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IMPACT OF THE STATE AUDIT ON THE DEVELOPMENT OF THE AGRO-INDUSTRIAL COMPLEX OF KAZAKHSTAN

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Abstract. Despite the positive growth dynamics in recent years, the agricultural sector still remains among the low-profitable sectors of the domestic economy, where many negative trends have not yet been overcome. Consequently, with the most effective use of the existing potential, the country's agro-industrial complex has the opportunity to achieve the necessary scale of agricultural production, which will solve the problems of food security, create additional jobs, take a leading position in the world market, as well as increase export potential. The purpose of the study is to develop, based on the study and application of methodological approaches, recommendations for conducting an audit of the effectiveness of the use of budgetary funds aimed at the development of agriculture. Research methods – abstract-logical, statistical, observation. Factor analysis, grouping method and tabular data visualization techniques were used as statistical tools. Results – evaluation criteria and calculations are proposed when conducting an audit of the effectiveness of the use of budgetary funds aimed at the development of the agro-industrial complex, as well as the development of the agro-industrial sector. Conclusions – with the help of the study, the strengths and opportunities, weaknesses and threats of the agro-industrial complex are shown, and according to the results, conceptual directions for the development of the agro-industrial complex of the Republic of Kazakhstan are determined.

Keywords: agro-industrial complex, agribusiness, national projects, competitiveness, state audit, financing, management, economy

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МЕМЛЕКЕТТІК АУДИТТІҢ ҚАЗАҚСТАН АГРОӨНЕРКӘСІПТІК КЕШЕНІН ДАМУЫНА ӘСЕРІ

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Аннотация. Соңғы жылдардағы оң өсу серпініне қарамастан, аграрлық сектор әлі де көптеген жағымсыз үрдістер еңсерілмеген отандық экономиканың рентабельді емес секторларының қатарында қалып отыр. Демек, қолда бар әлеуетті барынша тиімді пайдалану кезінде елдің АӨК-нің ауыл шаруашылығы өндірісінің қажетті ауқымына қол жеткізу мүмкіндігі бар, бұл азық-түлік қауіпсіздігі проблемаларын шешуге, қосымша жұмыс орындарын құруға, әлемдік нарықта көшбасшы позицияларды алуға, сондай-ақ экспорттық әлеуетті ұлғайтуға мүмкіндік береді. Зерттеуді жүргізудің мақсаты АӨК дамытуға бағытталған бюджет қаражатын пайдалану тиімділігіне аудит жүргізу бойынша ұсынымдарды зерттеу және әдістемелік тәсілдерді қолдану негізінде әзірлеу болып табылады. Зерттеу әдістері – дерексіз-логикалық, статистикалық, бақылаулар. Статистикалық құрал ретінде факторлық талдау, топтау әдісі және деректерді визуализациялаудың кестелік әдістері қолданылды. Нәтижелері – АӨК дамытуға, сондай-ақ АӨК саласын дамытуға бағытталған бюджет қаражатын пайдалану тиімділігіне аудит жүргізу кезінде бағалау критерийлері мен есептеулер ұсынылды. Қорытындылар – зерттеудің көмегімен АӨК-нің күшті жақтары мен мүмкіндіктері, әлсіз жақтары мен қауіптері көрсетіліп, нәтижелері бойынша Қазақстан Республикасының агроөнеркәсіптік кешенін дамытудың тұжырымдамалық бағыттары айқындалды.

Түйін сөздер: агроөнеркәсіптік кешен, агробизнес, ұлттық жобалар, бәсекеге қабілеттілік, мемлекеттік аудит, қаржыландыру, басқару, экономика

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ВЛИЯНИЕ ГОСУДАРСТВЕННОГО АУДИТА НА РАЗВИТИЕ АГРОПРОМЫШЛЕННОГО КОМПЛЕКСА КАЗАХСТАНА

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Аннотация. Несмотря на положительную динамику роста в последние годы аграрный сектор все еще остается в числе низкорентабельных секторов отечественной экономики, где до сих пор не преодолены многие негативные тенденции. Следовательно, при максимально эффективном использовании имеющегося потенциала, АПК страны имеет возможность достижения необходимых масштабов сельскохозяйственного производства, что позволит решить проблемы продовольственной безопасности, создать дополнительные рабочие места, занять на мировом рынке лидирующие позиции, а также увеличить экспортный потенциал. Целью проведения исследования является разработка на основе изучения и применения методологических подходов рекомендаций по проведению аудита эффективности использования бюджетных средств, направленных на развитие АПК. Методы исследования – абстрактно-логический, статистический, наблюдения. В качестве статистического инструментария использовались факторный анализ, метод группировок и табличные приемы визуализации данных. Результаты – предложены критерии оценки и расчеты при проведения аудита эффективности использования бюджетных средств, направленных на развитие АПК, а также развитие сферы АПК. Выводы – с помощью исследования показаны сильные стороны и возможности, слабые стороны и угрозы АПК, и по результатам определены концептуальные направления развития агропромышленного комплекса Республики Казахстан.

Ключевые слова: агропромышленный комплекс, агробизнес, национальные проекты, конкурентоспособность, государственный аудит, финансирование, управление, экономика

Introduction

As the Head of State K.K. Tokayev noted in his Address to the People of Kazakhstan dated September 2, 2019 «Constructive public dialogue is the basis of stability and prosperity of Kazakhstan», agriculture is the main resource and determining factor of economic stability of society, as well as the basic component of the agro-industrial complex (Address, 2019).

Accordingly, the economic potential concentrated in the agro-industrial complex of

the country has a direct impact on the state of food security of the state and the socio-economic situation in society (Semenova, 2015).

As the same time, the role of the agro-industrial complex is not limited only to ensuring the food security of the state, since its state and level of development has a significant impact on employment, the efficiency of national production, GDP growth, etc.

Consequently, in order to fulfill its role, the agro-industrial complex uses significant amounts of allocated budget funds for further development (Rykova et al., 2019).

In this regard, there is a need to determine the degree to which the agro-industrial complex fulfills its functional purpose within the framework of effective and efficient use of allocated budget funds intended to finance measures ensuring its development, as well as their use in accordance with the legislation of the country, which is carried out by the Supreme Audit Chamber of the Republic of Kazakhstan for performance audits.

Proceeding from this, in order to improve the methodology of auditing the effectiveness of the use of budgetary funds aimed at the development of the agro-industrial complex, it is necessary to conduct a study of methodological approaches to develop recommendations on the formation of audit topics, subject, criteria and issues of audit activities that take into account the peculiarities of the agro-industrial complex.

Materials and methods

The theoretical and methodological basis of the study was the works of leading foreign and domestic scientists, economists, revealing the patterns of development of the Institute of state audit, the specifics of conducting an audit of the effectiveness of the use of budgetary funds aimed at the development of agriculture, as well as the development of the agricultural sector.

In the course of the study, a comprehensive analysis was carried out, which gives both quantitative and qualitative characteristics of the development of the agro-industrial complex. The main research methods were: analytical and synthetic, statistical, computational and analytical research methods. As part of the analytical method of research, all the constituent elements of the economic and organizational foundations of the agro-industrial complex were analyzed separately.

The analytical method allowed to form a comprehensive vision of the current state of the agro-industrial complex of the Republic of Kazakhstan. Based on the applied methodology, a scientific justification was given for the current stage of the formation and development of the agro-industrial complex.

The tasks set in the article were solved by analyzing the structure and dynamics, methods of financial analysis.

For this purpose, data was collected from various sources, including statistical reports, financial reports and other relevant sources.

This approach made it possible to cover a variety of models and strategies for conducting performance audits in the agricultural sector.

Results and discussion

In many developed countries, the agro-industrial complex is a national priority and a strategically important direction of state policy, ensuring the country's food security (Semkin & Bykov, 2018). In countries with a developed agrarian economy, state support for agriculture is of paramount importance, which affects the state of the country's food security, as well as the possibilities of exporting their own agricultural products. At the same time, state support in these countries is carried out taking into account the preservation of the natural

environment, landscape and ecology, which are currently receiving considerable attention (Jung et al., 2023; Lei et al., 2022).

The methodology of the Organization for Economic Development and Cooperation is traditionally used to assess state support for the agricultural sector. Support for agriculture is defined as the annual monetary value of gross transfers to agriculture from consumers and taxpayers as a result of government policy supporting the industry, regardless of its goals and economic consequences (table 1), that is, the total support of the sector (TSE – Total Support Estimate) is the sum of three elements: support for producers (PSE – Producer Support Estimate); support provided to the agricultural sector of general services (GSSE – General Services Support Estimate); subsidies to consumers (IMF, 2018).

Table 1 - Agricultural policy measures taken into account by the OECD when assessing state support for agriculture

Indicator	Measure of state support
PSE (manufacturer support)	Market price support
	Payments based on production
	Payments based on the size of agricultural areas or the number of animals
	Payments based on historically established traditions
	Resource-based payments
	Payments based on limited production resources
	Payments based on total farm income
	Mixed payouts
GSSE (General Services Support)	Science and development
	Agricultural schools
	Inspection services
	Infrastructure
	Marketing and promotion
	State corporatization
CSE (Consumer Support)	Transfers from consumers to producers
	Other transfers from consumers
	Transfers from taxpayers to consumers
	Surcharges to the cost of feed
TSE (Aggregate Support)	Transfers from consumers
	Transfers from taxpayers
	Budget revenues
Note: compiled on the basis of (Semenova, 2015)	

The study of the experience of individual countries in conducting an audit of the effectiveness of state support allocated to the agro-industrial sector at the expense of public funds reflects that the basis for its implementation is the National Standards of Efficiency Audits developed on the basis of ISSAI Standards (Milojević et al., 2018).

The analysis of the system of building and conducting an audit of the effectiveness of the use of budgetary funds aimed at the development of agriculture in the studied countries reflects the conduct of thematic audits covering specific instruments of state support.

According to the competencies, the Supreme Audit Chamber of the Republic of Kazakhstan has the right to audit the effectiveness of the spheres and, in particular, the agro-industrial complex within the following powers (Law, 2015):

1) implementation of documents of the State Planning System of the Republic of Kazakhstan regarding the execution of the republican budget and the use of state assets, and on behalf of the President of the Republic of Kazakhstan also in other areas;

2) implementation of development strategies and development plans of national management holdings, national holdings, national companies of which the state is a shareholder;

3) the impact of the activities of quasi-public sector entities on the development of the economy or a particular branch of the economy, social and other spheres of public administration;

4) the use of related grants, budget investments, state and state-guaranteed loans, loans attracted under the guarantee of the state, and assets of the state;

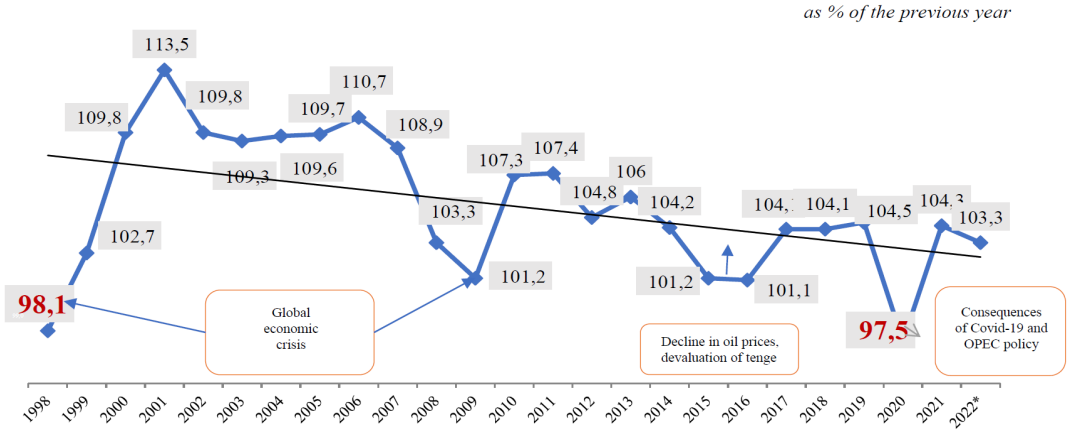
5) asset management of quasi-public sector entities.

Consequently, the audit of the effectiveness of the use of budgetary funds aimed at the development of the agro-industrial complex involves the analysis and evaluation of the activities of the objects of the agro-industrial complex by determining the indicators of efficiency, efficiency, productivity and effectiveness.

The mechanism of performance audit, including the agro-industrial complex, is carried out on the basis of the Rules of External state Audit and Financial Control (Rules, 2020).

First of all, each conducted audit of the effectiveness of state support for the agro-industrial sector considers the availability for consumers of state support (agribusiness entities) of information about the allocated support, the possibility of obtaining it, as well as the effectiveness of the tools used in providing assistance.

It should be noted that GDP growth was ensured in conditions when unprecedented changes in external and internal conditions were added to the post-crisis macroeconomic consequences management (Research, 2022). The dynamics of the GDP of the Republic of Kazakhstan is shown in Figure 1.

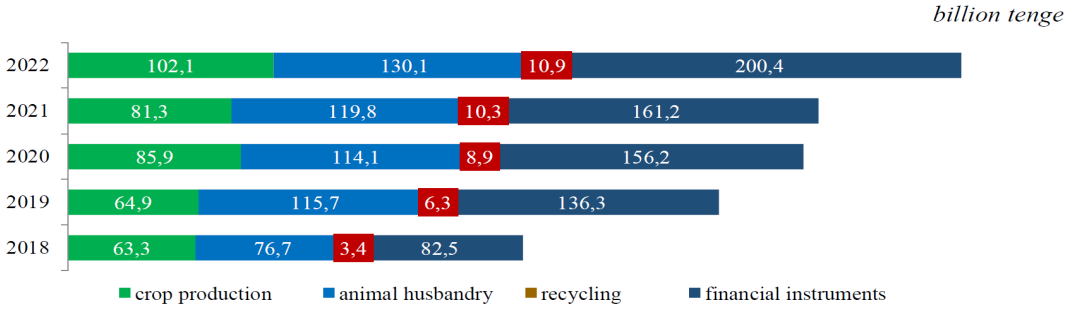


Note: compiled on the basis of (Bureau, 2023)

Figure 1 - Dynamics of the GDP volume index for 1998–2022

Along with global challenges, the national economy has also repeatedly experienced internal shocks (temporary interruptions in oil production, reduced production of coal, metal ores, etc.), which required additional monetary and fiscal efforts on the part of the Government and the National Bank of the Republic of Kazakhstan to overcome.

Over the past five years, about 1.8 trillion tenge has been allocated to subsidize the agricultural sector, including 259 billion tenge from the republican budget in 2022 (Conclusion, 2023).



Note - compiled on the basis of (Bureau, 2023)

Figure 2 - Dynamics of expenditures aimed at supporting agriculture in the areas for 2018-2022

About half (122.2 billion tenge, or 47.2 %) of the total volume of subsidies allocated from the republican budget in the form of targeted current transfers are aimed at reimbursing part of the expenses incurred by the subject of the agro-industrial complex during investment.

This type of subsidy is the most popular among agricultural producers. Thus, for 2022, 122.2 billion tenge has been allocated from the republican budget for the implementation of this budget program, which is 17 % more than in 2021. This made it possible to support 19,406 investment projects in 2022 with a plan of 18,992.

About a third (76.8 billion tenge or 30 %) of the total volume of subsidies allocated from the republican budget in the form of targeted current transfers are aimed at a similar direction – subsidizing interest rates for lending, as well as leasing for the purchase of farm animals, machinery and technological equipment.

The number of agribusiness entities participating in the program amounted to 18,275 units with a plan of 11,671 units.

Since 2018, the volume of financing has increased 4.7 times (1.4–1.6 times annually), and the number of agricultural entities participating in the program has increased from 9.9 thousand entities in 2018 to 18.3 thousand in 2022.

However, with the planned level of technological renewal up to 12.5 % per year, the rate of renewal of agricultural machinery is actually no more than 3.5 %.

At the same time, it seems advisable to revise the mechanism of subsidizing interest rates on loans and leasing with the development of a mechanism of preferential lending.

Since 2022, the concept of a “waiting list” has been introduced into the subsidy rules, which allows you to apply for subsidies in the absence of funding in the budget, which leads to an increase in the burden on the republican budget (from 16.1 billion tenge in 2018 to 76.8 billion tenge in 2022) and ultimately entails the risk of late payment of subsidies

SHTP.

At the same time, in fact, the budget funds allocated for subsidizing are not involved in the economy, but settle in STBs and financial institutions due to repayment of interest rates, which are currently expensive for agribusiness entities (on average 22 % per annum).

Budget lending will also make it possible to ensure the availability of preferential lending / leasing for agricultural enterprises, as well as the return of budget funds to the republican budget.

The allocated funds from the Republican budget for the implementation of the project amount to 1749.9 billion tenge, from the local budget – 953.5 billion tenge and extra–budgetary funds - 4100.0 billion tenge (Research report, 2022).

1) The assessment of the development of public funds is carried out by calculating the criterion K1 - the coefficient of development of public (and other) funds.

The degree of budget funds utilization for each period of the National Project implementation is calculated as the ratio of actually spent financial resources to those planned under the budget according to the formula:

$$\text{Disbursement of funds } (\text{SF}_i) = \frac{\text{Funds after the fact } (i)}{\text{Budget plan } (i)} \times 100 \quad (1)$$

where SF – sources of funding;

i Î [1;76] - index of measures of the National Project for the development of the agro-industrial complex of the Republic of Kazakhstan for 2021-2025.

The coefficient of adjustment of financial resources is estimated as follows:

• if the difference between the funds actually allocated from the budget compared to those planned for NP<0, then there has been a decrease in the amount of funding;

• if the difference between the funds actually allocated from the budget compared to those planned for NP=0, then the amount of funds actually allocated from the budget is equal to the planned amount for NP;

• if the difference between the funds actually allocated from the budget compared to the planned is NP>0, then there has been an excess of funding.

2) Evaluation of criterion K2 - Completeness of the implementation of tasks and achievement of indicators in the implementation of planned activities

Algorithm for calculating the criterion of completeness of implementation.

2.1) Calculated by the formula:

$$M_{ijk} = \Sigma M_{ijk}(\text{fact}) - \Sigma M_{ijk}(\text{plan}) \quad (2)$$

where the sum of the planned quantitative values of the event for the period of implementation of the national project;

- the sum of the actual quantitative values of the event for the implementation period;

i Î [1;4] - task index;

j Î [1;6] - index of the indicator;

k Î [1;76] - index of NP activities for the development of the agro-industrial complex of the Republic of Kazakhstan for 2021–2025.

If , then it is assigned the value 1;

if , then it is assigned the value 0.

2.2) The value of completeness of achievement of indicators for each task is calculated according to the formula:

$$\Pi_{ij} = \frac{\Sigma Mijk(fact)}{N_{ij}} \quad (3)$$

where the amount of completed planned activities over five years, ;

- the total number of all planned/actual activities for the j-th indicator.

2.3) The value of completeness of implementation for each task is calculated according to the formula:

$$Task_i = \frac{\Sigma \Pi ij}{N_{ij}} \quad (4)$$

2.4) The coefficient of completeness of the implementation of tasks and achievement of indicators of the National Project is calculated according to the formula:

$$K_2 = \frac{\Sigma Task_i}{N_i} \quad (5)$$

where - the total number of indicators of the tasks of the National Project for the development of the agro-industrial complex of the Republic of Kazakhstan for 2021–2025.

If during the implementation of the national project:

-all the activities have been completed and the planned indicators have been achieved, then R = 1;

-all measures have been completed, but the planned indicators have not been fully achieved (if more than 70 % is reached), then R = 0.9;

-all measures have been completed, but the planned indicators have not been fully achieved (if less than 70 % is reached), then R = 0.8;

-not all measures have been completed, but the planned indicators have been fully achieved for them, then R = 0.7;

-not all measures have been completed and the planned indicators have not been fully achieved (if more than 50 % is reached), then R = 0.6;

-not all measures have been completed and the planned indicators have not been fully achieved (if less than 50 % is reached), then R = 0.3;

-not all activities have been completed and the planned indicators have not been achieved, then R = 0.

According to the results of the assessment, the degree of effectiveness of the implementation of the national project is determined with the following conclusions:

-from 90–100 % - the effectiveness of the implementation of the national project is high;

-from 70 % to 90 % - insufficient effectiveness of the implementation of the national project (average);

-below 70 % – the effectiveness of the implementation of the national project is low.

3) Assessment by criterion K3 - the expected socio-economic effect and benefit for the beneficiaries from the implementation of the national project.

The coefficient of socio-economic effect K3 is the achievement of the actual target indicators of the National Project in comparison with the forecast ones.

This integral criterion is carried out by calculating the K3 index – The coefficient of the economic, social and budgetary effect of the use of state and other financial resources is calculated as the average value of three sub-coefficients:

K31 - Coefficient of economic efficiency of the use of financial resources;

K32 - Coefficient of social efficiency of the use of financial resources;

K 33 is the coefficient of budgetary efficiency of the use of financial resources.

Each of these coefficients is calculated by the formula:

$$\text{Effectivness} = \frac{\text{Result}}{\text{Expenses}} \quad (6)$$

4) Evaluation by criterion K4 - The effectiveness of the implementation of the tasks of the National Project.

Audit issue:

Is there any effectiveness from the implementation of the National Project on the state of the economy and meeting the needs of society, taking into account the amount of resources allocated for this?

Simply put, efficiency is the co–measurement of costs and results.

We find the ratio of the actual efficiency value to the planned value according to the formula:

$$EF_i = EF_i(\text{fact})/EF_i\ (\text{plan}) \quad (7)$$

where - planned efficiency of the i-th quantitative values of efficiency for each year;

- the actual effectiveness of the i-th quantitative values of efficiency for each year.

The total indicator is calculated according to the formula:

$$CEF = \sum_{i=1}^{n} w_i \cdot CEF_i \quad (8)$$

where – i-th partial efficiency coefficient;

- i-th weighting factor' determining the degree of importance of a particular efficiency coefficient;

n – number of factors.

5) Assessment of the projected result of the completed activities, taking into account budget adjustments.

The cost of a unit of the result of the event is calculated according to the NP plan, then the forecast of the result, taking into account budget adjustments.

6) For the NP on the development of the agro-industrial complex of the Republic of Kazakhstan for 2021–2025, an assessment is determined according to the criterion K5 - Assessment of food security of the Republic of Kazakhstan.

Audit issue: Have the indicators of food security of the Republic of Kazakhstan been achieved?

This criterion is carried out by calculating the index of physical, financial, economic accessibility and self-sufficiency in food products. The self-sufficiency coefficients in the i-th food product are found by the formula:

$$K_{(\text{self-sufficiency})i} = \frac{\text{Production of products}_i}{AVC_i + PC_i + \text{Losses}_i} \quad (9)$$

where - self-sufficiency coefficient in the i-th food product;

- the actual volume of consumption of the i-th food product;

- production consumption of the I-th food product;

- losses of the i-th food product.

Table 2 provides criteria for assessing the level of food independence or self-sufficiency in a food product:

Table 2 - Criteria for assessing the level of physical accessibility of food

Criterias	Indicator level			
	High	Medium	Low	Critical
Food self-sufficiency coefficient	0,91–1,00	0,75–0,9	0,50–0,74	Below 0,50
Export and import ratio	0,91–1,00	0,75–0,9	0,30–0,75	Below 0,30

The coefficient of dependence on food imports is determined by the formula:

$$K_{(эи)i} = \frac{CEFT_i}{CIFT_i} \quad (10)$$

where - the coefficient of export and import of the i-th food product;

- the cost of exporting the I-th food product;

- the cost of importing the I-th food product.

It is recommended to include in the assessment such international indicators as the Global Food Security Index of the Republic of Kazakhstan GFS by FAO and the Level of moderate or acute food insecurity of the population (according to the «Food Insecurity Perception Scale»).

When developing the National Project for the development of the agro-industrial complex for 2021–2025, global challenges and global trends in the development of the agro-industrial complex, the results of the implementation of previous state and industry programs were taken into account.

In accordance with the instructions of the Head of State, as a result of the project, it is necessary to increase labor productivity by 2.5 times, provide the country with basic food products of domestic production, increase the export of agricultural products by 2 times, bringing the share of processed products to 70 %, and also increase the incomes of 1 million rural residents due to the formation of 7 large ecosystems and implementation of investment projects.

Import substitution issues will be comprehensively addressed to ensure the domestic market (the Ministry has identified the most imported items – poultry meat, sausages, cheeses and cottage cheese, apples, sugar and fish).

To date, specific investment projects have been identified and are being implemented in each of these areas. As a result, by 2024, the security for these types of products, with the exception of sugar, will be 100 %, and for sugar – 80 %.

The priority of the National Project will be the formation of 7 ecosystems around large investment projects, including the production and processing of meat, fruits, vegetables, sugar, cereals, oilseeds, dairy products. This will involve at least 350 thousand farmers and households who will be able to participate in the creation of the final Kazakh products with high added value.

According to experts, the task of ensuring food security is not solved by the methods provided for in National Projects.

The correctness of this conclusion is confirmed by the fact that Kazakhstan already in July 2022 became the champion in the growth of prices for food products among the EAEU countries. On average, prices in the economic bloc increased by 17.1 % from July 2021 to July 2022, and by at least 19.7 % in Kazakhstan.

The main reasons are the inefficiency of state support tools, low production rates, as well as the gap between science and industry in the agricultural sphere, an unsettled storage system for agricultural goods.

Factors negatively affecting the development of the agro-industrial complex are the underdevelopment of agricultural and tractor engineering, the abundance of small agricultural formations in agricultural production, low marketability of the livestock industry. At the same time, relatively low productivity, a large concentration of production in personal subsidiary farms, a high level of depreciation of the active part of the main industrial and production assets of the food and processing industry eventually lead to an increase in the cost of finished products and their lack of competitiveness in the market.

Conclusion

1. The Republic of Kazakhstan has a huge potential in the development of agriculture, despite the positive growth dynamics in recent years, the agricultural sector still remains among the low-profitable sectors of the domestic economy, where many negative trends have not yet been overcome. If in the 90s the agro–industrial complex of Kazakhstan provided almost a third of GDP (29.5 %), today the share of this industry is only 5 % of GDP (Monitoring, 2021). Consequently, with the most effective use of the existing potential, the country's agro-industrial complex has the opportunity to achieve the necessary scale of agricultural production, which will solve the problems of food security, create additional jobs, take a leading position in the world market, as well as increase export potential.

In order to implement long-term strategic goals and objectives for the development of agriculture in the country, program documents are being implemented, including the National Development Plan of the Republic of Kazakhstan until 2025, and a National project has been developed that will serve as the basis for the implementation of state policy in this area.

2. The study of experience in conducting an audit of the effectiveness of state support allocated to the agro-industrial sector at the expense of public funds reflects that the basis for its implementation are the National Standards of Performance Audits (Guidelines) developed on the basis of ISSAI Standards.

3. First of all, each audit of the effectiveness of state support for the agro-industrial sector considers the availability for consumers of state support (agribusiness entities) of information about the allocated support, the possibility of obtaining it, as well as the effectiveness of the tools used in providing assistance.

4. Audit of the effectiveness of the impact of agriculture on the standard of living in the regions and indicators of other industries.

5. The result of the performance audit should be to gain confidence that activities in this area are carried out in accordance with legislation and strategic documents, as well as in ensuring economical, efficient and effective implementation of program documents in the field of diversified development of the national economy.

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ЭКОНОМИКА

СОДЕРЖАНИЕ

ПЕДАГОГИКА

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CONTENTS

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