

**PUBLIC-PRIVATE PARTNERSHIP IN THE AGRARIAN SECTOR
AS A FACTOR IN ENSURING FOOD SECURITY**

**АГРАРЛЫҚ САЛАДАҒЫ МЕМЛЕКЕТТІК-ЖЕКЕШЕЛІК ӘРІПТЕСТІК –
АЗЫҚ-ТУЛІК ҚАУІПСІЗДІГІН ҚАМТАМАСЫЗ ЕТУ ФАКТОРЫ**

**ГОСУДАРСТВЕННО-ЧАСТНОЕ ПАРТНЕРСТВО В АГРАРНОЙ СФЕРЕ –
ФАКТОР ОБЕСПЕЧЕНИЯ ПРОДОВОЛЬСТВЕННОЙ БЕЗОПАСНОСТИ**

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Abstract. The purpose is to determine theoretical and methodological approaches to creating mechanisms of public-private partnership (PPP) in agriculture. **Methods** — statistical-economic methods to study joint initiatives of the state and agribusiness that enable the public and private sectors, on mutually beneficial terms, to expand the resource base and channel unused funds toward stable development. Logical generalization of state-investment cooperation includes key characteristics: joint activities with differentiated risk allocation, long-term orientation, coordinated project management by society and entrepreneurs, and a focus on improving social infrastructure. **Results** — state support for the AIC contributes to increasing the competitiveness of agro-industrial production, providing additional resources that generate demand for profitable enterprises and enhance the sector's attractiveness for credit and investment institutions. The transition to innovative transformation and economic modernization presupposes an active search for instruments to stimulate investment activity of private funds while maintaining an optimal balance between national interests and business structures. **Conclusions** — considering that the agrarian sector demonstrates optimistic indicators, attention should be focused on the advantages of PPP, which drive increased profitability of agricultural entities, saturation of the domestic market with high-quality and affordable food products, realization of the republic's export potential, and growth of tax revenues. Improvement of the institutional, legal, and organizational environment of public-private partnership is required, along with professional training of management personnel and the development of PPP start-ups in the agro-industrial complex for offering them to potential domestic and foreign investors. The presence of such an alliance in the agrarian economy represents a new stage of its renewal, signifying the implementation of neo-industrialization and the development of promising technologies and other productions constituting the core of a new technological paradigm.

Аннатпа. *Мақсаты* – ауыл шаруашылығында мемлекеттік-жекешелік әріптестік (МЖӘ) тетіктерін құрудың теориялық және әдіснамалық тәсілдерін айқындау. *Әдістер*-мемлекеттік және жеке секторларға өзара тиімді шарттарда ресурстық базаны ұлғайтуға және пайдаланылмаған қаражатты тұрақты дамуға бағыттауға мүмкіндік беретін мемлекет пен агробизнестің бірлескен бастамаларын зерделеу үшін статистикалық-экономикалық. Мемлекеттік-инвестициялық ынтымақтастықты логикалық жалпылау негізгі сипаттамаларды қамтиды: тәуекелдерді саралаумен бірлескен қызмет, ұзақ мерзімділік, қоғам мен кәсіпкерлердің жобаларын үйлестірілген басқару, әлеуметтік инфрақұрылымды жақсартуға бағытталған. *Нәтижелер* - АӘК мемлекеттік көмегі агроөнеркесіптік өндірістің бәсекеге қабілеттілігінің өсуіне, рентабельді кәсіпорындарға сұранысты қалыптастыратын, кредиттік, инвестициялық институттар үшін саланың тартымдылығын арттыратын қосымша ресурстармен қамтамасыз етуге ықпал етеді. Инновациялық трансформацияға көшу және экономиканы жаңғырту ел мүдделері мен бизнес-құрылымдардың оңтайлы тәңгерімі кезінде жеке қорлардың инвестициялық белсенділігін ынталандыру құралдарын белсенді іздестіруді көздейді. *Қорытындылар* - аграрлық сектор оптимистік көрсеткіштерді көрсететінін ескере отырып, агрокұрылымдардың кірістілігінің артуына, ішкі нарықты сапалы және қолжетімді азық-түлікпен қанықтыруға, республиканың экспорттық әлеуетін іске асыруға, салық түсімдерінің көлемін ұлғайтуға негіз болатын МЖӘ артықшылықтарына назар аударған жән. Мемлекеттік-жекешелік әріптестіктің институционалдық, құқықтық және ұйымдастырушылық ортасын жетілдіру, басқару буынын кәсіби даярлауды жүзеге асыру, олардың әлеуетті отандық және шетелдік инвесторларға ұсыныстары үшін агроөнеркесіптік кешенде МЖӘ-стартаптарын әзірлеу қажет. Аграрлық экономикада осындаі альянстың болуы-оны жаңартудың жаңа кезеңі, ол неоиндустриализацияны жүзеге асыруды, перспективалық технологияларды және жаңа технологиялық құрылымның ядронының басқа да өндірістерін игеруді білдіреді.

Аннотация. Цель – определение теоретических и методологических подходов к созданию механизмов государственно-частного партнерства (ГЧП) в сельском хозяйстве. **Методы** – статистико-экономический для изучения совместных инициатив государства и агробизнеса, позволяющих на взаимовыгодных условиях государственному и частному секторам увеличивать ресурсную базу и направлять неиспользованные средства на стабильное развитие. Логическое обобщение государственно-инвестиционного сотрудничества включает ключевые характеристики: совместная деятельность с дифференциацией рисков, долгосрочность, координированное управление проектами общества и предпринимателей, направленность на улучшение социальной инфраструктуры. **Результаты** – государственная помощь АПК способствует росту конкурентоспособности агропромышленного производства, обеспечению дополнительными ресурсами, формирующими спрос на рентабельные предприятия, повышающими привлекательность отрасли для кредитных, инвестиционных институтов. Переход к инновационной трансформации и модернизация экономики предусматривают активный поиск инструментов стимулирования инвестиционной активности частных фондов при оптимальном балансе интересов страны и бизнес-структур. **Выводы** – учитывая, что аграрный сектор демонстрирует оптимистичные показатели, следует акцентировать внимание на преимущества ГЧП, обуславливающих возрастание доходности агроформирований, насыщение внутреннего рынка качественными и доступными продуктами питания, реализацию экспортного потенциала республики, наращивание объемов налоговых поступлений. Необходимы совершенствование институциональной, правовой и организационной среды государственно-частного партнерства, осуществление профессиональной подготовки управленческого звена, разработка ГЧП-стартапов в агропромышленном комплексе для предложений их потенциальным отечественным и зарубежным инвесторам. Наличие такого альянса в аграрной экономике – это новая стадия ее обновления, означающая осуществление неоиндустриализации, освоение перспективных технологий и других производств ядра нового технологического уклада.

Keywords: agrarian sector, public-private partnership, innovative and investment activity, growth in production profitability, market saturation with food products, food security.

Түйінді сөздер: аграрлық сектор, мемлекеттік жекешелік әріптестік, инновациялық және инвестициялық белсенділік, өндіріс кірістілігінің өсуі, нарықты азық-түлікпен қанықтыру, азық-түлік қауіпсіздігі.

Ключевые слова: аграрный сектор, государственно-частное партнерство, инновационная и инвестиционная активность, рост доходности производства, насыщение рынка продуктами питания, продовольственная безопасность.

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Introduction

The transition to a sustainable development path for various industries and sectors of Kazakhstan's economy requires the search for and use of new, more effective forms of production and economic activity. Given the complexity of the current socio-economic conditions, agriculture and the grain product sub-complex of the agro-industrial complex are becoming one of the most sought-after sectors of the national economy. In this regard, the priority direction of national policy is to not only prevent a decline in various sectors of the agricultural sector, but also to ensure an increase in production volumes both to fully meet domestic demand and to increase exports. This approach requires the combined efforts of all actors in the agro-industrial complex, coordination of activities, and a focus on achieving high end results.

One way to solve the problem of using new, more effective forms of production and economic activity is to integrate commodity producers, allowing all links in the reproduction cycle to be combined into a single complex in the technological chain "production of raw materials - release of finished products." A study of domestic and foreign experience shows that integrated entities formed on the basis of public-private partnership principles achieve high levels of efficiency and competitiveness.

Despite the fairly widespread network of such associations, including in many regions of the Republic of Kazakhstan, a number of methodological issues remain unresolved with regard to their wide variety of organizational and legal forms, membership, types of activities, and forms of ownership. Therefore, it is important to further improve the institutional environment and legal mechanisms that ensure the transparency, stability, and long-term effectiveness of cooperation between the state and business in the agricultural sector.

The modernization of the economy has been identified by government bodies as a strategic goal, with the agro-industrial complex defined as one of the main areas of modernization. Global experience shows that without public-private partnerships, it is impossible to develop and effectively operate a modern national innovation system that ensures comprehensive modernization in all sectors of agriculture. The existing mechanism of public-private partnership in the implementation of targeted sectoral programs does not ensure the systematic implementation of innovation processes in all areas and is characterized only by local changes in individual sectors in a small part of the territory.

Literature Review

In recent years, issues related to the development of public-private partnerships in Kazakhstan's agro-industrial complex have been given great importance in scientific literature.

The experience of PPPs in Kazakhstan and modern approaches to work are considered (Tireuov K., Mizanbekova S., Aitmukhanbetova D.) [1]. In theoretical and practical terms, the organization of public-private partnerships in the agricultural sector of the Republic of Kazakhstan is widely covered in the works of domestic scientists (Konuspaev R.K., Demesinov T.Zh., Taipov T.A.; Zhilkibayeva M.A.) [2,3].

Mataev T.M. examines PPPs in the form of concessions, which create significant added value in the country's development; concessions solve state tasks using private capital. The effectiveness of concessions in solving state tasks is determined by the presence of long-term interests in business, and ways to increase the effectiveness of concession projects are proposed.

The theoretical and practical foundations of interaction between the state and business structures have been developed in the works (Yescombe E.R., Farquharson E.) [4]. The collective work by Gershman M.A., Brambila Martinez F.H., Bredikhin S.V. et al. [5] highlights issues of scientific and technical policy: global trends and practices; Merzlov I.Yu. [6] monograph examines PPPs in the European Union: experience and future trends.

As a result of the efforts of scientists and specialists, the scope of research areas and mechanisms has expanded: the work "Public-private partnership and prospects for its development in Belarus" defines PPP as a long-term cooperation between the state and business for the implementation of socially significant projects (Gokhberg L., Meissner D., Shmatko N.) [7].

The studies by Agazaryan N. [8] present an analysis of global experience in the application of PPP mechanisms, while Kochetkova S.A. [9] examines the organizational and legal mechanisms in the region.

A study by Hodge G.A., Greve C., Boardman A.E. [10] examines the experience of implementing PPP mechanisms in agri-food chains to improve food security. World Bank [11] and FAO&World Bank [12] provide an overview of international experience in the use of PPPs in agriculture. Narrod C., Tiongco M [13] study PPP mechanisms in agri-food chains to improve food security. International Fund for Agricultural... [14] determined that the interaction between the state and business affects agricultural development and food security.

European Commission... [15] focus on PPPs as a mechanism for the transition to a “green” and bioeconomy in the EU agricultural sector.

Materials and methods

The theoretical and methodological basis of the study was provided by the works of domestic and foreign scientists – founders of economic science on the problems of public-private partnership. The article uses statistical data provided by the Ministry of Agriculture of the Republic of Kazakhstan and the results of reports by «Kazakhstan Public-Private Partnership Center» JSC.

The use of statistical and systematic research methods makes it possible to identify patterns in the development of PPPs in the agro-industrial complex. The scientific and socio-economic significance lies in substantiating the theoretical and methodological foundations of PPPs in the grain product subcomplex to ensure food security. Coordination of the interests of the state and business plays a key role in such partnerships. The development prospects are determined by the methods, principles, and instruments of PPPs, which combine public and private competencies in joint projects. This approach allows the government to address financing challenges while enabling private businesses to invest and obtain a guaranteed return.

The analysis shows that applying statistical and systematic approaches provides a comprehensive understanding of the state of PPPs. The introduction of modern technologies and improved financial accessibility will ensure sustainable sector growth, requiring further study of mechanisms to enhance investment attractiveness and the effectiveness of state support.

Results

The development of models and mechanisms for public-private partnerships in the modernization of agricultural sectors, the selection of methods and tools that contribute to strengthening the receptivity of agribusiness to innovative development, allowing for the fullest possible use of the positive impact of external and internal factors to harmonize the interests of the state, entrepreneurs, and investors, and increasing the efficiency and competitiveness of manufactured products requires appropriate theoretical, methodological, and technical support, taking into account the specifics of production in each industry.

Practical experience shows that, despite the intensification of integration processes in the context of public-private partnerships, there are instances of inefficient functioning and the collapse of a number of such formations. This is largely due to the fact that, under the new economic conditions, the traditional mechanism of public-private partnership in Kazakh-

stan's grain sub-sector does not allow for the systematic implementation of large-scale innovative processes, limiting itself to insignificant (local changes).

For the successful implementation of public-private partnership projects in the grain product subcomplex, it is necessary to conduct an in-depth study, summarise and systematise the experience of using this mechanism by both domestic and foreign companies that have achieved high results in this area. At present, public-private partnerships remain in the early stages of development, which is largely due to the specific high-risk characteristics of the grain product subcomplex industries.

These circumstances underscore the importance of a detailed analysis of the methods and instruments of mechanisms for increasing the competitiveness of enterprises and organizations in the domestic grain product subcomplex, primarily through targeted investment in production.

In order to develop guidelines and recommendations for effective interaction between private business and the state in today's complex economic conditions and interregional and international relations, a new methodological approach is needed to ensure a higher quality of interaction between government and business.

State aid to agriculture leads to increased competitiveness in the agricultural sector and the emergence of additional resources that create a corresponding share of demand for factors of production and increase the attractiveness of the industry for credit, investment, and other institutions. The transition to innovative development and modernization of the economy requires an active search for tools to stimulate the innovative and investment activity of private funds while ensuring the most effective balance of interests between the state and business structures. The mechanism of public-private partnership (PPP) is used as such a tool.

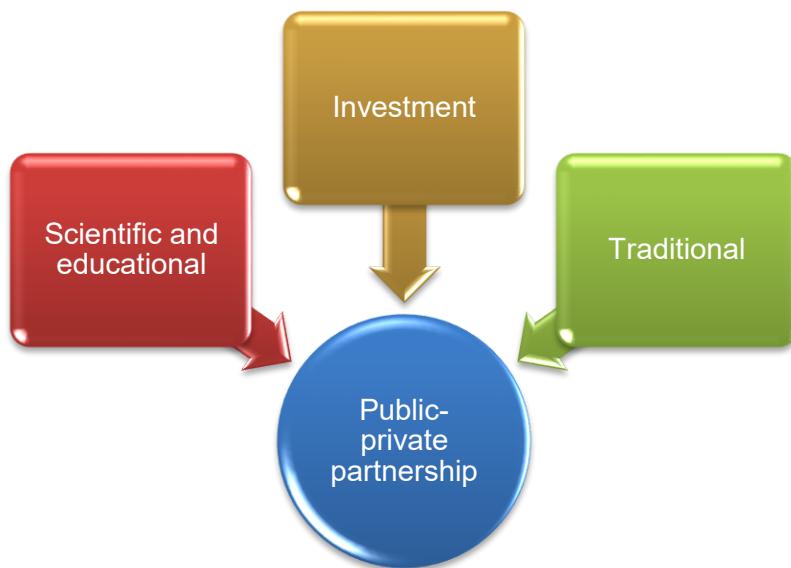
The mechanism of public-private partnership in agriculture is very important, as it allows the state and the private sector to increase their resource base on mutually beneficial terms and direct unused resources towards the stable development of the agricultural sector.

In recent years, Kazakhstan's agriculture has convincingly demonstrated its ability to develop even in difficult conditions, when other sectors of the economy did not show significant growth. The ultimate goal of the Concept for the development of the agro-industrial complex of the Republic of Kazakhstan for 2021-2030 is to create a sustainable production and financial base for the agricultural sector. Thanks to the measures taken, agriculture

should remain stable despite the unstable situation in the global economy.

Given that agriculture is showing optimistic development indicators, we should not stop there. In order to continue, it is necessary to ensure the attraction of additional sources and resources for the development of agri-food infrastructure, increase the profitability of agricultural activities, and attract various categories of participants in the agricultural process, from small to large entrepreneurs, including

farmers. This goal can be achieved by intensifying the use of opportunities for communication between the public and private sectors in the form of public-private partnerships, as well as by attracting foreign partners. Based on the experience of developing countries, public-private partnerships have taken a firm place in the development of agriculture, proven their practical effectiveness, and gained the status of an integral element of food security (figure 1).



Note: compiled based on research

Figure 1 - Forms of cooperation between the state and the private sector

Upon analysis, it can be noted that the program covers economic, social, and environmental aspects of the industry's development, combining measures to stimulate production growth with market regulation and rural development. At the same time, new approaches have been outlined in the relationship between rural producers and the state. Simple subsidies to the industry are being replaced by indirect support measures, and one of the foundations for the development of agriculture is becoming the combination of state and business efforts, with the active spread of public-private partnerships.

Currently, the concept of "public-private partnership" is gaining popularity. Public-private partnership, in general terms, is a merger of the state system and the private sector, with the aim of implementing important projects for the development of strategically important sectors of the economy and the provision of social services on a national scale.

As of May 1, 2025, Kazakhstan had concluded 1 109 public-private partnership (PPP) agreements totaling KZT 2.6 trillion. The agreements include 15 national projects and 1 094 local projects. In 2025, limits on state

obligations under public-private partnerships for the period 2025-2027 were approved in the amount of 13.6 trillion tenge. Instead of 786 agreements, 1 109 PPP agreements were concluded in the first quarter of 2025.

The structure and mechanism of cooperation between the state and business have been actively used for a long time and very successfully, and are being improved every year around the world. The most successful countries where PPPs are developed include the United Kingdom, France, and Germany.

The United Kingdom implemented its first PPP project in 1981. The government used the potential of public-private partnerships to reconstruct London's docks. This project was successfully completed, and a new program, Private Funding Initiatives, was created. The basis of this program was the transfer to the private sector of the functions of financing the construction, operation, reconstruction, management, etc. of state industrial and social facilities.

In France, these models were used when the government created mixed economy communities (Societed'Economie Mixte, SEM), which were essentially joint ventures, to attract private investors to public projects. The enter-

prises were created on the condition that the state or other local government bodies would hold between 50% and 85% of the total authorized capital (FAO&World Bank...) [12].

In Germany, public-private partnership support centers have been established, which operate at the federal level. The first such center, Deutschland Aktiengesellschaft (AG) (Partnerschaften Deutschland), was established in 2008 at the federal level. This center is an independent consulting company under the jurisdiction of the Federal Ministry of Finance and the Ministry of Transport and Construction.

Joint action is necessary for both the public sector and private entrepreneurs. In the current environment, the tasks of increasing production volumes and improving the competitiveness of domestic agricultural products are coming to the fore. The state needs to ensure food security, and domestic agribusiness is gaining the opportunity to expand its presence in domestic and foreign markets.

The second area is related to the need to develop infrastructure for the storage, processing, and transportation of agricultural products. The main task of rural producers is to be able to provide the population with high-quality food at affordable prices. However, modern warehouses and storage facilities, additional processing capacity, transport logistics, and high-capacity services are required, and even more attention needs to be paid to addressing social issues in rural areas. In this case, public-private partnerships become the most appropriate model for action.

A PPP is an institution of equal relations, which must be formalized by agreements between legal entities when combining efforts to achieve a common goal. The following main features of public-private partnerships have been identified:

- the parties to the partnership must be represented by both the public and private sectors;

- the relationship between the parties to the public-private partnership must be legally formalized (contracts must be concluded in accordance with applicable law);

- the relationship between the parties must be one of partnership, i.e., equal rights. Within the framework of a PPP, the state should not be a regulator, but rather an equal partner;

- the partners must agree on goals that allow each partner to realize their interests;

- the parties to the PPP must combine their resources (financial, labor, information) to achieve the agreed goals;

- the partners must participate in decision-making and bear responsibility (personal, subsidiary, joint) for those decisions;

- the parties to the partnership must share costs and risks and participate in the use of the results obtained.

If any of these criteria are not met, it can be said that the partnership is not institutionally formed and will not produce the planned results. The agreed objectives of the partners will remain only an intention to form a partnership.

The parties to a PPP are always the state and private business, and their interaction is equal in nature and is formalized by an official legal document. In practice, PPP projects are socially oriented, all resources of the parties are combined in the process of project implementation, and all financial risks, costs, and results are distributed between the parties in predetermined proportions.

In a public-private partnership, both parties contribute to the overall project. While businesses provide financial resources, professional experience, effective management, flexibility and efficiency in decision-making, and the capacity for innovation, the state creates conditions for the effective use of resources and the possibility of providing tax and other incentives and guarantees. As a rule, businesses use effective management, update and improve technologies, attract foreign investment, create new enterprises, and thereby provide new jobs.

Since agriculture has been declared a priority area for Kazakhstan's economic development, with technical and technological modernization as its main strategy, it can be expected that the modernization of its priority sectors will be carried out on the basis of various forms of public-private partnership, with the risks and responsibilities for the results of innovation processes shared between the state and business. The interests of the state in this alliance are represented by ministries and departments, scientific and educational institutions, and consulting and information centers. The interests of business are represented by agricultural producers of various forms of management, as well as industry unions (associations) of which they are members.

The models and structure of public-private partnerships are diverse, but there are some characteristic features that allow partnerships to be classified as a separate economic category (Agazaryan N.) [8]. It should be noted that public-private partnerships arise as a formalized cooperation between public and private structures, specifically created to achieve certain goals and based on relevant agreements between the parties.

The following characteristics of PPPs can be identified, distinguishing their projects from other forms of relations between the state and private business:

* specific, often long-term partnership agreements (from 5 to 20 years or more, and up to 50 years in the case of concessions). Projects are usually created for a specific facility (transport portal, technology park, livestock complex, social infrastructure facility), which must be completed by a set deadline;

* specific forms of project financing: through private investment supplemented by public financial resources, or joint investment by several participants. In agriculture, innovative projects are implemented in specific sectors, financed from budgets at various levels and private investment;

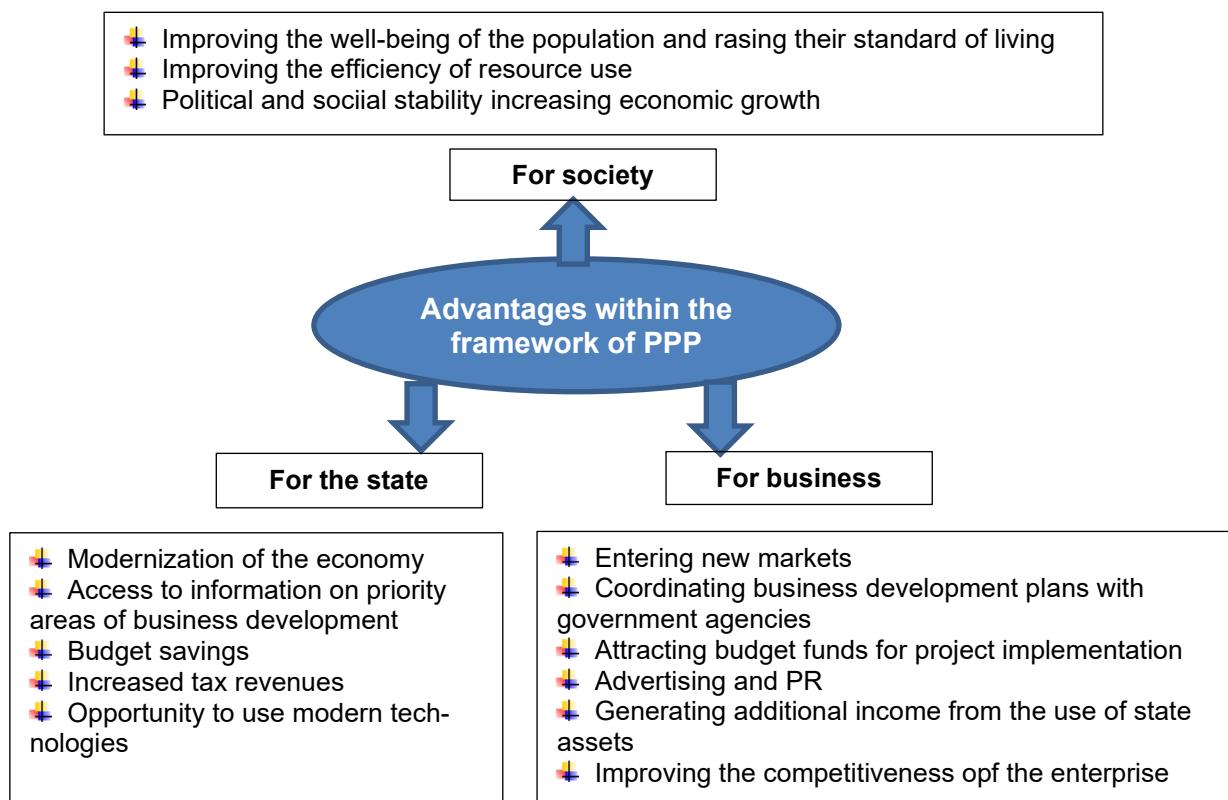
* mandatory competitive environment, where several potential participants compete for each contract or concession. Open competitions for the implementation of certain innovative projects in the agro-industrial complex should be organized at the regional level, depending on the competitive advantages of each territory, and rural producers, businesses,

and investors should participate in them regardless of their place of registration;

* specific forms of responsibility distribution between partners: the state sets project goals from the perspective of public interests (e.g., meat and milk production volumes) and determines cost and quality parameters (the amount of subsidized loans allocated for the construction of new and modernization of existing livestock complexes and farms, the supply of breeding animals on lease), and monitors the implementation of projects. The private partner takes on operational activities at various stages of the project - development, financing, construction and operation, management, and sale of agricultural products to consumers;

* risk sharing between the parties to the agreement on the basis of relevant agreements between the parties.

The successful development of public-private partnerships undoubtedly offers advantages for all participants, including the state, businesses, and society at large (figure 2).



Note: compiled based on research

Figure 2 - Benefits for society, the state, and business within the framework of PPPs

Currently, two scenarios for partnership between the public and private sectors are emerging, differing in the nature of institutional changes. The first scenario for interaction between the state and business is developing mainly in countries with a high level of socio-economic development and is characterized by structural changes in the institutional environment in light of the changing priorities of the

country's economic system. The second scenario is being implemented in the countries of Eastern Europe and the CIS, as well as in some developing countries, based on fundamental changes in the legal framework and the development of an institutional structure to support PPPs (Hodge G.A., Greve C., Boardman A.E.) [10] (table).

Table – Main forms of public-private partnerships

Forms of PPP	Specific features
Management and lease agreements	This form provides for the transfer of an infrastructure facility to a business for the purpose of performing management functions, but ownership of the transferred facility remains with the state partner.
Concession agreements	The specificity of this scheme lies in the fact that when implementing a PPP infrastructure project, a private company is assigned large investment obligations. Another specific feature of this scheme is the long-term nature of the contract.
Greenfield projects, projects from scratch, projects from the ground up	A prerequisite for implementation is the construction of new infrastructure.
Transfer of ownership, participation in capita.	This form involves the full or partial transfer of ownership rights to the property complex to a private partner.

Note: compiled based on research (Hodge G.A., Greve C., Boardman A.E.) [10].

The fundamental approaches to systematizing various actions and methods for structuring a diverse range of existing models, forms, and mechanisms of public-private partnerships implemented by international organizations such as the Organization for Economic Co-operation and Development, the United Nations, the World Bank, and the International Bank for Reconstruction and Development include:

- a model for the legislative structuring of projects, according to which institutional and contractual forms of PPP are distinguished. In the first case, a special legal entity is created in the organizational and legal form of a limited liability partnership or joint-stock company, and a PPP facility is built on the basis of various capitalization approaches. The contractual form of PPP involves the implementation of the project through the signing of PPP contracts;
- defining clear boundaries for the private sector's obligations at various stages of the project life cycle (development of design and estimate documentation, construction or reconstruction of the facility, financing or co-financing, operation, maintenance, etc.).

The variety of PPP forms and models makes it possible, primarily for the public sector, to attract private sector investment and make extensive use of its capabilities in solving socially significant problems related to infrastructure development. At the same time, foreign and domestic practice shows that the PPP models described above are usually applied in various combinations.

Thus, public-private partnerships (PPPs) in the agricultural sector of the economy represent mutually beneficial cooperation between the state and agribusiness, implemented in various forms and aimed at increasing the competitiveness of products through comprehensive modernization (product, technical, technological, organizational) in all sectors and areas of the agro-industrial complex and ensuring the sustainable development of rural areas.

The economic essence of the partnership lies in the coordination of the interests of the parties entering into the relationship. If the interests of either party are violated in any area, the partnership may formally continue, but the economic effect will be low.

The multifaceted nature of PPP forms and models is due to the specific characteristics of the formation and development of the institutional environment, the diversity of interests of the parties to the partnership in the context of a particular PPP project, as well as certain infrastructure tasks that are solved on the basis of cooperation between the state and business.

Depending on the role of each PPP participant in the relationship between financing, ownership, and management, five models of public-private partnership can be identified: operator, leasing, concession, cooperation, and contractual.

Based on the goals of the partnership and the socio-economic problems being solved, three PPP models can be identified:

- organizational model – concession agreements between the rights holder and the user;
- financing model – includes commercial hire, rental, leasing, pre-financing, and combined project financing;
- the cooperation model involves various forms and methods of integrating the efforts of partners responsible for individual stages of reproduction and creation of new consumer value.

Kazakhstan has simplified access to public-private partnership mechanisms for infrastructure projects. The minimum investment threshold has now been reduced by almost half, from 15.7 billion tenge to 7.8 billion tenge. The relevant amendments came into force on August 23, 2025. Previously, only large investors could take advantage of state support under PPPs- projects with smaller budgets simply did not meet the formal requirements.

Lowering the threshold will make it possible to attract more investors to the

regions, stimulate infrastructure construction, and promote the creation of new jobs.

The availability of high-quality infrastructure is one of the key factors for the success of any investment project. Lowering the minimum investment requirements significantly expands the circle of potential participants and opens up new opportunities for regional development.

It should be noted that in order to receive support under PPP, investors and entrepreneurs must apply to the local executive authorities at the project implementation site.

Discussions

Kazakhstan is implementing public-private partnership (PPP) projects in compound feed production with foreign investors, including Hungarian UBM Group. The goal is to increase production volume, meet the growing domestic demand for compound feed, and develop the agro-industrial complex.

UBM Group will invest \$83 million to build four plants in Kazakhstan between 2025 and 2028: three feed production facilities in the Kostanay, Akmola, and Turkestan regions, and one premix plant in the Almaty region. The company operates in Hungary, Romania, and Slovakia, uniting 18 subsidiaries and exporting products to 19 countries.

The project includes a laboratory and training center, with an annual of 48.0 tons of premixes and 300.0 tons of compound feed. Its implementation will establish Kazakhstan's first large premix plant and largest feed production enterprise, enabling import for over 250.0 tons of imported feed.

Providing livestock with high-quality domestic feed is a strategic task for national agriculture. In combination with new livestock development programs, PPP mechanisms can become a key tool for enhancing food security and reducing meat production costs.

Such partnerships are an important element of industrial cooperation, as they combine the advantages of private investment with state support measures, including infrastructure development, land allocation, and partial compensation of capital costs. The participation of foreign investors ensures the transfer of modern European technologies, improves production standards, and enhances staff qualifications.

In the long-term, these projects will help create an integrated system for the production, storage, and distribution of feed resources, which will strengthen the country's feed base and increase the competitiveness of the livestock sector. Additionally, PPP-based investment models can stimulate the creation of regional feed clusters, encouraging small and medium-sized producers to participate in cooperative production chains.

This approach contributes to the diversification of Kazakhstan's agro-industrial complex, the development of export-oriented industries, and the achievement of the goals of the national «AgroFood 2030» program aimed at ensuring sustainable agricultural growth and food independence.

Conclusion

Each of the above forms and models of PPP has its advantages and disadvantages, so the structure of a public-private partnership project must be aligned with the priority needs of the sector and the objectives of the project.

1. There are several relevant areas of public-private partnership in the agro-industrial complex that can be used either separately or in combination with each other, depending on the specific conditions of the region.

2. The diversity of already tested and not yet widespread forms of public-private partnerships in the agro-industrial complex opens up wide opportunities for combining efforts and rational distribution of resources. Finding the most successful forms of cooperation is the task of each region. Its solution will attract private investment and ensure the further resolution of modern tasks for the development of agriculture in Kazakhstan.

3. The mechanism of public-private partnership in agriculture could become the main effective factor and instrument for ensuring national food security.

Public-private partnership is aimed at long-term cooperation and systematic state support, which will ensure a comprehensive approach to the development of such cooperation based on program-targeted and project-based approaches.

4. Positive experience in implementing public-private partnerships in the agro-industrial complex will help shape agribusiness's receptiveness to innovative development in the long term, while timely adjustments to scientific, theoretical, methodological, and institutional support will initiate the application of appropriate methods and tools.

5. The development of public-private partnerships in Kazakhstan's agro-industrial complex should be based on a clear strategic vision and continuous institutional improvement. The formation of an effective PPP ecosystem requires transparent mechanisms of interaction, balanced risk distribution, and predictable state policy. It is necessary to strengthen project monitoring, expand access to financing tools, and promote technology transfer from international partners.

In the long term, PPPs can become a driver for creating sustainable value chains, developing rural infrastructure, and achieving

the goals of agricultural modernization and food security in Kazakhstan.

Author's contribution: Aitmukhanbetova Damira: prospects for the development of public-private partnership processes, methods, principles, and tools in the grain product subcomplex; ensuring a comprehensive understanding of the state of public-private partnerships; introducing modern technologies and increasing financial accessibility; mechanisms for increasing investment attractiveness and the effectiveness of state support; Kuralbaeva Roza Esengalieva: formatting bibliographic material on the topic; proofreading references in the text in accordance with the standard, formatting the sections "Introduction", "Materials and Methods" and "Conclusion".

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