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PRINCIPLES OF REGULATION OF PUBLIC-PRIVATE PARTNERSHIP IN THE AGRICULTURAL SECTOR OF THE REPUBLIC OF KAZAKHSTAN

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Annotation. *The improvement and justification of recommendations for improving PPP mechanisms in the agro-industrial complex is dictated by their relevance and practical significance, which allow expanding the resource base of agricultural production on terms of mutual benefit for the state and business. The problems of using public-private partnership in the field of agriculture of the Republic of Kazakhstan are analyzed. The purpose of the study is to determine the criteria for assessing the impact of economic factors on environmental components, in particular on the atmosphere, hydrosphere and land resources. The methods of economic analysis, comparison, synthesis, decomposition were used for a comprehensive assessment of the functioning of the enterprise in the production of agricultural products: an assessment of the impact of the functioning of the agro-industrial complex on the environment was carried out. The main directions that have significant potential for promising PPP programs are also identified: the production of organic products in the crop and livestock industries; increasing the volume of meat products and milk; the development of a greenhouse economy specializing not only in growing vegetables, but also in floriculture. Based on the analysis, a SWOT analysis of the use of public-private partnership in agricultural production is indicated, its strengths and opportunities, weaknesses and threats are shown, and according to the results of the study, conceptual directions for the development of the PPP institute in the agro-industrial complex of the republic are highlighted.*

Keywords: *agribusiness, public-private partnership, competitiveness, agro-industrial complex, environment, anthropogenic impact, decomposition method, equivalents, atmosphere, hydrosphere agricultural sector, market, agricultural products, investments.*

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A powerful incentive to the use of PPP mechanisms in the agro-industrial complex (AIC) is the need to introduce advanced technologies in this area. The need to involve small and medium-sized farms in the process of distributing multiple benefits generated by agribusiness projects is another incentive for the use of PPP projects in the agro-industrial complex. The involvement of PPPs aimed at achieving sustainable and inclusive development of the agro-industrial complex can bring certain benefits to the final beneficiaries. Trends in the use of PPP in agriculture are gradually becoming global.

Main provisions of the article.

The importance of Public Private Partnership (PPP) in agriculture is understood in terms of a shared mechanism among partners for input, resource, market, risk, technology and benefits.

Globally, the biggest challenge for the irrigation sector is climate change and its impact on water and food security.

In technical, complex transportation projects developed as PPPs, private sector expertise often outmatches that of their public sector counterparts.

Foreign experience shows that the market risk of PPP in the agro-sphere is usually borne by the leading private partner (agro-industrial company), while the production risk can only be borne by farmers or shared between farmers and the public partner through the provision of subsidized agricultural insurance or co-financing of funds in case of unforeseen circumstances in the event of force majeure.

Introduction. In addition, review of various studies indicated the visibility of PPP in various facets of knowledge management, capacity building of women and youth, development of high end technologies, processing and market promotion and gender mainstreaming in agriculture. Nowadays significant changes have been taking place in environmental legislation of Kazakhstan as the "Environmental Code of the Republic of Kazakhstan" No. 400-VI has entered into force since January 2, 2021. Annex 3 of the legislation mentioned defines a list of areas of application for the best available technologies (BAT) application [1]. Regulatory documents are also being developed to ensure the implementation of the BAT system in the industry. In accordance with Article 65 of the Environmental Code of the Republic of Kazakhstan "The obligation to conduct an environmental impact assessment". Legal entities and individual entrepreneurs engaged in economic and (or) other activities at Category II facilities are required to obtain a "Comprehensive Environmental Permit". When assessing livestock/poultry complexes those also falls under the BAT system and are required to receive an EIA.

Material and methods of research. In order to facilitate the assessment of adaptation scenarios and mitigate their consequences, it is necessary to determine the impact of animal husbandry on the environment, in order to increase the sustainability of the livestock sector.

Coupled with improper governance and management in several countries, these challenges are exacerbated further with more pronounced effects regionally such as water scarcity, very low groundwater levels and poor water quality.

The model makes it possible to fix specific impact factors at each stage, to obtain a general and detailed picture of livestock production and the corresponding use of natural resources. The model of ecological assessment of world livestock production was developed in order to analyze multiple environmental impact measurements: feed use, greenhouse gas emissions, land use and soil degradation, water use and nutrient use, interaction with biodiversity [2].

In order for the Agro-PPP to fulfill this role, it must be constructed as follows: − the optimal way to allocate tasks, responsibilities and risks between the public and private sectors; − the public and private sectors had a comparative advantage over each other in specific tasks performing; − to minimize costs while increasing productivity in terms of relevance, efficiency, performance, interaction, and sustainability. At present, it is important to preserve the existing investment agricultural projects for a long period of time, which can only be done with the consent of society, government and business.

Table 1. - Materials and methods of research

№	Parties to the agreement	% ratio of income distribution between public partner and private partner	
		from November 2018 to November 2022	from December 2022 to November 2038
1	State Partner	5%	25%
2	Private partner	95%	75%

Source: compiled by the author

As we all know, PPP has three characteristics in its project execution phase: long time, high complexity and wide and complex coverage. There are many participants in this stage. The cooperative supervision relationship between them is mainly formed with the goal of completing the project construction and the economic contract as the link. From the link between the PPP project process and the construction goal, in order to achieve the goal, there are many processes between the different stages of the project construction and the different participants. Various activities involved in the process may affect the identification of audit in some way. In addition, as "full coverage" has become a new normal audit, new requirements have also been put forward for government construction project audit. Therefore, higher requirements for auditors' diversified knowledge and proficiency in auditing are put forward. The ultimate goal of the PPP project is to maximize the social benefits, that are to achieve a multi win or win-win situation. However, the inconsistency of the unilateral goals and the high transaction costs caused by the institutional defects both restrict the original intention of the PPP project and bring many risks. Therefore, PPP project risk identification should focus on whether or not it is conducive to achieving the general goal of the project [3].

Although a state transportation department may have implemented a handful of projects over the past 10–15 years, their private partners bring decades of experience, from working on infrastructure PPPs in countries around the world. The knowledge gap is most pronounced in the long-term forecasting of expected travel patterns and associated expenditures tied to travel in PPPs.

Risks can also be distributed differently between partners at different stages of the project life cycle, depending on which partner is best able to bear the risk at this stage of the partnership [4]. Some limitations of agro-PPP were also identified. The success or failure of the agro-PPP largely depends on the comfortable environment and management strategy developed to support these partnerships implementation. Legislation and regulations related to access to land, enforcement of agricultural contracting agreements, intellectual property protection, and other important issues such as support small and medium-sized enterprises, are critical for successful implementation of PPP in agribusiness. Nevertheless, many of these issues go beyond traditional PPP legislation. In the countries studied, Ministries of Agriculture (MA) were also generally less prepared than other line ministries to solve the issue of private sector

partnerships. Even in countries where there is a clear institutional structure for PPP, PPP in agribusiness may eventually find institutional platforms other than the Ministry of Agriculture [5].

Table 2. - Examples of PPP development in agriculture (fragment).

Region	Examples of products / services	Public / private sector partners
New products and market entry	Niche (organic) products Products for export Products for import substitution	State / regional authorities International agencies Research centers Non-profit organizations Exporters Incubators Growing farm enterprises

Source: compiled by the author

The stages of such environmental impact from the livestock and poultry complex are grouped by us in figure. In recent years, Kazakhstan has been facing a period of struggle for sustainable economic development and improved competitiveness. This resulted in the growing interest of the government in the private sector in terms of using its potential for funding, development and implementation of projects aimed at infrastructure development. Presently, Kazakhstan gained considerable experience in the implementation of PPP projects in various sectors, especially in the field of industrial infrastructure, innovation, transport, and social and public services. The capital construction of public projects to make up for the lack of government investment, improve the efficiency of investment and the efficiency of public services, and the rapid development of the private economy and provide a channel for its participation in the construction of infrastructure. However, with the unprecedented upsurge of PPP, the risk of the PPP project is gradually exposed, and the original risk management awareness and risk management methods are difficult to cope with the complex internal and external risks. This issue has attracted the attention of all sectors of society, affecting the volatility of the stock market. At present, some scholars have recognized this problem and have carried out some related research, but most of the research focused on the PPP project itself in all directions or focused on financial analysis. Only a small number of scholars associate it with risk orientation. Therefore, this paper is based on the concept of risk oriented audit and starting from the concept and risk point of the PPP business to PPP From the perspective of auditing, risk prevention measures are put forward to promote the healthy development of PPP projects [6].

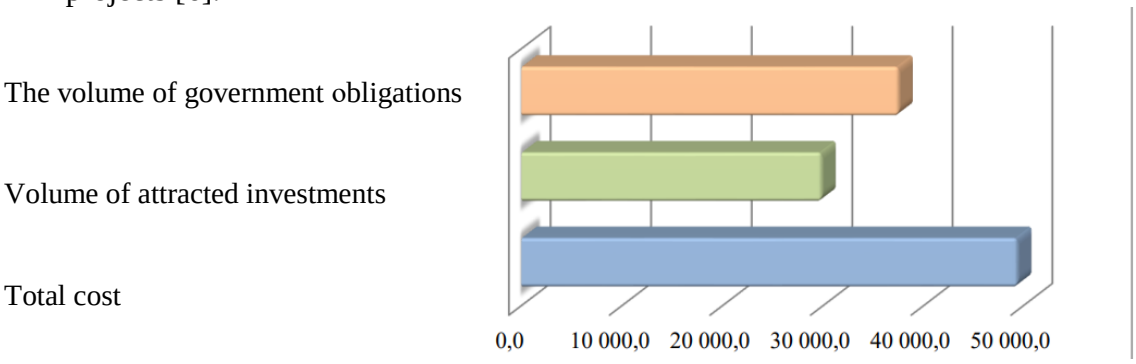

Figure 1. - Total volume of implemented projects
Source: compiled by the author

Of the planned 47 PPP projects, for the period from 2018 to 2021, only 14 projects or 29.8% were implemented, including by sectors of the economy: education – 7, health and social services – 3, transport and infrastructure – 2, information and communication – 1, culture and sports – 1

Out of the total number of projects being implemented, 7 projects or 50%

accounts for education, 3 projects or 21.4% - for health and social services, 2 projects or 14.3% - for transport and infrastructure, according to 1 project or 7.1% - in the sphere of information and communication, culture and sports.

At the same time, during the period of the state audit in the field of energy and housing and communal services, not a single PPP project has been implemented [7].

The total cost of 14 projects amounted to 49,256,173.7 thousand tenge, of

which the volume of attracted investments amounted to 29,799,965.0 thousand tenge or 60.5%. Many of the studies on PPPs focused on agricultural biotechnology, biosafety regulation, intellectual property rights (IPR) and ways in technology transfer in support of pro-poor in developing countries (Spielman et al 2007). Several research programmes in India actively sought increased links with private stakeholders as partners and research users which need variety of institutional innovations and incentives for better coordination of PPP leading to greater ownership of outputs and their effective promotion [8].

An important problem of the agro-PPP development is the weak level of organization at the stage of PPP projects development [9]. As a result, important issues such as transparency in the selection of private partners, risk allocation and mitigation mechanisms to protect small farmers, and conflict resolution strategies are often ignored. Inadequate market assessments and feasibility studies at the initial stages of the PPP mechanism development also contributed to the financial problems emerged during the implementation phase. Several partnerships reported about slower-than-expected payback periods, lower-than-expected returns on investment, inability to achieve scale in the short and medium term, and difficulty with activity maintaining that require investment after the partnership period [10]. PPP in the agricultural sector can be used in certain circumstances (when markets fail). Ideally, when deciding whether to participate in agro-PPPs, policy makers should ensure that the partnerships will add value by creating greater public benefit than could otherwise be achieved through any of the alternative means of public procurement or private investment alone.

There is a tendency for the decline of implemented PPP projects compared to 2018. If in 2018 7 projects were implemented (6 projects with a state initiative and 1 private financial initiative) totaling 32,176,999.0 thousand tenge (including the amount of attracted investments – 15,664,584.0 thousand tenge), then in 2019 a total of 4 projects were implemented (1 project with a state initiative and 3 private financial initiative) for a total amount of 9,908,647.0 thousand tenge (including the amount of attracted investments – 9,908,647.0 thousand tenge). Similarly, in 2018, 3 projects were implemented (all 3 with a private financial initiative) totaling 7,170,527.7 thousand tenge (including the amount of attracted investments – 4,226,734.0 thousand tenge). The reason for the negative dynamics is the insufficient quality of PPP project planning by the administrators of budget programs (that is, projects are not finalized and do not reach the competitive procedures, individual projects are excluded from the list of PPP projects). In part, this decrease also (the number of contracts concluded), according to the audit, is due to a change in the indicator (indicator) in the PRT "The share of projects that do not require state obligations for PPP projects of local executive bodies from the total number of projects implemented under PPP" conducted in October 2020, instead of

the indicator "The number of PPP projects that received positive conclusions and the announcement of a competition on them"

Knowledge management strategies in the context of Public-Private Partnerships could result in increased production and better service delivery.

Results and their discussion.

Table 3. - Budget funds allocated to the agricultural sector

INDICATOR	2019	2020	2021
Planning, regulation, management in the field of agriculture,environmental management and use of land resources	11 841 476	13 856 597	17 264 757
Creating conditions for the development of animal husbandry and production, processing, sale of products animal husbandry	24 064 221	21 977 907	24 433 119
Increasing the availability of financial services	106 312 713	74 416 669	137 458 003
Effective management of water resources	28 335 736	35 689 072	40 326 783
Creating conditions for the development of production,processing, sale of crop production	10 401 142	6 537 581	9 277 279
Management, conservation and development of forest resources and wildlife	17 589 822	18 662 889	22 933 205
Increasing the availability of information about land resources	7 569 907	9 295 209	107 330
Ensuring the flow of transboundary rivers from neighboring countries in accordance with water allocation agreements	167 831	143 748	
Creating conditions for the development of processing of agricultural products		670 029	
Increasing the availability of knowledge and scientific research		8 273 133	8 858 799
Improvement of irrigation and drainage systems-systems		5 491 578	15 083 279
Total :	206 282 848	195 014 412	286 368 315

Source: compiled by the author

As can be seen from the table, the amount of budget funds allocated to the agricultural sector is constantly growing. The amount of state support for agriculture is also growing (Figure). However, there is no significant return on the invested funds: the supply of goods on the market is formed at the expense of imported products that could be produced in our country.

For a number of goods, the country is at a dangerous point, beyond which comes dependence on foreign supplies. In many commodity items, we have crossed the acceptable line of food security.

During the current humanitarian crisis one of the most serious problems in the agriculture management is the creation of an effective system of strategic management, which key objectives are customer satisfaction, ensuring food safety, creation of optimal distribution chain, effective economic environment and waste management. All these strategic directions for overcoming the difficulties of the agrarian sector of the economy require effective interaction between government and business, as evidenced by both statistical data and studies of various scientists

The raw materials orientation of exports is of concern, as a result of which domestic processing enterprises are loaded only by 40%. The share of unprofitable agricultural enterprises remains significant: The Ministry of Agriculture is trying to solve the problem of unprofitability not only by developing a financial recovery program, but also by reorganizing agricultural enterprises by creating new integrated structures – agricultural firms, agro-industrial associations and holdings.

Credit resources are more available for such structures, they can organize production more efficiently, use new technologies, purchase machinery and equipment, train personnel, introduce new ones, but for now, as mentioned above, the structure of agriculture remains small-scale.

Each PPP model is unique and has a well-defined understanding among the partners regarding the working relations and outputs. Some of the models could involve a public-public partnership till a certain stage of product development after which a private partner could enter, or vice-versa, depending upon who is providing the innovative farm technology. In each model, there should be clarity on sharing of fund investment, research and development components and business operations. A consortium involving unequal partners may not yield a viable partnership. Further, the models should take into their ambit of the whole chain from innovative product development to marketing.

Conclusions

1. Introduction of administrative responsibility of state partners represented by administrators of budget programs for developed and not implemented (withdrawn or excluded from the list of PPP projects) tender documentation, which entailed, including inefficient use of budget funds.

2. Effective implementation of PPP projects requires active, honest and productive work on the part of both the state and business. Transparency is provided to the PPP Institute through a single digital platform with which manufacturers and customers, partners, tenders and other activities can coordinate their actions to ensure appropriate activities within the framework of the project implementation.

3. Increasing the efficiency of agricultural production, clustering individual enterprises, which allows you to create a vertically integrated value chain, improves the quality of life and industries concentrate human resources in localized areas.

4. For the agribusiness sector of the country, the Institute of Public-Private Partnership is not only a prospect for the development of production potential, but also a traditional social problem of the village – negative migration of the population, the lack of high-quality jobs caused by rural residents- the ability to solve the problem of low income.

5. The use of the PPP mechanism is aimed at attracting additional investments in the agricultural sector, modernizing production capacities, increasing production profitability, saturating the domestic market with high-quality and affordable food products, realizing the country's export potential and tax revenues it helps to increase their income through.

Analysis of information on the essence of business and government partnerships in the agricultural sector makes it possible to determine that agro-PPP is a complex, problematic self-governing system, the mechanism of creation, functioning and development of which does not yet have sufficient theoretical justification. The information obtained must be treated with the use of comparisons, summary, and grouping. The results are presented visually using a tabular and graphical method. The study of foreign experience expands scientific judgments about the subject of research, helps in establishing such agricultural innovations that ensure the economic growth of the country's agroindustrial complex and increase of its citizen's well-being. The methods of induction and deduction are applicable to transform the results of the analysis of foreign experience in interaction between government authorities and business into possible directions for the development of the agro-PPP mechanism in Russia. In modern conditions, PPP projects are one of the most effective ways to develop various kinds of innovations for society, while competition in the conclusion of PPP agreements should be, this provides an opportunity to choose the most optimal partner, and it should also be evaluated for a more thorough conclusion.

References

1. Golubkov M.A. (2016). Gosudarstvenno-chastnoe partnerstvo v oblasti razvitija sel'skogo hozjajstva // Rossijskij vneshnij jekonomicheskij vestnik. № 9. S. 32-33.

2. Rankin M. (2016). Public-private partnerships for agribusiness development - A review of international experiences / M.Rankin, E.GálvezNogales, P. Santacoloma, N.Mhlanga, C Rizzo. - Rome: FAO.183p.

3. Zhumagulov T.S. (2020). Agroonerkasiptik keshendi memlekettik koldaudyn sheteldik tazhiribesin saralau. Memlekettik-zhekemenshik mehanizmin koldanudyn manyzy / T.S.Zhumagulov // Memlekettik-zhekemenshik ariptestik. № 2. S. 28-30.

4. Konuspaev R.K., Demesinov T.Zh., Taipov T.A. (2020). Gosudarstvenno-chastnoe partnerstvo v agrarnoj otrasli Respubliki Kazahstan. Problemy agrorynka. №3. S.25-31.

5. The State Program on Accelerated Industrial and Innovative Development. (2010). Direct access: http://www.kazakhembus.com/content/spaiid World Bank Global Round. (2013) "Value-for-Money Analysis—Practices and Challenges. Washington DC. 78p.

6. Soltangazinov A.R. (2019). Zhobalyk tasil turgysynan Kazakstan Respublikasynyn memlekettik-zheke menshik ariptestigi/ A.R. Soltangazinov, M.A. Amirova, G.K. Isenova// Problemy agrorynka.№ 3. S. 68-75.

7. Kazakstan Respublikasynyn agroonerkasiptik keshenin damytudyn 2017-2021 zhyldarga arnalgan memlekettik bagdarlamasy. Astana. 2017. 217 s.

8. Indian Journal of Agricultural Sciences 83 (8): 803–8, August 2013/Review Article Impact of public private partnership in agriculture: A review K. PONNUSAMY.

9. Konuspaev R.K. (2019). Memlekettik-zhekemenshik ariptestik:maseleleri zhane zhetildiru zholdary:monografija / R.K. Konuspaev, A.T. Konuspaeva. Almaty: Cyber Smith.128 s.

10. Yescombe E. R. (2011). Public-Private Partnerships: Principles of Policy and Finance. Oxford: Elsevier. 368 p.

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ АГРАРЛЫҚ САЛАДАҒЫ МЕМЛЕКЕТТІК-ЖЕКЕШЕЛІК ӘРІПТЕСТІКТІ РЕТТЕУ ҚАҒИДАТТАРЫ

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Түйін. *Мақалада АӨК-дегі МЖӘ ұсынымдары мен тетіктерін жетілдіру және негіздеу әдістері қарастырылады. Жұмыста олардың сұранысы мен практикалық маңыздылығы сипатталған, бұл мемлекет пен бизнес үшін өзара тиімділік жағдайында ауылшаруашылық өндірісінің ресурстық базасын кеңейтуге мүмкіндік береді. Мақалада Қазақстан Республикасының Ауыл шаруашылығы саласындағы мемлекеттік-жекешелік әріптестікті пайдалану мәселелері талданады. Жұмыста ауылшаруашылық өнімдерін өндірудегі кәсіпорынның жұмысын кешенді бағалау үшін экономикалық талдау, салыстыру, синтез, ыдырау әдістері қолданылды. Аграрлық өндірісте мемлекеттік-жекешелік әріптестікті пайдалануды SWOT талдауы негізінде жүргізілген зерттеуде республиканың АӨК-дегі МЖӘ-нің күшті жақтары мен мүмкіндіктері, әлсіз жақтары мен қауіптері көрсетілген.*

Түйін сөздер: *агробизнес, мемлекеттік-жеке меншік әріптестік, бәсекеге қабілеттілік, агроөнеркәсіптік кешен, қоршаған орта, антропогендік әсер, ыдырау әдісі, баламалары, атмосфера, гидросфера, ауылшаруашылық секторы, нарық, ауылшаруашылық өнімдері, инвестициялар.*

ПРИНЦИПЫ РЕГУЛИРОВАНИЯ ГОСУДАРСТВЕННО-ЧАСТНОГО ПАРТНЕРСТВА В АГРАРНОЙ ОТРАСЛИ РЕСПУБЛИКИ КАЗАХСТАН

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Резюме. *В статье рассматриваются методы совершенствования и обоснования рекомендаций и механизмов ГЧП в АПК. В работе описана их востребованность и практическая значимость, позволяющие на условиях взаимной выгоды для государства и бизнеса расширить ресурсную базу сельскохозяйственного производства. В статье проанализированы проблемы использования государственно-частного партнерства в сфере сельского хозяйства Республики Казахстан. В работе использованы методы экономического анализа, сравнения, синтеза, декомпозиции для комплексной оценки функционирования предприятия при производстве сельскохозяйственной продукции. В исследовании на основе SWOT анализа использования государственно-частного партнерства в аграрном производстве показаны сильные стороны и возможности, слабые стороны и угрозы ГЧП в АПК республики.*

Ключевые слова: *агробизнес, государственно-частное партнерство, конкурентоспособность, агропромышленный комплекс, окружающая среда, антропогенное воздействие, метод разложения, эквиваленты, атмосфера, гидросфера, сельскохозяйственный сектор, рынок, сельскохозяйственная продукция, инвестиции*

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