

**SMALL AND MEDIUM-SIZED ENTITIES IN LIVESTOCK SECTOR OF THE REPUBLIC  
OF KAZAKHSTAN: FACTORS OF INCREASING PRODUCTION VOLUMES**

**ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ МАЛ ШАРУАШЫЛЫҒЫ САЛАСЫНЫҢ ШАҒЫН  
ЖӘНЕ ОРТА ҚҰРЫЛЫМДАРЫ: ӨНІМ КӨЛЕМІНІҢ ҰЛҒАЮ ФАКТОРЛАРЫ**

**МАЛЫЕ И СРЕДНИЕ ФОРМИРОВАНИЯ СФЕРЫ ЖИВОТНОВОДСТВА  
РЕСПУБЛИКИ КАЗАХСТАН: ФАКТОРЫ УВЕЛИЧЕНИЯ ОБЪЕМОВ ПРОДУКЦИИ**

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**Abstract:** *The goal is to study the current situation and prospects for the development of livestock farming in the Abay region, identify main problems and determine ways to solve them, aimed at stimulating and increasing the efficiency of the industry. Methods – to prepare the article, various economic research methods were used: abstract-logical, monographic, synthesis and analysis, comparative and statistical, systematic approach. Results - analysis of the state of livestock sector in this region in 2021-2023 was carried out based on comparison of indicators of the number of livestock of farm animals and poultry, production volumes, output per unit of livestock, use of resources, feed, pasture lands, and the size of attracted investments in fixed capital. The dynamics of the amount of processed livestock products is considered, main limiting factors are*

identified, and the possibilities of small and medium-sized business entities for growing the potential of processing industry are shown. *Conclusions* - main problematic issues of livestock farms in the region include: ineffective realization of potential due to insufficient access to innovative technologies, low level of developed infrastructure, risks of livestock diseases, lack of feed, lack of domestic large processing enterprises in the dairy industry, low utilization of their production capacities. An effective and efficient tool is proposed as measures to support small agricultural producers - government procurement of food products from small farmers in the region based on the division of large contracts into lots. This method is widely used in EU countries, which has allowed small-scale farmers to expand access to the national market, increase their incomes and contributed to the growth of employment in rural areas.

**Аңдатпа:** *Мақсаты* – Абай облысындағы мал шаруашылығының ағымдағы жағдайы мен даму перспективаларын зерделеу, негізгі мәселелерді анықтау және оларды шешу, саланың тиімділігін ынталандыруға және арттыруға бағытталған жолдарын айқындау. *Әдістері* – мақаланы дайындау үшін әртүрлі экономикалық зерттеу әдістері қолданылған: дерексіз-логикалық, монографиялық, синтез және талдау, салыстырмалы және статистикалық, жүйелік тәсілер. *Нәтижелері* – 2021-2023 жылдары осы өңірдің мал шаруашылығы секторының жай-күйіне, ауыл шаруашылығы малдары мен құс басы санының, өндіріс көлемінің, мал басының бірлігінен өнімнің шығуының, ресурстарды, жемшөпті, жайылымдық жерлерді пайдаланудың, негізгі капиталға тартылатын инвестициялар мөлшерінің көрсеткіштерін салыстыру негізінде талдау жүргізілген. Қайта өңделген мал шаруашылығы өнімдері санының серпіні қаралған, негізгі тежеуші факторлар белгіленген, қайта өңдеу өнеркәсібінің әлеуетін арттыру үшін шағын және орта шаруашылық субъектілерінің мүмкіндіктері көрсетілген. *Қорытындылар* – облыстың мал шаруашылығы бағытындағы шаруашылықтардың негізгі проблемалық мәселелеріне мыналар жатады: инновациялық технологияларға қолжетімділіктің жеткіліксіздігінен әлеуетті тиімсіз іске асыру, дамыған инфрақұрылымның төмен деңгейі, мал ауруының қаупі, жемшөптің жетіспеушілігі, сүт өнеркәсібінің отандық ірі қайта өңдеу кәсіпорындарының болмауы, олардың өндірістік қуаттарының жүктемесінің әлсіз дәрежесі. Шағын ауыл шаруашылығы өндірушілерін қолдау жөніндегі іс-шаралар ретінде тиімді және пәрменді құрал-ірі келісімшарттарды лоттарға бөлу негізінде өңірдің шағын фермерлерінен азық-түлік өнімдерін мемлекеттік сатып алу ұсынылады. Бұл әдіс ЕО елдерінде кеңінен қолданылады, бұл ұсақ тауарлы шаруашылықтарға ұлттық нарыққа қолжетімділікті кеңейтуге, олардың кірістерін арттыруға мүмкіндік берді және ауылдық жерлерде жұмыспен қамтудың өсуіне ықпал етеді.

**Аннотация:** *Цель* – изучение текущего положения и перспектив развития животноводства в области Абай, выявление основных проблем и определение путей их решения, направленных на стимулирование и повышение эффективности отрасли. *Методы* – для подготовки статьи применялись различные экономические методы исследования: абстрактно-логический, монографический, синтеза и анализа, сравнительный и статистический, системный подход. *Результаты* – проведен анализ состояния животноводческого сектора данного региона в 2021-2023гг. на основе сравнения показателей численности поголовья сельскохозяйственных животных и птицы, объемов производства, выхода продукции с единицы поголовья, использования ресурсов, кормов, пастбищных угодий, размеров привлекаемых инвестиций в основной капитал. Рассмотрена динамика количества переработанной животноводческой продукции, обозначены основные сдерживающие факторы, показаны возможности малых и средних хозяйствующих субъектов для роста потенциала перерабатывающей промышленности. *Выводы* – к основным проблемным вопросам хозяйств животноводческого направления области относятся: неэффективная реализация потенциала из-за недостаточного доступа к инновационным технологиям, низкий уровень развитой инфраструктуры, риски заболевания скота, нехватка кормов, отсутствие отечественных крупных перерабатывающих предприятий молочной промышленности, слабая степень загруженности их производственных мощностей. В качестве мероприятий по поддержке мелких сельхозпроизводителей предлагается эффективный и действенный инструмент – государственный закуп продуктов питания у мелких фермеров региона на основе разделения крупных контрактов на лоты. Данный метод широко используется в странах ЕС, который позволил мелкотоварным хозяйствам расширить доступ к национальному рынку, повысить их доходы и способствовал росту занятости в сельской местности.

**Key words:** livestock farming, cattle numbers, pastures, animal productivity, gross product, dairy industry, government support, investments.

Түйінді сөз: мал шаруашылығы, ірі қара мал басы, жайылымдық жерлер, ауыл шаруашылығы малдарының өнімділігі, жалпы өнім, сүт өнеркәсібі, мемлекеттік қолдау, инвестициялар.

**Ключевые слова:** животноводство, поголовье КРС, пастбищные угодья, продуктивность животных, валовой продукт, молочная промышленность, государственная поддержка, инвестиции.

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### Introduction

Livestock farming is one of the priority areas in the development of the country's agro-industrial complex. Kazakhstan has vast pastures and land resources, making it an ideal place for raising livestock and other animals. The livestock industry has a rich history and plays a significant role in the culture and economy of the country. Many people have experience and knowledge in this field, which can be used in the development of the industry.

In the structure of gross agricultural output of the Abay region, livestock products occupy more than 55%. Therefore, the development of efficient livestock production is also a priority in the regional economy. For many years, the territory of the Abay region was part of the EKR, therefore, due to the lack of sufficient funding, many problems arose in the industry. In recent years, as a result of gaining independence in 2022, the state has provided significant financial support to the economic development of the Abay region.

Thus, 15.2 billion tenge was allocated from the state budget to subsidize the agro-industrial complex, which was aimed at supporting two thousand producers in the agricultural sector. In 2023, the volume of attracted investments in the region's agriculture doubled and amounted to 78.5 billion tenge, while 18.1 billion tenge were allocated for the development of livestock farming (Bureau of National Statistics of the Agency for Strategic Planning...) [1].

There has been a positive trend in the growth of the livestock and poultry population in the region, productivity indicators are gradually improving, and the livestock production volume is increasing, so in 2023 the growth in the volume of livestock production averaged 3.5%. (Bureau of National Statistics of the Agency for Strategic Planning ...) [1].

However, much of Abai's livestock production comes from smallholder farmers, who are less efficient due to limited access to resources such as land, capital, technology and information, limiting their potential for growth and development. The high vulnerability of

smallholder farmers to various risks, such as climate change, livestock diseases, price fluctuations, etc., poses additional challenges to their sustainability and survival.

Therefore, the main problems in the development of livestock farming in the Abay region are inefficient use of resources due to insufficient qualifications and access to technology, lack of developed infrastructure, risks of livestock disease, competition for land between farmers and pasture users, lack of feed, etc.

The hypothesis – the use of effective government measures, based on the experience of Western European countries, to support small agricultural producers will stimulate agricultural development in the region.

In order to support small and medium-sized enterprises, including small farmers, it is proposed to divide government contracts into small lots, ensuring their wider participation in the government procurement market.

### Literature review

Studies of the current state of affairs and identifying main problems in the livestock industry development are of interest to many modern scientists, as they consider the solution of food security problems in each state.

Thus, the study of the experience of modern farm development is presented in the works of such foreign scientists as Smith J., Andersson G., Gourlay R. et al. [2] where analysis of production volume of organic products in European farms is presented, main trends of their development in the formation of sustainable agriculture are identified. The works of Nguyen T.N.L., Mitrofanova I.V. [3] present the main problems hindering the innovative farm development and propose solutions.

The works of such scientists as Doernberg A., Horn P., Zasada I. et al.; Dobrota E.M., Buftac M., Stanciu S. [4,5] are of particular interest, which also discuss tools for supporting small farms, including the use of public procurement, as well as the role of urban food system in the sustainable development of agricultural sector.

In the works of scientists such as Chirciu I.-A., Vlad I., Soare E. et al.; Bartkowski B., Schüller C., Müller B. [6, 7], the role of

households and small farms in production of livestock products is identified, current state of the industry is studied, main directions and prospects for its development is presented

Nasambaev E., Akhmetalieva A., Batyrgaliev E. et al. [8] explore issues of improving technology and technical re-equipment of beef farms for cattle breeding, offering innovative forms of farming A study of the state of meat processing industry in Kazakhstan is presented in the works of Turyzbekova G., Aitmuhanbetova D. [9] where the main problems and ways of solution are identified .

Research into the development of livestock farming is important for the science of Kazakhstan, as it helps to improve the economic situation of the country, ensure food security, improve the quality of life of the population, preserve the environment and stimulate the innovative development of the industry.

The study of livestock industry in the Abay region, which is newly formed, is of particular interest, therefore the research in this direction has been insignificantly studied due to the lack of statistical data.

#### **Materials and methods**

The article examines the current state of development of livestock farming in the Abay region, identifying the main problems and prospects. The analysis and assessment of the current state of development of the livestock industry in the Abay region was based on statistical data provided by the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, reports from the Department of Agriculture of the Abay region, as well as scientific works of domestic and foreign scientists in the area under study.

When writing the article, various research methods were used: abstract-logical, monographic, methods of synthesis and analysis, systematic approach, comparative and statistical methods. In scientific research, the abstract-logical method helped analyze data, formulate a hypothesis and draw conclusions based on logical inference. When identifying current trends in livestock farming in the region, methods of a systematic approach, comparison and statistical analysis, as well as methods of synthesis and analysis were used to identify the main characteristics of the industry, its advantages and disadvantages. Also, the monographic method of induction and deduction is used when carefully reviewing the literature.

Combining these methods made it possible to conduct a comprehensive analysis of

the development of the livestock industry in the Abay region and draw informed conclusions about its current state, identify the main problems and determine development prospects.

#### **Results**

The Abay region is the largest agro-industrial region in the Republic of Kazakhstan. In 2022, the region accounted for 5.2% of the country's total gross agricultural product.

The development of livestock farming in the Abay region is a priority for strengthening food security, economic growth and social development of the region and the country as a whole. Since the region has extensive grazing land suitable for livestock grazing, this sector is a key source of food for the population. Thus, in 2022, the region accounted for about 8% of the total republican volume of livestock production, ranking 4th in the country (Bureau of National Statistics of the Agency for Strategic Planning ...) [1].

According to the Department of Agriculture of the Abay region, in 2023 the volume of gross agricultural output amounted to 535.2 billion tenge, including crop production - 194.4 billion tenge or 36.3% of the total agricultural production of the region, livestock farming - 340.8 billion tenge or 63.7% (SER for 2023: 568,9 billion tenge of investments attracted) [10].

According to table 1, in 2023 gross agricultural production volume exceeded the level of 2021 by 24% and the level of 2022 by 13%. At the same time, increase in production volume is observed only in livestock production, while in crop production there is noticeable trend towards decrease and decline in production. In 2023, according to preliminary data, the volume of gross output in livestock production increased by 49% or 112.8 billion tenge and by 23.3% or 63 billion tenge, compared to 2021 and 2022, respectively. It should be noted that taking into account inflation, which in December 2022 amounted to 20.3%, actual growth in real production volume is much lower, so according to the Statistical Agency of the Republic of Kazakhstan, in 2022 the IPV of gross output as a percentage to 2021 was 98.5%, which indicates a decline in production by 1.5%. At the same time, in crop production the production volume decreased by almost 8%, in livestock production there was increase of 4.1% (Bureau of National Statistics of the Agency for Strategic Planning ...; SER for 2023: 568,9 billion tenge of investments attracted) [1, 10].

Table 1 – Trends in the dynamics of gross agricultural output in the Abay region

Year	Total for agriculture			Including					
				crop production			livestock production		
	billion tenge	in % to the previ- ous year	IPV in % to the cor- respond- ing period	billion tenge	in % to the previ- ous year	IPV in % to the cor- respond- ing period	billion tenge	in % to the previ- ous year	IPV in % to the cor- respond- ing period
2021	431.2	-		202.9	-		228.0	-	
2022	473.2	109.8	98.5	195.8	96.5	92.2	277.1	121.5	104.1
2023*	535.2	113.1	103.1	194.4	99.3		340.8	123.3	

Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]  
\* Preliminary data from the Department of Agriculture of the Abay region

Considering the fact that the Abay region was formed on June 8, 2022, we conducted an analysis based on data provided by the Agency of the Republic of Kazakhstan and regional agricultural department for the period from 2021-2023.

Thus, according to table 2, over the past three years, unstable trend has been noted in the Abay region, so in 2022 there is a noticeable increase in the number of livestock population, with the exception of pigs and poultry. The increase in the number of cattle population in 2022 compared to 2021 was 5%, sheep and goats - by 4.7%, horses - by 11.4%, the number of camels did not change and amounted to 0.4 thousand heads, while the number of birds decreased by almost 20%, and a slight decrease in the number of pigs by 1% was also noted.

When analyzing the number of livestock in 2023, a negative trend was noted: the number of cattle, sheep and goats, horses

decreased compared to 2021 by 3%, 4%, 1.3%, respectively, the number of pigs decreased by 2 times,

However, despite the reduction in the number of livestock population, in the region in 2023, as noted above, gross output of agricultural products increased by 23.3%, which is associated with the increase in productivity of farm animals.

According to table 2, productivity of livestock and poultry has increased, the average milk yield per 1 dairy cow has increased by 3.1%, the average live weight of one head of cattle slaughtered on the farm or sold for slaughter has increased by 2 kg (0.6%) , the average wool clip increased by 1 kg (4.8%), with the exception of the average egg yield per laying hen, which decreased by 12 eggs (6.2%). Overall, production of basic livestock products increased by an average of 3.5% (Bureau of National Statistics of the Agency for Strategic Planning ...) [1].

Table 2 - Main indicators of livestock production development in the Abay region for 2021-2023

Indices	Year			2023 in % to	
	2021	2022	2023	2021	2022
Number of livestock and birds, thousands of heads					
Cattle	682.1	716.8	696.6	102.1	97.1
Sheep and goats	1 080.9	1 131.5	1 086.4	100.5	96.0
Sheep	946.4	989.1	948.2	100.2	95.9
Goats	134.5	142.4	138.2	102.8	97.1
Pigs	11.2	11.1	6.1	54.5	55.0
Horses	292.5	325.8	321.7	110.0	98.7
Camels	0.4	0.4	0.5	125.0	125.0
Birds	1 633.9	1 335.3	1 115.3	68.3	83.5
Livestock and poultry productivity					
Average milk yield per dairy cow, kg	2 064	1 817	1 874	90.8	103.1
Average live weight of one head of cattle slaughtered on the farm or sold for slaughter	330	330	332	100,0	100.6
Average egg yield per laying hen, pcs.	186	195	183	98.4	93.8
Average wool clipped per sheep, kg	2.2	2.1	2.2	100.0	104.8

Production of basic livestock products					
Meat (live weight), thousand tons	173.0	183.4	186.4	107.7	101.6
Meat (slaughter weight), thousand tons	95.3	102.5	104.0	109.1	101.5
Milk, thousand tons	556.4	574.8	596.4	107.2	103.8
Eggs, million pieces	62.2	64.5	60.2	96.8	93.3
Sheep wool, tons	2 496.3	2 388.2	2 403.2	96.3	102.8

Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]

The growth in attracted investment volumes, as well as government support, had a positive impact on the activities of agricultural producers in the Abay region. As can be seen from the data in table 3, in 2023, the industry attracted 2 times more funds compared to 2022.

At the same time, the main source of investment is own funds of agricultural produ-

cers, which account for 68% in 2023 or 53.2 billion tenge, 77% in 2022 or 30 billion tenge, but in 2023 the share of own funds decreased by 9%, due to the increase in other borrowed funds. Also, the share of the industry in regional investment volumes in fixed capital increased from 9% to 14%, which also indicates positive changes in the industry (In 2023, agriculture in the Abay...) [11].

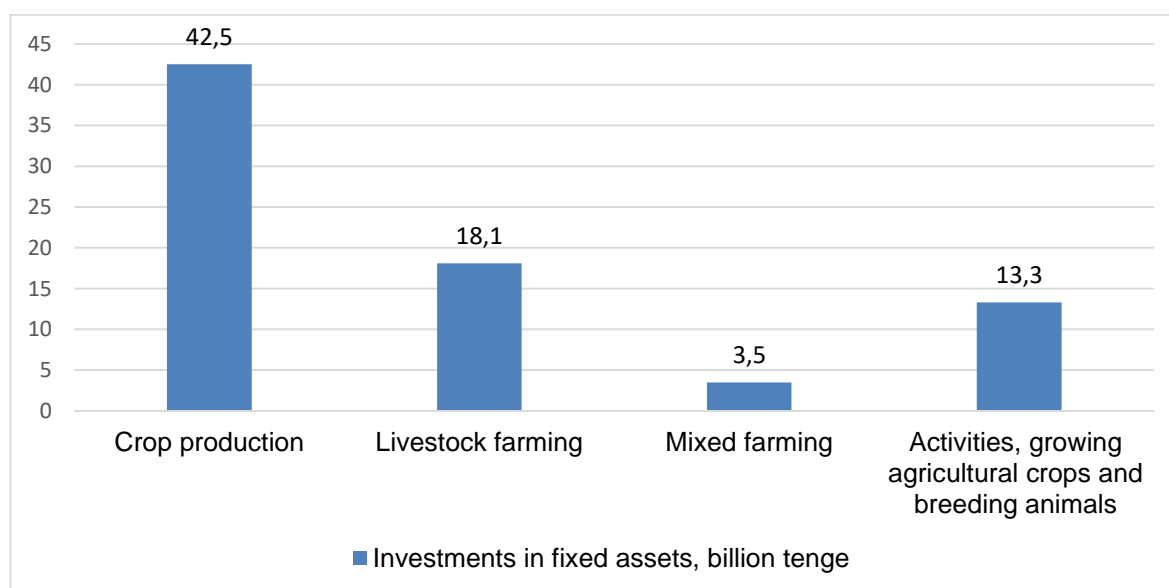
Table 3 – Investments in fixed capital of agriculture in the Abay region, million tenge

Year	Investments in fixed assets	In percentage to the previous year	Including			Share of the industry in the regional volume of investments in fixed assets, percentage
			own funds	bank loans, total	other borrowed funds, total	
2022	39 237.2	152	29 945.8	2 437.9	6 853.5	9
2023	78 502.3	194	53 204.2	1 881.3	23 416.8	14

Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]

According to figure 1, in 2023, 18.1 billion tenge were invested in livestock farming in the region, with the largest volume of investments in fixed capital directed to crop production - 42.5 billion tenge; funds were

also invested in mixed agriculture and in activities promoting development of livestock and crop production – 3.5 billion tenge and 13.3 billion tenge, respectively.



Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]

Figure 1 - Investments in agriculture in the Abay region by direction of use, 2023, billion tenge

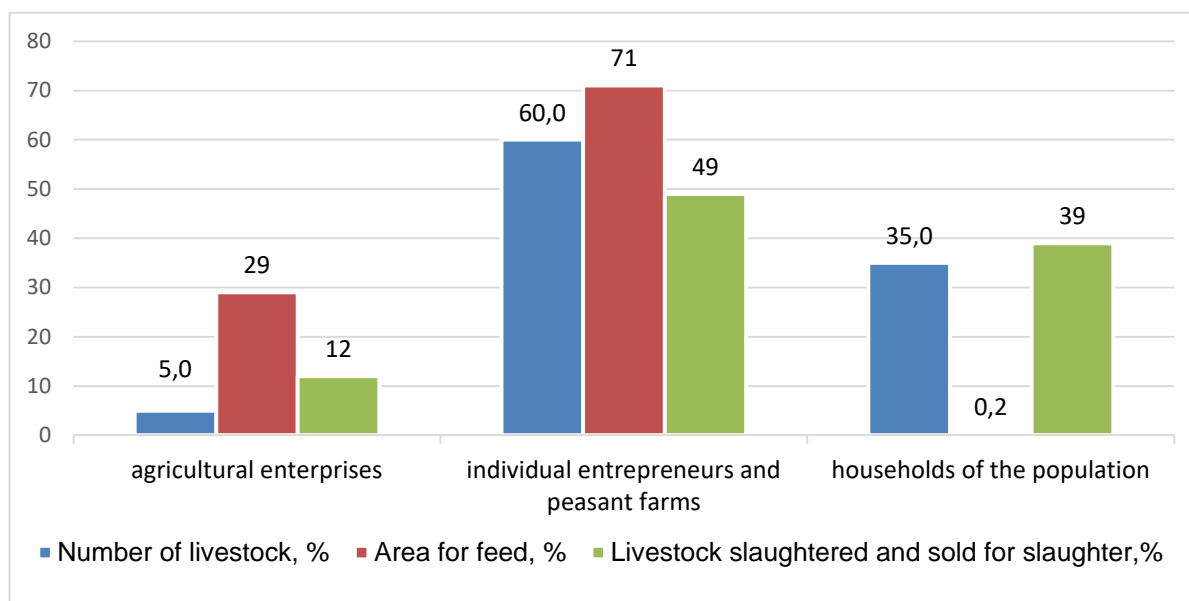
According to the Department of Agriculture of the Abay region, in 2023, 15.2 billion tenge was allocated from the state budget to subsidize agricultural sector, which was aimed at supporting two thousand producers in agricultural sector. Additional funds were also allocated from the state reserve funds to pay three thousand requests from commodity producers.

To improve livestock productivity, subsidies for breed conversion of the herd and development of livestock breeding are allocated, so in 2023 over 34% of the total cattle population or more than 100 thousand heads of cattle breeding stock took part in it. In order to implement the program for increasing the income of population of rural areas in 2022, second-tier banks approved 363 loans in the amount of 2 059 million tenge, aimed mainly at lending to livestock production, which was reflected in the growth of the number of livestock population compared to 2021. In 2023, funds were allocated from the local budget to subsidize feed cost reduction in the amount of 722.6 million tenge, as hay yields significantly decreased due to dry summer (In 2023, agriculture in the Abay...) [11].

However, despite the increase in funding and investment, there are enough problems in

livestock production development. Thus, one of the main factors in increasing productivity of farm animals is the availability of rich food supply, which is not available to all farmers.

According to the Agency's statistics in 2023 in the Abay region, in figure 2, main producers of livestock products were individual entrepreneurs and peasant farms, which accounted for 49% of all livestock slaughtered and sold for slaughter in the region, while having 71% of crop areas for fodder and 60% of the number of livestock population (cattle, small ruminants and horses) of the Abay region, followed by the households of population, which account for 39% of livestock products (meat), 35% of the number of livestock population, while there is practically no land used for cultivation of feed, while agricultural enterprises, having 5% of livestock population, slaughtered and sold for slaughter in live weight 12% of regional volume, having 29% of the area for fodder crops. As we see, households, being one of the main producers of livestock products, in these conditions, are capable of producing low-quality products (Bureau of National Statistics of the Agency for Strategic Planning ...) [1].



Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]

Figure 2 - Distribution of livestock numbers, livestock products volumes, areas for fodder crops by farm category, %

According to the Department of Agriculture of the Abay region, there is an acute problem of shortage of pasture land, since in such areas as Abay, Beskaragay, Borodulikha, Zharminsky, Kokpektinsky, Urdzhar-

sky districts and in the city of Semey, there is not enough pasture land for grazing milking livestock of residents. The size of the shortage of pasture lands in these settlements amounted to 553.5 thousand hectares, the



percentage of provision was 76%. While in agricultural enterprises there was an excess of pasture areas of 3.1 million hectares.

The state is faced with the task of increasing the efficiency of pasture land use and expanding the area for growing fodder crops. For this purpose, the Plan of return of unused lands to state ownership has been developed in the Abay region, so in 2023, 255 thousand hectares of land were returned to state ownership. In addition, the work is being carried out to expand the boundaries of settlements to increase public pasture areas (In the Abay region, the deficit of pastures...) [12].

In order to solve the problem of providing feed for farm animals, the number of feedlots is growing in the region. As of January 1, 2024, there are 39 feedlots in the Abay region, which are created on the basis of large and small farms. At the same time, 11 feedlots have industrial capacity of 22 thousand heads, with simultaneous maintenance of more than 1 000 bulls (Agriculture: report on farmland ...) [13].

However, due to the lack of large meat processing enterprises in the Abay region, the problem of selling of produced raw materials arose. Therefore, the workload of feedlots was 37.6%. There are only three enterprises in the region that produce sausages, and two of them have their own farms, which are their source of raw materials - this is the peasant

farm "E. Zaitenov", with capacity of 375 tons of products per year in the Borodulikha district and peasant farm "Kalikanuly", with capacity of 100 tons of products per year, in the city of Semey. At the same time, one of the largest enterprises in the region, "Arai-EAST FOOD" LLP, with capacity of 3.7 thousand tons of products per year, imports raw materials from Mongolia (Two meat processing plants will be...) [14].

So, according to table 4, in recent years in the Abay region the production volume of meat and dairy industries has been growing, in 2023 food production increased 2.8 times compared to 2021, but the share in regional industrial production volume decreased by 1.3%, production volume and processing of meat products also increased by 65%, the growth of dairy products by 2.5 times compared to 2021. However, in comparison with 2022, there was a decrease in production of meat and dairy processing industries (Bureau of National Statistics of the Agency for Strategic Planning ....) [1].

One of the reasons is the absence of large processing enterprises in local market and low capacity of utilization of dairy industry enterprises. There are 7 milk processing enterprises in the region, operating at only 50% capacity, with total design capacity of 18 thousand tons per year (Two meat processing plants will be...) [14].

Table 4 - Production volume of meat and dairy industry in the Abay region

Name	Volume of production, billion tenge			Share in regional volume of industrial production, %			2023 in % to	
	2021	2022	2023	2021	2022	2023	2021	2022
Industry	916 846.2	1 225 894	1 571 287.0	100.0	100.0	100.0	171.4	128.0
Processing industry	337 733.9	482 216.3	543 730.7	39.3	36.8	34.6	161.0	113.0
Food production	40 212.8	103 217.0	112 179.3	8.4	4.4	7.1	279	108.6
Processing and canning of meat and production of meat products	9 624.2	15 999.0	15 909.6	1.3	1.0	1.0	165.3	99.4
Production of vegetable and animal oils and fats	12 707.7	56 683.7	66 186.2	4.6	1.4	4.2	521.0	117.0
Dairy production	1 543.7	4 172.0	3 789.4	0.3	0.2	0.2	245.5	91.0

Note: compiled on the basis of data from the (Bureau of National Statistics of the Agency for Strategic Planning ...) [1]

In this regard, import of processed livestock products is growing annually, with low exports of own products; in 2023, sausages were imported into the region - 64 tons in amount of 100 thousand USD and canned

meat products 8 293.7 tons in the amount of 850 thousand USD, 500 tons of dairy products for 300 thousand dollars, fish products, animal fats, etc (Bureau of National Statistics of the Agency for Strategic Planning ....) [1].



Therefore, it is necessary to resolve the issue of providing the region with its own processing enterprises, which will solve the problem of food security, as well as increase employment and living standard of local population.

According to the Department of Agriculture of the Abay Region, in order to provide the population with food products, measures to increase production of livestock products and their processing are being undertaken. To achieve this, it is planned to launch two projects for the construction of meat processing plants in 2024. Thus, in the city of Semey, it is planned to build a meat processing plant, "Eurasia Agro Semey" LLP, with annual capacity of 12.6 thousand tons, and a meat canning plant, "Ykylas Invest" LLP, with capacity of 600 tons per year. The construction of meat processing plants is a great mechanism for solving this problem.

In addition, in order to ensure uninterrupted supply of raw materials to these plants, in the framework of cooperation with the above-mentioned feedlots, supply conditions have currently been signed between them. To ensure the load of processing enterprises with raw material, in 2024 it is planned to implement investment projects to expand dairy farm by 400 heads on the basis of the "Kalikanuly" private farm and "Ornek" LLP (Two meat processing plants will be...) [14].

As noted above, today the main producers of livestock products are small private farms, households with a weak material and technical base, lack of financial resources, which is reflected in the low level of productivity of farm animals and quality of products produced, therefore government measures to support small agricultural producers are required. We propose to consider such instrument as public procurement of food products from small farmers in the region; this method is widely used in the EU countries, which has allowed small agricultural producers to expand access to the national market, increase their incomes, contribute to employment growth in rural areas and improve nutrition quality.

### Discussion

According to published data from the European Commission, public procurement is a critical tool in stimulating economic growth and economic recovery in Europe, used in emergency situations such as the 2008-2009 financial crisis, as well as recession caused by COVID-19. For Kazakhstan, in the current critical conditions, to resolve post-flood destruction, this mechanism of supporting small agricultural producers, in our opinion, can also

be used (Modernisation of EAA - Measurement of the economic value...) [15].

In order to increase competition among suppliers, including small producers, and reduce barriers to their participation in government procurement, when purchasing products from small farmers, large government contracts are divided into lots. This is a practice in which a large contract for the purchase of goods or services is divided into several smaller parts called lots. The main advantages of the process of dividing large government contracts into lots:

- \* Increased accessibility for small and medium-sized enterprises: Dividing large contracts into lots makes participation in public procurement more accessible to small and medium-sized enterprises, including small farmers, since a smaller volume of supplies reduces the required amount of resources and investment to participate in the tender;

- \* reducing risks and increasing competition: Dividing contracts into lots reduces risks for suppliers, and also stimulates competition in the public procurement market, and also contributes to a more efficient use of public funds;

- \* increasing the variety of products and services: By dividing contracts into lots, government customers can receive a more diverse and high-quality goods and services, which allows them to select optimal solutions and meet the needs of different consumer groups;

- \* support for small and medium-sized enterprises: Dividing large contracts into lots helps support small and medium-sized enterprises, including small farmers, and helps them expand their presence in the public procurement market (Bartkowski B., Schüßler C., Müller B.) [7].

For example, in France, half of products purchased by the state to supply government agencies, schools, hospitals, etc. are organic and produced by local farmers. Thus, the state, supporting local agricultural producers, encourages them to produce environmentally friendly products, creating access to healthy food, contributing to the development of sustainable agriculture. According to Eurostat, in 2021, among European countries, France was the leader in the number of producers of organic products, their number reached 5,709 units, Poland is in 15th place among 32 countries, with 243 units (Modernisation of EAA - Measurement of the economic value...) [15].

The use of public procurement of food from small farmers, using the example of

Western European countries, has several key goals and advantages:

- support local farmers and rural areas: Government purchases of food from small farmers help support local agriculture and the economy. This helps preserve rural jobs, strengthens rural communities and helps preserve the rural character of the region;

- stimulating quality production: Government support for small farmers stimulates quality food production. Farmers, knowing that they have a market for their products, can confidently invest in improving production processes, the quality of animal feed and animal husbandry;

- food Safety: Government procurement of food from local farmers helps ensure food safety. Smallholder farmers are often more careful about the quality of their produce, which can reduce the risk of food crises and ensure access to fresh, quality food;

- social Justice and Environmental Sustainability: Government procurement of food from local farmers promotes social justice and environmental sustainability by supporting rural communities, reducing pollution, and supporting sustainable agricultural practices;

- development of regional markets: This mechanism to support small farmers contributes to the development of regional markets and increase their competitiveness, creating new opportunities for local producers and reducing dependence on imports.

Overall, leveraging public procurement of food from smallholder farmers helps support agriculture, ensure food security, develop regional markets, and promote environmental sustainability and social justice. Thus, Kazakhstan can use this tool to support small agricultural producers and farmers, while stimulating development of production of environmentally friendly products, using the experience of Western European countries, contributing to the development of sustainable agriculture in the country.

### Conclusion

1. In recent years, in the Abay region there has been an extensive development of livestock farming, associated with an increase in production due to an increase in the size of the herd, with low animal productivity, instead of increasing animal productivity through modern technologies and care methods.

2. Therefore, in the region, the main problems in the livestock industry are inefficient use of resources due to insufficient qualifications and access to technology, lack of developed infrastructure, risks of livestock disease,

competition for land between farmers and pasture users, lack of feed, etc.

3. The main producers of livestock products are small private farms, therefore government measures are required to support small agricultural producers. We propose to consider such tool as public procurement of food products from small farmers in the region; this method is widely used in the EU countries, which will allow small agricultural producers to expand access to the national market, increase their incomes, contribute to the employment growth in rural areas and improve nutrition quality.

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### References

1. Бюро национальной статистики Агентства по стратегическому планированию и реформам Республики Казахстан [Электронный ресурс]. – 2022.- URL: <https://www.stat.gov.kz> (дата обращения: 20.03.2024)
2. Smith, J. Balancing competing policy demands: the case of sustainable public sector food procurement// J. Smith, G.Andersson, R. Gourlay, S. Karner, B. E. Mikkelsen, R. Son- nino, D. Barling //Journal of Cleaner Production.- 2016.- Vol.112(1).- P.249–256. <https://doi.org/10.1016/j.jclepro.2015.07.065>
3. Nguyen, T.N.L. Updating the Approaches to Farms' Development in Vietnam: Institutional Aspect / T.N.L. Nguyen, I.V., Mitrofanova// Regional Economy. South of Russia.- 2022.- Vol. 10, N.3.-P. 67-77. <https://doi.org/10.15688/re.volsu.2022.3.7>
4. Doernberg, A. Urban food policies in German city regions: An overview of key players and policy instruments/ A. Doernberg, P. Horn, I., Zasada, A. Piorr// Food Policy.-2019.-No.89.- P.123-132 <https://doi.org/10.1016/j.foodpol.2019.101782>
5. Dobrota, E.M. The management of public procurement for sustainable agricultural products/ E.M. Dobrota, M. Bufteac, S. Stanciu //Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development.-2023.- No. 23 (2), -P.207-215.
6. Chiurciu, I.-A. Aspects Regarding the Activity of Agri-Food Cooperatives in Germany/

I.-A. Chiurciu, I. Vlad, E. Soare, E.Toma, A.-R. Firatoiu // Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development. -2022.- No.22 (2).-P.183–190.

7. Bartkowski, B. Typologies of European farmers: approaches, methods and research gaps// B. Bartkowski, C.Schüßler, B. Müller// Reg Environ Change. – 2022.-№ 22, -P.43-49. <https://doi.org/10.1007/S10113-022-01899-Y>

8. Насамбаев, Е. Совершенствование технологии и технического перевооружения мясных ферм по разведению крупного рогатого скота/ Е. Насамбаев, А. Ахметалиева, Е. Батыргалиев, С. Есенгалиева // Наука и образование.– 2019.- Т.1.4-№1(57).– С.117-123.

9. Турысбекова, Г. Развитие мясоперерабатывающей промышленности Республики Казахстан/ Г.Турысбекова, Д. Айтмуханбетова // Проблемы агрорынка. - 2020.- №1.- С.127-134.

10. СЭР за 2023 год: привлечено 568,9 млрд тенге инвестиций [Электронный ресурс].- 2024.- URL: <https://www.abaidan.kz/ru/categories/ekonomika/ser-za-2023-god-privlecheno-568-9-mlrd-tenge-investiciy-2024-01-19> (дата обращения:10.04.2024).

11. В 2023 году сельское хозяйство Абайской области увеличило производство более чем в два раза [Электронный ресурс].- 2024.- URL: <https://www.informburo.kz/special/v-2023-godu-selskoe-hozyaistvo-abaiskoi-oblasti-uvelicilo-proizvodstvo-bolee-chem-v-dvara-za/> (дата обращения:10.04.2024).

12. В области Абай дефицит пастбищ составляет более 553 тыс. гектар, возвращено в госсобственность почти 80 тыс. гектар [Электронный ресурс].- 2024.- URL: <https://www.dairynews.today/kz/news/v-oblasti-abay-defitsit-pastbishch-sostavlyayet-bol.html/> (дата обращения:10.04.2024).

13. Сельское хозяйство: отчет по сельхозугодьям области Абай, 2023 [Электронный ресурс].-2023.-URL: <https://www.gov.kz/memleket/entities/abay/activities/18418?lang=ru> (дата обращения:11.04.2024).

14. Два завода по переработке мяса введут в области Абай [Электронный ресурс].- 2023.- URL: <https://www.apk-news.kz/news/item-2006> (дата обращения: 11.04.2024).

15. Modernisation of EAA - Measurement of the economic value of public goods produced by the agricultural sector [Electronic resource]. – 2023.– Available at: <https://www.ec.europa.eu/eurostat/documents/7870049/16252570/KS-09-22-423-EN-N.pdf/e184e213-1528-e5ba-0688-134b2bf16ae3?version=1.0&t=1678711293782> (date of access:11.04.2024).

## References

1. Byuro nacional'noj statistiki Agentstva po strategicheskemu planirovaniyu i reformam Respubliki Kazahstan [Bureau of National Statis-

tics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan] (2022). Available at: <https://www.stat.gov.kz> (date of access: 20.03.2024) [in Russian].

2. Smith, J., Andersson, G., Gourlay, R., Karner, S., Mikkelsen, B. E., Sonnino, R., Barling, D. (2016). Balancing competing policy demands: the case of sustainable public sector food procurement. *Journal of Cleaner Production*, 112(1), 249–256. Available at: <https://doi.org/10.1016/j.jclepro.2015.07.065> [in English].

3. Nguyen, T.N.L., Mitrofanova, I.V. (2022). Updating the Approaches to Farms' Development in Vietnam: Institutional Aspect. *Regional Economy. South of Russia*, 10(3), 67-77. Available at: <https://doi.org/10.15688/re.volsu.2022.3.7>. [in English].

4. Doernberg, A., Horn, P., Zasada, I., Pi-orr, A. (2019). Urban food policies in German city regions: An overview of key players and policy instruments. *Food Policy*, 89, 123-132. Available at: <https://doi.org/10.1016/j.foodpol.2019.101782>. [in English].

5. Dobrota, E.M., Vufteac, M., Stanciu, S. (2023). The management of public procurement for sustainable agricultural products. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, 23 (2), 207-215 [in English].

6. Chiurciu, I.A., Vlad, I., Soare, E., Toma, E., Firatoiu, A.R. (2022). Aspects Regarding the Activity of Agri-Food Cooperatives in Germany. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, 22(2), 183–190 [in English].

7. Bartkowski, B., Schüßler, C., Müller, B. (2022). Typologies of European farmers: approaches, methods and research gaps. *Reg Environ Change*, 22, 43-49. Available at: <https://doi.org/10.1007/S10113-022-01899-Y> [in English].

8. Nasambaev, E., Ahmetaliyeva, A., Batyrgaliev, E., Esengaliyeva, S. (2019). Sovershenstvovanie tekhnologii i tekhnicheskogo perevooruzheniya myasnyh ferm po razvedeniyu krupnogo rogatogo skota [Improving technology and technical re-equipment of meat farms for breeding cattle]. *Nauka i obrazovanie - Science and education*, T.1.4, 1(57), 117-123 [in Russian].

9. Turysbekova, G., Ajtmuhanbetova, D. (2020). Razvitie myasopererabatyvayushchej promyshlennosti Respubliki Kazahstan [Development of the meat processing industry of the Republic of Kazakhstan]. *Problemy agrorynka - Problems of the AgriMarket*, 1, 127-134 [in Russian].

10. SER za 2023 god: privlecheno 568,9 mlrd tenge investiciy [SER for 2023: 568.9 billion tenge of investments attracted] (2024). Available at: <https://abaidan.kz/ru/categories/ekonomika/ser-za-2023-god-privlecheno-568-9-mlrd-tenge>

investiciy-2024-01-19 (date of access: 20.03.2024) [in Russian].

11. V 2023 godu sel'skoe hozyajstvo Abajskoj oblasti uvelichilo proizvodstvo bolee chem v dva raza [In 2023 agriculture in the Abay region more than doubled production] (2024). Available at: <https://informburo.kz/special/v-2023-godu-selskoe-hozyajstvo-abajskoi-oblasti-uvelichilo-proizvodstvo-bolee-chem-v-dva-raza/> (date of access: 10.04.2024) [in Russian].

12. V oblasti Abaj deficit pastbishch sostavlyayet bolee 553 tys. gektar, vozvra-shcheno v gosobstvennost' pochtі 80 tys. Gektar [In the Abay region, the deficit of pastures is more than 553 thousand hectares, almost 80 thousand hectares have been returned to state ownership] (2024). Available at: <https://dairynews.today/kz/news/v-oblasti-abay-defitsit-pastbishch-sostavlyayet-bol.html/> (date of access: 10.04.2024) [in Russian].

13. Sel'skoe hozyajstvo: otchet po sel'-hozugod'yam oblasti Abaj 2023. (2023). [Agriculture: report on farmland in the Abay region]. Available at: <https://www.gov.kz/memleket/entities/abay/activities/18418?lang=ru> (date of access: 11.04.2024) [in Russian].

14. Dva zavoda po pererabotke myasa vvedut v oblasti Abaj [Two meat processing plants will be commissioned in the Abay region] (2023). Available at: <https://apk-news.kz/news/item-2006> (date of access: 11.04.2024) [in Russian].

15. Modernisation of EAA - Measurement of the economic value of public goods produced by the agricultural sector (2023). Available at: <https://ec.europa.eu/eurostat/documents/7870049/16252570/KS-09-22-423-EN-N.pdf/e184e213-1528-e5ba-0688-134b2bf16ae3?version=1.0&t=1678711293782> (date of access: 11.04.2024) [in English].

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