of livestock on the feeding platform makes it possible to divide the cattle into groups according to weight categories, fatness, age, and establish differentiated diets for feeding during the fattening periods. On such sites, the use of mechanization means for transporting and distributing feed, watering and cleaning the area from manure becomes highly effective.

Intensive fattening of cattle on large enough fattening grounds promotes an increase in the average daily weight gain of animals, the delivery weight of one head of livestock, an increase in labor productivity, a reduction in the cost of production, and an improvement in working conditions.

Figure 1
Model of the organization of the cooperative for fattening and slaughtering livestock
The advantage of this model is the possibility of its organization in any rural district, the region of the republic, where there are prerequisites for the formation of fodder base and the availability of livestock. Calculations of the economic efficiency of the creation of a cooperative for growing and fattening for 1000 heads of livestock confirm the profitability of this model - 17.7%, while the gross income of the cooperative is 92.4 million tons, the total costs including the cost of young animals will amount to 78.5 million tons, of which 21.1 million tons is the cost of feed (Table 2).

Introduction of the recommended model of agricultural cooperation on fattening and slaughtering livestock in the practical activities of livestock farms will contribute to the stabilization of the economy of the industry, including an increase in the number of livestock, the production of meat and milk.

Table 2
Economic efficiency of fattening young animals when creating a cooperative fattening site for 1000 heads in the Zerendinsky district of the Akmola region

<table>
<thead>
<tr>
<th>Index</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cattle on fattening, heads</td>
<td>1000</td>
</tr>
<tr>
<td>Average weight of live weight of one cattle, kg</td>
<td>400-420</td>
</tr>
<tr>
<td>Gross production in live weight, tons</td>
<td>420</td>
</tr>
<tr>
<td>The average selling price is 1 kg (in live weight), tenge</td>
<td>220</td>
</tr>
<tr>
<td>Gross income, thousand tenge</td>
<td>92400</td>
</tr>
<tr>
<td>Average weight of young animals when fattening, kg</td>
<td>200</td>
</tr>
<tr>
<td>The registration price of 1 kg of live weight of young animals when staged for fattening, tenge</td>
<td>220</td>
</tr>
<tr>
<td>The accounting value of 1 herd of young animals when for fattening, thousand tenge</td>
<td>44,0</td>
</tr>
<tr>
<td>The accounting value of the total number of fattening livestock, thousand tenge</td>
<td>44000</td>
</tr>
</tbody>
</table>
Expenses for fattening total, thousand tenge | 35531  
Cost of feed, thousand tenge | 21056.4  
Compensation with accrual, thousand tenge | 5376.6  
Fuels and lubricants, thousand tenge | 4650  
Depreciation of fixed assets, thousand tenge | 2468  
Other expenses, thousand tenge | 1980  
Profit, thousand tenge | 12869  
Profitability, % | 36.2

The model for the creation of a cooperative for the cultivation of chickens and the production of poultry meat is one of the most urgent and promising directions for the development of the AIC of the Republic of Kazakhstan. To date, more than 90% of birds are grown in households, characterized by low marketability. In this regard, we recommend the creation of a cooperative by combining the farms of a certain rural district with the aim of building an incubator, a mini feed mill, a slaughterhouse, growing chickens and further selling poultry to the trade network (Figure 2).

The calculation of the economic efficiency of the recommended model confirms the profitability and expediency of its organization. The income of the cooperative when growing broiler chickens by households on a cooperative basis in the Zerendinsky district of the Akmola region from 100 to 500 heads will be respectively from 10 to 71 thousand tenge, the costs will be from 18 to 90 thousand tenge when calculating 100 tenge for the acquisition of 1 goal . chicks and 80 tenge for 1 kg of mixed fodders.

Within 2 months the chickens reach the lethal maturity and reach a live weight of up to 2.0-2.5 kg, which are transferred to the slaughterhouse (Table 3). Thus, it is possible to increase the production of poultry meat and provide the market with this product.

Table 3
Economic efficiency of growing broiler chickens by households on a
A model of a cooperative for the sheep breeding and wool production is recommended to be established in Zhambyl district of Almaty region by merging 3 LLPs and 15 peasant farms, where today there are 47.3 thousand heads of merino sheep breed, incl. 28 thousand head of ewes (Figure 3).

The need for this cooperative is justified by the possibility of growing purebred fine-fleeced sheep in order to produce fine wool, oriented to export products. With the purpose of improving the pedigree composition of the main herd and further distribution of it on the farms of the region and the region, it is recommended to procure 12960 heads of breeding sheep with a fine-wool direction from "Alruno" LLP. The existing land, material and technical resources allow further increasing the number of sheep to 100 thousand head and more. According to the terms of JSC "Agrarian Credit Corporation" for the creation of SPK under 5% per annum for 7 years, the cooperative needs 216 million tenge for the purchase of 9000 ewes, 3600 sheep, 360 rams-producers. Expended government funds for the establishment of the SEC are effectively justified. According to our calculations, you can get 44041 ewes, 18500 sheep, 1,580 sheep-producers and 46684 lambs. In total, the profit from the project will be 370 million tenge, incl. for own needs - 72 million tenge, for covering of credit means - 298 million tenge.
3.2. The model of creating a cooperative for the primary processing of agricultural products.

We have calculated the need for financial resources to create cooperatives for dairy processing in the context of regions in Kazakhstan.

Establishment of a cooperative for the primary processing of agricultural raw materials by installing new equipment, in particular a milk receiving point with a production capacity of 3.5 tons per day gives a significant economic effect to the country's agriculture. Calculations show that the overall profitability of the cooperative was 36% in the first year of its operation. Subject to the Agrarian Credit Corporation JSC, a preferential loan of 5% per annum for 7 years will increase the profitability of production of the cooperative for primary milk processing by 12% and reach 48% after the maturity of the loan debt. Similar calculations of the estimated costs, economic efficiency of the establishment were carried out for the organization of a cooperative for the primary processing of meat, in particular a slaughterhouse for cattle with a productivity of 10-15 goals. Cattle.

Small farmer agricultural cooperatives are also viable, which are created on the basis of combining the resources of peasant (farm) farms to purchase a small processing plant or build a new mini-shop (1-2 MB). To create such a cooperative it is enough - the area under vegetables is 40-50 hectares, which is possible by 5-6 peasant (farmer) farms.

The most effective in conditions of the northern region of the republic can be cooperatives for storing and post-harvest grain processing with an annual capacity (elevators) of 70-100 thousand tons, mill plants - 35-50 thousand tons, for a full load of these capacities, the cooperative must have 100-130 thousand hectares of grain crops. In areas that have large areas of grain crops, it is possible to organize 2-3 cooperatives (for example, in the Tselinograd region of the Akmola region, where more than 250,000 hectares are occupied by grain crops).

4. Discussion

In order to increase the effectiveness of cooperating process with small forms of management and the stable functioning of established agricultural cooperatives, the necessity of elaborating a Concept for the Development of Agricultural Cooperatives in the Republic of Kazakhstan is substantiated.

The purpose of developing this Concept is to ensure sustainable development of agricultural cooperation, increase its role in stabilizing agro-industrial production and protecting the economic interests of agricultural producers.

The main objectives of the Concept:
- creation of legal, economic and organizational conditions for the effective operation of agricultural cooperatives;
- improvement of the mechanism of financial and credit support of agricultural cooperatives;
- informational, consulting and methodological support of the activities of agricultural cooperatives;
- Strengthening and development of the training system for agricultural cooperatives;
- Organizing work on dissemination of knowledge on the development of agricultural cooperation;
- carrying out pilot projects for the creation of agricultural cooperatives;
- activation of the activities of state authorities and local self-government bodies in the development of agricultural cooperation;
- Stimulation of the association of agricultural producers in cooperatives through the activation of state support.

Expected results of the Concept implementation:
- Development of large-scale agricultural production by combining small forms of
management and ensuring sustainable development of agricultural cooperatives;
- Increasing the role of agricultural cooperation in stabilizing agro-industrial production and protecting the economic interests of agricultural commodity producers.

Target indicators:
- increasing the volume of production and sale of agricultural products produced by agricultural cooperatives;
- increasing the efficiency of using the resource potential (production, land, labor, etc.) of the agricultural cooperative;
- Expanding the access of agricultural producers-members of the cooperative to the markets for the sale of products, services, etc.;
- Creation of new jobs, increase of incomes and employment of rural residents.

The mechanism for implementing the Concept:
- conducting explanatory work on the advantages of combining small forms of management in agricultural cooperatives;
- dissemination of information and organization of the provision of state support for agricultural cooperatives;
- organization of pilot projects of agricultural cooperatives and full scientific support of the mechanism of formation and functioning;
- rendering consulting and practical assistance to agricultural producers in formation of initiative groups, development of constituent documents, business plan and other measures for organizing agricultural cooperatives;
- Preparation and approval of the Action Plan for the implementation of the Concept of the development of agricultural cooperation in the Republic of Kazakhstan, the republican and regional programs for the creation and development of agricultural cooperatives;
- provision of consulting and practical assistance in the selection and training of personnel, the selection of necessary equipment, the development of the mechanism of intraeconomic relations in the cooperative, and between members of the cooperative;
- monitoring of the activities of established cooperatives, compliance with their cooperative principles, implementation of measures of state support for agricultural cooperatives;
- development of proposals for improving the regulatory framework, the mechanism for establishing, maintaining records and activities of agricultural cooperatives, their state, regional (district) support, staffing, etc.;
- creation of information and consulting, training centers, coordinating councils for the development of agricultural cooperatives in context of districts and regions.

5. Conclusions
Analysis of the situation in the agro industrial complex of Kazakhstan shows that the opportunities and advantages of agro-industrial integration are not yet fully realized, its role and importance in the country's socio-economic development are underestimated. As a result, the adopted measures of state support, in particular, agricultural cooperatives in the country, did not give the proper effect of protecting the interests of small forms of business by combining them. Unfortunately, the potential reserve of agro-industrial integration in the formation of the food fund is still weak.

In countries with developed market economies, agricultural cooperatives play a very significant and in some cases decisive role in the system of interrelations between the agrarian sphere and related industries and in the development of the agro-industrial complex as a whole. Practically 100% participation of agricultural producers in cooperatives is traditionally for Northern Europe, the Netherlands, Ireland, and Japan. In most countries of continental Europe, cooperatives combine about 80% of all farms. In the US, according to various estimates, from 60 to 80%, about the same picture in Canada and Australia (Paptsov 2009).
Creation and implementation of recommended models of agricultural cooperation on fattening and slaughtering livestock, growing chickens and producing poultry meat, growing sheep and producing wool, primary processing and marketing of agricultural products will contribute to the stabilization of the economy of the agro industrial complex in Kazakhstan, including an increase in the number of livestock, production of meat, dairy and other products.

The creation of agricultural cooperatives contributes to solving not only economic but also social problems: through the organization of agricultural cooperatives in the areas with marketing, processing of agricultural products, logistics and maintenance of agricultural producers, it is possible to increase the employment of the rural population and additionally create jobs.

References


