The role of state regulation in the development of the agro-industrial complex of the region (Kostanay region)

G. Dyuzelbayeva, O. Malyarenko

1 Kostanay Engineering and Economics University named after M. Dulatov, Kostanay, Kazakhstan
2 Kostanay branch of Chelyabinsk State University, Kostanay, Kazakhstan

E-mail: dgm0177@gmail.com

Abstract: The purpose of the study is to analyze the system of state regulation measures for the agro-industrial complex of the Kostanay region and determine its role in ensuring sustainable development of the agro-industrial complex. Methods. The analysis of the main economic indicators of agricultural production of the Kostanay region, the types of subsidies for the agro-industrial complex of the region, state non-repayable support funds, targeted state financing. Results. It was revealed that to support the development of the agro-industrial complex over the years of independence, in Kazakhstan, a number of state and industry programs were adopted, on the basis of which state policy in this area was built. Today Kostanay region is one of the largest producers of agricultural products and makes a worthy contribution to ensuring food security of the country. In the republican gross grain harvest, the Kostanay region takes the 3rd place, in terms of the number of livestock and production of basic livestock products, the region occupies one of the leading places among the regions of the country. However, despite the positive dynamics of most industry development indicators, it is still far from achieving many of the goals set. One of the main instruments of state regulation of the agro-industrial complex of the region today is a system of direct payments to agricultural producers, or subsidies. Agriculture is subsidized today as an economic incentive for the development of its industries. Scientific novelty lies in assessing the effectiveness of the implementation of state programs for the development of the agro-industrial complex in relation to the Kostanay region of the Republic of Kazakhstan.

Keywords: government regulation, subsidy, development program, state non-refundable support, gross yield, yield, leasing, investment subsidy.


Introduction

In modern economic conditions, the agro-industrial complex is the most important sector of the economy of Kazakhstan, which forms the country’s food and economic security, and the degree of its development and the level of functioning efficiency largely determine the balance of the economy and the political situation in the country. The basic industry of the agro-industrial complex is agriculture, which has great potential and large reserves, and the diverse climatic conditions of Kazakhstan make it possible to grow almost all cultures of the temperate thermal zone and develop livestock. The specifics of this industry determines the need for its state support and state regulation.

State regulation of the agro-industrial complex is the most important direction of the country’s agrarian policy and represents a system of measures of economic, organizational, legal regulation by authorities and management of organizations in agriculture, aimed at increasing the competitiveness of products in order to meet the needs of the population in agricultural products and ensure food security of the country [1].

Methods

The studies were carried out on the basis of statistical data on the volume and dynamics of the main economic indicators of agricultural production in the Kostanay region, types of subsidies for the agro-industrial complex of the region, means of state non-repayable support, targeted state financing. State programs for the development of the agro-industrial complex of the Republic of Kazakhstan, their implementation and effectiveness were also considered.

The basis for research is the use of analytical, monographic, abstract-logical methods, a comparison method.

Results

State regulation represents the economic impact of the state on the production, processing, sale of agricultural raw materials and agricultural products, on production and technical maintenance and material and technical support of producers [2].

According to the Law of the Republic of Kazakhstan “On state regulation of the development of the agro-industrial complex and rural territories” of July 8, 2005, the goals of state regulation of the development of the agro-industrial complex and rural territories are[3]:

- Ensuring food security of the country;
- Maximizing the economic potential of the agro-industrial complex;
- Increasing the competitiveness of products in world markets;
- Ensuring the environmental safety of agricultural production.
− development of social and engineering infrastructure of rural areas and providing rural people with favorable living conditions;
− ensuring food security of the state;
− ensuring sustainable economic and social development of the agro-industrial complex and rural areas;
− creation of economic conditions for the production of competitive agricultural products and products of their processing;
− ensuring the development of organic production.

The policy of state regulation of development of the agro-industrial complex is implemented in the following forms:
− development of lending in the field of agriculture and rural areas;
− subsidizing the agricultural sector;
− carrying out purchasing and commodity interventions;
− Regulation of exports and imports of agricultural products;
− technical equipment of the agricultural sector;
− information and marketing support for the agro-industrial complex, etc.

To support the development of the agro-industrial complex over the years of independence, in Kazakhstan, state and industry programs were adopted, on the basis of which state policy was implemented in this area (fig. 1).

In 2017, the State Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017–2021 was approved, the emphasis of which is on creating conditions for increasing the competitiveness of agribusiness entities, which will provide domestic producers with the necessary state support in the competition within the framework of the Customs Union and the forthcoming accession to the WTO.

The main objectives of the State program: improving the efficiency of livestock and crop production; development of large-scale agricultural cooperation to create an effective system of marketing and processing of products; implementation of a targeted export policy and promotion of the Kazakhstani brand of organic products; involvement of more than 600 thousand hectares of irrigated land; improvement of state regulation of the agro-industrial complex.

Also, the Agribusiness 2020 Program is currently being implemented in the republic, which contains a whole range of financial and non-financial mechanisms to support the agricultural industry, in such areas as:
− financial recovery of agro-industrial complex entities through reduction of interest rates, subsidized interest payments, extension of loan repayment terms, provision of a grace period for repayment of the main debt, write-off of fines, penalties, past due remuneration, etc.;
− increasing the availability of goods, works and services for subjects of the agro-industrial complex by providing agricultural producers with wider access to the necessary raw materials and means;
− development of state systems to ensure the subjects of the agro-industrial complex through increasing phytosanitary and veterinary safety in order to ensure well-being in the field of livestock and crop production;

![Fig. 1. State programs for the development of agro-industrial complex in Kazakhstan](image-url)
The main economic indicators of agricultural production of the Kostanay region

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Growth rate, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross output of agricultural products (services) in current prices, mln tenge</td>
<td>266 885.9</td>
<td>294 608.2</td>
<td>319 037.7</td>
<td>362 242.8</td>
<td>386 655.6</td>
<td>145</td>
</tr>
<tr>
<td>Gross crop production, mln tenge</td>
<td>180 295.1</td>
<td>203 579.1</td>
<td>217 597.2</td>
<td>253 319.8</td>
<td>267 236.2</td>
<td>148</td>
</tr>
<tr>
<td>Gross livestock production mln tenge</td>
<td>84 366.2</td>
<td>88 469.1</td>
<td>98 451.4</td>
<td>106 212</td>
<td>118 188.5</td>
<td>140</td>
</tr>
<tr>
<td>Index of physical volume of gross agricultural output (services), as a percentage of the previous year</td>
<td>99.4</td>
<td>107.0</td>
<td>100.3</td>
<td>103.5</td>
<td>101.8</td>
<td>102</td>
</tr>
<tr>
<td>Sown area, thousand hectares, including</td>
<td>5 086.2</td>
<td>5 088.0</td>
<td>5 143.3</td>
<td>5 197.1</td>
<td>5 143.3</td>
<td>101</td>
</tr>
<tr>
<td>Cereal</td>
<td>4 109.3</td>
<td>4 018.8</td>
<td>4 213.9</td>
<td>4 193</td>
<td>4 066.1</td>
<td>99</td>
</tr>
<tr>
<td>Productivity of grain and leguminous crops, t/ha</td>
<td>9.9</td>
<td>11.4</td>
<td>10.8</td>
<td>12.5</td>
<td>11.6</td>
<td>117</td>
</tr>
<tr>
<td>The number of cattle, goals</td>
<td>415 467</td>
<td>420 747</td>
<td>427 030</td>
<td>440 720</td>
<td>455 166</td>
<td>109.6</td>
</tr>
<tr>
<td>The average milk yield per dairy cow, kg</td>
<td>2 733</td>
<td>2 718</td>
<td>2 728</td>
<td>2 784</td>
<td>2 804</td>
<td>102.5</td>
</tr>
<tr>
<td>Average live weight of one head of cattle slaughtered on the farm or sold for slaughter, kg</td>
<td>318</td>
<td>309</td>
<td>313</td>
<td>317</td>
<td>315</td>
<td>99</td>
</tr>
<tr>
<td>Labor productivity, thousand tenge per 1 person</td>
<td>986.2</td>
<td>979.5</td>
<td>1 080.3</td>
<td>1 315.1</td>
<td>1 711.1</td>
<td>173.5</td>
</tr>
<tr>
<td>Profitability (loss-making) of agricultural production, total, %</td>
<td>28.5</td>
<td>44.1</td>
<td>53.6</td>
<td>55.8</td>
<td>62.5</td>
<td>2.2%</td>
</tr>
<tr>
<td>Crop production, %</td>
<td>33.3</td>
<td>54.6</td>
<td>64.1</td>
<td>66.4</td>
<td>69.7</td>
<td>2.1%</td>
</tr>
<tr>
<td>Livestock, %</td>
<td>15.0</td>
<td>7.2</td>
<td>16.4</td>
<td>17.1</td>
<td>17.8</td>
<td>119</td>
</tr>
</tbody>
</table>

the region 2804 kg, which indicates an increase in livestock productivity in the region. In 2018, milk production increased by 50.4 thousand tons compared to 2014.

In general, the profitability of agricultural production in the region increased over the period 2014–2018 by 2.2 times, including in crop production 2.1 times, in livestock production by 19 %. Labor productivity over the study period increased by 73.5 %. It can be noted that over the past few years, thanks to increased government attention to agricultural producers, it has been possible to stabilize the situation in the industry.

However, despite the positive dynamics of most industry development indicators, it is still far from achieving many of the goals set. The industry has the following problems:

- insufficient rate of diversification of sown areas of agricultural crops (spring wheat is still a monoculture);
- irrational use of agricultural land;
- non-compliance with the recommended scientifically based crop rotation;
- insufficient development of seed production;
- insufficient use by agricultural producers of chemicals (fertilizers, pesticides, etc.);
- low level of technical and technological equipment of agricultural producers;
- low productivity of farm animals and poultry;
- incomplete coverage of farm animals with veterinary preventive measures, etc.

It is impossible to solve these problems without state support. State regulation of the agricultural sector in the region is carried out in accordance with the Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017–2021 and with the Kostanay Region Territory Development Program for 2016–2020.

The implementation of the activities of the Kostanay Region Territory Development Program in the agro-industrial complex in 2018 allowed to increase all the main indicators of the agricultural industry development. In the coming decades, the global demand for food will only increase, so the further development of the agro-industrial complex of the region should be aimed at increasing agricultural production and increasing its profitability.

The successes achieved in the agricultural production of the region became possible thanks to the annual state support.

One of the main tools of state regulation of the agro-industrial complex of the region today is a system of direct payments to agricultural producers, or subsidies. Agriculture is subsidized today as an economic incentive for the development of its industries.

The dynamics of subsidizing the agricultural industry of the Kostanay region by industry for the period 2014–2018 is shown in fig. 2.

Subsidy tools in animal husbandry are aimed at reducing the cost of acquired pedigree animals, the costs of breeding, artificial insemination of farm animals, and cheapening the cost of livestock production.

In crop production, the cost of mineral fertilizers, herbicides, bioagents and biological products, seeds, fuel and lubricants and other inventory items is subsidized.

The amount of subsidies for the development of agriculture in the region increased over the period 2014–2018 by 13 880 million tenge and amounted to 29 597 million tenge at the end of 2018. Subsidies for livestock production increased by 67 % or by 2.386 million tenge for the analyzed period, crop production decreased by 17.3 %, which is due to a fairly steady growth in this industry compared to animal husbandry. Subsidies to other areas (processing and procurement enterprises, budget lending, interest rate subsidies) increased 9.8 times. Such an increase in direct support for the agricultural production of the region undoubtedly influenced the growth of its profitability in 2018.

Consider the development of subsidies in the context of agricultural programs of the region (table 2).
In 2018, 29 597 million tenge was allocated and disbursed for the development of agriculture in the region, in 2019 it is planned to develop 29 789 million tenge. The structure of the allocated subsidies in the context of programs in 2018 was as follows: 29.7% of subsidies were directed to the crop sector, 20.1% to livestock, 50.2% of the allocated subsidies were directed to other areas. In absolute terms, subsidizing of other areas increased compared to 2015 by KZT 4955 million, which indicates an expansion of state support for investment costs of agricultural producers, interest rate subsidies in the framework of financial recovery.

The results of solid cash injections into the industry are already visible. The farms of the region are fully provided with conditioned seeds, which is 552 thousand tons. Work is under-
way to improve the soil; in 2018, 25 thousand tons of mineral fertilizers were introduced.

To support the increase in crop yields, to partially reduce the cost of mineral fertilizers, 1,677 million tenge was allocated from the republican budget in 2018, which is 1,281 million tenge more than in 2015.

In 2018, subsidies amounting to 1,237 million tenge were allocated from the republican budget for the development of seed production (which is 98% more than in 2015).

The measures taken by the state to strengthen the livestock sector also yielded positive results. In general, in 2014–2018 the number of livestock increased, the volume of livestock production increased. In the Kostanay region, the implementation of the adopted sectoral programs made it possible to increase the share of cattle in agricultural enterprises to 47% (18% in 2012) and increase the number of breeding animals to 17% of the cattle.

However, it should be noted that the tasks arising from the state agribusiness development program for 2017–2021 require completely different approaches and achieve higher indicators. The analysis of the livestock production in the region shows that, despite solid financial injections, the industry is developing very slowly, and in some areas there has been an unjustified decline.4

Another relevant problem in the livestock industry is the small-scale production, concentration of livestock production in personal subsidiary plots. It is impossible to solve this problem without financial support from the state. To date, in the Kostanay region there are 18 family farms for raising cattle and poultry, 9 large farms and 12 milk collection points.

By 2022, as part of the implementation of the state program for the development of livestock production in the region, it is planned to increase the number of family farms to 60, large farms to 14, milk collection points to 18 units.

In 2018, in the agro-industrial complex of the region, on the basis of public-private partnerships, 11 investment projects worth 5.9 billion tenge were put into operation, with the creation of 325 jobs. The main ones: Torgay ET LLP – Arkalyk Meat Processing Complex, worth 2,000 million tenge, with the creation of 120 jobs; Milkh LLP – “construction of a dairy processing plant” worth 1,320 million tenge, with the creation of 70 jobs; AGRO-BIO-AULJIEKOL LLP – “construction of a feed mill in Auliekol district”, worth 320 million tenge, with the creation of 51 jobs.

Improving the effectiveness of state support measures for the agro-industrial complex is one of the directions of the agro-industrial complex development map developed by the Ministry of Agriculture in order to improve the state support system for the industry as part of the implementation of the state agro-industrial complex development program for 2017–2021. Since the beginning of 2017, all 65 types of subsidies have been reviewed to increase subsidies to the agro-industrial complex and increase the coverage by state support measures of agribusiness entities.

The analysis showed the low efficiency of hectare subsidies for priority agricultural crops and gardens. Firstly, this subsidizing mechanism does not stimulate agricultural producers to increase the level of agricultural technologies, productivity and quality of manufactured products; secondly, often hectare subsidies decisions are made by members of the interagency commission without actually checking the availability of crops; thirdly, agricultural producers overestimate the volume of work performed (crop area).

Since 2017, the following changes to the subsidy system have been introduced:

- the preferential transition from subsidizing in relative terms, as a percentage of the cost of goods, works and services, to subsidizing in absolute terms, in value terms;
- optimization of the timing of subsidies in accordance with the timing of technological processes in the industry;
- priority subsidies for the following priorities: import substitution, export orientation, other areas; upon reaching the indicator of ensuring domestic consumption, the level of subsidies will decrease;
- the transition from subsidizing interest rates to subsidizing investment costs in order to avoid the accumulation of long-term obligations of the state, excluding subsidizing rates of interest on loans for working capital replenishment with a loan term of up to one year.

In order to increase the competitiveness of agricultural production, state support is needed for the program for the purchase of agricultural machinery, agricultural machinery and other equipment for leasing, the expansion of the market for leasing services and investment in domestic agricultural machinery, as well as obtaining credit resources on favorable terms, and the expansion of the purchase of grain of Podkorporasiya JSC.

Thus, according to the Agro-Industrial Complex Program for 2013–2020 (Agribusiness 2020), starting in 2013, a new direction of state support for agricultural producers was the financial rehabilitation of enterprises, which is carried out, inter alia, by subsidizing part of the interest rate on contracts concluded for leasing agricultural machinery. According to the results of 2016, the structure of the leasing portfolio reflects the market situation and imbalances in the market structure – the share of leasing of agricultural machinery is 68.3%, in 2018 - 69.3%.

Consider the dynamics and amount of funds allocated by the state for the development of agriculture and rural territories of the Kostanay region (table 3).

In total for the period 2003–2018, the state allocated and mastered 606.6 billion tenge for the development of agriculture in the region.

State non-refundable support, 87.7% of which is subsidies, has grown 18.3 times over the reporting period and amounted to only 192.6 billion tenge.

Leasing of agricultural machinery and equipment shows a 45-fold increase over the period 2003–2018, which indicates an increase in the technological renewal of the machine and tractor fleet of agricultural enterprises in the region. It should be noted that in 2017 the share of agricultural machinery with a service life of more than 15 years in the region was 79% (with an average depreciation period of agricultural machinery of 10–12 years). Thus, the technological modernization of agricultural enterprises of the region, which will replace low-productivity and labor-intensive equipment with more modern and efficient, is impossible without state funding. So, in 2018, the agro-industrial complex of the region acquired: 187 trac-
tors, 210 combines, 58 sowing complexes and 400 units of other agricultural machinery, including 216 units worth 4747.1 million tenge transferred through leasing through KazAgroFinance JSC [7].

Discussion and Conclusion

So, it can be noted that today state regulation is an integral element of the strategic development of the agricultural industry of the Kostanay region.

The development of the agricultural sector of the region requires strategic planning for the long term, and in this regard, it is necessary to highlight the main directions and goals of state regulation for 2019–2021:

1) the involvement of small and medium-sized farms in agricultural cooperation, which will help to reduce the costs of agricultural producers in the region in the production and sale of products, the balanced development of agriculture and in general;

2) expansion of financial measures of state support – leasing of agricultural machinery and equipment, investment subsidizing of costs for the purchase of agricultural machinery and equipment, subsidizing interest rates for lending to agribusiness entities, as well as simplifying the procedures for granting loans and leasing under the terms of subsidiaries of Kazagro NMH JSC;

3) increasing the effectiveness of the subsidy system by:
   - phased implementation of an automated system for reviewing all applications for subsidies, monitoring and consolidating data on recipients;
   - the transition from subsidizing certain types of costs to a policy of comprehensive subsidizing of an enterprise based on its production indicators and monitoring the effectiveness of paid subsidies;
   - reducing the types of subsidies issued and documents requested from agribusiness entities;
   - improving the mechanism of budget financing of spring field and harvesting, in order to provide agricultural producers with the opportunity to sell crops during the season of higher prices.

Changes in the rules of subsidies are caused by the modernization of the industry and the introduction of new approaches to the development of agriculture, which were approved by the Government and formed the basis for changes and additions to the State Program for the Development of the Agricultural Complex for 2017–2021 [12];

4) the development of foreign trade through the provision of agribusiness entities with open industry data on sales markets on the websites of the Ministry of Agriculture of the Republic of Kazakhstan, JSC National Management Holding Kazagro, as well as the provision of marketing services from the service centers of entrepreneurs, National Chamber of Entrepreneurs of the Republic of Kazakhstan Atameken.

References


Authors’ information:
Gulnara M. Dyuzelbayeva¹, PhD in economics, ORCID 0000-0002-7782-8469; dgm0177@gmail.com
Olga I. Malyarenko², PhD in economics, ORCID 0000-0002-8272-148X; malyarenko_olga@mail.ru
¹ Kostanay Engineering and Economics University named after M. Duletov, Kostanay, Kazakhstan
² Kostanay branch of Chelyabinsk State University, Kostanay, Kazakhstan