MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN

KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY

MECHANISM OF PUBLIC-PRIVATE PARTNERSHIP IN THE GRAIN PRODUCT SUB-COMPLEX

Textbook

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Modernization of the economy is designated by the government of Kazakhstan as a strategic goal; the grain product subcomplex of the agro-industrial complex is identified as one of the main directions of modernization. World experience shows that without public-private partnership (PPP), the development and effective functioning of a modern national innovation system that ensures comprehensive modernization in all sectors of agriculture is impossible. Development of mechanisms for public-private partnership when carrying out the modernization of subjects of the grain product subcomplex, selection of methods and tools that contribute to increasing the susceptibility of agribusiness to innovative development, allowing for the fullest use of the positive impact of external and internal factors, as well as improving the mechanism for coordinating the interests of the state, entrepreneurs and investors, taking into account the specifics of production in each industry – requires appropriate theoretical, methodological and methodological support.
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INTRODUCTION

In the context of the globalization of the economy and Kazakhstan's participation in the WTO, the problem of increasing the competitiveness of agricultural sectors and the products produced in them has become more acute. As a result of the implementation of targeted programs, the volume of agricultural production has significantly increased, however, they do not yet ensure import substitution of basic types of food. In addition, domestic rural producers have to compete in the domestic market with suppliers of agricultural products from other countries. An obstacle to increasing the required volumes of food and ensuring complete import substitution based on the effective use of existing resource potential is the lag of Kazakhstan behind economically developed countries in carrying out technical and technological modernization of agricultural sectors; low rates of production intensification processes within the framework of implemented target programs; insufficient use of the existing competitive advantages of individual regions.

Modernization of the economy is designated by the government of Kazakhstan as a strategic goal, and the agro-industrial complex is defined as one of the main directions of modernization. World experience shows that without public-private partnership (PPP), the development and effective functioning of a modern national innovation system that ensures comprehensive modernization in all sectors of agriculture is impossible.

The vast majority of developing countries and countries with economies in transition need to expand and deepen knowledge on developing PPP capacity, improving the skills of personnel, as well as establishing effective procedures for the implementation of such projects, which will allow them to properly develop and implement promising economic growth strategies. These tasks find their solution in the process of determining the role and place of public-private partnerships in the development of entrepreneurship in the Republic of Kazakhstan. The successful development of Kazakhstan, which has rich natural resources and highly qualified human capital, can be achieved by using the organizational and economic potential of PPP, especially in the system of production and social infrastructure. To achieve the goals set within the framework of the implementation of the National Project for the Development of the Agro-Industrial Complex for 2021–2025,

the Concept for the Development of Rural Territories of the Republic of Kazakhstan for 2023–2027, the country needs significant development of infrastructure industries.

The special role of PPP in the development of the country's production and social infrastructure, along with the new quality of public services, is also important.

Thus, the effectiveness of the socio-economic development of the Republic of Kazakhstan at present will largely depend on the new instrument of economic development and modern models of interaction between business structures and public entities. The Republic of Kazakhstan has some experience of PPP in the field of formation and management of energy, transport and production infrastructure. Most PPP projects are considered in the context of social projects for the livelihoods of the population in territorial entities.

The Government of Kazakhstan is creating a number of legal, institutional and economic prerequisites that will facilitate the entry into infrastructure sectors of the potential of private entrepreneurship in the field to solve state and socially significant problems. As a result of the development of public-private partnership projects, the task of assessing the degree of socio-economic significance of projects and the level of their effectiveness arises in order to make decisions on their implementation on the basis of public-private partnership.

The existing mechanism of public-private partnership in the implementation of targeted industry programs does not ensure the systematic implementation of innovative processes in all areas, and is characterized only by local changes in individual industries in a small part of the territories. As a result of this, budget funds allocated for updating animal breeds and plant varieties, technical and technological modernization, and personnel training do not give the expected results. Therefore, the biopotential of the land, animal breeds and plant varieties is only half used, and the level of profitability of manufactured products does not ensure expanded reproduction on an innovative basis, which ultimately reduces its competitiveness.

Development of models and mechanisms of public-private partnership when modernizing agricultural sectors, selection of methods and tools that help increase the susceptibility of agribusiness to innovative development, allowing for the fullest use of the positive impact

of external and internal factors, as well as improving the mechanism for coordinating the interests of the state, entrepreneurs and investors taking into account the specifics of production in each industry – requires appropriate theoretical, methodological and methodological support.

The textbook has been prepared taking into account modern foreign and domestic best practices in teaching in the higher education system, aimed at increasing the share of active learning. The predominant part of the chapters quite fully reveals the content of the subject. It will be useful to students, undergraduates, doctoral students studying in the specialties of the University, and will help teachers in the formation of educational programs.

CHAPTER 1

PUBLIC-PRIVATE PARTNERSHIP AS A MODERN INSTRUMENT OF PUBLIC ADMINISTRATION

1.1 Theoretical foundations of public-private partnership

Relations of interaction, cooperation, partnership between the state and the private sector have always existed since the birth of the state. In the twentieth century, a model of a mixed economy finally emerged, in which business and government are the main players. Since the mid-early 1980s within the framework of a mixed economy, under the influence of the economic crisis and the search for new ways to finance the public sector, such a phenomenon as public-private partnership began to take shape. PPP has opened up areas of economics and politics for business that were practically inaccessible to it before: production and social infrastructure, nuclear energy, defense, security, and the penitentiary system. It was during this period that the term "public-private partnership" (PPP) appeared in the West.

The relative novelty of the phenomenon has led to the fact that the literature has not yet developed a theoretical concept that would answer all the questions about the reasons for its appearance, essence, place in the economy, etc. Public-private partnership is not yet a separate branch of economic science, but is closely related to its basic theories. Today in modern economic science there are several concepts that explain the PPP phenomenon

The system of partnership relations between the state and the private sector that have developed to date is one of the manifestations of a mixed economy.

Within the framework of **the theory of a mixed economy**, the state, through PPP, abandons inefficient forms of economic management, shifting the functions of managing its property to the private sector. Business, in turn, taking advantage of state guarantees, brings organizational experience, knowledge, know-how into production, makes investments, and minimizes the risks of business activity.

PPP is closely related to the theory of state regulation of the economy. In the institutional form in which partnerships exist now, they represent a new level of state regulation of the economy and are called upon to play an important role in the development of modern market structures and relations.

The basic basis of PPP is also the theory of **the public sector of the economy**. Each country has a powerful, extensive public sector within which public-private partnerships operate. The scale of the public sector in a given country changes over time, which is determined by the priorities of the economic policy being pursued, the phase of economic development, foreign economic conditions and other factors. The role of the state is weakening in some areas and strengthening in others.

By examining the failures of the public sector, public sector theory seeks various ways to transfer the production of public goods to the private sector. This theory proceeds from the fact that in modern conditions the public sector should be reduced to the private sector, and the functions of state management of the most important life support facilities should be gradually transferred to the transfer. Public-private partnership is a way of interaction between government and business that transfers the production of public goods to private business, while retaining the state's ownership of these objects, as well as the right to regulate and strictly control the activities of private companies.

Public-private partnerships in the context of public sector theory are designed to solve problems of economic development, improvement of production infrastructure, elimination and mitigation of market failures.

Public-private partnership has found its place in modern concepts of public administration. Thus, the **New Public Management** qualifies the state not only as a provider of public goods and an adjuster of market failures, but also shows that the state strives to make management socially more efficient and economically low-cost, more flexible and effective. It brings to the fore various forms of project and public management. From these positions, PPP as a project-based approach to managing public goods and market failures is the most appropriate.

In modern conditions, ensuring high and sustainable rates of development of the country and regions, achieving the strategic goals of government is impossible without close cooperation of state and

municipal authorities with representatives of private business. The strategies and development programs being developed and implemented are focused on the joint use of budgetary and private funds – without this it is impossible to implement large-scale, strategic projects and ensure the high competitiveness of the country.

A globally recognized form of this type of interaction is a public-private partnership. It is used in cases where the state is interested in private investment and management while maintaining public ownership of the property. Interest in this kind of cooperation has existed for a long time: the first construction of a canal on a concession basis in France dates back to 1552. PPP in the form of concessions was widely used in the construction of railways by many countries at the turn of the 19th and 20th centuries. Domestic history contains many examples of successful cooperation between the state and entrepreneurs.

The current stage of PPP development is associated with the introduction in 1992 of the private financing initiative (PFI) in the UK, the essence of which is to attract private investment for the construction of large public facilities. The private investor's expenses are compensated either from operating income or from payments from the budget. In many cases, the investor is involved in the further operation of the facility and the organization of its activities, up to the hiring of personnel. Currently, public-private partnership is the most important condition for the normal development and functioning of a market economy. This is confirmed by the experience of both developed and developing countries that actively use PPP mechanisms. On the one hand, PPP allows for the integration of business models into the public sphere, and on the other hand, it allows for solutions to the most pressing problems of public policy. World experience demonstrates that PPP is most effective in creating new and maintaining existing public sector infrastructure. However, at the moment there are serious problems not only with the definition, but also with the term denoting the partnership between business and government.

For example, the World Bank, the Navy, the OECD and most European countries use the abbreviation PPP (Public-Private Partnership). In this case, in the UK the term "private finance initiative" (PFI) is used, and in France – "concession" and "mixed economy system" (SEM). In the USA, Australia and Canada the designation P3 or P-P Partnerships is used (**Table 1**).

In Kazakhstan, the concept of "PPP" is just beginning to take root on domestic soil, which leads to many of its interpretations with the simultaneous weak use of mechanisms in practice. Each of the partners, both the state and business, gives PPP its own meaning, based on its own interests.

Table 1. Terms used to refer to PPP

Country / institution	Term	Problem to be solved
Great Britain	Term used	Attracting private investment for the construction of large government facilities
World Bank, Navy, OECD and most European countries	Private financing initiative (PFI)	Attracting private investments into the public sector and infrastructure development
France	Public-private partnership PPP (Public-Private Partnership)	
USA, Australia and Canada	Concession and Mixed Economy Communities (SEM)	
Kazakhstan	Public-private partnership P3 or P-P Partnerships	

Source: compiled by the authors

At the present stage, not only does there not exist a single term denoting PPP, but there are different views on the PPP role, its nature and purpose of operation.

Within the framework of foreign PPP research, several conceptual approaches can be distinguished. They differ in their understanding of the role and place of PPP in a modern market economy.

American professor E. Savas in the book "Privatization and Public-Private Partnership" identified three meanings of the term PPP:

– any agreement in which the public and private sectors come together to produce and provide goods and services (contracts, grants, etc.);

– complex, multilateral infrastructure projects;

– formal cooperation between business, civil society and local authorities in order to develop territories and improve living conditions of the population, within which the traditional roles of the state and the private sector are redistributed.

Another common approach (Y. Van Ham and H. Koppenjan (2001), J. Broadbent and R. Leaughlin (2003)) connects PPP with the outsourcing of public services within the framework of a new managerial approach to public administration – New Public Management. Within the framework of this approach, PPP acts as an instrument of state regulation and an alternative to the privatization of social infrastructure facilities and other state-owned objects of strategic importance for the state. In these studies, the main emphasis is on finding effective organizational schemes and ways to finance projects using PPP mechanisms. Close to the previous approach is the approach that can be called PPP as a "play on words" (E. S. Savas (2000), M. Gibelman and H. Delmone (1983)). The difference from the previous approach is that the authors emphasize not the positive, but the negative aspects and risks of PPP. They believe that PPP is simply a veiled form of privatization of public sector facilities with all its shortcomings and problems.

For Kazakhstan, the approach to PPP as an instrument of national, international, regional, urban and municipal economic and social development, and overcoming the economic crisis is of greatest interest (World Bank (1999), S. Agere (2000)). This approach, unlike the first two, does not limit PPP to public sector industries and infrastructure projects.

In recent years, the EU has published quite a lot of documents that address PPP issues. The Green Book, Public-Private Partnerships and Community Legislation on Public Contracts and Concessions, published in 2004, states: "Public-private partnerships are forms of cooperation between public authorities and business that serve the purpose of securing financing, construction, modernization, management, operation of infrastructure or provision of services".

PPP is often considered as a source of additional investment. For example, the World Bank interprets the concept of PPP as "an agreement between public and private parties regarding the production and provision of infrastructure services, concluded with the aim of attracting additional investment and as a means of increasing the efficiency of budget financing".

The European approach to PPP is more balanced. Thus, the Organization for Economic Co-operation (OECD) defines a PPP as an agreement between a government and one or more private partners under which the private party provides services in such a way that the government's objectives are consistent with the profit-making objectives of the private business and the effectiveness of the agreement depends on a reasonable transfer part of the risks to the private party. The advantages of this approach are associated with the emphasis on the need to reconcile the interests of the private and public partners.

There is also no uniform definition of PPP in the domestic literature.

There are many definitions of PPP, in which the authors, to one degree or another, pay attention to the following features of this phenomenon:

– PPP is a special part of the public vector – it is aimed at the production of public goods and the implementation of public services;

– PPP is an agreement between a private partner and a public partner;

– the PPP agreement can be in different forms, but it must be formalized – an official contract has been concluded;

– PPP is project-based in nature (PPP is implemented as a long-term project);

– PPP assumes that the state attracts a private partner to solve important government and socio-economic problems (PPP projects operate in the infrastructure and social sphere);

– PPP is mutually beneficial;

– PPP parties must not only finance the project, but also directly participate in its implementation, be responsible for obligations, and bear risks.

It is important to note that there are many approaches to defining PPP. There is no single definition, and accordingly, the understanding of PPP – even in those countries where it originated and is developing quite successfully - has not yet developed. In this regard, we can only talk about certain approaches to defining a given institution of

social relations, not forgetting, of course, about the conditions of objective reality in which this phenomenon arises in a particular country. The definitions of PPP presented above reflect the content and functions of this phenomenon. To reveal the essence of PPP, let us turn to the characteristics, principles and goals of PPP.

Despite differences in definitions, the following features of PPP are most often identified:

– the parties to the public-private partnership are the state and private business;

– the relationship between the parties is of a partnership and equal nature;

– the parties have common goals, clearly expressed state interests and public orientation;

– the parties combine their assets (resources and contributions) to achieve common goals;

– the parties to the PPP distribute costs and risks among themselves in pre-agreed proportions, and also participate in the use of the results obtained;

– the relationship between the parties is recorded in official documents (agreements, contracts, etc.).

In order to describe the variety of relations that fall under the definition of PPP, mandatory and optional features of PPP are distinguished. **Mandatory features of PPP include:**

– PPP is a long-term or medium-term project, the participants of which are the state and private business;

– the relationship of the parties is recorded in official documents (agreements, contracts, constituent documents, etc.), which define common goals, public interest and social orientation;

– the relationship between the parties within the project is of a partnership, equal nature, which is realized through joint participation in the development and implementation of the project, by pooling resources, distributing obligations and risks, and using the results obtained.

Other signs may be **optional** and used in industry and regional documents reflecting the specifics of the implementation of PPP projects (**Fig. 1**).

PPP is implemented through projects. This differs from other forms of cooperation between government and business, such as charity,

corporate social responsibility, government procurement, and forms of government support for business. The objects of management within the PPP framework can be projects, programs as a portfolio of interrelated projects, the life cycle of a project, and individual phases of a project.

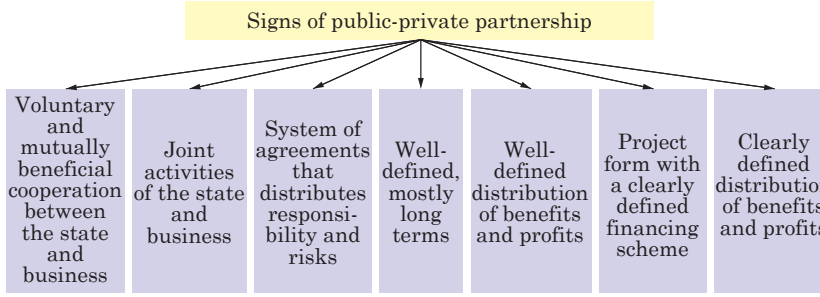

Fig. 1. Signs of public-private partnership
Source: compiled by the authors

Among the mandatory features of PPP, the most significant is the characteristics of PPP as a project.

The difficulty is that there is no generally accepted definition of the term "project".

Like any PPP project, it must have the following features:

– uniqueness of the project result;

– complex nature;

– dividing the project into stages;

– limited financial, human, material and other resources;

– limited time for the implementation of work;

– a special organization of projects, which is manifested in the budgetary and organizational independence of the project from the budgets and organization of the parties involved in the implementation of the PPP project.

PPP as a special type of project is characterized by the following features:

– participation in the project of parties with divergent, often multidirectional interests;

– social and public significance of projects;

– an ambiguous approach to assessing the effectiveness of projects.

Table 2 shows the classification of PPP projects depending on the above features.

Another important feature of PPP projects is the mandatory active (not only financial) participation of government agencies and businesses in the project.

The parties are a public and a private partner.

Table 2. Classification of PPP projects

Classification feature	**Types of projects**
By level (degree of significance of projects)	Federal level project; Interregional project; Regional level project; Municipal level project; Intermunicipal level project; Municipal level project with regional participation
By project implementation stage	Initiation; Planning; Investment; Implementation; Financial closure; Exploitation
By implementation time	Up to 3 years (short-term project); From 3 to 5 years (medium-term project); Over 5 years (long-term project)

Source: compiled by the authors

The social and public nature of PPP is realized through the principles of PPP projects. Public-private partnership, municipal-private partnership is implemented on the following principles:

– openness and accessibility of information about public-private partnerships, municipal-private partnerships, with the exception of information constituting a state secret and other secrets protected by law;

– ensuring competition;

– absence of discrimination, equality of the parties to the agreement and their equality before the law;

– conscientious fulfillment by the parties to the agreement of their obligations under the agreement;

– fair distribution of risks and obligations between the parties to the agreement;

– freedom to enter into an agreement.

The purpose of PPP is the concentration of material and financial resources, as well as the attraction of funds from extra-budgetary sources for the implementation of socially significant projects and programs in a wide range of sectors of the economy, social and innovation spheres using funds from regional, local budgets and regional and municipal property.

The PPP purpose includes three interrelated elements:

1) accelerating the pace of socio-economic development of the region through additional investments in infrastructure facilities attracted from extra-budgetary sources, as well as by improving the quality of public sector services;

2) saving budget funds in the short term by distributing funding over a longer period;

3) increasing the efficiency of using budget funds by attracting the private sector.

From the point of view of state regulation of the economy, PPP is aimed at attracting private sector organizations to the implementation of resource- and capital-intensive infrastructure projects, as well as ensuring the development of production activities in a wide range of sectors of the economy and, ultimately, improving the living standards of the population.

The industry localization of PPP projects is varied. Today, in the world of PPP, projects are being implemented in the following sectors of the economy:

– financial sector;

– public order and safety – ensuring order in transport and public places operated by private companies (parks, public buildings, etc.);

– real estate – construction and operation of public facilities and municipal housing in exchange for the right to build and develop commercial projects;

– education and medicine – construction of schools, hospitals, their refurbishment by private companies receiving the right to commercial development and development of other land plots;

– environmental protection and development of tourism infrastructure – maintenance and development of parks, reserves, unique natural sites, combined with the right to exploit natural and reactionary resources, including receiving income from visitors and tourists;

– municipal services – renovation and operation, as well as construction of new utility networks (water supply, sewerage, etc.), street cleaning, garbage removal and disposal, municipal transport;

– telecommunications – creation of telecommunications infrastructure and monopoly rights to operate it, accompanied by obligations to provide services to consumers at affordable prices (tariffs);

– transport – road construction, operation and maintenance of traffic monitoring and control systems, construction and operation of highways, airport terminals and other projects in road, rail, air, urban, sea, river transport, etc.

When using PPP projects to solve problems of development of a country, region, or industry, it is important to understand that PPP has both advantages and disadvantages.

Let's first consider the strengths of public-private partnership projects.

For the state, the benefits of using public-private partnership projects are:

1) accelerating the implementation of new socially significant projects by attracting additional financial and other resources;

2) the possibility of using an established mechanism for managing large and complex programs;

3) the prospect of using innovative technologies developed by private enterprises;

4) attracting highly qualified private business experts;

5) increasing the efficiency of state property management and saving public expenditures;

6) encouraging entrepreneurial initiative in socially significant sectors of the economy (including in the field of innovation);

7) the possibility of optimizing the number of management personnel on the part of the state when managing the project;

8) increasing technological and financial potential in various sectors of the economy as a condition for the transition from a resource-based economy to a new knowledge economy;

9) reducing corruption;

10) creation of flexible models for project implementation.

Business winnings are associated with:

1) the opportunity to make a profit from participation in projects, participation in which is impossible without interaction with government agencies;

2) direct support from government agencies, including access to additional sources of financing;

3) provision by the state of a guaranteed monopoly on the use of the allocated resource exclusively to those private enterprises that participated in the implementation of the project;

4) risk reduction through long-term placement of investments under government guarantees;

5) obtaining non-economic benefits through closer cooperation with government agencies during the implementation of projects;

6) new opportunities for innovative business;

7) receiving tax benefits and guarantees (quasi-money);

8) in conditions of a financial crisis – the opportunity to obtain additional financing or a loan at a preferential interest rate from state corporations or state commercial organizations.

Often the government's valuable contribution is not the provision of valuable assets or funds, but rather the granting of a government-guaranteed monopoly to the private partner over the use of the allocated resource. However, along with the benefits, the use of PPP projects for business is also associated with certain risks.

Disadvantages of PPP:

1. PPP projects are projects with a long implementation period, so they are riskier.

2. PPP projects require more significant organizational costs than when privatizing or leasing state property. Significant funds of project initiators are spent on preparing feasibility studies, business plans, and procedural issues.

3. Very often, the condition for the participation of private partners in PPP projects is the fulfillment of additional non-price conditions.

Such conditions are especially often present in infrastructure projects. The private partner has an obligation to provide third parties with non-discriminatory access to this infrastructure. There are serious restrictions on the participation in PPP projects of operators occupying a monopoly position. This is due to the promotion of competition and the prevention of abuse of monopoly position. Thus, when holding a tender for managing a highway, a consortium of construction companies will most likely be preferred to a consortium of road carriers.

4. A serious problem, especially in middle- and low-income countries, is the political, legal and regulatory risks associated with a change of government, changes in legislation, and the risk of the state not fulfilling its obligations. Therefore, clear legislative regulation of organizational structures of projects and forms of providing guarantees to business is an important aspect of the PPP institution. For both the state and a private company, PPP is attractive if there is a clear scheme and tender basis for choosing a partner, and openness and transparency of financing and business activities are observed. If the project is profitable, responsibilities are clearly established and the risks of the parties are distributed, there is an effective mechanism for resolving conflicts and disputes.

5. A huge set of problems is associated with the rescue of PPP projects in the event of bankruptcy or refusal of one of the parties to continue participating in the project. Since the project is not purely private, the usual bankruptcy mechanisms (sale of assets) are not applicable.

All of the above risks are especially high in countries with middle and low incomes, which are characterized by undeveloped practical PPP tools, inexperience of government partners, corruption and dishonesty of private partners. For these countries, the following risks are of particular importance:

– the risk of late deliveries or non-compliance with standards – most of it is borne by the state;

– the risk of non-payment of claims – as a rule, rests with the private partner;

– the risk of demand fluctuations is borne by the state, because a private partner cannot influence such a situation.

All this often leads to the ineffectiveness of PPP projects.

A serious general risk for the implementation of PPP projects is the potential contradictions between private business and the state,

since their goals are opposite: private business aims to make a profit, and public business aims to protect state interests by regulating and minimizing risk.

Misalignment of interests can lead to disagreements and mistrust between partners.

Particularly difficult are socially oriented PPPs, which are projects to provide services to the country's poorest population. Such projects provide government subsidies as part of the financial support for the project. In this case, private business is required to agree to limit profitability, which is difficult to realistically assess, which complicates negotiations on forming a partnership and agreeing on the goals of the participants. There may be some reluctance on the part of the private sector to work in urban development, especially in sectors that are traditionally the domain of state and municipal authorities, such as affordable housing, water and sewer management, wastewater treatment, and the like.

As a result, the state may put increased pressure on the private sector, which makes its participation in the project uninteresting.

The complexity of projects implemented within the PPP framework, the difficulties of coordinating the interests of PPP participants, developing a financial scheme and target indicators require highly qualified personnel capable of carrying out work related to the formation of PPP. At the local level there are not always specialists capable of organizing and carrying out the entire range of work to create a PPP.

The financial crisis revealed another problematic aspect of PPP. The increase in the market price of resources, difficulties in borrowing, and problems with the resource base of state and municipal budgets have made it difficult to implement PPP projects. These are additional risks that must be taken into account when developing the project and its implementation model.

Public-private partnership is a rather complex hybrid institution. It includes a large number of different forms of interaction between business and government, ranging from simple contracts for the purchase of goods and services to complex concession forms. In terms of implementation mechanisms, PPP is fundamentally different from the traditional public sector in that the state relieves itself of obligations for the direct production of goods and provision of services and transfers

this function to the private sector. The state, together with private companies, establishes a special operator organization to produce goods/provide services, which, interacting with consumers, private firms and financial institutions, implements the PPP project. The differences between the traditional mechanism for providing services in the public sector and the PPP mechanism are shown in **Fig. 2** and **3**.

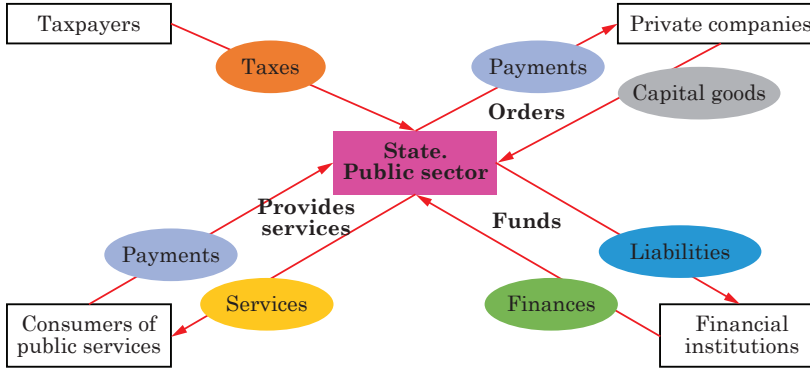

Fig. 2. General diagram of the traditional mechanism for performing work and providing services in the public sector of the economy
Source: compiled by the authors

Within the framework of the PPP mechanism, the state mainly retains the functions of financing, ensuring quality control of work and services, ensuring the implementation of the public and social orientation of projects to social goals, and providing state support for projects.

A private company also takes on the functions of financing, current management, and sales of manufactured goods.

In a specific PPP project, the actual distribution of functions may differ in one direction or another, consisting of the following elements:

– design of the facility and PPP project;
– project financing;
– creation of a new object;
– ownership of property;
– property management;

– modernization of a previously created facility;
– transfer of the object;
– execution of work;
– provision of services, etc.

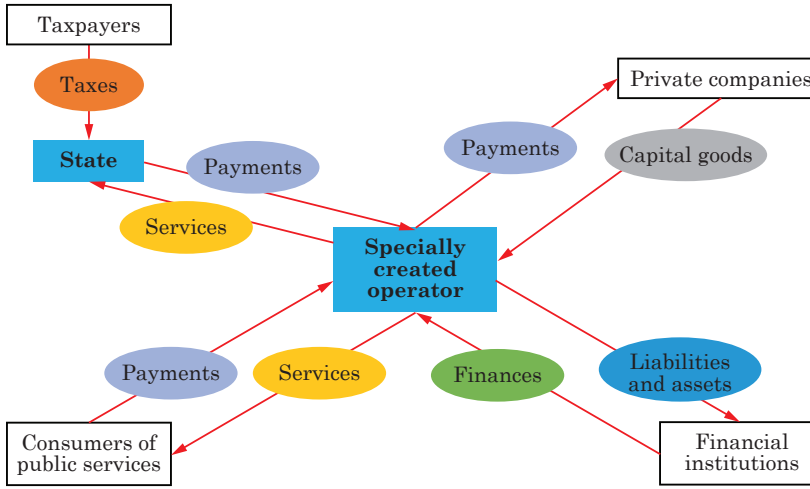

Fig. 3. General diagram of the mechanism for implementing a PPP project
Source: compiled by the authors

The PPP mechanism is enshrined in specific forms of PPP agreements (contracts). These contracts have a rather complex structure and vary greatly in individual countries, industries, and areas of activity, so it is quite difficult to identify forms and types of PPP.

The structure of agreements is significantly influenced by:

– the level and nature of development of a market economy in a particular country;

– the role and place of the state in the economy that emerged as a result of previous development;

– specifics of legal regulation of relations between the state and business in the country;

– degree of PPP development;

– the level of the regulatory framework development in the PPP field and complementary areas;

– specific areas and types of activities in which PPP projects are mainly implemented;

– specifics of risk distribution and financing conditions for a specific project.

A mandatory element of PPP, in addition to direct state participation in the project, is state support for projects. In world practice, the following **forms of government support for private investment in PPP projects** are found:

– cash subsidies – the state undertakes to provide a subsidy to the project. This can be a total lump sum or a fixed amount, payments can be either in installments or in a lump sum;

– guaranteed payment – the state assumes the obligations of the buyer (usually state-owned enterprises) towards a private individual in the event of no demand for a service or product;

– debt guarantee/subsidization – the state guarantees the repayment of a private person's borrowing, i.e. repayment of debts in case of default;

– revenue guarantee – the state guarantees a minimum income for the private operator;

– exchange rate guarantee – the state protects a private organization from fluctuations in the exchange rate of the national currency;

– guarantee of the estimated cost of construction - the state protects the private investor from potential excess of the cost of the project during the construction stage, etc.

The problems that need to be solved and the specific institutional conditions determine the variety of forms of PPP in a particular country. In the world literature, not only, as mentioned above, there is no established definition of PPP, but there is also no generally accepted classification of its forms and models. Moreover, when classifying forms of PPP, there is no established conceptual apparatus: various authors use concepts such as "form", "model", "type", "type", "mechanism", "scheme", etc. for classification. In practice, there are many different forms of partnership between the state and private structures.

The European Union (EU) countries use a classification of public-private partnership schemes (**Table 3**).

Table 3. Classification of PPPs in EU countries

№	Definition	Definition
1	Service contract	An agreement under which a private organization ensures the operation of state property for a certain period of time, while the state benefits from the competencies of the private operator
2	Management and Operation Contract	The infrastructure facility is transferred to the management of a private party, which receives fixed payments from the state, or payments linked to the achievement of established targets
3	Lease contract	A private organization receives revenue from a government-owned facility by paying fixed lease payments to the government and committing to operate and maintain the facility. The demand risk is assumed by the private party, while the state retains construction risks
4	Leasing schemes	BBO – buy, build and operate; LDO – lease, reconstruction and operation; WAA – extension
5	Turnkey construction	BOT – construction, management and transfer. The private party provides the design, construction and operation of the facility, with its return to the state upon expiration of the contract (or within a specified period)
6	Concessions	BOOT – build, own, operate; BROT – build, rent, own and transfer; BLOT – construction, rental, operation and transfer; BTO – construction, transfer and operation; DBFO – design, build, finance and operate; BOO – build, own and operate; BDO – construction, modernization and operation; DCMF – design, construction, management and financing

Source: Highways Agency – Design, Build, Finance & Operate (2008). Highways Agency. Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20120810122758/http://www.highways.gov.uk/roads/33503.aspx

Most national PPP councils propose to classify PPPs depending on the distribution of risks between participants and the degree of private sector involvement in projects. **Fig. 4** shows the classification of PPP forms used by the Canadian National PPP Council.

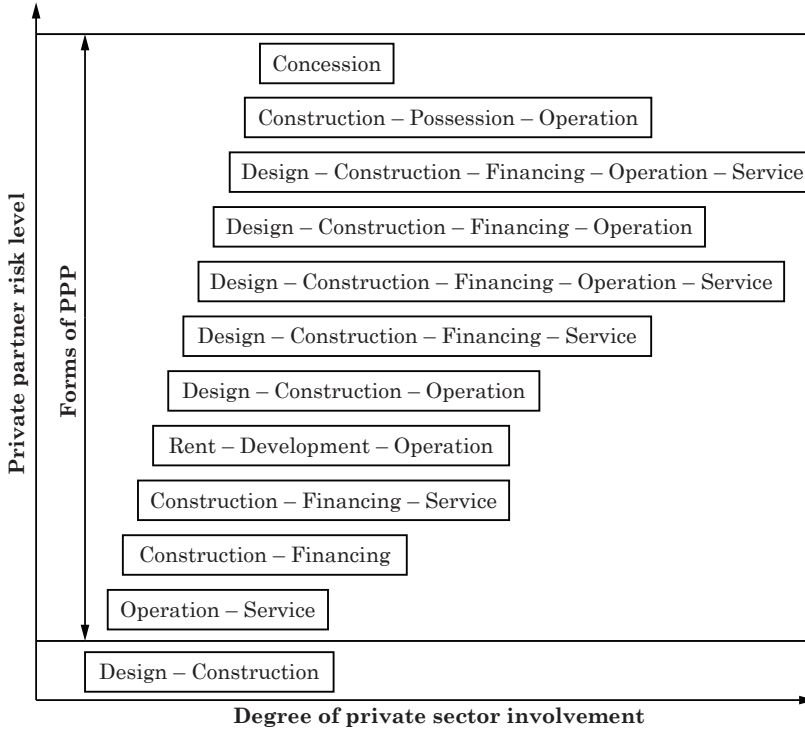

Fig. 4. Classification of PPP forms used in Canada
Source: Canadian Council for PPP. Available at: http://www.pppcouncil.ca/

It is proposed to distinguish **three basic forms of PPP**:

– concessions (concession type contracts) – the contract period is 20–25 years or more;

– contracts based on leasing (rent) type contracts – contract period – on average 10–15 years;

– contracts for the performance of works and services, management contracts (administrative contracts) – contract period is 1–3 years.

It is proposed to base the identification of basic forms on the distribution of obligations, risks and benefits of partners.

Other characteristics: distribution of property rights to objects at the end of projects, features of the transfer of property rights and the nature of management, are proposed to be classified as types of forms, as is done in the World Bank classification.

Table 4 shows these features of basic PPP forms.

Table 4. Basic forms of PPP and their key characteristics

№	Basic form of PPP	Contract duration	Features of state participation	Features of state participation in private companies	Commercial risks	
					States	Private companies
1	Concession and production sharing agreements	20–25 years	Owner of property – control over its intended use of property	Investor operator project financing operation and management	Short	High
2	Leasing contracts (rent)	10–15 years	Owner and tenant – project financing	Owner tenant investor operational management and financing of the project	High	Short
3	Government contracts	1–3 years	Customer	Executor	Average	Average

Source: compiled by the authors

1.2. The role of public-private partnerships in agricultural business

Partnership is an equal relationship, a mechanism of interaction between individual entities. The economic essence lies in the fact that a partnership can include a whole system of relations between entities united by a common goal, whose joint activities are carried out by coordinating their interests. A partner is involved in joint activities, as a rule, in cases where the entity does not have enough of its own resources to achieve its goals. Unlike those types of joint activities where one of the participants is subordinate to the other, and its activities are regulated by established norms, rules and regulations of the dominant entity in these relations, a partnership is an equal cooperation that is regulated by various agreements.

The Legal Dictionary states that a partnership is an equal legal relationship that exists between two or more business entities connected on a contractual basis by combining fixed capital in a business.

Partnerships can be developed for commercial or non-profit purposes. According to the areas of activity, the partnership can be social or economic, which, in turn, is divided into production and financial.

A partnership can be: between individuals (for example, when jointly forming a company or partnership), between individuals and legal entities (when concluding a civil contract), between organizations (supply agreements, leases, joint activities, etc.), between the state and private business (concession agreements, leases, leasing, trust management, etc.), as well as between individual states – when concluding cooperation agreements between them. Agricultural holdings are formed on a contractual basis. On a contractual basis, various types of clusters are formed (territorial-industrial, product-territorial and functional). On the basis of the agreement, joint projects for the construction of industrial and social facilities and their operation are developed and implemented.

The basis of a partnership is the coordination of the interests of its participants. Public-private partnership in the context of the transition to an innovative development model and a program-targeted management method is becoming increasingly widespread. However, there is currently no official understanding and interpretation of the term PPP

approved by law in Kazakhstan. The lack of a unified and systematic understanding of the phenomenon at the state level hinders the process of such partnership.

The role of corporations in the economic and social development of rural areas, ensuring food security in the country, and promoting Russian products on world food markets is increasing.

The role of farms, which are often the only village-forming structure in a certain territory, is increasing. Agricultural business can no longer be given commands; it independently makes decisions to increase production volumes and promote it to national and world food markets. But with insufficient development of the necessary institutional, legal and economic infrastructure, it is impossible for the manufacturer to carry out effective activities.

There is a need for a partnership to promote food (forming infrastructure, establishing preferential tariffs, improving taxation), modernizing industries in order to increase the competitiveness of products, establishing customs duties to protect domestic producers in the domestic market, as well as compensation payments for price regulation of the food market. At the same time, there is a need not only to develop partnerships between the state and business, but also between various government structures (federal and regional ministries and departments, scientific and educational institutions, etc.).

Public-private partnership is becoming an effective tool for changing the usual forms of state participation in the economy in order to stimulate its growth in the context of economic globalization. PPP changes the distinction between the concepts of "national" and "international". The approach to the state as a subject of economic relations, capable of participating in the commercial production of public goods in the country and abroad, is becoming increasingly widespread. PPPs increasingly represent "a set of contractual relationships between internal and external investors".

PPP with the participation of foreign capital helps the country integrate into the global economy and obtain the necessary experience and advanced technologies. Such a partnership implies the use of economic diplomacy methods to stimulate the growth of the national economy: states interact with TNCs in a global context, which serves as a condition for maintaining and increasing the competitiveness of

national economies. As a result, the economic role of the state increases, despite the decrease in its share in the capital of companies.

French politician and researcher L. Fabius argues that the time of a partner state is coming to replace the master state in the 21st century – "the era of synthesis is coming", which makes the state more effective and open.

In the context of intercountry integration, with the interpenetration of international commodity and financial flows, PPP has become an important direction of economic development. Thus, in EU countries, PPP is widely used to strengthen economic, territorial and social ties between individual parts of a single economic space. And although the state is curtailing its activities in the competitive sector of the economy, its resources continue to participate in creating profits by supporting infrastructure enterprises. To designate infrastructure sectors in the European Union, the term "services of general economic importance" (SEI) is used, which does not contain the adjective public. EU rules are neutral with respect to the form of ownership (state or private) of an enterprise operating within the SEI.

The main thing is that these facilities and the economic complex operate reliably, without limiting competition. But when it comes to international projects involving state-controlled companies that hold a monopoly position in their countries, they are perceived as agents of influence of a foreign state.

At the same time, the state has not withdrawn from the processes of international cooperation, since markets and globalization can serve as means of achieving development goals leading to an improvement in the quality of life of people, but only if the actions of the state remain an integral part of the development strategy. This means recognition of the PPP prospects, when the state is called upon to improve the conditions of economic activity, directly influencing the competitiveness of products in global markets.

Formally, it can be argued that globalization is shifting the center of gravity of economic power from governments to the private sector.

At the same time, in the foreign market, national states, as a subject of economic diplomacy and an important PPP element, own and use instruments of influence, still acting as key players, but at the same time their role is changing.

Currently, privatization with the participation of foreign investments is beginning to affect network industries, contrary to protectionist trends – a reaction to globalization processes. State support helps to intensify business activities abroad. It is increasingly noted that when forming a national innovation system, such a policy should ensure the unification of the efforts of government bodies at all levels, organizations in the scientific and technical sphere and the business sector in the interests of accelerated use of scientific and technological achievements in order to implement the country's strategic national priorities.

At the same time, it is emphasized that the policy in the field of development of the innovation system is based on equal public-private partnership and is aimed at combining the efforts and resources of the state and the business sector of the economy for the development of innovation activities.

At the same time, it should be emphasized that the adoption of regulations governing PPP is not carried out in a single system, but spontaneously (as the problem worsens), it is aimed at solving individual local problems. Therefore, the use of individual acts in full is impossible, since at the time of adoption, they, as a rule, do not fit into the established legal system. There is inconsistency in the actions of individual departments in the process of discussing and adopting regulations.

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

Agriculture was one of the first among all sectors of the economy to switch to a program-target method of management. As part of the implementation of targeted programs for individual livestock sectors, their restoration on an innovative basis, joint financing of innovative projects, and the formation of infrastructure began.

At the same time, only the state is currently involved in the training of qualified personnel; agreements with agribusiness for targeted training are formal. Therefore, the quality of specialist training does not always meet the requirements of employers. In this regard, it is necessary to develop PPP in training personnel capable of carrying out modernization in the agricultural sector of the economy, forming clusters, technology parks and technopolises. The contractual basis between state universities and business in the training of personnel of certain qualifications will allow timely replenishment of the ranks of managers and will ensure expanded reproduction on an innovative basis. Familiarizing students at the training stage with the conditions of a particular farm (while undergoing internship on it) will not only equip a potential employee with the necessary knowledge and skills, but will also create conditions for the business to constantly implement innovative processes.

According to one approach to the PPP interpretation, public-private partnership is compared with indirect privatization. We are talking about the redistribution of powers between the state and business in strategic sectors that cannot be privatized, but for which the state does not have funds for development (housing and communal services, social sphere, transport, improvement of populated areas, cultural heritage sites, etc.). At the same time, important conditions for the PPP effectiveness are the degree of participation of business in the project being implemented and the retention by the state of a significant degree of economic activity and some property rights. Otherwise, the implementation of PPP mechanisms may lead to partial or complete privatization of partnership objects by business.

All these areas are important for the development of rural areas. In rural municipal areas, forms of social partnership between municipal authorities and agribusiness are emerging in an evolutionary way. Public-private partnership is also defined as a special, but fully-fledged replacement for privatization programs, which allows realizing the potential of private entrepreneurial initiative, on the one hand, and preserving the control functions of the state in socially significant sectors of the economy, on the other. At the same time, the state is not deprived of the rights of the owner, while attracting business resources to solve a wide range of problems.

It is also worth noting that the participation of business in the implementation of projects requires the legal consolidation of partnership as a special kind of interaction between the state and business, which leads to significant institutional changes within the system of "government-business" relations, allowing for the expansion of the participation of entrepreneurs in the implementation of part of the economic , organizational, managerial and other functions. The degree of actual participation of private enterprise in joint public-private projects may increase or, conversely, decrease, depending on the chosen form of partnership and the extent of the transfer of the owner's powers to the private enterprise. Extreme options represent either full state ownership of the means of production and manufactured products, or complete privatization, that is, the final transfer of ownership rights from the state to a private entrepreneur (in the production and sale of products through any channels).

In world practice, there are many examples of effective interaction between the public and private sectors in the implementation of large-scale socio-economic tasks. They primarily differ in the number of obligations assumed by the parties to the agreement. Accordingly, the more functions and powers one of the parties assumes, the greater its participation in the implementation of the project, the more this model of relationships resembles a privatization (business obligations predominate) or nationalization (state obligations predominate) scheme. Therefore, in PPP it is important to optimize the balance of rights, obligations and responsibilities of each party.

The models and structure of PPP are varied, but there are some characteristic features that make it possible to distinguish partnership into an independent economic category. We can say that PPP arises as a formalized cooperation of public and private structures, specially created to achieve certain goals and based on the relevant agreements of the parties.

Based on the experience of countries with developed market economies, we can name the following features of PPP that distinguish its projects from other forms of relations between the state and private business:

– certain, often long periods of validity of partnership agreements (from 5 to 20 or more years, in the case of concessions – up to 50 years). Projects are usually created for a specific object (transport portal,

technology park, livestock complex, social infrastructure facility), which must be completed by a specified deadline;

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

– the mandatory presence of a competitive environment, when for each contract or concession there is a struggle between several potential participants. Open competitions for the implementation of certain innovative projects in the agro-industrial complex should be organized at the regional and regional levels, depending on the competitive advantages of each territory, and agricultural producers, businesses and investors should participate in them, regardless of the place of registration.

– specific forms of distribution of responsibility between partners: the state sets the goals of the project from the standpoint of public interests (for example, the volume of meat, milk production) and determines cost and quality parameters (the amount of allocated subsidized loans for the construction of new and modernization of existing livestock complexes and farms, supplies under leasing breeding animals), monitors the implementation of projects. The private partner undertakes operational activities at different stages of the project – development, financing, construction and operation, management, sale of agricultural products to consumers;

– sharing of risks between the parties to the agreement based on the relevant agreements of the parties.

An innovation strategy presupposes a systematic approach to the development of innovations and has its own characteristics in each industry. For example, when implementing an innovation strategy in crop production, there is a need to create conditions for improving the breeding process, modernizing the material and technical base of research institutes, pilot production farms, breeding centers and other institutions involved in selection and seed production, their staffing, the formation of a legal framework for the development of a seed production system and an effective mechanism for providing agricultural producers with high-quality zoned seeds of varieties of domestic selec-

tion, while creating conditions for breeders to work while ensuring the protection of their rights to breeding achievements.

Strategic partnership in the process of modernization of the industry arises between the state (federal and regional authorities), municipal authorities, science, agricultural producers, investors, and self-regulatory non-profit organizations. Each side has its own interests. But only in their partnership can it be possible to implement an agricultural policy aimed at providing the population with food based on the rational use of resource potential.

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

The economic essence of partnership lies in coordinating the interests of the parties entering into the relationship. If the interests of any of the parties in any area are violated, the partnership can formally be maintained, however, the economic effect will be low.

1.3. The place and role of public-private partnerships in the system of agricultural modernization

Public-private partnership is considered in all economically developed countries as a necessary condition for the development of an effective market economy. The importance of PPP increases when modernizing the economy. During the process of its institutionalization, the partnership between the state and private entrepreneurs became formal. The OECD Science and Technology Policy Committee has defined PPP in science, technology and innovation as any equal contractual relationship between legal entities of the public and private sectors, legally formalized for a certain period of time. It is noted that the parties interact in the decision-making process and co-invest limited resources, such as finance, personnel, equipment and information, to achieve specific goals in the field of science, technology and innovation.

Public-private partnerships are actively developing in England, France, Germany, and Italy. In these countries, PPP prevails in the construction and operation of infrastructure. Innovation partnerships are developing in the USA, Austria, Holland and Australia.

Kazakhstan has to go through the most difficult path of economic and legal qualification of numerous forms of public-private partnership. At the same time, it is important to legally correctly assess the role of the state not only as the main regulator, but also as a representative and defender of public interests and needs. The main feature of public-private partnership in modernization is the participation of the state and business in the public-private cooperation chain to create added value on an innovative basis. In turn, the process of its creation is largely determined by the nature of the redistribution of tasks and risks between public and private partners. At the same time, each partner assumes those tasks and responsibilities that it can provide with the best quality and efficiency. This is the synergistic potential of the partnership.

The National Security Strategy of Kazakhstan defines food security as one of its main directions. The agricultural sector ensures the economic and food security of the country, so it is important for Kazakhstan. Every year, the agricultural sector brings in 38 % of total national income. The industry employs about 16 % of the workforce (approximately 1.5 million people). There are more than 30 thousand agricultural enterprises and the same number of peasant farms in the republic. Kazakhstan is one of the world's largest suppliers of wheat and flour. According to this indicator, it is among the top 10 best countries. The main crop of the country is milling white wheat, which is of high quality. It is worth noting that the agro-industrial complex influences other sectors of the economy – the chemical, machine and instrument-making industries, wholesale and retail trade. That is why the development of agriculture is a priority for the state.

The development of the domestic food market of own production will ensure the development of other sectors of the economy (mechanical engineering, chemical industry, construction, transport, etc.). It should be emphasized that under the conditions of Kazakhstan's participation in the WTO, domestic rural producers in the domestic market have to compete with foreign producers, and therefore, it becomes necessary to increase the pace of modernization of the agricultural sector.

In countries with developed PPP, modernization processes are carried out comprehensively throughout the entire food chain and therefore products are supplied to world markets, including the Russian market, at a lower price.

The level of profitability and labor productivity in the production of domestic agricultural products remains low compared to economically developed countries.

To effectively use resource potential, it is important to choose the most rational option for structural reforms. The experience of economically developed countries shows that in conditions of fierce competition in world food markets, the market economy and its economic mechanism ensure high interest of producers in innovative activities, rational management, the development of creative abilities, highly productive labor, improving the quality of products and satisfying the interests of consumers. But innovation processes are developing more intensively in those countries in which the institution of public-private partnership in the innovation sphere has been created.

When forming an innovative development model, in each country the specificity of the economic relations that have developed in them is revealed, reflecting the prevailing values and interests of the ruling elite. The American model is built on a system of encouraging entrepreneurial activity and enriching the most active part of the population. The German model is based on providing equal opportunities to all forms of business, the Japanese model is based on the high competitiveness of products due to their high quality and low cost.

Kazakhstan has declared a model in which it is expected to create conditions for the development of a multi-structure economy in the agricultural sector of the economy (as in the German model). In reality, the American model in its worst version prevails. Conditions are created only for large businesses with high financial stability and innovative activity. Integrator investors invest their funds only in profitable industries. The majority of budget funds are allocated to agricultural holdings that carry out innovative processes in grain production, the beet-sugar subcomplex, poultry farming and pig farming.

Innovative processes in agricultural organizations with an unstable financial situation (and there are more than 80 %) and farms are practically not carried out. In the unprofitable industries of dairy and

beef cattle breeding, the resource and reproduction crisis deepens every year, since insufficient funds are allocated to support them.

At the same time, intellectual property is poorly protected; it is alienated from the owner without its consent or payment, and therefore there is no motivation for the development and implementation of scientific developments in production.

The underdevelopment of the commercialization of scientific developments (the predominance of fundamental research relative to applied ones), the mismatch of interests and the lack of connections between scientific institutions involved in product, technological, technical innovation and scientific institutions involved in organizational innovation, the absence of an intellectual property market are the reasons for the low level of innovative technological processes. The implementation of the results of fundamental research by Russian scientists is often observed outside the country. In this regard, new conceptual approaches are needed in the development of the innovation sphere, the development of a new innovation policy and the transition to public-private partnership when modernizing certain industries.

The agricultural sector of the economy has been identified as a priority direction for economic modernization. This means that the state will become an active participant in its implementation, and various forms of partnership between agribusiness and government will develop in agriculture.

The main directions of modernization are:

– product;
– technical;
– technological;
– organizational.

Comprehensive modernization of agriculture involves the formation of an innovation sphere in all sectoral scientific institutions (modernization at the expense of budgetary funds of their material and technical base and the creation of conditions for conducting fundamental and applied scientific research, development of commercialization of the results obtained, protection of intellectual property), experimental and innovation organizations (development of reproductive farms and the mechanism for transferring scientific developments to production), among rural commodity producers of all forms of management and

forms of ownership of each industry (stimulating innovation through direct methods of state support, the provision of tax incentives and other preferences, as well as through joint participation of the state and agribusiness in innovation programs and projects).

Innovations are the result of the implementation of scientific developments; they are divided into basic and improving. Basic product innovations are carried out, as a rule, by scientific industry institutes, breeding plants and breeding centers. They are formalized by patents for inventions and selection achievements, and copyright certificates. It takes decades to develop a completely new variety of agricultural crop or a new breed of animal. Improving innovations, processes to modernize a bred breed or variety, are carried out constantly and continuously.

In the context of the development of scientific and technological progress, technology and equipment are constantly being improved. Technology (from the *Greek* "techne" – art – skill and logic) is a set of processing methods, changes in the state, properties, form of raw materials carried out in the process of production. In crop production, technology includes the following processes: tillage, sowing, caring for crops, applying fertilizers, and harvesting.

In animal husbandry, technology includes the processes of keeping and feeding animals, the process of obtaining products from them (milking, slaughtering for meat and cutting up the carcass, shearing wool, etc.).

Technology embodies techniques, mode of operation, sequence of operations and procedures. It is closely related to the means, technology, equipment, instruments, and materials used. The set of technological operations forms a technological process. Moreover, the sequence of procedures in the crop and livestock industries remains largely constant, but its individual elements are constantly being improved in connection with the development of new equipment and new materials (feed, fertilizers and protective equipment, first of all). From this we can conclude that the process of technical and technological modernization is continuous. The purpose of technical and technological modernization is to ensure a transition either to intensive and high-intensity technologies that ensure the use of the biopotential of a new variety (new breed) by 50–65 % and 65–85 %, respectively, or a transition to resource-saving technologies that ensure their use by only 50–60 %. At the same time, resource savings of 25 to 50 % are possible.

Full use of biopotential is possible only if technology and a balanced diet are followed. Resource conservation is possible based on the balanced use of all material resources, which is ensured only in financially stable enterprises.

Depending on production conditions, the availability of resources and possible risks, the manufacturer independently chooses for itself the level of technology that provides it with a stable income for simple or expanded reproduction.

Implement (test and accompany in the first year of use by commercial farms) implementation organizations, managed systems, disharmony of representative and executive authorities. Many depressed regions continue to remain in this status due to disharmony between sectoral programs and laws on regional budgets, and the lack of institutions to stimulate the influx of private investment.

Innovation can give a scientific, technical, economic, social, environmental, or integral effect. This effect is necessarily planned and is achieved only when the new product is in demand and appreciated by its consumer.

Modernization of agricultural production and innovative development of agriculture are two main strategic approaches to the development of the industry. Modernization means bringing existing technologies and technical means of production to the global level, that is, transforming them into compliance with the requirements of world standards. Innovative development is the development of new products based on fundamentally new knowledge. These concepts are somewhat different from generally accepted concepts. This is especially true for modernization. The results from the use of technologies (crop yields, animal productivity) may be the world average. However, the technologies themselves can be high and intensive, or resource-saving. The technologies currently used differ greatly not only in economically developed countries and in developing countries, but even within the same country. Thus, within one rural settlement of an intensively developing country such as India, one can find the most modern high technologies for energy production and primitive technologies for soil cultivation (with low production costs). Therefore, we should strive not for the global level of existing technologies, but for the level of countries with high-tech production.

At the present stage, the role of agricultural science in the development of the domestic agro-industrial complex is noticeably increasing, the results of scientific research are becoming more in demand by domestic producers, as they create the basis for the establishment of an effective competitive rural economy.

At the same time, it should be noted that agricultural producers, due to the disparity in prices for sold agricultural and purchased industrial products, practically do not have the opportunity to carry out expanded reproduction, especially modernization of industries, without state support.

On the other hand, the funds allocated for modernization do not give the expected effect due to the fact that they are used to carry out individual areas of modernization, and not the entire complex, and because the managed systems lead to disharmony of representative and executive authorities. Many depressed regions continue to remain in this status due to disharmony between sectoral programs and laws on regional budgets, and the lack of institutions to stimulate the influx of private investment.

Domestic enterprises have not yet developed the practice of mandatory performance of all technological operations in accordance with technology, even in the presence of technical conditions. A new variety (breed) if the technology is violated will never give the expected results.

In the context of economic globalization and increasing competition, the modernization process must be effective, that is, accompanied by an increase in output at the lowest cost per unit of product.

A certain variety of each agricultural crop in the conditions of certain soil and climatic zones requires a certain technology for its cultivation (preparing the soil for sowing, sowing at strictly defined times, caring for crops, applying fertilizers and harvesting, in accordance with the quality of the soil and the level of precipitation). Carrying out all agrotechnical work within a strictly defined time frame and of a certain quality requires the availability of modern equipment, qualified specialists, a stock of zoned seeds of high reproduction, fertilizers, fuels and lubricants and funds for timely payment of labor and missing material resources.

The absence of any resource leads to overexpenditure and inefficient use of other resources, therefore, increases the cost of manufactured

products and reduces their profitability. The weakest link in the technological chain of individual industries that is currently holding back the modernization process is not the lack of financial resources, or even the lack of modern technology (as is commonly thought), but the lack of qualified innovative managers (able to form a team of specialists who can develop and implement strategic plans, innovation and investment projects for the development of industries, manage financial stability, thereby ensuring access to credit resources for their enterprises) and qualified workers (machine operators, machine milking operators, etc., capable of working on modern technology and equipment).

Increasing efficiency in a constantly transforming technological process under the influence of many external and internal factors is possible only if the forms of organization of production and labor, its payment, principles and methods of managing innovative production are improved.

So, modernization is an indispensable condition for increasing the competitiveness of industries. Moreover, large-scale modernization in agriculture, food and processing industries should be carried out on the basis of private capital, but with the support of the state. A private investor needs to create conditions that will increase its interest in financing the development of agro-industrial production and provide it with an income no lower than in other industries. Targeted support for commodity producers will ensure production growth in priority areas based on technical re-equipment and technological renewal of industries.

Modernization of agricultural sectors is, in the author's version, a continuous process of improving the qualities of the used varieties of agricultural crops and breeds of farm animals; as well as the process of improving the technology of agricultural production in order to fully utilize the biopotential of the land and variety (breed) while simultaneously improving the entire technological chain of machinery and equipment, the organization of production and labor.

A positive result can be obtained only if there is a transition from disparate innovation processes in individual areas, giving a local effect, to their system. In this regard, the essence of modernization of agricultural sectors, in our opinion, consists, firstly, in increasing their role as a regulator of transformations of biopotential (land, plant varieties, animal breeds) in the system of production potential; secondly,

in the importance of the industry as a base for connecting resources in the technological process; thirdly, in the reproduction of resources and products on an innovative basis.

Innovation is becoming the basis for the development of industries. The strategic development of each industry, as an organizational innovation, becomes a necessary condition for the implementation of product, technological and technical innovations. At the same time, investments should be made not only for scientific developments, but also for their implementation in production, as well as regulation of markets and development of rural areas. And for this it is necessary to create and develop the necessary institutions and infrastructure.

Moreover, if some already existing institutions (education, science, government regulation) only need to be adapted to modern conditions of the economic competitive environment, then other institutions – strategic management, self-regulation of business within the framework of emerging industry unions and associations, public-private partnerships – should be created again. It is also necessary to create (adapt) institutional, production, legal and financial infrastructure in accordance with the requirements of a market economy and the development of new institutions. All elements of the system are interconnected and interdependent; they must correspond to each other in time and space.

So, the modernization of agricultural sectors, as a system, includes all interrelated and interdependent elements (innovations, investments, institutions, infrastructure) and helps to increase production volumes and increase its competitiveness.

With the transition to a program-targeted management method, the state has intensified business in those areas that it considers priorities. This conceptual approach is more effective in market conditions. However, obstacles to the development of partnership between the state and agribusiness arise due to the lack in the country of both a conceptual understanding of the tasks and problems of developing a partnership between the state and business in the field of scientific research and development, and the implementation of results already tested in practice. Business in the agricultural sector does not always choose in favor of domestic breeders, seed and breeding farms, manufacturers of plant protection products, veterinary products, if the price-quality ratio for the products they offer is inferior to foreign analogues.

The self-regulatory organizations that are being created do not yet perform the functions of promoting high-quality seeds of regionalized varieties of domestic selection from their producers to consumers. The current situation on the market for innovative products during modernization can lead to a loss of national security.

The risk of loss of security is enhanced by the fact that there is no system for using various PPP models in the innovation sector. Using the accumulated experience of a centralized innovation process in the pre-reform economy, taking into account the experience of economically developed countries, could be transformed into new forms of partnership. When developing a new concept, one should take into account the specifics and conditions for the development of the Russian agro-industrial complex, rely on analytical selection and prioritization, taking into account the state of affairs in Russia, both in terms of system-wide conditions and special framework conditions for PPP.

The main obstacles to the PPP development in the agricultural sector of the economy are the imbalance of its framework conditions and imperfect legislation. There remains inconsistency between the organizational and legal forms of budgetary and commercial organizations. The issues of transferring rights to intellectual property obtained as a result of research in cooperative projects of state and commercial organizations have not been resolved. There is no regulatory legal act, the subject of regulation of which would be the involvement in economic circulation of objects of intellectual property for civil purposes, created at the expense of the federal budget. This leads to serious obstacles in implementing PPP projects in a legal manner. As a result of monitoring the programs being implemented, experts drew certain conclusions from previous failures in the implementation of structural policy, significantly changing its basic principles. The state strives to influence the conditions for doing business to a greater extent, rather than simply providing selective financial support.

In recent years, elements of partnership have appeared in the instruments of state regulation; regulation has begun to have certain features and differences:

– expanding the use of competitive mechanisms in determining areas of state support. At the same time, the use of measurable criteria to identify winners is increasing;

– budget funding will be allocated mainly for the creation of basic infrastructure;

– the role of public-private partnership projects is increasing, and the state declares the priority of participation in projects with a high multiplier effect for the economy as a whole;

– a project approach is used to implement most structural policy measures (including for monitoring final and intermediate results);

– the planning horizon is expanding, the emphasis is on long-term instruments.

Public-private partnership in the modernization of industries represents, in the author's version, equal relations between public and private structures, legally formalized by agreements with the distribution of powers and responsibility for the results of joint activities. The PPP essence is to coordinate and take into account the mutual interests of the state and business in the implementation of joint innovation and investment projects, targeted industry programs, in accordance with the goal of strategic development and the implemented agricultural policy.

It should be emphasized that the modernization process involves the creation of a set of organizational, economic and social conditions for all its participants, first of all, to ensure:

– interest of agricultural producers in obtaining additional benefits from the implementation of scientific developments;

– acceleration of the development of innovations that meet the needs of production; awareness of commodity producers in all spheres of the agro-industrial complex about scientific developments recommended for development in production;

– scientific and organizational preparedness of personnel at all levels of the innovation process;

– selection of priority directions in the development of scientific achievements in production;

– economic incentives for workers in the innovation sector for the effectiveness of their activities.

The experience of countries with economically developed economies, including intensive agricultural production, shows that the entire society that consumes its products is responsible for scientific and technological progress in the agricultural sector. Agriculture, due to

its specific characteristics, due to the influence of natural and climatic factors and limitations of organizational, economic and technical capabilities, cannot do without this help. Therefore, the state must not only have its own innovation policy, but also directly regulate and finance the constantly ongoing modernization process.

The level of modernization of individual industries depends on many factors. Factors influencing the level of modernization in agriculture are divided into the following groups:

– *political* (agricultural policy, including innovation policy, development of methods for state regulation of modernization processes and the policy of transition to new methods of partnership between the state and business);

– *economic* (availability and level of use of resource and production potential);

– *institutional* (formal and informal norms and rules that ensure the functioning of the agro-industrial complex system, including the level of development of cooperation and integration, the creation of clusters, industry unions);

– *legal* (availability of a regulatory framework to ensure and stimulate the modernization of agro-industrial production);

– *natural and climatic* (bioclimatic potential influences the choice of type of activity, technology and machine system, and the degree of investment attractiveness);

– *social* (composition and structure of the population, the presence of a team of managers capable of carrying out modernization);

– *environmental* (the level of contamination of the territory and the degree of soil degradation, erosion processes affecting the level of innovation activity and investment attractiveness).

Modernization processes are developing more intensively where investments are higher, where an integrated approach is used in the process of improving technology, equipment and production organization. In turn, investments are higher in those regions where the beneficial effects of all factors are combined, that is, where, in conditions of high bioclimatic potential, reasonable economic (including agricultural) policies are pursued, aimed at improving the social level. Moreover, where it is supported by the appropriate regulatory framework and all necessary regulations.

Investments are higher in those regions where integration processes are more intensive. It is the concentration of capital that makes it possible to invest significant funds in technical modernization and carry out innovative processes in a comprehensive manner. From this position, the processes of modernization of agro-industrial production are quite actively carried out in the Akmola region.

The investor invests capital in the production of those types of products that are in demand not only in the national market, but also in the world market. These types of products include, first of all, grain, oilseeds, sugar beets, as well as the production of poultry and pork.

Private investors are interested in the return on their resources. They do not invest in those regions where the bioclimatic potential is low, where the political situation is unstable, where there is no market infrastructure, that is, where investment and financial risks are high.

Thus, in the context of the globalization of the economy and Kazakhstan's participation in the WTO, strengthening its place in the international division of labor, the competitiveness of agricultural sectors and food security can only be ensured by the transition to an innovative model for the development of domestic production, which is based on the integrated use of highly productive plant varieties and animal breeds, advanced technologies and machine systems, as well as methods of organizing production, labor and management, and the development of various forms of public-private partnerships. The role of public-private partnership, as one of the institutions, is to ensure the implementation of reasonable agricultural policies aimed at improving the socio-economic level, stimulating agribusiness to participate in comprehensive modernization.

1.4. Models and forms of public-private partnership in the implementation of agricultural policy

The modernization of agriculture is designated as a strategic goal of the country's agricultural policy, which is part of the economic policy. The stage of economic policy development is characterized by a transformation of power-ownership relations and requires the development of new conceptual approaches and methodological recommendations

for optimizing distribution relations. This is especially true for the problem of food supply for the population of the country and individual regions. Reflecting objective patterns of development of economic relations, political goal settings determine the most progressive directions of development. The optimal balance in the relationship between politics and economics is achieved when political decisions are based on a comprehensive consideration of the objective laws of the development of economic processes.

Unlike *politics*, which directly distributes the means of subsistence, *economic policy* involves an exchange of activities. It is the redistribution function that is fundamental for state political bodies. At the same time, it should be noted that in market conditions, the number of economic decisions made purely politically is reduced to a minimum. "Manual control" is used only in emergency cases. As a rule, it leads to infringement of the interests of certain groups, but preserves the development strategy and interests of the majority of the population. Measures to regulate the national grain market in the context of a sharp drop in grain production, on the one hand, prevented the collapse of the bread market and preserved the sustainable development of livestock industries.

On the other hand, these measures influenced a significant decrease in the income of grain producers due to the difficulties of selling it through new channels. In conditions of limited independence in determining channels for promoting manufactured products, it would be logical for the state to ensure the purchase of all produced grain at guaranteed prices that ensure reproductive processes in the industry.

Businesses were asked to independently form promotion channels for domestic grain consumers (flour and cereal industry – consumers of food grain; feed industry and livestock industries – consumers of grain fodder). Thus, the principles of a market economy were violated. Price and non-price instruments of "manual regulation" made it possible to prevent the mass bankruptcy of agricultural producers affected by drought. At the same time, the current situation has demonstrated the increased role and imperfection of such instruments of the state mechanism as programming, quotas, lending, subsidies, and especially insurance. The transformation of economic results due to the adverse

impact of natural and climatic factors indicates the need to develop various forms of public-private partnerships that will reduce natural, economic, political and other risks and increase the sustainability of the agricultural system.

It should be emphasized that the political mechanism can bring the redistribution of the national product to a level beyond which the destruction of the system of incentives for accumulation begins, a slowdown in production growth, a weakening of labor motivation, and deformation of the entire economic system. On the other hand, the redistribution of benefits in the interests of the whole society and socially significant industries is an important function of the state.

The formation of agri-food policy in Kazakhstan at present (with a high share of food imports) is influenced by the policies pursued by the European Union and the United States. Import substitution, as one of the goals of this policy, will reduce Kazakhstan's dependence on other countries.

It should be noted that "agricultural policy" and "agrifood policy", being different economic systems with their own interests, spheres of influence, instruments for their regulation, at the same time constitute a single system of a higher order, are formed and implemented by a single state authority (Ministry of Agriculture) in close cooperation with representatives of agribusiness (industry unions). Their formation and implementation are interconnected and interdependent.

Economic policy, in turn, is aimed at the implementation of agricultural and agri-food policy, determined by economic entities themselves in the interests of their owners, the forms and methods of its implementation are based on public-private partnerships and the legal framework.

In the process of implementing agricultural policy, various forms of PPP are being developed. Depending on the nature of the tasks being solved, we have divided the entire variety of existing and newly emerging forms of partnerships into separate types (models). According to the PPP goals, *models of organization, cooperation, integration and financing* differ.

The organizational model includes various types of concessions. Cooperation and integration are developing between public and private structures in the implementation of targeted programs, in the implementation of innovative processes, and in the formation of infrastructure.

Financing models include all types of leasing and rental, project financing, co-financing of target programs, all types of contracting.

Rent in its traditional form (rental agreements) and in the form of leasing is widespread. In agriculture, leasing land from the municipal fund of unused and unregistered land is widespread. In the context of the implementation of targeted programs, the acquisition of machinery, equipment and breeding animals through leasing has become widespread.

In recent years, a new model of partnership between the state and private business, *the "Production Sharing Agreement",* has been emerging, which is reminiscent of a traditional concession, but still different from it. The differences lie primarily in the different configuration of property relations between the state and the private partner. If in concessions, the concessionaire owns all the products produced, then in production sharing agreements, the state partner owns only a part of it. The conditions and procedure for the division of production between the state and the investor are determined in a special agreement. As a rule, contracts with a government agency are a very attractive business for a private entrepreneur, since they guarantee it a stable market and income. However, this form of agreement is more common in the mining industry; it is not yet used in the agricultural sector.

In order to develop public-private partnerships in Ukraine, the Ministry of Economic Development, Trade and Agriculture has already taken a number of important steps at the legislative level: 6 resolutions developed by the department have been adopted that improve the procedures for interaction between the state and the private partner. The Ministry of Economy has submitted to the Verkhovna Rada of Ukraine a bill to amend the Tax Code of Ukraine regarding the implementation of projects on PPP terms. Public-private partnership is one of the leading mechanisms and established practice in many developed countries of the world. An improved partnership system of relations between the state and business at the national level will make it possible to attract and effectively use investment resources for the structural restructuring of the Ukrainian economy. As a result, this will contribute to the creation of jobs, an increase in wages and the overall quality of life in the country.

In the conditions of market relations, the following forms of PPP have developed: the development and implementation of national projects

and target programs, the creation of special economic zones (SEZ), technology parks and agrotechnopolises, and investment funds.

The most common form of PPP are national projects and targeted programs. The purpose of priority national projects is targeted and targeted support for the development of key areas. Housing, healthcare, education and agricultural development were selected as such. The positive aspects of this instrument include the very designation of state policy priorities, as well as the desire to maximize the distribution of funds through competitive mechanisms or according to formalized criteria.

However, national projects revealed a discrepancy between the problems and the identified priorities. So it is not entirely clear what the state is going to do with non-priority areas, attention to which has sharply decreased. For example, the development of grain farming and other sectors of crop production are not included in the priority sectors of the agro-industrial complex. Only certain sectors of livestock farming were designated as priorities, but the sectors for procurement and processing of products were not designated, which affected the aggravation of relations between producers of agricultural products and their processors.

Despite the massive advertising campaign, the amounts allocated for national projects are not very large (about 3 % of federal budget expenditures in all areas). This creates a gap between high expectations and real possibilities.

A weakness of national projects is also the lack of comprehensiveness of their elaboration. This leads to unplanned and unwanted effects. As a result of the implementation of national projects, differentiation in the socio-economic development of regions has increased, not only in the level of production, but in the level of consumption of basic food products.

In Kazakhstan, with its vast territories and various conditions for the development of priority industries, such a form of partnership as the creation of special economic zones is developing. First, three types of SEZ were identified: industrial-production, technology-implementation and tourist-recreational, and then – port agro-industrial complexes are practically included in all of these zones. The SEZ mechanism provides preferences in three areas: tax and customs benefits, government financing of infrastructure, and reduction of administrative

barriers. The status of a special economic zone is assigned based on the results of a federal competition at which applications from regions are considered.

The state continues to form an adequate legal framework to protect the rights of investors. The state's constant dialogue with foreign capital owners and Kazakh entrepreneurs is aimed at providing the most attractive conditions for doing business in the republic. For this purpose, **Kazakhstan**, based on effective world practice, has created **special economic zones**. A special economic zone is a limited territory of the Republic of Kazakhstan, which has a special legal regime.

Special economic zones are created **in order** to accelerate the development of regions to enhance the entry of the republic's economy into the system of world economic relations, the development of one or more branches of new technologies, the creation of highly efficient export-oriented industries, the development of new types of products, attraction of investments, development of legal norms of market relations, introduction of modern management and management methods, as well as solving social problems.

The governing body of a free economic zone (FEZ) can be either a government agency or a management company. **A management company** can be created by non-state legal entities, including foreign ones. The law stipulates that **if a FEZ is created at the initiative of government bodies**, at least 50 % of the voting shares of such a company must belong to the state. In the event that **a free economic zone is created at the initiative of non-state legal entities**, the state must own at least 26 % of the voting shares.

Thus, non-state investors (including foreign ones) who wish to take part in the FEZ activities can now act as founders of a management company. Thus, they are given the opportunity to participate in decisions that have a direct impact on their activities.

Priority activities correspond to the goals of creating a special economic zone. Those persons who carry out such types of activities are subject to the special legal regime of the SEZ, and these persons are **participants in the FEZ**. Ancillary activities, in turn, are carried out in order to support the activities of the FEZ participants, and are carried out on its territory by persons who are not participants in the FEZ.

Persons carrying out different types of activities in the territory of the FEZ are subject to different legal regimes, and the Law imposes different requirements.

The law establishes that an applicant submitting an application to carry out a priority type of activity must have funds and property that have not been withdrawn from circulation in an amount corresponding to the feasibility study of such an application. The law also determines that the applicant's activities must correspond to the goals and types of activities carried out in the FEZ territory.

In turn, **the key requirement** for persons applying to carry out auxiliary activities in the FEZ territory is **the status of a Kazakhstani producer of works and services**.

In addition, it is necessary to mention that the Law contains a rule on the termination of the activities of separate structural divisions of FEZ participants carrying out priority activities outside the FEZ. This provision, in our opinion, is aimed at increasing the real efficiency of the FEZ – in the absence of the opportunity to have structural units outside the FEZ and carry out other types of activities than those that correspond to the goals of creating the FEZ, the participants of the FEZ will have to make every effort to ensure that their activities on the territory of the FEZ were effective and successful.

The law introduces a mechanism for providing services to FEZ participants on **the "one window" principle**, which means minimizing the participation of applicants in the processes of collecting and preparing various documents, and limiting their direct contact with entities providing public services.

In our opinion, **the Law is aimed at increasing the real efficiency of the FEZ**. This is supported both by changes that provide FEZ participants with additional rights and opportunities (participation in the management of FEZ, easing requirements for finding foreign labor, introduction of the "one-stop shop" principle), and changes that are essentially restrictive in nature (requirements to the sufficiency of funds and property, the obligation to cease the activities of separate structural divisions outside the FEZ).

It is obvious that consistent implementation of the Law can have a positive impact both on increasing the FEZ efficiency in particular and on improving the investment climate in general.

There are nine special economic zones operating on the territory of the Republic of Kazakhstan, namely "**Astana – a new city**" (Astana), "**Aktau Seaport**" (Aktau seaport), "**Information Technology Park**" (Almaty) and "**Ontustik**" (Southern-Kazakhstan region), "**Burabay**" (Shchuchin district), "**National Industrial Petrochemical Technopark**" (Atyrau region), "**Khorgos-Eastern Gate**" (Almaty region), "**Pavlodar**" (Pavlodar region) and "**Saryarka**" (Karaganda region).

The regulation and development of special economic zones in each of the listed regions is determined by the personal Decree of the President of the Republic of Kazakhstan. These Decrees provide for the main territory on which the special economic zone will be developed, certain goals, a list of priority sectors for the development of special economic zones, management and competence of local authorized bodies, customs regulation, taxation, as well as the procedure for the stay of foreign citizens in the territory of special economic zones.

World experience shows the effectiveness of special economic zones. However, this form of PPP for use in Russian practice is new and has not yet become widespread. It should be used in depressed regions whose budgets do not have funds for co-financing innovation and investment projects, as a result of which agricultural producers in regions with a deficit budget cannot participate in the implementation of targeted industry programs and modernize industries located on their territories.

Technoparks. Technopark in modern conditions acts as the leading organizational and economic form of public-private support for innovative business. It is most appropriate to organize technology parks as non-profit partnerships between local administrations, scientific institutions, commercial and public organizations.

It should be emphasized that integration processes have intensified, agricultural holdings have been created and operate effectively in food subcomplexes, and territorial-industrial, product-territorial, innovation, transport-logistics and other clusters are being formed. In addition, Kazakhstan joined the WTO in 2011, which implies the strengthening of all forms of PPP. On January 1, 2012, the Agreement on the Common Economic Space of Kazakhstan, Russia, and Belarus came into force, which means the expansion of the boundaries of PPP within the framework of international partnership.

Integration has both positive and negative effects on the development of the agro-industrial complex. The positive thing is that the modernization of industries in agricultural organizations that are part of agricultural holdings is carried out comprehensively, and therefore they have high performance results. The negative thing is that large businesses invested their funds and attracted subsidized loans only for the development of highly profitable industries (poultry farming, pig farming, grain production, sunflowers, sugar beets).

The remaining industries were left with virtually no government support and are developing at a low rate. Integrator-investors are only interested in fertile lands, territories with a well-developed production infrastructure, and highly qualified personnel. By developing highly profitable industries on the best lands, they appropriate all the land rent for themselves. At the same time, the sustainability of development of other territories and industries is reduced.

Along with hard integration (agricultural holdings and agricultural firms), its soft forms (unions and associations) are developing, which play an increasingly important role in the development of individual industries. In addition, such forms of integration as product-industry, territorial-industry and functional-industry clusters are developing. The development of product clusters in certain territories contributes to the effective development of all forms of economic activity and the development of various forms of PPP.

1.5. Innovative mechanisms for the formation and development of the grain product cluster

The leading branch of the agro-industrial complex of Kazakhstan is the grain product complex. Grain farming is the basis of the agro-industrial complex. The total sown area of agricultural crops is 23 million hectares, grains and legumes are grown on 16.1 million hectares, including wheat – 12.9, oilseeds – 3.1, fodder crops – 3.2 million hectares. The profitability of grain crop production largely determines the financial well-being of agricultural enterprises.

Grain and its products traditionally constitute the main group of human food and animal feed. Despite the fact that the formation and

development of market relations made significant adjustments to the food supply of the population, grain products retained their importance.

The grain market is a complex economic system, including a set of economic relations between its subjects, which can be rural commodity producers, enterprises and organizations involved in its procurement, storage, industrial processing, as well as various types of structures serving the movement of grain and its processed products throughout the technological process. chains from producers to consumers (**Fig. 5**).

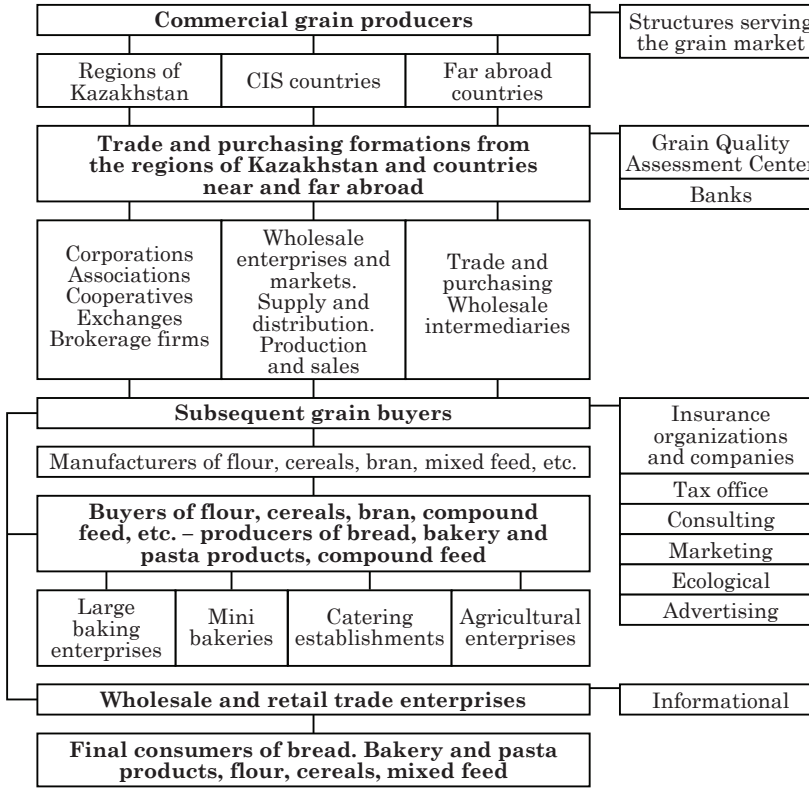

Fig. 5. System of connections between subjects of the grain market

Grain and its processed products are in high demand in the economy of any state, since they are used as raw materials for the production of food products (**Fig. 6**).

One of the elements of the innovation infrastructure is innovation clusters as a new organizational form. Clusters are considered in the form of platforms for the introduction of advanced technologies and the development of innovative production, thereby ensuring the competitiveness of the regional economy.

It is advisable to consider the totality of types of grain resources, as well as semi-finished technological processing products obtained from them and final food products as a system of commodity relations in which there is a certain hierarchy, permeated with material, information and financial flows. There must be consistency between the links and stages of product distribution in the volumes of supply and demand, the quality of raw materials and products, as well as price levels and profitability.

Moreover, the closer the technological cycle is to grain production, the higher the need for this relationship.

Modern economists express different opinions regarding the economic interests of agricultural producers and grain storage and processing enterprises. According to agricultural scientists (G. A. Kalieva, A. B. Moldashev, Zh. Sundetov, etc.), the basis of the grain market is grain production itself, and its main economic entities are grain producers, whose economic interests should be given priority and all other market structures (including government bodies) should be aimed at servicing them.

The effective functioning of grain farms is ensured through their connection with various sectors of social production. Research shows that the highest competitiveness of production is observed in groups of independent commercial enterprises, geographically located more compactly and connected by a flexible organization of relationships, including informal ones, which contributes to the constant and rapid introduction of innovations. Such associations in developed countries are called clusters, in Russia – complexes. Integration relationships, including information exchange, become the most significant factor of competitiveness, having a decisive influence on the productivity of all other factors.

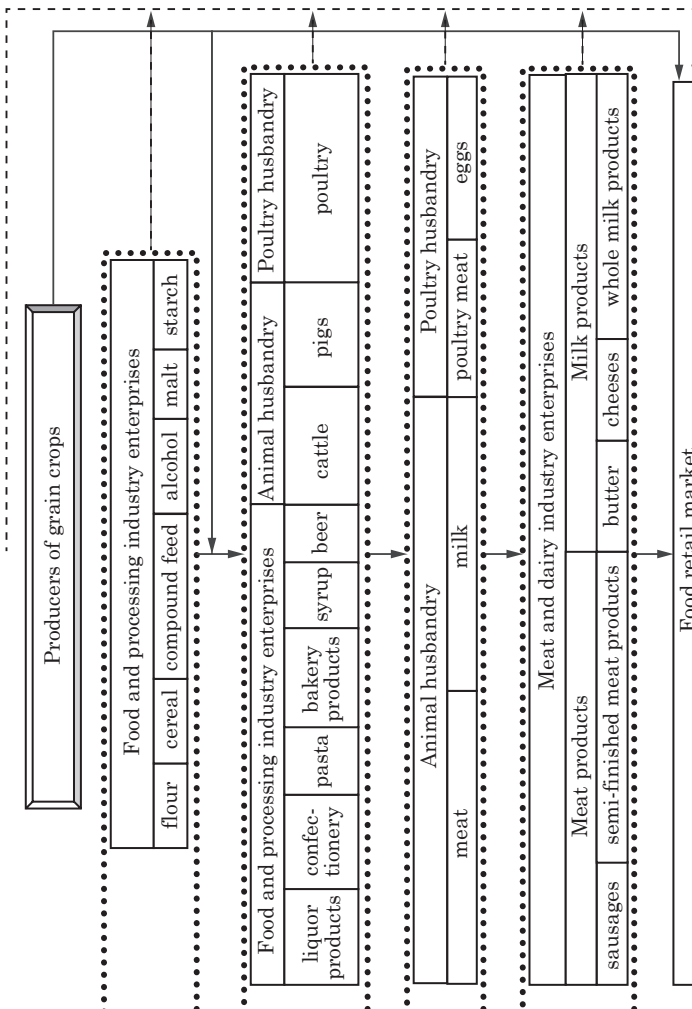

Fig. 6. Place of grain products in food production

The regional complexes formed in the Republic of Kazakhstan largely initially have the outlines of clusters, although not always systematized, and, accordingly, do not achieve the main goal of a market economy – increasing the competitiveness of the region.

Cluster models are different from each other. For the successful development of a cluster, the following conditions must be present:

– presence of private property;
– competition without monopoly;
– principle of free;
– pricing;
– stability of monetary circulation;
– economic independence of entrepreneurs.

The geographic proximity of the participants fully allows for the use of a cluster approach in the development of the food industry. For example, the most promising development of the grain processing industry cluster is in Akmola, Karaganda, Kostanay, North Kazakhstan regions, dairy – in Akmola, Almaty, East Kazakhstan, Kostanay and North Kazakhstan regions, in the production and processing of fruits and vegetables – in Almaty, Zhambyl, South Kazakhstan regions. There is potential for the development of a meat cluster in the Kostanay, Pavlodar, and North Kazakhstan regions, a rice cluster in the Kyzylorda region, and a fish cluster in the Atyrau, East Kazakhstan, and Karaganda regions.

Currently, based on the degree of economic differentiation, as well as on a territorial (geographical) basis, the following regions can be distinguished in the structure of the agro-industrial complex of Kazakhstan:

1. North Kazakhstan (Akmola, Kostanay, North Kazakhstan regions).
2. West Kazakhstan (Aktobe, Atyrau, West Kazakhstan, Mangistau regions).
3. East Kazakhstan (East Kazakhstan region).
4. Central Kazakhstan (Karaganda, Pavlodar regions).
5. South Kazakhstan (Almaty, Zhambyl, Kyzylorda, South Kazakhstan).

Within the above-described regions, similar natural and climatic conditions are observed, as well as approximately the same level of economic development and demographic situation, which contributes to the formation of clusters.

The grain product cluster occupies a special place in the economy of Kazakhstan, since grain and its processed products are an important

export resource of Kazakhstan. In a market economy, a theoretical model of a grain cluster was proposed by Professor S. B. Akhmetzhanova. During the Soviet period, grain farming was a branch of specialization of the republic's economy, therefore it was financed as a priority and was under special control of state authorities. The main problems were the efficient use of land resources, as well as increasing crop yields. At the same time, the goal was to implement an integrated approach to the development of the grain industry, since problematic issues of interrelated industries (seed production, production of mineral fertilizers, herbicides and other pesticides) were considered. From this perspective, it can be noted that a grain product cluster with a fairly high level of development already existed in the republic and still exists today.

Modern regional cluster systems are a set of functionally and economically interconnected enterprises in the region, built into a single technological production chain. At the same time, the nature of the development of territorial production complexes in the country is justified by the integration of the interests of industry structures and the main subjects of regional socio-economic development.

For sustainable functioning and increasing the social and economic parameters of the development of territorial production complexes, it is necessary to take into account the interests and ensure the consistency of the operating conditions of industry companies that form the potential of the region and largely determine socio-political stability. It should be noted that the State Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017–2021 gives priority to the development of regional companies that form the economic profile of the territorial-industrial complex and realize the competitive potential of the region.

In the context of Kazakhstan's active entry into the world economy, increasing shortages and decreasing quality of raw materials and the associated increase in prices for grain and bakery products, the grain products cluster of the domestic agro-industrial complex is of particular importance.

A cluster group of enterprises, isolated in the industry, combining formal independence and internal competition with cooperation, having a single center and service systems, will be able to achieve synergistic effects from interconnected and complementary functioning.

At the same time, as domestic authors understand, the so-called "core" of the cluster acts as a single center, i.e. one or more enterprises that are competitive in the world market, capable of producing high-quality products for the needs of most enterprises in the cluster and for export, which are market leaders and capable of improving the competitiveness of their products in the long term.

The possible effect of the functioning of the cluster can be classified into direct and synergistic (multiplicative) effect. This division is quite arbitrary, but it allows us to more fully take into account all the results of clustering.

According to economists, clusters have a number of advantages over traditional industry forms of business organization, namely:

– a sustainable system for the dissemination of new technologies, knowledge, and products, the so-called technological network, which is based on a joint scientific base, is emerging in the region;

– enterprises acquire additional competitive advantages due to the ability to carry out internal specialization and standardization, and minimize the costs of introducing innovations;

– clusters play an important role in the development of small businesses, since they provide small firms with a high degree of specialization in servicing a specific business niche, since this facilitates access to the capital of an industrial enterprise, other resources, and there is also an active exchange of ideas and knowledge transfer from specialists to entrepreneurs ;

– the narrow sectoral vision of the regional economy is overcome – clustering allows us to form a comprehensive view of the state policy for the development of the region, taking into account the potential of regional economic entities.

The core of the cluster is agricultural producers and processing enterprises. The study proved that in modern conditions the need to find new effective forms of organizing production is determined by the scale of the tasks facing the national grain product complex.

The grain product subcomplex of the agro-industrial complex, as a complex system, has four main structural aspects: organizational, reproductive-functional, territorial (regional) and component.

The main target function of the grain product subcomplex is to maximally satisfy the needs of the population of Kazakhstan for products

made from grain. Other, no less important, functions of the domestic grain product subcomplex include: creating a balanced market for grain products and raw materials for the processing industry; increasing the competitiveness of agriculture and the agro-industrial complex as a whole on the world market; more complete use of production potential in all areas of the grain product subcomplex of the agro-industrial complex; reduction of losses at the stages of "production – transportation – processing – grain trade".

Theory and practice have confirmed that the integration processes occurring in social production are objective and can occur in various organizational forms, differing in the composition of participants, the goals of the association, patterns of economic relations and management mechanisms. This statement is also valid for the grain product complex, whose enterprises require a systematic organization of production in order to overcome shortages and increase the efficiency of use of material, technical, labor and innovative resources. In addition, it is necessary to develop mechanisms to ensure long-term parity between participants in production and technological chains, their focus on joint sustainable development and the multiplier effect in industry integration in the interests of ensuring food security.

The processes of concentration and integration of production create the prerequisites for the use of cluster mechanisms for managing the development of the grain market, which will eliminate the emerging imbalances between supply and demand in the grain market at the regional level, and fill the deficit of regulatory instruments at the federal level by including the regional level of government in management processes.

Integration into a cluster based on vertical integration should form a certain system of concentration of production, technological and scientific structures that promote the dissemination of innovative knowledge, technologies and products. Only in this case, a synergistic effect occurs within the cluster due to the sharing of innovations, cash flows and infrastructure facilities, as well as a reduction in transaction costs.

Integrated associations occupy stable positions in the total production volumes of most agricultural products. The study of domestic and foreign economic theory and management practice proves that clusters are currently a basic element in the development of leading national economies.

Clustering almost completely affected the industry of Denmark, Finland, Sweden, and Norway. The resource, technological, innovative, organizational and managerial competitive advantages of clusters are used in the most significant sectors of the economy, including the production of food, biopharmaceuticals from agricultural raw materials, in the countries of Southeast Asia, China, Singapore, and Japan. According to experts, to date, clustering has covered about 50 % of the economies of the world's leading countries, including the USA, Italy, Great Britain, France, Germany and others.

In modern world practice, one of the main directions for increasing the efficiency of industry enterprises is the formation of agro-industrial clusters, which is explained by a number of their advantages compared to traditional methods of interaction: reducing the costs of commodity circulation, eliminating duplication of functions and an overall synergistic effect for each participant due to a broader and more comprehensive integration.

A production cluster can be represented as two main elements: the core – the main producing, processing and selling enterprises; satellites are auxiliary enterprises that supply additional goods, works and services to core enterprises. At the same time, in order to reduce organizational costs, it should be formed on the basis of existing organizations and enterprises.

An analysis of the experience of forming clusters points to the special role of public-private partnerships, since the solution to such a large-scale task must be carried out at all levels of legislative and executive power. In particular, authorities must: organize work to conclude an agreement between potential cluster participants on economic interaction within the cluster; organize permanent working bodies to coordinate the work of agro-industrial clusters (coordination councils); develop measures to attract qualified investors to the agro-industrial complex; stimulate the formation of integrated structures of various organizational and legal forms and types of activities in the agro-industrial complex system; to form a modern system of sales and promotion of final products through the introduction of regional brands into global retail chains.

Only correct identification of the type of cluster, its boundaries, and the driving forces of development makes it possible to develop effective methods for implementing regional cluster policy.

Coordination of the activities of the designed grain product cluster should be carried out by regional executive authorities with state support.

As a result, an organizational scheme for the work of a regional grain product cluster is being formed, uniting enterprises in various fields related to the production and sale of agricultural products. Enterprises that are part of the modeled corporate structure will be able to provide production with high-quality raw materials at affordable prices, which will contribute to their efficient and competitive activities.

The use of cluster policy mechanisms will create conditions for the formation of a research and production complex in the region, which makes it possible to ensure the effective integration of the grain product complex into projects of the national and world economy.

Thus, along with government support measures, the processes of intraregional integration and cooperation make it possible to mobilize and effectively use the existing territorial, economic, scientific and human resources potential of individual regions of the country in order to consistently provide all segments of the population with safe and high-quality domestic food products and achieve food security in Kazakhstan.

Cooperation and the creation of vertically integrated structures that unite enterprises for the production, processing and sale of agricultural products will facilitate the functioning of clusters. In modern conditions, the model of integral territorial-economic structures in the form of production clusters is of interest. A cluster approach, focused on uniting the interests of interrelated industries, will allow for the integration of agricultural enterprises with industries producing agricultural equipment that serve their operation; with enterprises processing agricultural products, as well as providing their storage, transportation and sale.

Foreign countries, especially industrially developed ones, being in constant search for the optimal combination, demonstrate that clustering is one of the most effective approaches to the integrated and balanced use of all factors of production. The essence of cluster construction is to obtain a synergistic effect from the joint use of marketing, supply and sales, transport, production and other resources by municipal enterprises united under the auspices of the production cluster. In Kazakhstan, there are varying degrees of readiness to create grain

clusters in different areas. Therefore, it is necessary to analyze the existing prerequisites for creating a grain product cluster.

The main prerequisites for uniting enterprises of the northern and central regions into a grain product cluster are: the availability of a raw material base; the presence of a sufficient number of enterprises engaged in this industry; availability of infrastructure for scientific, methodological and information support.

The fundamental principles of cluster activity should be highlighted: initiative and state support to accelerate the creation and development of clusters; partnerships between government and business; voluntariness of creating networks and cooperation ties in the cluster; development and maintenance of fair competition between cluster participants; development of horizontal and vertical integration. When creating a grain processing cluster, it is necessary to take into account all the general problems facing the grain industry. This is, firstly, a morally and technically outdated technique; low level of equipment provision. Secondly, the lack of connection between commodity producers and the scientific sphere. According to Kazagromarketing JSC, scientific achievements in agriculture in Kazakhstan are separated from production.

The reasons for this are:

– lack of funds among a significant part of grain producers to introduce new varieties and technologies for cultivating crops;

– the absence in the republic of small innovative businesses that can actively develop at the stage of testing new varieties, machines, technologies and assortments.

What matters is the lack of deep processing. Most of the constituent elements of the cluster system in the country have already been formed, but they are not sufficiently developed, which leads to the import of the missing volume from other countries. This is influenced by the underutilization of production capacity and the low degree of processing of raw materials. Thus, over the past five years, 15–23 % of the grain produced was processed.

The following specific problems will also have a significant impact on the creation and effective functioning of the grain product cluster:

– lack of a clear state strategy to support the export of products obtained as a result of advanced processing of grains;

– lack of a system of wholesale flour markets;

– weak interaction between cluster participants;

– high degree of depreciation of fixed assets, resulting in a low level of mechanization and automation, the use of outdated technologies;

– high tariffs for transportation;

– low level of awareness and understanding of the benefits from the interaction of cluster participants;

– high tariffs for transportation;

– weak coordination of cluster activities throughout the republic.

To solve specific problems in the functioning of the grain product cluster, the following measures are necessary:

– development of an appropriate program for the development of production for deep grain processing;

– increasing the share of deep grain processing in general as a result of linking the corresponding program with the bioethanol production program in the republic;

– solving a number of technical problems, including the supply of rolling stock;

– preferential lending to exporters;

– preferential tariffs for the transportation of raw materials and finished products;

– state guarantees of export supplies.

In modern conditions, there are several large agricultural associations with fairly large acreage, their own storage and processing facilities for agricultural products, as well as a developed logistics system, including their own transport fleet; so-called "traders" are large companies engaged in purchasing and selling agricultural products (mainly grain). The main features of such companies are: access to cheap and long-term financial resources, developed logistics and sales services, the presence of permanent branches and representative offices, both directly in the places of production of products and close to their consumers.

Recently, there has been an increasingly clear trend towards diversification of the activities of both groups of such companies, i.e. product manufacturers are increasingly paying attention to "trader" functions and independently entering domestic and foreign markets, and, in turn, "trader" companies are beginning to invest in grain production.

Most of the producers are represented by small and medium-sized agricultural entities (LLPs, production cooperatives, peasant farms) that do not have the opportunity to enter world markets.

JSC Food Corporation, purchasing grain in large volumes, influences the regulation of the domestic grain market, smoothes out seasonal price fluctuations, which negatively affect the economy of grain production. Every year, the Food Corporation carries out purchasing interventions to renew state grain resources and form commercial reserves, which are sold on the domestic and foreign markets. Thus, the Food Corporation has some features of a "trader", but with significant specificity due to the fulfillment of the tasks assigned to it by the state.

An important component of sustainable development is the formation and implementation of cluster initiatives in the most competitive sectors of the agro-industrial complex, which will entail an increase in the level of agricultural technologies and the quality of products, an increase in added value and income of the agro-industrial complex.

Wheat production is the highest priority sector in the development of agriculture in Kazakhstan. In the republic, about 90 % of all sown areas fall on grain crops, of which 82–84 % are sown with wheat. Kazakh wheat in foreign markets is considered competitive in price and quality.

Kazakhstan ranks 2nd in the export of flour, 7th in the supply of wheat and barley, has great prospects for the export of pasta, where the 5th position is realistic, the first is achievable.

A tool for increasing the competitiveness of the economy of a particular region, territory, or industry is currently the use of a cluster approach to the development of sectors of the country's economy.

The main problem solved with the cluster approach is the possibility of proper use of all available resources of the enterprise, and, above all, the main means of production in the industry – its land resources.

To increase the efficiency of the grain industry, it is necessary to develop a cluster of wheat production and processing, which will further stimulate an increase in the competitiveness of cluster-forming industries. Such cooperation will make it possible to fine-tune the mechanism of interaction between all participants in the chain from grain production to the sale of processed products, determining the contribution of each in the distribution of profits.

Also, for the functioning of the cluster, the infrastructure and location of the main participants, including production and processing enterprises, play an important role. Due to the absence of the chain "producer of agricultural products – their processor – seller", enterprises experience a shortage of raw materials and most often work to heat up their capacities, that is, there is a low degree of capacity utilization of grain processing enterprises.

The technical re-equipment of many enterprises remains an unresolved problem for the grain industry. Even in a successfully functioning flour-grinding industry, the degree of depreciation of fixed assets is 26 %. This was the reason that technologies from foreign manufacturers, poorly linked to the conditions of the republic, are currently widely represented in the grain cluster.

The construction of a technical base for post-harvest processing, storage and processing of grain was carried out according to the classical three-level scheme adopted in most developed countries.

Rural producers are experiencing shortcomings in creating a first-level technical base. The problem of grain preservation in agricultural formations of various forms of ownership is very complex. Many elevators, using their monopoly position, inflate prices for the provision of their services. Because of this, many rural producers refuse their services, preferring to store grain at home. As a result, thousands of tons of grain lose their quality due to spoilage at furnaces and the rural commodity producer alone cannot solve the problem.

As for the technical base of the second level of working with grain, it has a modern grain drying and cleaning facility, elevators, that is, it has the capabilities for quick loading, post-harvest processing and long-term storage of grain.

The total capacity of the bases at three levels can fully ensure the safety of all grain produced in the republic. Thus, elevators can form the core of a cluster. In addition, the experience of developed countries indicates that they can become a center for the integration of suppliers of raw materials and their processors. On the one hand, elevators unite grain producers, on the other hand, they are a point of sale, including for the processing industry.

Most of the constituent elements of the cluster system in the republic have already been formed, but they are not sufficiently devel-

oped and have ineffective relationships. This situation is explained by the presence of problems in the production and processing of grain, characteristic of the entire agri-food sector of the republic. Therefore, within the framework of the cluster approach, it is necessary to direct efforts not only to improving the work and supporting individual enterprises, but also to developing relationships between suppliers and consumers, between end consumers and manufacturers, etc.

The main objectives of the development of the grain processing cluster:

– ensuring the country's food security; production of raw frozen gluten, which is in high demand both in the EU and on the domestic market;

– production of grain that improves the baking properties of flour, both for the domestic market and for export (primarily for Belarus, Russia, the Baltic countries and Central Asia);

– meeting the growing needs of the population of the republic for high-quality and varied food products; production of export-oriented shelf-stable products from wheat that meets international standards.

Restoring the output volumes of these industries requires improving economic and organizational methods of government regulation, which should be carried out from the perspective of a cluster approach.

Consequently, one of the promising directions in solving the strategic problems of sustainable development of the regional economy will be the creation of integrated structures based on the principles of the cluster approach.

Thus, in the Northern region of the republic there are all the prerequisites for the functioning of a grain product cluster. But a necessary condition for the development of the industry is to ensure a stable supply of raw materials, which can be achieved by merging small farms into larger ones.

Currently, the creation and development of interstate clusters: grain, fruits and vegetables, sugar, dairy and fish is of current importance. These areas can become new points of growth for the economy of the agricultural sector of Kazakhstan.

In addition, it is necessary to create conditions so that small and medium-sized businesses can direct their investments into the formation of clusters. In this case, they are assigned the role of suppliers of goods and services to larger cluster participants.

The functioning of agricultural clusters presupposes the active participation of the state in the production chain by improving tax, customs, and tariff policies.

It is important to take measures to encourage foreign companies to cooperate. For example, when organizing a grain product cluster, it would be advisable to establish mutually beneficial cooperation with Russian companies for the supply of combines and other agricultural machinery to Kazakhstan.

In general, the implementation of the cluster mechanism for the development of the republic's economy will become an important factor in increasing the competitiveness of agricultural enterprises and the products they produce, will contribute to the active attraction of investments and the introduction of advanced technologies in the agricultural sector of the economy, create jobs and contribute to Kazakhstan's participation in the World Trade Organization and the EAEU.

CHAPTER 2

METHODOLOGICAL PROVISIONS FOR FORMING A PUBLIC-PRIVATE PARTNERSHIP MECHANISM

2.1. Methodological basis for the development of the interaction mechanism between the state and agricultural business

Academician of the Russian Academy of Agricultural Sciences A. I. Kostyaev understands the methodology of economic science as a set of scientific ideas about the process of studying and structuring new knowledge, including: the doctrine of the subject, the initial foundations (principles), methods, methods, techniques of research and approaches to it; a system of categories, laws and established theories (scientific concepts) that are used to substantiate new theories and applied results. He substantiated the relationship between methodology and theory of regional economics and determined the sequence of conducting fundamental scientific research. To solve an objectively existing problem and the stated goal of the study, it is proposed to first develop concepts and select conceptual approaches. Based on the assigned tasks to achieve the goal and conceptual approaches, methodological approaches are developed, which, in turn, serve as the basis for the development of specific methods and techniques, and the selection of research techniques. This sequence determines the logic of research on a specific problem, and the results obtained become completely reasonable and demonstrative. At the same time, general methods of economic research, as a rule, are adapted to the problem under study, taking into account the subject of research in conditions of transformation of the external environment.

Considering the methodology for forming a public-private partnership mechanism, let's determine the place of the PPP mechanism in the system of economic mechanism, conceptual approaches, methods and tools for its development in the conditions of a transforming national economy, including its agricultural sector.

The PPP mechanism is more of an economic mechanism, the subjects of which are government authorities and business. One of the first to define the economic mechanism was academician V. A. Tikhonov, who wrote: "The economic mechanism is a set of forms and methods of management, organization and regulation of social production, and conscious influence on production". Academician I. N. Buzdalov, in developing his main scientific provisions, points out that "from a methodological perspective, the economic mechanism of the economic system and its relatively isolated structural links can be rightfully considered as a concrete, mediated by a system of interests, social expression of the functioning of production methods, which is an interconnected set objectively determined methods and corresponding forms of systematic regulation of the reproductive process based on the principle of democratic centralism. And he further emphasizes: "In the specified understanding of the essence of the economic mechanism, the latter performs the functions of direct implementation of economic policy as an objectively determined set of general strategic goals and guidelines in the field of development and improvement of the method of production".

L. I. Abalkin writes that "during the transition from one method of production to another, an outdated economic mechanism is replaced by a new one that has a different social content. However, these changes occur not only during the transition from one method of production to another, when changing forms of ownership of the means of production. And within the framework of a given society, the economic mechanism can, while maintaining its nature, be improved under the influence of the development of productive forces, changes in the social division of labor and the combination of social production".

Based on these and other definitions of the mechanism available in the economic literature, it is possible to say that the PPP mechanism is *a system, the elements of which are subjects (state and business), which, through various forms of partnership, using methods (forecasting, strategic planning, programming, quotas, investment, lending, insurance, tariff and customs regulation) and instruments (prices, taxes, bank interest, exchange rates) affect the development of industries, contribute to the growth of competitive products and their promotion to national and world markets.*

National economic systems of almost all countries of the world are characterized as market-type systems, which assume the principle of free enterprise and the presence of self-regulation mechanisms in the economic relations of economic entities. It was the desire to join the world economy of free enterprise that determined the processes of market economic transformations in Kazakhstan.

It should be noted that the economic systems of most countries at the present stage of their development are not a pure market economy, but a mixed economy. They combine private entrepreneurship with government influence, but at the same time, the degree and forms of government intervention in private business vary significantly in individual countries. Jacques Sapir emphasizes that "the economic systems of Western countries do not function according to the logic of the market, but as combinations of market, organization, networks and administration, which combine differently in specific geographical and historical conditions".

Regulation of economic development is carried out using three main mechanisms: market competition, corporate governance and government regulation. Each of these mechanisms is formed independently under the influence of many factors. At the same time, entrepreneurs organize their business (form their strategy, constantly adjusting tactical actions) under the influence of market conditions, methods and tools of legal, economic and administrative government regulation.

The state establishes norms and rules, selects tools for regulating the agricultural sector of the economy in such a way as to effectively fulfill its functions to ensure food security in the country. At the same time, the choice of forms, methods and instruments of regulation is carried out with the aim of creating conditions for the development of domestic producers, as well as ensuring its protection from the negative impact of environmental factors in the context of economic globalization. With the transition to a program-target method of management and the development of indicative planning, state regulation of business activities is gradually transformed into a public-private partnership. Authorities involve business to develop regulations, strategic plans for the development of industries and to monitor their implementation.

The economic literature emphasizes that the market in the context of globalization is a poor regulator of the production of socially signif-

icant products. And, even more so, the market does not show concern for the employment of the rural population, or for creating living conditions for them. The development strategy of the agro-industrial complex is a reflection of the ongoing agricultural policy; it should create a favorable situation for all agricultural producers and processing enterprises to increase their production of agricultural products and food to the maximum possible size in accordance with their resource potential, while ensuring physical accessibility to the population of high-quality products of domestic production.

In the post-industrial era, it is necessary to manage not production systems (as in the era of mass production) and not a product quality management system (as in the era of mass marketing), but a knowledge system (constant changes). Therefore, the need to transform state regulation of entrepreneurship into the PPP system becomes obvious.

During *the era of free enterprise* there was an industrial revolution. Governments of individual countries stimulated and supported innovation in industry, gaining leadership in the global economy. The main factor and criterion of competitiveness was the cost of production. Corporate structures were created with strict planning, management of financial and material flows. J. Schumpeter emphasized that innovation processes during this period intensified with the aim of making a profit.

The development of "pure" capitalism, based on free competition, took a long time. At the same time, free competition in the economy has always manifested itself with restrictions. P. Samuelson emphasizes that: "Free competition is good for everyone, but it ... has never been tested". It was always limited by something: either the remnants of feudalism, or various kinds of dictatorship, or wars, or social pressure.

In the era of mass production, the tone in the entire system of economic relations was set by the production phase. The products were devoid of significant intraspecific differences, and each new product met the needs of consumers for quite a long time in its consumer and design qualities. It was important to beat the competitor in the process of reducing production costs.

The post-industrial era, which has had its influence on the economy and social processes in developed countries since the mid-50s of the 20th century, has influenced the emergence and development of certain forms of PPP. The main factor changing the systemic orientation of the

economy was the scientific and technological revolution, which caused an active change in the technologies used in production. In addition, a factor in economic growth was the intensification of entrepreneurial activity and an increase in private investment in innovation.

The innovative path of development means a transition to an innovative model of expanded reproduction, which, unlike previous models, begins with a new phase - scientific preparation, and occurs according to the scheme (**Fig. 7**).

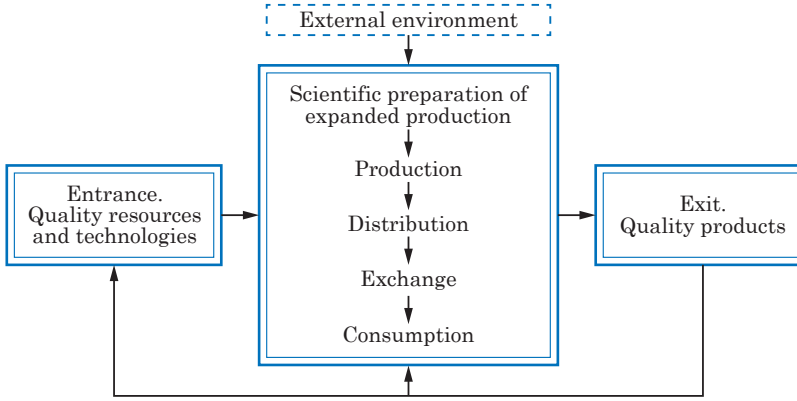

Fig. 7. Model of innovative type of expanded reproduction

The implementation of scientific preparation for reproduction implies the advance carrying out, under the influence of the external environment (the development of science and technology, world markets for raw materials and food), fundamental and applied scientific research, including marketing research, the development of new varieties of agricultural crops and technologies for their cultivation, new breeds of farm animals and technologies for their maintenance, new technology, equipment that allow entrepreneurs to maintain the innovative intensity of their production and ensure the competitiveness of their products.

This model of expanded reproduction allows to conclude that the main source of economic growth is the development of production based on science. Rational distribution processes and improvement of

exchange are also very important, but in the end, they are capable of increasing the level of well-being only to the extent of their impact on production and the development of science and technology.

Methods and forms of government influence on agricultural development are constantly being transformed. In the course of state regulation, three tasks are solved: ensuring sustainable economic growth; implementing an effective transformation of the country's economic system with increasing efficiency and flexibility of its institutions; protection of national interests in foreign economic relations. All these tasks are closely interconnected and complement each other. The first and second of these problems are solved mainly by the efforts of business, but with the support of the state. Government support is necessary for the transition to an innovative model of expanded reproduction. Innovation-oriented economic policy should include government measures to support science, education and innovative entrepreneurship. For this purpose, targeted industry programs are used, and mechanisms for their implementation are improved. The third task is being solved by the state, but in the interests of domestic producers; it is especially relevant when Kazakhstan joins the WTO.

It should be noted that in the process of continuous transformation of economic development institutions in their interrelation and interdependence, their possible deformation and organic integration into modernization processes is assumed, which, along with a set of formal institutions (regulatory requirements, economic instruments), contributes to the formation of institutional self-regulation. *The new institution of public-private partnership* is aimed at jointly improving the development and implementation of a strategy for increasing production volumes on an innovative basis, balancing the responsibility of business and the state for measures taken in order to reduce import dependence, as the most important structural maneuver that ensures an impact on the competitiveness of industries and their products.

Institutions represent formal and informal norms and rules. According to D. North, institutions determine the system of incentives for human interaction, through the incentives built into them, and form the opportunities available to members of society. To use these opportunities, people unite in organizations that, like institutions, structure relationships between people. The most effective institutions during

modernization are industry unions, which, on behalf of agricultural producers, perform the functions of developing product standards and monitoring quality control of products using new technologies, the implementation of which is carried out on the basis of self-regulation of agricultural producers who are members of unions (associations), but with the support of the state.

Public-private partnership is becoming one of the most important development institutions. The idea of business's contribution to sustainable economic, environmental and social development as a necessary element of civilized business is actively supported by the business community and government agencies. Large agricultural holdings, agricultural organizations and small farms draw up social partnership agreements with local authorities and participate in the repair of rural roads and landscaping of territories on the basis of self-taxation. Farming associations are solving problems to increase the allocation of subsidized loans for modernization. At the same time, farmers are addressing the challenges of sharing high-productivity equipment (through a system of consumer cooperatives) and increasing land fertility through the use of recommended crop rotations and increasing the level of fertilizer application (through industry unions).

The process of interaction between business and government is quite dynamic. Its character changes along with changes in the institutional structure of society and represents specific forms of relationships that develop between society in the person of specific subjects of government and business entities that act as the driving force of the market economy. At the same time, institutional transformations develop into progressive directions of development of society and the economy only if the ongoing institutional reforms are carried out in organic connection with the needs of society. Society, business and government must have mutual interests, then the goal of their cooperation will be achieved.

A. Smith, considering interests through the prism of the division of labor and the resulting need for the exchange of goods, came to the idea that the process of production of goods and their exchange is based on the interests of people: "... no individual ... will think about social interests ... He will strive only for his own personal gain, and in this case, as in many others, he will be guided by an invisible hand that leads him to a goal that has nothing to do with his intentions".

The interests of individual economic entities and society as a whole are formed directly under the influence of the external and internal environment, the changes and conditions of which are the basis of the incentive.

In the context of the PPP development, the problem of coordinating the interests of partnership participants is becoming increasingly relevant and reaches a qualitatively high level, requiring the practical use of knowledge related to the reasons for the emergence of economic interests and their impact on social production in real economic activity in order to increase its efficiency. In this regard, there is a need to measure the consistency of economic interests and their influence on the processes occurring in the economic system.

The coordinated combination and implementation of the interests of enterprises operating on the basis of the division of labor and equivalent exchange of consumer values is an important task of improving organizational and economic relations, as well as ensuring maximum efficiency of the final results. At the same time, the hierarchy of property rights, which underlies the coordination of interests, is presented differently by different authors. For some, the right to exclude free access of other economic entities to a limited resource is of fundamental importance; for others, the right to use the resource and receive income from this resource; for others, the transfer of powers to access and use the resource.

In the hierarchical structure of the entire set of rights, two main levels can be distinguished:

1) operating rights;

2) collective action rights.

The first include rights of access and income from property; the second – rights of management, exclusion and alienation. The rights of the second level are of a higher order, because they determine the possibilities of access to economic resources and income generation.

Economic rights here are understood as institutional norms regulating access to resources (laws, regulations, instructions, customs, traditions, moral institutions, established conventional relations of economic entities).

So, the economic interests of society and the individual can be considered system-forming. The entire system of economic interests is fundamentally built on public and personal interests.

Economic interests as a form of relationships are divided into personal and public. Moreover, the functions that state property performs, namely: the ability to carry out macro-regulation of the economy, forming a strategy for the development of society as a whole, optimizing the structure of the economy according to the criterion of maximum operating efficiency are practically consonant with public economic interests. The economic interest of the individual is primary in relation to public interests in their formation. Social interest is primary in relation to individual interest from the standpoint of social production, when it acts as its form. The economic interests of society already contain in their essence both state and national interests. Public economic interests are generated by individual ones and are secondary to them. On the other hand, the economic interests of society shape and correct individual interests. Academician L. I. Abalkin notes that "... there is something higher than individual, group and class interests, which is designated as the general interest of the people – the interest of the state as a whole".

Academician V. V. Miloserdov emphasizes that economic interests are realized through overcoming four main contradictions:

– the first contradiction is that in order to create conditions for growth in productivity and production efficiency, it is necessary to invest most of the profit in production, and not in consumption. At the same time, the development of production stimulates precisely the growth of consumption;

– the second contradiction indicates that the larger the production, the greater the contradictions between personal and collective interests;

– the third contradiction arises between personal interest and social justice, on the one hand, and the efficiency of social production and the growth of labor productivity, on the other;

– the fourth contradiction reflects the multidirectional interests of rural commodity producers and other areas of the agro-industrial complex, which deforms the entire agro-industrial complex system.

So, there are connections, interdependencies and contradictions between the interests of society and personal interests. In the process of relationships, it is necessary to coordinate interests, then connections will be more stable, and partnerships will be aimed at achieving goals. At the same time, it should be emphasized that the concepts of production relations and economic relations of enterprises differ.

Production relations arise in the production process regarding the use of production factors (land, labor, capital) and the creation of goods necessary for society. Distribution relations arise both in the process of distribution of economic resources converted into factors of production, and in the process of distribution of goods produced with the help of these factors. The same relationships arise regarding the distribution of resources between departments and production responsibilities. Exchange relations arise both in relation to the results of production and in the process of production itself. Depending on the nature of the phenomena and the connections that arise between them, relations are divided into: technical-economic, organizational-economic and socio-economic. *Technical and economic relations* reflect the degree of rational use of resources and characterize the level of development of productive forces. *Organizational and economic relations* reflect the industry development strategy and measures to achieve target indicators. *Socio-economic relations* arise regarding ownership of the means of production and manufactured products. All these relations are interconnected, and they correspond to certain forms of PPP.

So, the interaction of economic entities is expressed through a complex, interconnected system of economic interests. The influence of production factors is determined by economic interests, their level of significance in the process of economic activity.

Organizational and economic relations determine specific forms of exchange. Consumption relations arise in the process of consumption of produced goods. Irrational distribution relations between the state and business, agricultural producers, processors and trade lead to a reduction in the number of animals in most regions, which narrows the raw material area of processing enterprises and reduces their economic sustainability. The lack of common economic interests among related partners in the production and delivery of the final product to the consumer leads to a decrease in the competitiveness of the entire subcomplex and the products produced in it. In modern conditions, the agro-industrial complex is characterized by trends in the uneven development of organizational and economic relations between processing enterprises and agricultural producers, their monopoly position in relation to the latter, as well as insufficient government support, disparity in prices for agricultural and industrial products and other negative manifestations of agrarian reform.

In this regard, the most important direction for ensuring optimal balance and proportionality between the stages of production of final products is the formation of stable organizational and economic relations and their adjustment in accordance with changes in business conditions. Relations should maximize the growth of the volume of the final product, taking into account consumer demand and the solvency of the population, ensure equivalent exchange and create favorable conditions for expanded reproduction at all stages of the technological process of manufacturing products. At the same time, each enterprise in any area of the product subcomplex must pursue a policy of linking its own interests with the interests of business partners, while ensuring the development of mutually beneficial organizational and economic relations with them. Equal interest of partners in obtaining the final product is an important condition for development and is possible only in the conditions of development of forms of partnership. In this regard, economic relations require state regulation, and the system of state regulation itself must increasingly transform into a partnership system.

The level of development of organizational and economic relations between the main industries and areas in the agro-industrial complex reflects the degree of implementation of agricultural policy and the level of development of partnership between all participants. Depending on the form of ownership, two groups of organizational and economic relations are distinguished: organizational and economic relations in which the subjects participating in agro-industrial formations have the same opportunities for appropriation (power), characteristic mainly of cooperatives; organizational and economic relations in which the subjects participating in agro-industrial formations have different possibilities of appropriation (power), characteristic mainly of business companies.

So, the main goal of forming organizational and economic relations is to establish equivalent proportions of development between partners, ensure coordination and consistency of various parts of food subcomplexes, efficient use of raw materials, and achieve high final results. To achieve these goals, it is necessary to solve a number of problems: providing the necessary conditions for joint activities of partners; coordination of their economic interests; determining the order, methods and methods of buying and selling agricultural products; ensuring balance in the development of individual sectors.

A generalization of literary sources made it possible to formulate the author's principles for the development of organizational and economic relations within the framework of a strategic partnership between the state and business: equality in decision-making and responsibility for them; distribution of management functions when solving specific strategic tasks; complexity, proportionality and rhythm in solving problems. Compliance with them will ensure optimal operating conditions for all partners in the partnership and interest in increasing the efficiency of the final production results.

Thus, the implementation of the economic interests of the subjects of the partnership within the framework of existing economic laws is carried out through various mechanisms of economic relations. Through economic interests, laws operate in social production and determine its direction, form and dynamics of movement. Since each level of the economic system has its own special subject of ownership and the implementation of the hierarchy of interests cannot be achieved through the simple subordination of each lower level to a higher one, a mechanism is needed for coordinating the economic interests of property subjects on the basis of mutual benefit. In practice, such a mechanism can really operate only if there are relations of mutually beneficial economic partnership. Since, in the conditions of market relations and globalization of the economy, the institutional environment has changed, and agricultural production in Russia has acquired a multi-structural character, it is necessary to create an economic mechanism that ensures PPP and effective interaction between various industries and forms of management, the forms and mechanisms of such partnership should be aimed at increasing the sustainability of the agricultural sector of the economy and sustainable development of rural areas.

2.2. Methodology for developing development strategies and targeted industry programs

In a planned-directive economy, strict production and sales plans were used, which were mandatory for all state and collective farms. With the transition to market relations, the planned system was destroyed. In the process of carrying out agrarian reform, newly created agricultural

organizations and farms began to independently determine: what to produce, to whom, and at what price to sell the produced products.

As a result of the complete withdrawal of the state from regulating production volumes and regulating raw material and food markets at the first stage of agrarian reforms, as well as reducing state support to agricultural producers to a minimum, production volumes in agriculture began to decline.

In the agro-industrial complex there has been a transition to a program-target method of management. The essence of the program-target method in production management is that, based on strengthening the regulatory role of the state, development goals for each sector of agriculture and processing industry are formed, priorities are set for their development (the main criterion for the entire industry, local criterion for individual regions).

The program-target method is characterized by the fact that it ensures the simultaneous implementation of two types of integration of socio-economic and scientific-technical processes: spatial, when it is necessary to combine the efforts of subjects belonging to different regions or forms of ownership, and temporal, when it is necessary to achieve a clear sequence and the unity of the various stages of the overall process of movement towards the final goal over a certain period provided for by the program. The strategy and targeted programs for the development of certain sectors of crop and livestock production in those regions where there are conditions for this, joint financing of program activities from budgets of all levels will ensure the sustainable development of agricultural production and rural areas, food security and employment.

Program-targeted management in the agro-industrial complex is a concretization of a systems approach that considers the control object as a complex purposeful system that has its own functions, structure, and connections. The following are considered as prerequisites and conditions for the selection and use of program-targeted management of the agro-industrial complex:

– the presence in the system of complex, significant and time-sensitive problems that require immediate solutions, an integrated approach and coordinated activities of different entities and levels of management within the system;

– the objectively intersectoral and cross-functional nature of these problems, requiring coordination of efforts and resources beyond the existing departmental structures and the participation of government entities and management at higher levels;

– the existence of a real need to solve this problem and obtain the most useful result in the appropriate period of time;

– the need to concentrate all resources required to solve the problem, their rational distribution and use in conditions of financial instability.

The advantages of the program-target management method relative to the planned-directive (with strict government regulation) and liberal-market (with predominantly market regulation) are characterized by the following fundamental features:

– the indicative nature of agro-industrial complex programs, the implementation deadlines of which are directly dependent on the set goal, their provision with the necessary material and financial resources. At the same time, strategies and programs are implemented more effectively with the development of such forms of PPP as the formation of special economic zones and clusters, the creation of agrotechnopolises and technology parks;

– the systematic nature of the main goals and objectives of the program to solve complex problems of development of the agro-industrial complex of various taxonomic levels in each food subcomplex;

– ensuring a strategic vertical in the entire food chain, unity of methodological and methodological approaches to solving problems of development of regions of different taxonomic levels;

– the ability to concentrate limited material and financial resources on solving fundamental issues on which the progressive development of the economy and the growth of living standards of the population depend;

– the ability to use the multiplier effect in the targeted use of limited budget resources through the additional attraction of extra-budgetary funds (private capital of agricultural producers, investors), bank loans based on the development of various forms of partnership;

– the ability to combine, in the course of state management of the development of the agro-industrial complex at all territorial and structural levels, the program-target method of managing regional development with methods of regional forecasting and indicative planning;

– the potential opportunity to ensure public control in the formation of goals and objectives of program development and the use of financial resources based on the involvement of self-regulatory organizations in the strategic planning process.

The essential features of the program-target method of managing the agro-industrial complex are: a systematic understanding of the object; comprehensive problem analysis; a reasonable approach to the choice of goals and means of achieving them; focus on specific end results; linking together goals and resources; creation of a special document for such linkage – a targeted comprehensive program; striving for maximum efficiency in achieving goals with rational use of resources; integration of the efforts of management subjects and coordination of their activities with the help of specially created organizational management structures. At the same time, the program-target method presupposes the presence of a clearly defined customer and executor of the event that solves a specific problem. The programs also contain: a description of specific activities, resource provision, a mechanism for managing program implementation and indicators of the effectiveness of program implementation.

So, the program-target management method is a method in which goals are linked to resources using programs. This method is the application of a systematic approach to solving a strategically important problem and consists in identifying all components of the problem and their interrelations and a system of goals, the achievement of which will ensure a solution to the problem, as well as creating mechanisms for resource allocation and organizational systems for managing the implementation of the program, development, implementation and monitoring the effectiveness of the entire range of measures aimed at solving the problem by system participants. The main thing in the program-target approach is that it is an organic unity of a clearly structured substantive part of the program with the formation and use of organizational and financial mechanisms for its implementation, control of implementation (the latter is at the same time an element of actively functioning feedback). At the same time, it is important to emphasize that program-target management, which differs significantly from directive-planned and liberal-market management, is a new institution with clearly defined rules and methods, which has become prevalent in a mixed economy.

Both quantitative (quotas for purchases of agricultural products to federal and regional funds) and qualitative (indicators ensuring the competitiveness of products) production and economic parameters should be recommendations. The goals of indicative planning are the following:

– formation of a system of information on the conditions of the domestic and world markets and priority areas of budgetary allocations proposed by the state for investments or other activities;

– offering market participants indicators (indicators), which, as a rule, form the basis of government programs that may be of interest to them when carrying out their economic activities;

– orientation of commodity producers in the development of new equipment and technologies, the use of other achievements of scientific and technological progress. It should be added that through indicative planning, the interests of the state and business entities are coordinated, and various forms of PPP are being developed.

In modern economic development practice, along with programs for the socio-economic development of the country and individual regions, programs for the development of agriculture and certain sectors of crop and livestock production are being implemented. It should be emphasized that the development of these programs is voluntary. Therefore, the level of their development varies greatly by region, which depends on the targets and level of management competence in each region.

At the same time, it should be noted that with the beginning of the implementation of target programs, problems of a methodological and methodological nature were identified (both during their development and implementation), which necessitates the adjustment of conceptual approaches and the further development of the scientific and theoretical foundations of the program-target method of management in APK.

Much attention is paid to the development of agricultural policy and its implementation using the program-target method of management. IIIe emphasizes that "a program-targeted approach to managing the reproduction process in the agro-industrial complex is a complex of economic, organizational, technological, innovative and other measures completed in time and space to implement the goals and objectives of specific programs for the development of the agri-food sector; the development and implementation of target programs has become an effective way to solve acute problems that require concentration of resources,

concentration of efforts, target orientation of the means used, and coordination of actions. The program is precisely a complex of projects and activities interconnected in terms of goals, resources, implementers and deadlines, ensuring the solution of long-term strategic tasks of the agro-industrial complex; the programs detail the developed strategies. Targeted and regional programs are developed along with agricultural policy and the development strategy of individual industries and regions; they are aimed at achieving the strategic goals defined in the agri-food policy. In this case, programs and strategies are correlated as a part and a whole, that is, a strategy can be represented as a system of programs.

A development strategy is a system of interconnected goals, objectives, implementation deadlines and resources of target programs and innovation and investment projects that provide solutions to socio-economic problems. The strategy for the development of industries, and areas of food subcomplexes, as well as individual regions (ensuring the modernization of industries in each territory), is developed in the following sequence: selection of problems, determination of criteria (criteria are results, but not costs) and indicators (for each criterion 3–4 indicators); assessment of expected results.

Determining the sequence of tasks to be solved:

– determining the timing and stages of implementation of the strategy and each target program;

– development of targeted industry programs (individual activities and resource requirements for each of them);

– determination of the general resource requirements for the targeted state program;

– procedure for monitoring the strategy and monitoring the implementation of indicators for each activity of the target program.

When solving problems (eliminating bottlenecks), the most optimal directions in the current situation are selected, which represent scientifically based concepts. The choice of directions is carried out in the following sequence: identification of all alternative ways to solve problems, analysis of factors, assessment of possible sources of financial resources, determination of the optimal way to solve problems, risk assessment. For each of these aspects, there are specific methods that form the basis for drawing up targeted programs. Program indicators must be justified not only by the calculation-constructive method and

the method of economic modeling, but also must be adjusted taking into account expert assessment, and also adapted to the conditions of the transforming external environment.

At the same time, it is necessary to take into account that each of the programs has its own characteristics. In the study of individual programs in the agro-industrial complex, various characteristics can be used to generalize and typify them.

The degree of implementation of targeted programs depends on the level of effectiveness of public-private partnerships.

The main principles of program-targeted management in agri-food policy are: complexity, consistency and coordination of actions between all participants in the planning process, focus on the final goal, end-to-end planning of the management object, the principle of continuity. An integrated approach to solving industry problems inherent in the program-targeted approach in the agro-industrial complex significantly increases the stability of the economy to the influence of external, cyclical and unpredictable factors.

So, the main features of the program-target method in agri-food policy are systematicity, focus on achieving a specific goal or system of goals, consistency and organizational isolation of target programs, and its main components are a set of measures aimed at solving the task; organizational program management system; resource distribution / stimulation system; system for monitoring the implementation of the program and assessing its effectiveness; legislative basis of the program.

The success of each program depends on its monitoring system. The monitoring system includes certain indicators by which the degree of achievement of the set goal is assessed. In addition, it is necessary to assess the efficiency of using the resource potential of individual territories, agricultural producers, and the industry as a whole, as well as to assess the level of competitiveness of products. The assessment of the implementation of target programs is carried out in four stages (implementation of the indicator itself, the influence of factors, the level of use of budget funds, adjustment of indicators for the next year).

During the research process, it was established that the program-target method (as experience in its use accumulates) allows solving problems not only of the development of industries, but also of the development of territories, food markets and many others. This is facilitated

by the constantly changing legal framework, constant additions to already adopted laws in accordance with changes in the external and internal environment of the economic system, as well as an effectively functioning information system, created market institutions that allow highly accurate planning of problem solving using a program-targeted method. This method makes it possible to effectively achieve goals that provide for fundamental shifts in the development of the agro-industrial complex, the transition to new states of economic systems that cannot be achieved in the process of implementing private development goals of any individual production, infrastructure or other elements of regional economic systems.

The use of such a complex organizational and economic tool as a target program is not justified for solving all problems that arise during the functioning of the system. The conditions for using the program-targeted approach in agri-food policy are:

– the need for a radical change in the unfavorable proportions, structure, and development trends of the industry;

– the complexity of the emerging socio-economic, scientific, technical and natural-ecological problem, requiring interregional coordination of program activities, especially when creating infrastructure and regulating markets);

– lack of opportunities to achieve the necessary development goals, based only on the existing level of relationships between levels of management and economic entities;

– the need for the coordinated use of financial and material resources of various departmental, regional and other affiliations to achieve a particularly important goal of federal, regional or municipal significance, which necessitates the development of partnerships.

So, program-targeted management in the agro-industrial complex is one of the most important functions of public administration, transforming into a form of public-private partnership and a way of influencing the state and activity of objects of state regulation in the field of agro-industrial complex. The program-target management method guides managers at all levels to achieve a specific end result in solving a specific problem, developing the agro-industrial complex or region, and within a predetermined time frame. In this regard, managers and specialists of state bodies and municipal administrations must be able to draw

up plans for the strategic development of territories and professionally evaluate innovation and investment projects of agricultural producers applying for participation in the implementation of targeted programs.

The transition to the program-target method has become the main condition for the development of all forms of public-private partnership. It should be emphasized that understanding the economic essence of PPP in conjunction with its political and legal interpretation allows to speak about political and legal dualism in the development of individual forms and the organizational and economic mechanism of partnership, which manifests itself in the need to achieve a balance of political and legal components in order to achieve the goals set for public-private partnership.

The state at the highest level must admit, firstly, that it is ready to cooperate in the form of partnership (announces the possibility of cooperation). Secondly, it recognizes partnership as an effective economic form, thereby eliminating all disputes between different economic schools and recognizing the correctness of the chosen paradigm. Thirdly, the state must clearly define the PPP areas and the goals it pursues in the implementation of these projects. At the same time, it is necessary to consolidate PPP by adopting relevant regulations (to stop intimidating entrepreneurs and investors with possible nationalization) and targeted programs (ensuring equal participation of partners and equal returns on invested capital).

Next, the creation of an extensive legislative framework for PPP is required. This basis lays the legal foundations of the partnership, especially the legal status of the business in this alliance. The next step should be the appropriate building of an administrative apparatus ready to implement state goals in partnership with business. Thus, a coordination of the interests of the state and business at the macro level will be achieved.

To achieve a balance of interests within a specific project, a contract will be a universal form. Agreements of various forms (concession, lease, contract, etc.) must be built on the basis of clearly described legislative provisions. The conclusion of such an agreement gives the business a legally defined status, and therefore legal protection. From the point of view of management processes, the PPP formation according to the proposed scheme, in each specific project goes through the following

stages: the primary coordination of interests and the determination of the priority agenda are, as a rule, recorded in a program document; it should be strategic in nature, long-term (5–10 years or more), and should not change radically; it should establish deadlines and responsible authorities; it must be supported by a number of by-laws with strict implementation procedures; formation of specific projects based on the program, but in full compliance with the law, which establishes the rules of the game, including the procedure for holding competitions, etc.

Fixing the results in contracts that have specific judicial protection, firstly, ensures coordination of the strategic interests of the state and business, which occurs at the stage of formation of program documents.

Secondly, a clear definition of goals that are recorded in the program document.

Thirdly, transparent procedures for the implementation of specific projects are established by law.

Fourthly, it gives a special status to projects and their participants, which is also enshrined in law.

Fifthly, also on the basis of the law, public powers are granted to business (in law).

Sixthly, this system is aimed at protecting the current interests of the state and business in each specific project, which is carried out at the contract level.

Seventhly, the system ensures stability and protection of the interests of the partnership. A detailed examination of this mechanism can lead to a completely fair statement that forms of partnership have been developing successfully for a long time. However, the problem is that now these relations are not formalized and in each specific case are built on the basis of the personal authority of a specific official – governor, minister, etc. As a result, such relationships cannot have a high economic result. In addition, they are subject to high (corruption and monopolistic) risks.

The implementation of the proposed legal mechanism of PPP allows to solve several problems: to increase the efficiency of interaction between the state and business, the efficiency of using state resources and the efficiency of the execution of state powers. In addition, the formalization of relations will increase the investment attractiveness of the Russian economy and individual regions for potential investors.

The implementation of the mechanism requires the adoption of appropriate political and legal decisions. When developing the mechanism, the development features of the industries and individual regions in which it will be used must be taken into account.

Thus, the role of the program-targeted approach in the agro-industrial complex is that it allows solving complex problems that stand at the intersection of departmental competencies, powers and areas of responsibility of business entities, executive and municipal authorities, through the coordination of common efforts to solve the problem. Therefore, there must be organizational mechanisms for such connections. In other words, the program-target method reflects all models and mechanisms of public-private partnerships, including when carrying out the modernization of agricultural sectors. The functions and tasks solved using a program-targeted approach in the process of formation and implementation of agri-food policy are associated with setting the vector of development of the system (strategic orientation) based on an analysis of the existing interrelations of the system components, trends in their change and the potential of the system, as well as determining the target state of the system and coordination of the development of the modernization subsystem and other subsystems (economic, social, environmental) in order to achieve a multiplier effect. They serve as the basis for making management decisions by all subjects of the system and balancing the interests of its participants.

2.3. Methodological aspects of modernizing exchange and distribution relations between the state and business in the context of strategic management of industry development

In a market economy, regardless of the level of technological development, the degree of development of entrepreneurship and forms of development of public-private partnerships, intersectoral interaction occurs in the sphere of exchange and distribution. The difference lies in the different mechanisms of exchange and distribution relations.

In market conditions, partners are economically independent, and coordination of their activities occurs mainly through prices. However,

despite its flexibility, the price mechanism is not able to fully ensure the efficiency of the exchange of production results. The reason for this is the emergence of transaction costs due to the monopolistic manifestations of business entities, their adaptation and distortion of information about price parameters. To eliminate them, motivation arises to organize vertical control, which includes varieties of vertical restrictions and vertical integration. The system of vertical restrictions includes various types of agreements (between the state and business), long-term contracts between suppliers and buyers. Mechanisms of vertical restrictions allow for control over the promotion of products through technological stages that are not organizationally related to each other, but remain formally independent.

In Western concepts, all types of vertical restrictions, including vertical integration, are considered as economic mechanisms for regulating competition. Vertical integration refers to the combination of control over the property of firms belonging to different stages of the technological chain with control over their behavior. In the agri-food sector, control functions are assumed by integrator firms. Typically, such integrators are processing and trading firms that subordinate farms and cooperatives to their control, focusing on market demands. Vertical integration occurs when there is complete control over adjacent technological stages of production and distribution. A feature of food subcomplexes is that they combine several industries with different levels of vertical integration.

The concept of vertical integration within the framework of various neoclassical concepts is interpreted ambiguously, but the fundamental differences are contained mainly in two approaches. According to the first, a vertically integrated firm, as an economic organization, is viewed through the prism of production relationships and their efficiency. It regulates the technological process in order to obtain maximum economic, social and environmental benefits. Proponents of this area of research focus on the impact of vertical integration on the development of monopoly and restriction of competition.

The second group of theories represents the firm as a network of contracts, i.e. as an institutional organization. The concept is based on the fact that integration is a source of savings in transaction costs, considering the latter as costs for managing the economic system. This

approach puts the effective management of business processes in first place, while the management of technological processes moves to second place. With this approach, researchers do not take into account the social and environmental problems of the development of territories, the problems of growing differentiation in the standard of living of the population in territories with different natural and climatic conditions. In addition, the exaggeration of the role of business processes in the development of agriculture affects the differentiation of the results of the activities of agricultural producers of various forms of management, the level and degree of specialization and concentration of production, which is unacceptable in the agricultural sector, where, along with technical and economic systems, there are biosystems.

It seems that these two approaches should be applied comprehensively, in a system whose subsystems should be, firstly, technological process management (optimization of technological chains in each food subcomplex) based on technological maps, and secondly, business process management (optimization of contracts and contracts between enterprises in certain industries) on the basis of business projects, thirdly, on the basis of logistics optimization based on road maps. This approach will provide a strategic vertical and a strategic horizontal in a unified agro-industrial complex system.

The purpose of integration is to ensure the cumulative effect of integrated activities by establishing relations of equally beneficial and equal partnership. This is achieved through the mechanism of organizational and economic relations, which practically can be implemented in two versions. The first is the determination of the individual contribution of each partner to the final result and the establishment of the procedure for distributing the financial result (revenue from sales, profit), the second is the establishment of settlement prices. In both options, the main problem is the choice of the criterion for the equivalence of commodity exchange.

The means of regulating organizational and economic relations, first of all, depend on the forms and models of integrated formations. At the first stage of reforms, after the division of large farms into small ones, the mass bankruptcy of the latter, rigid forms of integration prevailed through the joining of financially stable insolvent organizations and the formation of agricultural firms and agricultural holdings

through the development of contractual and property-contractual relations. At the next stage, softer forms of integration began to develop – industry unions were created and product-territorial clusters were formed. Consumer cooperatives are developing, on the basis of which small-scale production is concentrated. On the basis of cooperation and integration, inter-industry and intra-industry ties are deepening.

Integration helps to regulate vertical connections. In its development, agro-industrial integration went through various organizational forms and mechanisms for coordinating the interests of agricultural enterprises and the processing industry. Depending on the nature of intersectoral interaction (on the principles of combination or cooperation), agro-industrial formations were created according to sectoral or territorial characteristics. Since the beginning of the 80s, various forms of integration, regional agro-industrial associations, agro-industrial combines, and agricultural firms began to emerge. They were based fundamentally on the administrative regulation of relationships between their participants. The main form of economic relations between agricultural enterprises and the processing industry was a contracting agreement.

Experience has shown that this form performed coordination functions and did not affect the nature of exchange relations, since fixed wholesale prices were not established for finished products, but conditional settlement prices were in effect. The main disadvantage of the agreement in the previous conditions is that it did not reflect product quality indicators and delivery conditions, as well as the lack of differentiation of purchase prices by quality and the lack of economic incentives for fulfilling contractual obligations, which led to the failure of contractual deliveries.

Institutional theory puts forward savings on transaction costs as one of the most important motives for vertical integration. Changes in the value of transaction costs are an indicator of the life cycle of a vertically integrated firm. As they grow, vertical integration weakens and is replaced by other forms of market organization and vertical control.

Along with the creation of closed integrated formations of the joint-stock type, there is a tendency in the development of associative structures. Integration along industry and intersectoral lines occurs through the formation of unions and associations of non-profit partnerships. The above-mentioned non-profit structures are engaged in

the regulation of horizontal relations: coordinating actions to provide feed, breeding stock, providing advice on legal protection, organizing marketing, and also perform a number of other functions in accordance with the constituent documents. In order to guarantee legal protection of domestic production and for this purpose to limit the sphere of influence of monopoly structures, agricultural producers create self-regulatory organizations in the form of associations and unions.

Self-regulatory organizations are divided into:

– industry – organizations that unite entrepreneurs based on industry;

– associations based on a technological principle, when the unifying element is not the common nature of the goods (services) produced, but the use of similar resources and/or technologies.

In practice, new forms of integration have emerged (territorial-industry and functional-industry clusters, product-industry alliances are being created).

The cluster approach forms a mechanism of organizational and economic relations that allows all cluster participants to receive a profit equivalent to costs.

There are three definitions of clusters, each of which highlights the main feature of its functioning: regionally limited forms of economic activity within related sectors, usually tied to certain scientific institutions; vertical production chains in which adjacent stages of the production process form the core of a cluster (for example, the chain "supplier – manufacturer – marketer-client"; industries defined at a high level of aggregation or a set of sectors at an even higher level of aggregation (for example, "agro-industrial cluster").

The formation of a grain product cluster will serve as a form of PPP, a new institution for the modernization of agricultural sectors, as well as a tool for improving organizational and economic relations between partners in joint production on an equivalent basis.

For the successful implementation of mutually beneficial organizational and economic relations between subjects of agro-industrial formations, the following conditions must be met:

– social orientation of the relationships between the cluster participants in terms of most fully satisfying the needs of the country's population for domestically produced food products, increasing the

living standards of the population and increasing their interest in effective work, providing employment for rural workers, and developing social infrastructure;

– effective use of production potential, as well as the balanced development of all sectors of individual areas of food subcomplexes based on modernization;

– regulating the operation of the income distribution mechanism in order to ensure a material interest in the results of activities of both the entire formation and its structural divisions and each employee;

– material and moral responsibility of participants in agro-industrial formations, expressed in the imposition of fines and other sanctions for failure to fulfill accepted contractual obligations;

– state regulation of price parity and tariffs for products and services of the agro-industrial complex and other sectors of the country's national economy, streamlining tax payments to budgets of all levels, providing budget support for the development of the agro-industrial complex, etc.

The formation and regulation of organizational and economic relations is carried out under the influence of various economic laws. Moreover, actively interacting with each other, the laws of value, average rate of profit, supply and demand, competition create an economic environment with various factors, incentives and conditions of reproduction. For example, the economic law of value assumes that the exchange of products occurs in accordance with the labor expended on it.

In market conditions, capital flows from one industry to another. This process involves levers of influence such as prices, duties, credit, insurance and other systems. All this turns exchange into a contradictory socio-economic phenomenon, accompanied by changes in the proportions of reproduction. In this regard, organizational and economic relations in individual subcomplexes are increasingly developing in accordance with the theory of disequilibrium. Violation of established proportions, from the point of view of supporters of the theory of non-equilibrium economic development, is a fundamental property of economic systems, since it ensures a transition to a new state characterized by a higher level of organization of production.

For the development of organizational and economic relations, two conditions must be present: the social division of labor, in which in-

dividual commodity producers specialize in the production of certain products; economic isolation of goods producers, which allows them to freely dispose of the products produced, that is, to be its owner. The proportions according to which goods are exchanged are based on their value. Goods are exchanged in accordance with the amount of labor expended on their production, which determines the commensurability of the goods exchanged. Thus, in the process of exchange, one of the defining characteristics of commodity production arises – the need for equivalent exchange, which has retained its significance in the conditions of a developed market economy. In the process of its movement from the manufacturer (seller) to the consumer (buyer), the product loses one of its properties: for the buyer it is interesting for its consumer properties, and for the seller – for its value.

The dual nature of the commodity is determined by the dual nature of the labor embodied in it. According to the labor theory of value, the consumer properties of a product are created by concrete labor through the impact of labor tools on an object there, and value is created by abstract labor (the expenditure of human mental and physical energy in the process of creating a product). Consequently, the value of a commodity is embodied abstract labor, which at the same time acts as social labor, that is, labor not for oneself, but for society. The value of a product acts as a social relationship between participants in the reproduction process with each other, which manifests itself in its specific form – exchange value (the ability to exchange for another product in certain proportions). In the exchange of its participants, the quantitative equality of labor costs in the production of one or another product is recognized. Establishing low purchase prices for raw materials (milk, meat, especially beef) does not reimburse the costs incurred to its manufacturer, therefore it is not able to carry out not only expanded, but also simple reproduction. Therefore, agricultural producers are forced to reduce the number of animals, primarily in unprofitable industries (cattle breeding).

CHAPTER 3

ASSESSMENT OF THE STATE OF THE GRAIN PRODUCT SUB-COMPLEX AND THE INFLUENCE OF FACTORS ON ITS DEVELOPMENT IN MODERN CONDITIONS

3.1. Methodological approaches to analyzing the development of agricultural production in the Republic of Kazakhstan

In the context of the current global economic crisis and, as a consequence, the crisis of state management systems, in general, the problems of the modern economy of Kazakhstan are aggravating, and with it difficulties arise in the development of the agro-industrial complex, processing and food industries. This problem has become very relevant today.

One of the important factors of socio-political and economic stability of Kazakhstani society is the indicator of the degree of development of the agricultural industry, in which the production of agricultural products remains key.

The agricultural sector, being one of the priority areas for the development of the country's economy, has great potential and huge reserves, while producing almost all types of agricultural crops in the temperate climate zone, and also has the potential to expand the livestock industry.

In recent years, the total sown area of agricultural crops has not changed. The main share (72 %) of it consists of grain crops. Since 2010, there has been a trend towards their reduction, which is associated with the ongoing diversification of crop production, as well as in accordance with the country's agricultural policy aimed at increasing oilseeds, fodder crops, vegetables, and fruit and berry products.

In recent years, according to statistics, the area of barley has increased by 534.7 thousand hectares or by 34.7 %, oats – by 69.6 thousand hectares (46.6 %), corn (maize) – by 38.9 thousand hectares (39.1 %), oilseeds – by 664.5 thousand hectares (36.6 %), fodder crops – by 831.5 thousand hectares (31.7 %), vegetable and melon crops – by 42.1 thousand hectares (21.4 %).

Based on the results of the analysis of Earth remote sensing (ERS) data, the area of identified unused arable land amounted to more than 1 million hectares. At the same time, 185,760 land plots were analyzed, 13,195,330.1 hectares of arable land were digitized. These are the lands of six regions: Akmola, North Kazakhstan, Karaganda, East Kazakhstan, Zhambyl, Almaty regions of the Republic of Kazakhstan.

In addition to identifying unused land, experts identify unaccounted for arable land. In the six above-mentioned regions, thanks to space technologies, 367,878.1 hectares of unregistered arable land were identified. The reasons for this may be undocumented cadastral documents or land squatting. Electronic field maps with high positional accuracy are created without the help of farmers using objective remote sensing data of medium and high resolution. In addition, the analysis of information systems (AIS) "State Land Cadastre", land balance data and remote sensing data for a three-year period is mandatory in space monitoring of land use.

Kazakhstan ranks fifth in the world in terms of the area of pasture resources, while a large volume of pastures is used irrationally, in violation of the maximum permissible load.

As a result, pastures degrade or are not used to their full extent. The assessment of the use of pasture lands is carried out using remote sensing based on the current mosaic of space images of medium resolution of the KazEOsat-2 satellite and data from the farm animal identification information system. When using pasture, grazing of farm animals must be at least 20 % of the load norm, and also not exceed this norm. Otherwise, these areas of agricultural land are irrationally used.

Based on the results of an assessment of the rational use of pastures, according to remote sensing data, the load on pastures is low:

– Akmola region – by 30.2 %;
– North Kazakhstan region – 18.4 %;
– Karaganda region – 19.3 %;
– East Kazakhstan region – 11.6 %;
– Zhambyl region – 12.7 %;
– Almaty region – 11.9 %.

Also there have been structural changes in sown areas associated with a reduction in wheat sown areas and an increase in sown areas with other crops, as evidenced by **Fig. 14**: wheat sown areas decreased

from 13.8 million hectares to 12.0 million hectares in 2020. The entire sown area in 2020 increased by 2.8 % compared to 2013, while the area of subgrain crops and wheat decreased. Unfortunately, it should be noted that the potential of agricultural production in the republic is decreasing due to irreversible processes associated with the deterioration of land fertility, a decrease in the content of nutrients and humus. In 2020, the growth in agricultural production was 4.3 %, while the growth of the republic's economy was 4.0 %, which shows the potential of agriculture as the main driver of economic growth. In order to preserve and reproduce soil fertility in order to maintain sustainable production of agricultural products, it is necessary to conduct constant monitoring of soil fertility on agricultural lands, as well as to revise the tax system of industry entities to stimulate the rational use of land resources. The leaders in crop production in 2020 were Akmola region, whose gross crop production amounted to 268,785.9 million tenge, Almaty region – 357,200.1 million tenge, East Kazakhstan region – 221,882.9 million tenge (**Table 5**).

The gross harvest of grain crops in general makes it possible to meet the country's internal needs and have export potential, however, for wheat, despite an increase in the gross harvest by 36.8 %, imports increased significantly – 67.3 %, and there was a decrease in exports by 44.5 %.

In 2020, according to forecasts, the size of wheat exports in the EU and Central Asia will be about 10 million tons, as well as highly processed wheat products – 0.3–0.5 million tons, exports of vegetable products could amount to about 300 thousand in 2020 tons, the volume of rice exports may also increase to 100 thousand tons.

At the same time, the industry has problematic issues that reduce the potential of crop production: the unsatisfactory state of the infrastructure for storing seeds and certain types of products; dependence on imports of beet seeds; wear and tear of irrigation systems; lack of new technologies and integration ties between producers and processing plants, as well as a low level of investment attraction; disproportion in pricing, when the rise in prices for the products of industrial sectors, which provide the agricultural sector with their resources, significantly outstrips the rise in prices for agricultural products. These factors influenced the unprofitability and unprofitability of crop products.

Table 5. Gross crop production by region, million tenge

Region name	2014	2016	2020	2020 to 2014, in %
Akmola	181,553.6	239,945.4	268,785.9	48
Aktobe	59,558.2	68,542.0	85,290.6	43.2
Almaty	297,658.3	327,699.1	374,395.9	25.8
Atyrau	22,668.2	24,557.8	26,707.4	17.8
West Kazakhstan	44,185.4	57,093.8	48,182.4	9
Zhambyl	115,132.4	129,662.4	146,745.4	27.5
Karaganda	73,936.8	95,517.2	121,853.9	64.8
Kostanay	180,295.1	217,597.2	267,236.2	48.2
Kyzylorda	45,544.1	47,511.4	62,394.8	37
Mangystau	1,215.8	2,112.2	3,026.4	149
Pavlodar	64,217.6	83,659.4	112,203.7	74.7
North Kazakhstan	247,060.2	289,839.3	366,165.6	48
Turkestan	230,522.9	265,002.9	292,648.1	27
East Kazakhstan	162,095.1	185,069.0	221,882.9	37
Nur-Sultan city	2,338.2	607.1	461.5	–80.3
Almaty city	2,111.4	2,970.1	5,022.9	138
Shymkent city	9,343.0	10,194.5	16,563.5	77.3

Note: compiled by the authors

3.2. Assessment of the state of agricultural products

An important aspect of the development of crop production in Kazakhstan is the natural and climatic conditions. In this regard, the production and sale of crop products is seasonal, which requires the development of greenhouse farming.

About 80 % of agricultural products produced in Kazakhstan are sold without processing, in the form of raw materials, therefore, finished products are poorly competitive (**Table 6**).

Table 6. Gross output of agricultural products (services) by producers, in current prices, million tenge

Agricultural producers	Years			Agriculture GDP growth in 2020 compared to 2014 (+, -)
	2014	2016	2020	
Agricultural enterprises	589,501.7	856,270.0	1,067,683.0	81.1
Peasant (farm) farms	810,163.3	1,043,755.3	1,317,352.9	62.6
Households	1,744,013.1	1,784,368.0	2,089,052.2	19.8
Total	3,143,678.1	3,684,393.3	4,474,088.1	42.3

Note: compiled by the authors

The data in **Table 6** indicates an increase in agricultural GDP in 2020 compared to 2014 by 42.3 %, including by producer: agricultural enterprises by 81.1 %, peasant (farm) farms – 62.6 %, households – 19.8 %. However, it should be noted that the share of household products in the structure of the gross output of the industry is very high and amounts to 46.7 %, while agricultural enterprises – 23.9 %, peasant farms – 29.4 %. The production of processed products in the country is reflected in **Table 7**.

Based on the implementation of the State Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017–2021 the level of total state support for agricultural production will increase by 2.1 % by 2021 compared to 2017, direct support – by 1.6 %, indirect support – by 0.5 % (**Table 8**).

In order to increase the effectiveness of subsidies and maximize the coverage of agricultural producers by state support measures, a more detailed definition of criteria and standards for subsidies will

be used. As a priority, subsidies will be used to support the production of in-demand products and reduce production costs.

The ongoing agricultural policy of Kazakhstan puts forward the main tasks – the introduction of new equipment, innovative technologies and approaches in agriculture; using accumulated global experience and creating agrarian-industrial diversification through the growth of processing of agricultural raw materials.

Table 7. Production of processed products, billion tenge

Index	**2014**	**2016**	**2020**	**2020 to 2014, in %**
Food production	1,103,491	1,448,386	1,527,687	38.4
Processing and canning of meat and production of meat products	152,459	203,603	227,963	50
Processing and canning of fish, crustaceans and molluscs	9,887	14,087	18,561	87.7
Processing and canning of fruits and vegetables	80,367	105,249	102,546	27.6
Production of vegetable and animal oils and fats	89,674	120,611	135,700	51.3
Production of dairy products	216,431	225,415	277,352	28.1
Production of flour milling products, starches and starch products	210,589	307,352	264,593	25.6
Production of bakery and flour products	173,431	195,866	222,875	28.5
Production of other food products	149,131	240,949	209,509	40.5
Production of ready-made animal feed	21,522	35,256	68,589	218.7

Note: compiled by the authors

The current situation with the introduction of new technologies in the agro-industrial complex does not ensure sustainable growth of agricultural products and does not correspond to the required level of development and implementation of new products, and therefore bringing them to a higher level of competitiveness.

On this basis, a full-scale technological modernization of agricultural enterprises is required, which will allow replacing labor-intensive and low-productivity equipment with more modern and efficient ones.

Table 8. Indicators of state support for agricultural production in Kazakhstan for 2017–2021

Index	**2017**	**2018**	**2019**	**2020**	**2021**
Level of total state support for agriculture to gross output, %	9.1	9.7	10.2	10.5	11.2
Level of direct government support agriculture to gross output, %	4.5	5.0	5.4	5.5	6.1
Level of indirect government support (green box)	4.6	4.7	4.8	5.0	5.1
Structure of total state support for agriculture, %	100	100	100	100	100
Level of direct government support in total government support, %	49.0	51.5	52.9	52.3	54.5
Level of indirect government support in total government support, %	51.0	48.5	47.1	47.7	45.5
Threshold level of state support (yellow box), %	8.5	8.5	8.5	8.5	8.5

Note: compiled by the authors

The average service life for process equipment in the process and manufacturing industries is in the range of 17–20 years, and world practice demonstrates the complete replacement of equipment over a period of 5–7 years. This shows that enterprises in our country operate on equipment that is two generations behind competitors.

In the period from 2000 to 2020, under financial leasing agreements concluded by KazAgroFinance, 42,999 units of processing equipment

were purchased for a total amount of 503,685 million tenge, including: sausage production lines; milk processing lines; equipment for the production of vegetable oil; mill complexes; poultry slaughter and processing lines; lines for processing vegetables using microwave drying; mini-factory for processing camel milk; lines for the production of jama and short-cut pasta and other equipment.

Currently, about 46 leasing companies are registered in the country, among which only about 20 organizations continue to provide leasing services. The leaders in the leasing services market, according to the rating agency Expert RA Kazakhstan, are KazAgroFinance JSC, Astana Finance Leasing JSC, as well as DBK-Leasing JSC, whose market share is: KazAgroFinance JSC – 31 %, Astana Finance Leasing JSC – 19 %, DBK-leasing – 10 %, others – 40 %. Agricultural machinery is satisfied by imports by almost 80 %. The import capacity of the countries of the macroregion is about 6 billion US dollars. However, in Kazakhstan there is also a high latent demand for agricultural machinery, which is characterized by a high level of wear and tear. The emergence of new technologies in the agro-industrial complex will push to increase the efficiency of development of production of new types of agricultural machinery and equipment. State support for demand for agricultural machinery provides preferential financing for buyers.

80 % of the agricultural machinery fleet in the Republic of Kazakhstan is currently worn out, despite the general dynamics of growth in the absolute number of machinery and equipment.

The average age of more than 80 % of tractors and grain harvesters is 13–14 years, with a standard service life of 8–10 years, i.e. up to 93 % of tractors and 95 % of seeders, and up to 71 % of grain harvesters are already subject to write-off. The country's existing fleet of agricultural machinery generally has a wear rate of 87 %, as evidenced by **Table 9**.

In general, the competitiveness of agricultural machinery production is influenced by many key factors, such as innovative and technological potential, human resources, and availability of financial resources.

The main problems of the agricultural sector are:

– lack of enterprises producing spare parts and components for agricultural machinery;

– lack of purchasing power among subjects of the agricultural sector;

– an underdeveloped mechanism for subsidizing agricultural producers for the purchase of domestic agricultural machinery;

– low availability of financial resources;

– lack of engineering and labor personnel with the required qualifications;

– poor development of the technical regulation system;

– technological backwardness of production;

– insufficient government support for agricultural machinery manufacturers.

Table 9. Availability of main types of agricultural machinery, units

Availability of agricultural machinery	**2017**	**2018**	**2019**	**Ratio of indicators in 2019 to 2017**
1	**2**	**3**	**4**	**5**
Other tractors for agriculture and forestry	459	470	432	–5.9
Plows	130	154	125	–3.4
Rippers and cultivators	82	88	81	–1.2
Disc harrows	212	101	114	–46.2
Sawtooth harrows	21	33	44	109.5
Harrows, weeders and other hoes	36	100	66	83.3
Rotovators (mechanized cultivators with soil cutters)	29	16	15	–48.3
Seeders	155	159	155	0
Spreaders of mineral or chemical fertilizers	16	16	21	31.3
Organic fertilizer spreaders (manure spreaders)	3	2	8	166.7
Mowers, including tractor-mounted mowers, not included in other groups	75	85	74	–1.3

Continuation of Table 9

1	2	3	4	5
Side rake	25	41	39	56
Balers for straw or hay	45	51	48	6.7
Potato diggers and potato harvesting machines	16	4	6	–62.5
Row headers	23	24	27	17.4
Other machines for harvesting root and tuber crops	2	3	–	–100
Combine harvesters	80	62	89	11.3
Silage and grape harvesters, machines for collecting fruits and berries from trees and shrubs	14	28	27	145.5
Machines for cleaning, sorting or grading seeds, grains or dry legumes	9	5	11	22.2
Trucks	196	206	210	7.1
Corn harvesting machines, peeling machines, cob peelers and other harvesting machines	22	3	6	–73
Irrigation devices	30	37	38	26.7
Powder sprayers and spreaders designed for installation on agricultural tractors	19	13	8	–57.9
Milking machines	39	35	42	7.7
Animal feed preparation machines	15	7	7	–53.3
Tractor trailers	166	141	139	–16.3

Note: compiled by the authors

In order to increase the competitiveness of agricultural products, it is necessary to deepen the analysis of the sector of production of agrochemical products, which is a priority and is characterized by the

mandatory availability of both the necessary raw materials and the presence of operating large enterprises, increased demand for agrochemical products both within the country and on the foreign market.

One of the serious problems of the agricultural sector of Kazakhstan remains insufficient financing. In Kazakhstan, according to estimates by the European Bank for Reconstruction and Development and the World Bank, 56 % of firms, including agricultural enterprises, state that access to sources of financing for their development is limited.

As of the beginning of 2017, the KazAgroFinance joint-stock company financed 435 investment projects worth about 236.7 billion tenge, including the creation and development of greenhouse farms, fruit and vegetable storage facilities, fish farms, breeding farms (reproductors), feedlots with developed infrastructure, meat processing plants complexes, dairy farms, poultry farms for meat production, the creation of slaughterhouses, as well as the construction and modernization of granaries.

Investments in agriculture in January-December 2019 increased by 41.1 % compared to the previous year and amounted to 501.6 billion tenge. The main grain-growing regions – North Kazakhstan, Kostanay and Akmola regions – sent about 213.8 billion tenge to the industry, which amounted to 42.7 % of the total investment in agriculture, forestry and fisheries.

More than 89 % of investments in fixed assets in agriculture were aimed at growing seasonal crops (60.6 %) and livestock (28.9 %). To increase the investment attractiveness of the industry, it is necessary to introduce new financial instruments that will be aimed at reducing the cost of loans, and tools to reduce the risks of lenders and investors.

The agricultural sector is less competitive compared to other sectors of the economy due to high capital intensity, payback period, low profitability, and dependence on climatic conditions.

CHAPTER 4

INTERNATIONAL EXPERIENCE OF PUBLIC-PRIVATE PARTNERSHIP

4.1. Experience in organizing public-private partnerships in countries with developed market economies and developing countries

Cooperation between the state and business structures for the creation, organizational support and management of infrastructure has a long tradition in many developed countries. The history of PPP projects in Brazil, Spain, Italy, Mexico, USA, France, and some other countries goes back several centuries. According to some authors, even the participation of ancient states in the construction of joint-use facilities in the manner of irrigation systems in agriculture should also be considered as a historical experience of PPP. And although the economic and legal norms and principles that regulate partnership relations between the state and business structures, as well as specific forms of interaction between the state and entrepreneurs have undergone significant transformations since that time, nevertheless, the general understanding and recognition of the need for such cooperation has become more responsible and conscious.

Research has established that in the modern world there are two fundamentally different schemes of institutional evolution of relations between the state and business structures, both in methodology and in the depth of changes occurring, on the basis of which specific forms of PPP are created. The first is a structural adaptation of the existing institutional environment to the goals, priorities and conditions of economic activity of the state, which are constantly changing.

The introduction of new principles, norms and rules of cooperation between the state and business structures into existing institutions occurs either in the context of the proclaimed new economic policy of state regulation (Great Britain, New Zealand, Argentina, most Latin American countries), or in the context of changes and additions to the existing public administration system (USA, Canada, Japan,

EU countries). Developing countries, in which the level of formation of market relations is sufficient to establish partnership relations of the "state – business structures" type, are following the same path to introducing PPP institutions.

The second approach to the PPP implementation is associated with the formation of a completely new institutional environment that meets the principles of the functioning of a market economy and a new understanding of the place of the state in the economic life of society. This scheme is being implemented in the former socialist countries that formed in the post-Soviet space and in some developing countries. The first steps towards creating a new institutional environment in these countries is the formation of an appropriate legislative framework and government agencies to coordinate common issues and facilitate the development of partnerships. Nevertheless, the lack of experience in building an organizational and economic mechanism for interaction between the state and business structures, and regulating financial and fiscal relations is hindering the successful development of PPP, which requires greater involvement of foreign experience and the assets of those countries that are the undisputed leaders in this area, first total: UK, USA, France, Netherlands. To identify positive experience, the author carried out a comparative analysis of the institutional foundations for the development of PPPs in developed countries, identifying general principles, functions of established institutions and forms of interaction between participants.

The experience of developed countries indicates the widespread development of PPP practice.

Currently, the largest player in PPPs in value terms is France (€ 2.9 billion), followed by the UK (€ 1.7 billion). France and the UK together account for 76 % of the total European market.

Analysis of foreign experience shows that each country has priority sectors of the national economy, where the implementation of PPP projects is most effective. Thus, the UK has focused PPP projects on infrastructure such as schools, hospitals, prisons, defense facilities and highways; Canada implements a significant number of PPP projects in such sectors as energy, transport, environmental protection, water resources, water supply and sanitation, recreational facilities, information technology, healthcare, education; Greece mainly implements

PPP projects in the transport sector, in particular with regard to airport roads; Ireland has identified such areas for the development of PPP projects as roads and urban transport systems; Australia has identified transport and urban life support systems as priority areas for the development of PPP; the Netherlands uses the PPP mechanism in the public housing sector and urban life support systems; Spain is implementing PPP projects in the field of toll roads and urban life support systems; the United States predominantly uses PPP projects that combine environmental protection and livelihoods of rural communities.

The investor's share of participation in the financing of PPP projects varies depending on the type of investment objects. Private investors bear the largest costs during the construction of airports (over 70 % of the project cost) and on highways (up to 60 % of the total cost). At the same time, bridges and tunnels, and railways in developed countries are financed primarily by the state (**Table 10**).

Table 10. Largest PPP projects by funding volume

Project	**Investment volume, million USD**	**Country**	**Sector**
Project Chunnel – Channel Tunnel	1 351	Great Britain	Transport infrastructure
Production of strategic aircraft tankers	5,133	Great Britain	Defense
Highway reconstruction in Virginia	1,937	USA	Transport infrastructure
Highway in Texas	1,378	USA	Transport infrastructure
Construction of Highway 19	1,199	France	Transport infrastructure
Construction of an underwater tunnel to Amsterdam	867	Netherlands	Transport infrastructure

Source: Delivering the PPPpromise. A review of PPPissues and activity. Available at: https://www.scribd.com/document/525090899/ppp-0106

One of the successful examples of PPP was the project for the construction and operation of the M-6 toll motorway in the UK. The daily revenue from motorway tolls is £ 200,000.

The road runs north from London and is a north-eastern bypass of Birmingham. The length of the M-6 toll section is 43 km. The concession agreement for the construction and operation of M-6 was signed in 1992 with the Australian company McCory. Start of construction – 2001, opening of traffic – 2003. Completion of the concession – 2054.

The total cost of the project is £ 900 million, including construction of £ 485 million. The cost of travel along the entire motorway in one direction for cars is 3.5 pounds sterling, for trucks – 7 pounds sterling.

Alternative free roads are the existing roads M-6 and A-5. The actual traffic intensity on the M-6 toll section is 40 thousand vehicles, of which 92 % are passenger vehicles. Traffic intensity increases by 5 % annually. 160 thousand cars travel on the free M-6 road every day.

However, even in the UK, some PPP projects in the transport sector cannot be called successful, for example, the M-25 highway project (or the M-25 London ring road).

This project was one of the largest PPP projects in Europe. It included work on the reconstruction of individual sections of the 67 km long road, the construction of a tunnel under the river. Thames and the operation of the M-25 ring road with a total length of 220 km.

This project was first discussed at the beginning of the 20th century. as part of the construction of one of the four ring motorways around London, but in fact the financial model for the project was approved in 2009 to design, build, finance and operate (DBFO) through a 30-year concession. However, discussions on the cost of the project took place from 2006 to 2009, during which the cost increased from £ 4.5 billion to £ 6.2 billion. Of course, this reduced the benefit-to-cost ratio. During the implementation of the project, a number of risks arose that were not foreseen at the project planning stage. Thus, M-25 was opened at a time when the government allowed commercial and residential development along the road, despite protests from local councils. As a result, a large Lake side Shopping Center was built on one of the sections along the highway, which led to heavy congestion on the M-25.

In general, the M-25 project is similar to the Kazakhstan project for the construction and operation of BAKAD. However, an analysis of

the British experience showed that the involvement of consultants to support the project and solve technical and financial aspects related to the implementation of the M-25 did not live up to their expectations. When developing traffic, specialists did not take into account possible changes in flow, which means they did not provide for an increase in the cost of the project to expand the lanes. Therefore, during the operation period, a huge amount of funds was invested that were not initially included in the cost of the project.

Using the experience of the British, we can say that during the construction of toll roads, the system of payment for Prepaid services (prepaid travel) in symbiosis with the possibility of paying in cash has proven itself successful. This experience should be applied in Kazakh practice.

PPP has also become widespread in the development of railway transport infrastructure. PPP schemes for the implementation of railway infrastructure projects are currently used in the UK (Tunnel-RailLink project), the Netherlands high-speed line HSLZuid), Denmark, Sweden (line 0resund, Öresund).

One of the clear examples of the use of PPP for the development of railways is the railway connection through the Channel Tunnel connecting England and France. The 108 km double-track high-speed railway between London and the Channel Tunnel is one of 14 sections of the trans-European network. The project is innovative and technically complex – the PPP participants shared the design risks equally. The total cost is 46.5 billion pounds. Special legislation was developed for its implementation.

Profitability forecasts were overly optimistic: the number of passengers using high-speed trains was half the forecast. Low-cost airlines and ferries competed with the project. There were two major restructurings as part of the project (revised profitability estimates). The market forced a restructuring of risk, transferring it to a greater extent to the public sector.

As a unique example, we can note the project for the construction of the HSLZuild railway, passing between the cities of Amsterdam, Brussels, and Paris. This PPP project is notable because the entire investment – 1.2 billion USD – was contributed by private investors, of which 90 % were financed by private banks and 10 % by industrial

investors. This experience can be borrowed during the construction of high-speed railways in Russia and Kazakhstan.

The need to expand airports has also led to an increase in the use of PPPs in EU countries. It should be noted that in Asia, for example, airports are usually built at public expense, while any ancillary projects may be financed from private sources. In Europe, airports are most often financed by private investors. However, even in this case, the public sector provides them with significant support. Located near London, Stansted Airport (UK) is one of the few projects fully financed from private sources.

It should be noted that projects for the construction of new airports are rare, since they require significant capital investments. One of these few examples is Spata International Airport in Athens. Its construction is carried out on the basis of a concession agreement for a period of 25 years.

In developed countries, PPP mechanisms are used mostly in social facilities (education and healthcare); in developing countries, PPP is mainly used for the construction of infrastructure facilities.

Due to the fact that in the Republic of Kazakhstan, partnership mechanisms between the state and business structures have not received proper distribution in the social sphere, it is of interest to consider the experience of PPP in developed countries in this area.

Thus, in the EU in 2012, the share of education and healthcare in public-private partnerships increased to 35 % in value and to 51 % in number of transactions. At the same time, the leader in the number of implemented PPP projects is the education sector. It accounted for 34 % of all partnership agreements in the EU in 2012.

The experience of developed countries proves that PPP is one of the promising mechanisms for attracting funds from private investors in the field of education due to the fact that the construction of such facilities as a school or kindergarten usually takes from 8 months to 1.5 years. It should be noted that payment for the state contract falls on the budget of the region or municipality within one financial year, and the use of the PPP mechanism makes it possible to evenly distribute the implementation of the economic component over 15–20 years, which will allow for the same money in the current budget to build more than one object, but several. In addition, the development of

partnerships between the state and business structures helps improve the quality of the educational process and the effectiveness of the education system as a whole.

Abroad, PPP is often used in the field of capital construction, reconstruction and subsequent operation of educational facilities, as well as in the service sector and the educational process itself.

The development of partnerships allows the state to ensure the development of the market for educational services, strengthening fair competition, creating additional opportunities for the development of the material and technical base of educational institutions, purchasing private sector services on a long-term basis in accordance with established standards, while reducing the burden on budgets at all levels.

Foreign experience shows that the development of PPP in healthcare allows for not only budget savings and improved quality of medical care, but also a reduction in mortality, an increase in the birth rate and an increase in life expectancy.

Healthcare occupies a significant position in the total volume of PPP transactions in the European Union. It currently accounts for 17 % of all partnership agreements.

Thus, in Germany, in the healthcare sector, it is common to sell state medical institutions to investors for a symbolic amount in exchange for securing a government order. As a result, over the past 10 years, the share of private medical institutions has increased from 4 % to 22 %. The number of private and non-profit clinics is growing rapidly. At the same time, only 2–3 new public clinics open every year.

In the UK, the private partner maintains the built structures for the duration of their operation (usually 25–30 years), but the government remains responsible for the provision of services. Government bodies make payments to contractors only after the construction of social infrastructure facilities is completed and they are fully equipped; the contractors' income is 10–14 % of the amount spent. There are also agreed standards and penalties for contractors not meeting their obligations.

The PPP implementation in the social sphere has a great socio-economic effect. Research shows that increased investment in social infrastructure has the greatest impact on the well-being of the middle strata of the population, whose level of income with improved

infrastructure increases faster than the overall income of the population as a whole.

As a result of a study of the experience of using PPP in developed countries, it was revealed that countries that actively use PPP as a form of effective cooperation are characterized by the following features: duration of the relationship; maintaining the state form of ownership of infrastructure facilities with the simultaneous introduction of infrastructure management mechanisms by private partners; openness and transparency of the activities of state and local authorities regarding the identification of private partners; ensuring the provision of quality services as an indicator of the effectiveness and efficiency of PPPs.

Based on an analysis of the practice of using PPP in economically developed countries, we can conclude that each country uses its own tools to promote the development of PPP. Its high level of application requires the coordinated activities of governments, state and local authorities and private partners. The priorities for ensuring the PPP mechanism are: the use of financial resources of private partners in the process of implementing infrastructure projects; reducing budget costs for the development of necessary facilities and reconstruction of infrastructure; introduction of advanced technologies.

According to the results of World Bank research, developing countries – China, Brazil, India, Argentina, Mexico, Colombia, Chile, Malaysia, Thailand, the Philippines, Indonesia, Turkey – have become the most active in the practical use of the benefits of PPP (**Table 11**).

In developing countries such as India, Brazil, Chile, Hong Kong, Mexico, Saudi Arabia, and the United Arab Emirates, roads are in first place in terms of the number of PPPs, followed by airports, prisons and water treatment plants in second place.

Most developing countries now invest much more in basic infrastructure than in other key sectors. China leads among developing countries in its contribution to infrastructure.

The development and use of PPP in China does not have as long a history as, for example, in the USA or Western European countries. PPPs began in China in the late 1980s and early 1990s. The concept of PPP in China was introduced by the Administrative Center of China's Agenda21 (ACCA21), and the State Development Planning Commission and the Ministry of Science and Technology of China expressed

support for the PPP initiative. Together with the United Nations Development Programme, Beijing has formally approved the inclusion of the PPP scheme in the current development programme.

Table 11. Number of implemented PPP projects and volume of investments in PPP projects in developing countries, 1990–2013

Country	Number of projects, pcs.	Investment volume, million USD
China	1,151	127,854
Brazil	693	438,291
India	775	321,583
Argentina	217	93,908
Mexico	227	126,915
Colombia	143	37,235
Chile	157	42,321
Malaysia	106	60,086
Thailand	132	44,788
Philippines	126	61,491
Indonesia	106	63,184
Turkey	159	99,173

Source: Private Participation in Infrastructure (PPI) Project Database. Available at: https://ppi.worldbank.org/en/ppi

In the mid-1990s to expand the attraction of foreign capital, the Chinese government has launched a series of pilot concession projects for the construction of roads, bridges, water supply facilities and power plants. These activities of the country's leadership were supported by the Asian Development Bank, which provided the government with a grant in the amount of 2.6 million USD to facilitate the implementation of concession projects in the electricity sector.

The largest number of PPP projects and volume of investments in China are in the energy and transport sectors, respectively (**Table 12**).

Table 12. Number of PPP projects and volume of investment by economic sector in China, 1990–2013

Industries	Sub-sectors	Number of projects	Investment volume, million USD
Energy	Electric power industry	299	42,869
	Gas supply	198	4,563
	Energy, total	**497**	**47,432**
Telecommunications	Telecommunications	4	14,518
	Telecommunications, total	**4**	**14,518**
Transport	Airports	17	2,555
	Railways	14	13,034
	Roads	138	26,221
	Seaports	72	13,957
	Transport, total	**241**	**55,768**
Water supply and sewerage	Disposal	37	3,942
	Treatment plants	372	6,194
	Water supply and sewerage, total	**409**	**10,136**
Total		1,151	127,854

*Source: Private Participation in Infrastructure (PPI) Project Database. Available at: https://ppi.worldbank.org/en/ppi_*

In 1996, the Government approved a program for the construction of the National Expressway System (NES), under which the construction of expressways in China began to gain momentum, the length of expressways built annually increased from several tens of kilometers to more than a thousand kilometers. By the end of 1999, the total length of China's operational expressways had already reached 11,605 km. In 10 years, the construction of expressways in China has achieved results that took developed countries a total of 40 years.

Moreover, with the increasing use of PPP, one of the most impressive developments has been the construction of subways in different parts of China. The construction of the metro in Beijing deserves special attention.

One of the keys to the successful development of PPP in China is that the Chinese experience is based on the presence of the State Development Bank of China, which is a key institution in the implementation of PPP projects in this country and participates in all infrastructure projects.

The legislation in force in China provides for almost all the main forms of PPP, as in European countries. Foreign capital also takes an active part in the creation and functioning of partnerships. The basis for attracting it is flexible tax regulation. In particular, in China, enterprises with a share of foreign capital exceeding 25 % are exempt from paying income tax in the first five years of their operation, and in the next five years they pay it at a rate of 7.5 % instead of the usual rate of 33 %.

It should be noted that PPP in China is also being formed to solve global world problems. For example, the Chinese Ministry of Health, in partnership with the United Nations Development Programme, the GlobalHealth Initiative, WorldVision and several private companies, recently created the ChinaHealthAlliance, which is intended to be the first PPP in the healthcare sector.

However, in China, researchers note certain obstacles to developing partnerships. This is an important influence of the political regime both on the legal regulation of economic relations in general, and on the direct implementation of certain forms of PPP in the economy, in particular. There is a need for serious refinement of the regulatory framework for the organizational development of PPP. Existing shortcomings of legislation in the field of deregulation of markets, including socially significant services, hinder the development and limit the implementation of partnership projects and the formation of a full-fledged services market based on certain forms of PPP.

In developing countries, for which PPP is a completely new innovative tool, they believe that the use of this mechanism will solve the problems of infrastructure deficit exclusively through the financial resources of the private sector. However, the less economically developed the country, the more confusing and weaker the legal regulation, the

greater should be the share of government support in the implementation of PPP projects. In this regard, it is absolutely natural that a country like India (the leader in the top 10 in terms of investment among developing countries, according to the World Bank), consciously planning the development of PPP for the future, predicts that government support for PPP projects will amount to more than 70 % of their costs, and for some industries – much higher (**Table 13**).

Table 13. Ratio of public and private investments in PPP projects in India, %

Sector	**Ratio**
Electric power industry	74:26
Roads	66:34
Telecommunications	74:26
Railway	83:17
Ports	26:74
Airports	26:74
Water supply and sanitation	97:3
Irrigation	100:0
Warehouses	50:50
Gas	82:18
Total	71:29

Source: compiled by the authors on the basis of data from http://12thplan.gov.in/displayforam_list.php

In India, PPP is most successfully implemented in the field of transport infrastructure – the construction of roads (341 projects, or 51 % of the total number of projects). In the telecommunications sector, the volume of investment is 30 %, in the energy sector 43 % (**Table 14**). Foreign capital plays a large role in such projects. The government of the country, in order to liberalize the economy, in recent years has significantly increased the permissible level of foreign direct investment

in some sectors, such as port infrastructure, energy, oil and gas industry, road construction, they are allowed up to 100 %.

Table 14. Number of PPP projects and investment by industry in India, 1990–2013

Industries	**Sub-sectors**	**Number of projects**	**Investment volume, million USD**
Energy	Electric power industry	327	137 957
	Gas supply	5	831
	Energy, total	**332**	**138 788**
Telecommunications	Telecommunications	37	96 614
	Telecommunications, total	**37**	**96 614**
Transport	Airports	7	5 111
	Railways	8	7 826
	Roads	341	64 998
	Seaports	36	7 642
	Transport, total	**392**	**85 576**
Water supply and sewerage	Disposal	10	411
	Treatment plants	4	195
	Water supply and sewerage, total	**14**	**605**
Total		775	321 583

Source: Private Participation in Infrastructure (PPI) Project Database. Available at: https://ppi.worldbank.org/en/ppi

According to a study conducted by World Bank experts, only 48 (1.9 %) of 2,500 private infrastructure projects in developing countries were abandoned between 1990 and 2001. The total value of canceled projects was $ 24.2 billion, or 3.2 % of all private investment in

developing countries. Most contracts were canceled early on, and a third of all canceled contracts came from Mexico's toll road program. In terms of the number of terminated contracts, transport leads the way – 23 projects, followed by energy – 10 projects, telecommunications – 8 projects and water sector – 7 projects.

In transport, the reason for the termination of most contracts for the construction of toll highways is insufficient traffic volume indicators due to optimistic forecasts. Consumers were unwilling to pay tolls to use a toll road, sometimes because the effect of the toll road alternative was underestimated. For example, more than half of Mexico's toll roads achieved less than 50 % of their traffic volume targets. The government's willingness to accept risks in terms of traffic volume could lead to less careful investor scrutiny of demand and thereby increase the likelihood of underestimating forecasts.

It should be noted that some developing countries have introduced a separate law for contracts under BTO schemes. The Philippines was the first country to pass such a law. Countries such as Malaysia, Vietnam and Turkey have also adopted special legislation.

The Philippines stands out as one of the few developing countries that has created a government program and a progressive legal framework for BTO projects. The policy towards private participation in infrastructure was initially prompted by the energy crisis in the late 1980s and early 1990s. In 1987 The government abolished the monopoly of the National Power Corporation and provided incentives for private investors to participate in the energy sector, which was experiencing a huge deficit in production capacity.

In 1990, the government passed Asia's first BTO law. This was replaced in 1994 by a new law which increased the number of BTO schemes. In the same year, the Center for BTO was created under the Coordination Council of the Assistance Program for the Philippines. The Center is designed to negotiate transactions under BTO schemes, helping to advance the government's BTO program and providing training and expertise in its implementation to agencies, local governments and the private sector. The introduction of a state program for BTO made it possible to increase the volume of private investment in infrastructure in the country through: increased participation of the private sector in infrastructure development (the volume of private

investment in infrastructure projects for the period 1990–2001 amounted to $ 32.1 billion); preventing the use of government guarantees and limiting the use of public funds, so that no more than 50 % of the total project cost can be financed through public financial institutions; delegation of congressional approval to executive agencies; allowing designated agencies to review proposals and negotiate directly with the private sector, subject to certain conditions.

The Philippine government has created a new institutional structure to support a program for private sector participation in the country's infrastructure development projects. Each sector agency has a BTO department specialist responsible for coordinating the design and implementation of projects. National, provincial, and municipal government agencies select and award projects according to this system.

Government agencies prepare a list of priority projects that must be approved by the Investment Coordination Committee of the National Economic Development Agency or local and regional councils, depending on the jurisdiction and cost of the proposed projects, as defined in the rules of the BTO Law. Projects undertaken under a Build-Own-Operate (BOO) scheme, or through other contracting arrangements not specified by the Act, require presidential approval.

The BTO Center, as part of this program, has fourteen professional staff and performs the following tasks: examination and storage of projects that comply with the BTO structure; advising foreign investors doing business in the Philippines; development of infrastructure projects; providing technical assistance and training specialists from central and local government agencies in the design and implementation of projects; implementation of advertising activities for the BTO program and specific projects through the production of brochures and the organization of presentations.

Initially, the Center was primarily involved in marketing the BTO concept to private investors. Once the BTO concept became known, marketing and similar tasks were delegated to BTO departments in each sector agency. At this time, the BTO center, along with its initial functions, conducts training for representatives of national and local government bodies.

The Philippine BTO Act is structured as follows: a policy statement recognizing the role of the private sector in infrastructure development;

section providing definition of various types of PF contracts and other important conditions; allowing all central and local government agencies dealing with infrastructure to enter into third party agreements for properly prequalified infrastructure projects; section considering projects; public tender procedure for projects, including direct negotiations on projects; cost recovery scheme; conditions for the completion of the BTO contract; control and monitoring of the project; investment incentives; section of rules and regulations for the implementation of WOT projects.

The study of the experience of implementing PPP in South Korea is of interest. South Korea's first attempt to attract the public-private sector was the Private Investment Promotion Act of 1994, but little progress was made in this direction due to the high risks faced by the private sector. The process resumed in 1999 with the passage of the Private Infrastructure Investment Act, which continues (with amendments) to be the basis for current PPP programs.

Chronologically, the development of PPP in South Korea can be divided into four stages. The first stage covers the period from the 1960s. until August 1994, during which the country periodically implemented PPP projects in the field of roads and railways, based on separate laws regulating the transport sector.

The second stage covers the period from the adoption of the Law on the Promotion of Private Capital into Socially Significant Capital in August 1994 and until March 1999, when further changes were made to the legislation. During this period, the state defined clear criteria for the concession period, consumer fees, and government support measures. Due to the crisis of 1997–1998, the development of PPP projects was suspended. The government was forced to amend legislation by passing the Private Sector Participation in Infrastructure Act in December 1998, which introduced additional government support measures, including the Minimum Income Guarantee (MIG). In October 2009, the GMI system was replaced by a risk-sharing system, within which the state accepted part of the investment risks associated with the construction of the facility within a certain limit.

The third stage covers the period from the beginning of 1999 to 2004, during which the state actively used various support measures, including eliminating the requirement for the artificial division of PPP

objects, and also actively used the GMI. Moreover, it was at this time that both "solicited" and "unsolicited" categories were allowed, depending on who initiated the project. During this period, a special body responsible for the development of PPPs, the Private Infrastructure Investment Management Center (PIMAC), was created, the activities of the Korea Infrastructure Credit Guarantee Fundsystem (KISGF) were adjusted, and infrastructure fund, and the private sector received the right to buy out a controlling stake in the project companies.

The last, fourth stage covers the period from January 2005 to the present, when in addition to the existing Build-Transfer-Operate (BTO) PPP scheme, the Build-Transfer-Lease (BTL) scheme was authorized and implemented. Additionally, the changes made it possible to expand the use of the BTL scheme on the requested projects, which was not previously possible.

In South Korea, the development of PPPs began with the implementation of seven highway projects, which were subsequently affected by the Asian financial crisis of 1997 and the subsequent tightening of control over the Korean economy by the IMF. Since the revision of the PPP Law in 2005, the scope of potential PPP projects has also expanded to include social infrastructure that is closely linked to people's daily lives (schools, barracks, nursing homes, cultural facilities).

Currently, the main part of the PPP program in South Korea is transport concessions. Examples of large PPP projects are presented in **Table 15**.

According to the Center for Management of Private Infrastructure Investments (RGMAS), in 2012, 630 PPP projects worth 90.8 trillion Korean won were implemented in South Korea.

Financing of obligations for PPP projects is carried out with the support of the Korea Infrastructure Credit Guarantee Fund (KICGF), established under the 1994 Law. KICGF accumulates its funds from the government, revenues from minimum income guarantees, its own income from guarantees and bank loans. The fund provides revenue or liability guarantees for PPP projects up to 200 billion won (~200 million USD) per project. While the Fund provides revenue to projects or financing obligations, collection of tolls also takes place and the KICGF thus provides beneficiaries with a minimum income guarantee that funds will actually be available and will be paid when due.

Table 15. Major Korean PPP projects

Project	Total costs, million USD	Government funding sector	Private sector financing
Seoul-Chuncheon Expressway	1,535	492 (МСиК)	1,043
Seoul Ring Road	1,104	338 (МСиК)	766
New Bundang Subway, Seoul	1,615	800 (МСиК)	816
Seoul Subway Line 9	1,900	1,239 (Seoul City Government)	680
Uijongbu Light Rail Transit	313	125 (МСиК, Uijongbu)	188
Yongin Light Rail Transit	488	195 (МСиК, Yongin)	293
Bucheon Light Rail Transit	341	136 (МСиК, Bucheon)	205
Jeonju Light Rail Transit	308	154	154

Source: Theory and practice of public-private partnership (2013). Tashkent: Chamber of Commerce and Industry of Uzbekistan

An analysis of PPP projects in South Korea shows that their implementation has had a positive impact on consumers, concessionaires and the state. Key findings include the following:

– fees for end users of PPP projects have over time approached the cost of services of government facilities;

– private sector profits have narrowed to acceptable levels due to increased competition at the tendering stage.

International experience has shown that PPP is an effective form of cooperation between government and business structures and has great potential for modernizing the infrastructure sectors of the economy in many countries. PPP has important advantages associated specifically with the consolidation of efforts of authorities and business structures. It is an irrefutable fact that when modernizing and developing infrastructure in conditions of financial constraints, PPP is one

of the most effective mechanisms for solving various and complex problems that arise in the infrastructure sectors of the economy. This work, as a rule, requires political will, consistency and significant guarantees from the authorities and significant long-term investments from business structures.

Analysis of international practice allows to identify a number of conditions, the fulfillment of which determines success in the development of PPP in the modern system of economic relations: overcoming contradictions between public and private interests in PPP; creation of an institutional environment for PPP; maintaining the leading role of the state in organizing PPP programs and projects while simultaneously using the benefits of the government in this partnership.

The use of various forms of public-private partnerships in the sectors of production and social infrastructure is one of the main trends in the modern development of the Canadian economy. As in other developed market countries and some transition economies, PPP mechanisms have been used in Canada since the early 1990s.

Canada's experience in implementing PPP is interesting to us for several reasons. First of all, this is some similarity in the natural-geographical characteristics and structure of the economy of both states, as well as the wealth and diversity of natural resources, and an increased share of primary industries in the structure of production and exports. Related to this is the very active and often direct participation of the state in the creation and modernization of economic and social infrastructure.

Other circumstances add additional value to the Canadian experience. Thus, Canada is characterized by a serious and pragmatic approach to the study and application of the "best examples" of foreign economic practices. This is facilitated, in particular, by the traditionally large role of immigration in the formation of the population and the high degree of "openness" of the economy to foreign economic relations.

Canada, according to international experts, occupies some "average" positions in terms of the level of use of PPP mechanisms and the scale of their implementation in economic practice. The leaders in this regard – in terms of institutional conditions, development of project management mechanisms, development of various industry models, and a wide range of funding sources – are recognized as the UK and

Australia. In Canada – as a former colony of Great Britain – the imprint of British traditions and approaches in the government structure, party-political system and social policy model is very clearly visible. In the 1990s, the British experience of using new forms of economic partnership between the state and business was carefully studied here. It is noteworthy, however, that, ultimately, significant differences arose on some conceptual points.

It is noteworthy that in Canada, "private financial initiative" schemes are practically not used, and a clear difference has been established between public-private partnerships and privatization. In Canada, the complete transfer of a certain object, function and corresponding assets to the private sector is considered precisely as privatization (even if control and regulation of this type of activity remains the responsibility of the state). Public-private partnership mechanisms, of course, presuppose one degree or another of denationalization. However, in PPP projects, ownership of infrastructure facilities and services for collective use, as a rule, remains in the hands of the state / municipal entities or (less often) is joint public-private. In Canada, PPP legislation does not provide for the complete transfer of ownership rights by the government to private capital. At the same time, it is assumed that the rights to use and own state property will be delegated to it. In this regard, various forms of public-private partnership are also called partial privatization (semi-privatization).

The short definition of such a partnership adopted in Canada is not enshrined in federal legislation, but in the charter of the Canadian PPP Council. This is a national organization that itself is created and functions as a kind of partnership. The main goal of the PPP Council is to improve and introduce new mechanisms for economic interaction, study and disseminate "examples of best practice", and provide methodological assistance to participants in partnership projects. The Council includes representatives of government agencies, many private companies in various industries, financial companies, as well as consulting firms. Organizations similar in composition and functions operate in several provinces of Canada – Ontario, British Columbia, Alberta, Quebec. Canada places special emphasis on the fact that partnerships are created to most effectively meet public needs, and to this end they rely on the strengths and advantages of both public and private partners.

At the same time, it was from the late 1990s in Canada that various public-private partnership mechanisms began to rapidly develop and be used in the economic and social infrastructure sectors. It turned out that in many infrastructure sectors and activities, the complete transfer of state/municipal property to private commercial structures is not always appropriate and may be unacceptable from a socio-political point of view. In a number of regions, there have been cases of suspension of privatization transactions or even the return to state control of some objects and functions previously transferred to private companies. As a result of the search for the optimal combination of public and private interests, the strengths and resources of the public and business sectors, and the division of financial and other risks between them, various types of partnerships began to be created. It should be emphasized once again that in Canada, the private partner is to one degree or another transferred economic, organizational and management functions in relation to government facilities, but these facilities themselves remain the property of the state.

In the case of Canada, one can see how PPP projects can contribute to socio-economic development. Thus, according to the Canadian Center for Economic Analysis, every dollar invested in PPP projects in different provinces generated from 1.1 to 4.2 USD of economic activity: the primary impact on the economy is the costs of the original contractor, the secondary impact is the costs of suppliers of these contractors, then the generated income in the form of wages and profits is spent on consumption and investment – induced impact, and, finally, new infrastructure facilities provide an increase in economic activity that is not directly related to the initial investment – systemic impact.

It is important to note that this process is accompanied by additional employment and, as a consequence, an increase in wages (from 0.5 to 1.9 USD per 1 USD of investment). Finally, additional investments in projects lead to additional tax revenues (from 0.4 to 1.1 USD per 1 USD of investment). At the same time, for large long-term infrastructure projects (for example, roads), as practice shows, the amount of additional taxes throughout the entire project cycle exceeds the amount of investment.

In addition to purely economic results, infrastructure projects lead to an improvement in the quality of life and have a significant impact on

socio-economic development and the level of country competitiveness, attracting the best resources and additional capital to the country.

The impact of the described effects of the implementation of PPP projects on GDP in Canada amounted to an average of 3.6 USD per 1 USD of investment. Based on the contract value of the analyzed two hundred large PPP projects (about 110 billion USD), we can come to a total contribution to GDP of 396 billion USD (about 24 % of GDP in 2016), and such a contribution would be less if the implemented projects were not linked to each other (the average contribution of each individual project in isolation was 2.4 USD per USD of investment).

By linking infrastructure plans, in addition to the direct effect, synergies arise and thus increase the impact of these investments on the economy. As it was calculated, the implementation of the considered PPP projects in Canada provided, among other things:

– 14 billion USD in economic activity (of which 4 billion USD is investment);

– 115,000 years of employment;

– 5 billion USD in additional wages;

– 4 billion USD in additional federal/municipal taxes;

– 38 billion USD of added value through the implementation of projects under the PPP model (VfM indicator).

The experience of Canada suggests that public-private partnerships have country specific characteristics and are determined by various conditions: the legal environment, the level of development of institutions, business traditions, the level of economic development, political factors and others. At the same time, it is possible to identify certain similarities that indicate the presence of patterns in this area, taking into account which may improve the effectiveness of government policy to attract private investment in the public infrastructure sector.

An analysis of the development of PPP program management systems in Canada has shown that it has been a dynamic process, with many changes as experience has accumulated. In Canada, there are 3 waves of PPP development: (1) an attempt to copy the English PFI model, (2) the introduction of the VfM mechanism and assessment of the economic effect of each project, (3) the "Trudeau era". At the very beginning of the development of PPP models, separate PPP Centers were created (both at the national level and in the regions), which were

focused exclusively on projects implemented under similar models. In most cases, they were then integrated into government infrastructure development centers (in Canada – the Infrastructure Agency and Infrastructure Bank, in the UK – Infrastructure and Project Management under the Treasury IPA, in France – the FIN INFRA Center at the Treasury) in order for the PPP model to be considered not as a fashionable phenomenon that took precedence over other forms of implementing infrastructure projects, but as an alternative to conventional methods, used when there were economic advantages.

The Canada PPP Fund has 1.2 billion USD in funds and is a federal financial instrument to assist lower-level public authorities in implementing PPP projects. They formulate a medium-term plan and budget for 5 years. Any government authority has the right to apply to the fund for support of its projects in the fields of transport, water supply, energy, security, waste management, culture, sports, telecommunications, maritime activities, space, and tourism. Projects are selected based on price and quality criteria. Funding comes in various forms depending on the needs of the project. The maximum amount of fund support does not exceed 25 % of the project cost.

PPP projects in Canada are being implemented in more than 25 areas of public relations (construction of roads and bridges, construction and reconstruction of medical and educational institutions, sports technical facilities, etc.), at all levels of government.

As for the legal regulation of public-private partnerships in Canada, it is carried out at the federal level and at the level of provinces and territories.

The main legal act governing public-private partnerships at the federal level is the Canada Strategic Infrastructure Fund Act of March 27, 2003, which establishes that the Strategic Infrastructure Fund facilitates the use of partnerships between public and private organizations when necessary.

Thus, from the experience of Canada, we can say that the dynamics of the development of public-private partnerships in terms of the volume of attracted investments are cyclical and depend on both economic and political factors. As major projects are implemented, taking into account the narrowing of the infrastructure gap, there has been a gradual decline in activity in this area. Another factor in this matter is

budgetary security as one of the key drivers of PPP development – the higher it is, the less incentive the government has to attract private capital. On the other hand, the reduction in the use of the PPP model in conditions of insufficient budget funds for the development of public infrastructure may indicate unresolved systemic issues, which should be paid special attention to.

4.2. Formation and development of public-private partnership in the EAEU

In recent years, in the countries of the EAEU, in particular in Russia, Kazakhstan, Belarus, Armenia, and Kyrgyzstan, there has been a special interest in partnership between the state and business structures, which is gradually taking shape as an independent institution. There is an increasingly active exchange of views between public authorities and experts in the EAEU countries regarding the acceptability of certain mechanisms widely used in the world, the conditions for their use in the post-Soviet space, assessments of the negative and positive consequences of using PPPs in various areas of economic activity.

Currently, the EAEU countries are at different stages of implementing the PPP institution (**Table 16**).

An analysis of PPP practice in the EAEU countries made it possible to establish that the most difficult obstacles to the functioning of the PPP project market are: imperfect legislation, lack of an institutional framework for PPP, lack of transparent and effective procedures for selecting PPP projects, lack of necessary guarantees to ensure full coverage of investment and current costs of the private investor (**Table 17**).

Forms of PPP in russia include the creation of economic zones with a special status, the formation of investment funds, the use of concession instruments, the implementation of targeted and targeted support for priority areas of development and the creation of integrated structures in the form of holdings.

A study conducted by the PPP Development Center in 2013 in the interests of the Ministry of Economic Development of the Russian Federation, dedicated to the assessment of infrastructure provision and

infrastructure gaps in the constituent entities of the Russian Federation, allows to evaluate the practice of implementing concession projects. As a result of the study, it was revealed that of the 79 projects for which data is currently available, the largest number of projects are being implemented in the social and transport spheres of PPP (**Fig. 8**).

The first successful PPP project in Russia is the Pulkovo Airport Development project, which involves the construction of a new passenger terminal for international flights with a capacity of about 7.4 million people per year with the possibility of increasing to 22 million people by 2025. In 2012, the construction project of the new Pulkovo passenger terminal was included in the list of 100 best innovative projects aimed at improving urban infrastructures around the world according to the KPMG "Infrastructure100: WorldCitiesEdition" award. Project characteristics are given in **Table 18**.

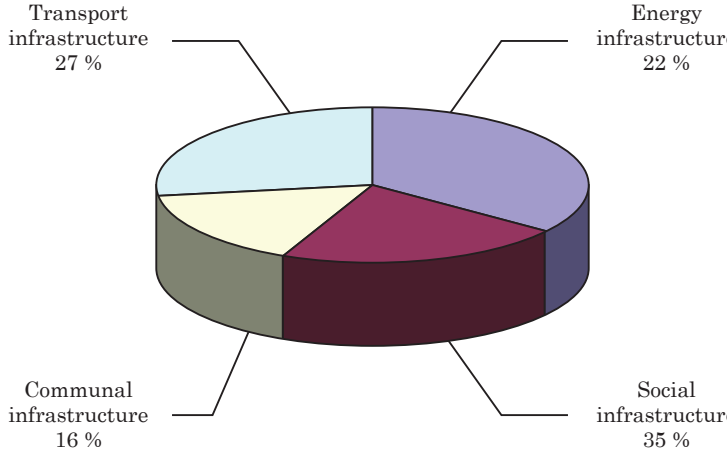

Fig. 8. Number of PPP projects in infrastructure sectors in Russia

Source: compiled by the authors on the basis of data from Praktika primeneniia kontcessionnykh soglashenii dlia razvitiia regionalnoi infrastruktury v Rossii (2018). Moscow: Tcentr razvitiia gosudarstvenno-chastnogo partnerstva

Table 16. Legal framework and institutions for the PPP development in the EAEU countries

Russia	Republic of Kazakhstan	Republic of Belarus	Armenia	Kyrgyzstan
1	2	3	4	5
Law "On Concession Agreements"	Law "On Concession Agreements"	Law "On Concession Agreements"	The concept of public-private partnership was developed by the Yerevan Office of the United Nations Development Program (UNDP). It is currently the only officially adopted document in the PPP field	Law "On Public-Private Partnership"
Federal Law on PPP (2015)	Rules for the provision, consideration and selection of objects possible for concession	Draft law on public-private partnership		Law "On Concessions and concession enterprises"
Draft procedure for conducting a competitive procedure for selecting a private partner	Rules for holding a competition for the transfer of an object into concession	Law "On objects that are exclusively owned by the state, and types of activities the implementation of which is subject to the exclusive right of the state"		National Strategy for Sustainable Development of the Kyrgyz Republic for the period 2013–2017
Recommendations for regions on the development of PPP mechanisms	Standard concession agreements in various sectors of the economy	Law "On the creation of additional conditions for investment activities in the Republic of Belarus"		
Under development: Regional PPP standard, PPP Development Concept until 2030 and PPP	Draft law on public-private partnership	State program "Strengthening national capacity in the field of application of PPP		

Continuation of Table 16

1	2	3	4	5
Development Roadmap until 2017		mechanisms in the Republic of Belarus"		
Coordination Council for the PPP Development under the Ministry of Economic Development of russia	JSC "Kazakhstan Center for Public-Private Partnership"	PPP Center of the Economic Research Institute under the Ministry of Economy Interdepartmental Infrastructure Council coordinating the development of infrastructure facilities		
NP "Center for Development of Public-Private Partnership"				

Source: compiled by the authors

Table 17. Main barriers to the development of PPPs in the EAEU countries

Russia	Republic of Kazakhstan	Republic of Belarus	Armenia	Kyrgyzstan
1	2	3	4	5
Imperfections of federal russian legislation, including those regarding the provision of state guarantees for long-term obligations of the state	There is no law that would define the general principles of PPP, the framework conditions of agreements between economic entities	There is no institutional basis for partnership between the state and private business	PPP concept, the development of which took into account the	There are no clear rules for the competitive selection of

Continuation of Table 17

1	2	3	4	5
	and local government, executive authorities		most advanced international	private partners
Lack of transparent and effective procedures for selecting PPP projects	Lack of necessary guarantees to ensure full coverage of investment and current costs of a private investor who has assumed obligations to solve these problems	The system of interaction between government agencies and business within the framework of PPP has not yet been created	experience, is currently the only officially adopted document in this area	The rights and obligations of the partnership parties are not specified, and models for the implementation of PPP projects are not specified.
Lack of compliance monitoring mechanisms and punishment mechanisms in case of failure of private partners to fulfill their contractual obligations	Changes in leadership and lack of continuity in executive bodies, persistent distrust of business and the population in all government institutions			The areas of application of the projects are not indicated

Source: compiled by the authors

Table 18. Characteristics of "Development of Pulkovo Airport" project

Subject	**Comprehensive reconstruction and subsequent operation of Pulkovo Airport**
Duration of the agreement	30 years (until 2039) with possibility of extension
Financing	– loan from Vnesheconombank to the project operator for the implementation of the reconstruction program; – loan from international financial organizations
Project operator	the company that received the rights to implement the project as a result of a competition held by the Government of St.-Petersburg is the consortium of Northern Capital Gateway LLC (shareholders: 57.20 % – VTB Capital, 35.00 % – FraportAG, 7.00 % – "Copelouzos")
Deadlines	– in the fourth quarter of 2013, the construction of a number of facilities was completed: the main building of the centralized passenger terminal, the northern landing gallery, a multi-level parking, hotel, business center; – at the beginning of 2014, construction of the new passenger terminal building was completed; – in mid-2014, the reconstruction of the Pulkovo-1 passenger terminal was completed
Ownership	registered with the investor
Tariff regulation	airport taxes and tariffs must be approved by the Federal Tariff Service of the Russian Federation
Sources of repayment	airport tariff revenue, namely: take-off and landing tariffs, aircraft parking, passenger fees, aviation security fees, other income from non-aviation activities
Investment volume (I stage): 35 billion rubles	– participation of Vnesheconombank: 10 billion rubles; – participation of international financial organizations: 400 million rubles

Source: compiled by the authors on the basis of data from Praktika primeneniia kontcessionnykh soglashenii dlia razvitiia regionalnoi infrastruktury v Rossii (2018). Moscow: Tcentr razvitiia gosudarstvenno-chastnogo partnerstva

The project investment program included the following work:

– construction of a new passenger terminal adjacent to the existing Pulkovo-1 terminal;

– reconstruction of existing buildings and structures of technical services;

– construction of related infrastructure (business center, parking lots, access roads);

– reconstruction of part of the existing airfield infrastructure (expansion of the airfield, construction of a new apron, taxiways).

In addition to carrying out work to modernize the airport, the key responsibilities of the concessionaire include organizing services for airport users in accordance with international quality standards.

Another example of the implementation of successful PPP projects in Russia is the Western High-Speed Diameter project, which is the first toll road project in Russia within the city, the implementation of which poses the following tasks:

– construction of a high-speed highway connecting the southern, central and northern parts of the city with subsequent access to federal and regional roads;

– reducing the load on bridges and the road network in the central part of the city;

– reduction of vehicle idle time in traffic jams;

– improving vehicle traffic safety.

As studies have shown, the main problems in implementing PPP projects in Russia are as follows:

– in a misunderstanding of the content of the concept of "public-private partnership". In most cases, it is believed that PPP is the transfer by the state of a certain social burden to business, which is an erroneous opinion;

– business structures do not understand how they can build infrastructure facilities that do not belong to them, and who will return the money they invested within 20–30 years. In order for business structures to come to PPP projects, one of the most important conditions should be the provision of full guarantees of receiving the pledged profit within the framework of a particular project.

This requires the development and adoption of regional laws on PPP and the formation of a register of public-private partnership agreements in each region.

The most difficult obstacles to the functioning of the market for PPP projects in Russia are:

– the imperfection of federal Russian legislation, including the provision of state guarantees for long-term obligations of the state;

– lack of transparent and effective procedures for selecting public-private partnership projects;

– lack of mechanisms for monitoring their implementation and mechanisms for punishment in case of failure of private partners to fulfill their contractual obligations.

The study made it possible to identify key factors influencing the success of PPP development in Russia, including:

– the political will of government bodies, which are called upon to take into account the positive results and benefits from the conclusion of concession agreements, including: the influx of investment and minimizing the burden on the budget of a constituent entity of the Russian Federation; reduction of risks, the calculation and management of which is assumed by the private partner;

– stable political situation in the regions and the absence of visible political risks that could negatively affect the process of implementing the concession agreement, for example, the inability to extend the validity period of previously obtained concession permits;

– changes in taxation conditions for legal entities, etc.;

– the presence of a regulatory framework that determines, in particular, the procedure for initiating and concluding concession agreements, which clearly states the principles of their conclusion, terms, and responsible entities;

– the presence in the region of specialized government bodies or structures that have the necessary competencies and powers to develop and support PPP projects, or a specialized organization that provides the corresponding list of consulting services;

– high investment attractiveness and a stable credit rating of the entity, which allows guaranteeing the return of the concessionaire's invested funds in the infrastructure facility;

– the presence of competition between private companies capable of participating in the implementation of concession agreements – this makes it possible to conduct competitive procedures and select the investor who can most effectively participate in the implementation of the PPP project;

– a systematic approach to infrastructure development and attracting extra-budgetary funds for these purposes (the presence of a strategy for the development of infrastructure of a constituent entity of the russian federation, or a program for attracting extra-budgetary investments, including using PPP mechanisms, or an adopted regional concept for the development of PPP mechanisms).

4.3. Formation of public-private partnership in the Republic of Kazakhstan: state and prerequisites

The Republic of Kazakhstan has little experience of effective PPP. The main scope of application of PPP is projects in the field of formation and management of energy and transport infrastructure.

Kazakh business structures are still cautious about participating in PPP projects. What is required is confidence in the stability of the "rules of the game", complete clarity and predictability of the country's further development strategy, which is associated with the long-term duration of partnership projects (15–30 or more years) and a possible decrease in their government support during this period.

The PPP development can be divided into three stages:

1. Preparation.
2. Implementation.
3. Improvement.

At present, the preparatory stage has almost been completed in Kazakhstan. In addition, the implementation of some activities of the implementation stage indicates the beginning of the active phase of the second stage:

– there is legislation on concession issues;

– the Kazakhstan PPP Center was created as a specialized organization on concession issues;

– preparation and implementation of concession projects is carried out.

For the effective use of PPP in Kazakhstan, a number of regulations have been adopted. Until the recent past, the imperfection of domestic legislation was one of the main obstacles preventing the active attraction of private capital into the infrastructure sectors of the economy.

The first Law of the Republic of Kazakhstan "On Concessions", approved in December 1991, regulated the legal conditions for granting concessions on the territory of the republic only to foreign investors.

According to this law, the concept of "concession" was a permit to a foreign legal entity or individual to carry out a certain type of economic activity.

The legislative model of concession relations at the first stage can be called "complex", which is explained by the following circumstances:

1) concession was defined as "leasing property, land, natural resources to a foreign legal entity or individual – concessionaire" (Part 2 of Article 1 of the Law of the Republic of Kazakhstan on Concessions of 1991).

In other words, the concession was determined through the prism of a lease agreement (tenancy of property). But at the same time, concession relations could contain elements of work contracts, insurance, and employment contracts;

2) concession relations contained in their structure elements of both private (civil) and public law. The mixed nature of concession relations is evidenced by the law's indication of the applicable law, "permission to a foreign legal entity or individual to carry out a certain type of economic activity".

The general conditions of concession agreements are regulated by this law, as well as the legislation of the Republic of Kazakhstan on foreign investments, property, investment activities, denationalization and privatization, environmental protection and other applicable legislative acts of the Republic of Kazakhstan.

Thus, for the first time in 1991, Kazakhstan adopted the Law of the Republic of Kazakhstan "On Concessions", within the framework of which such types of PPP were introduced as transfer to trust management, leasing, subsoil use contracts, production sharing agreements, individual projects for the transfer of objects to concession only for foreign investors.

Due to the imperfection of the law and problems that arose with the implementation of PPP projects in the country, a new (currently in force) Law "On Concessions" was adopted in July 2006. It allowed the transfer of rights to create state-owned objects within the framework of PPP to legal entities of Kazakhstan.

In the process of implementing the Law of the Republic of Kazakhstan "On Concessions", a number of the following shortcomings were identified, both in legislation and in the institutional system:

– weak commercial attractiveness of concession objects;

– limited instruments of state support for concessionaires;

– the need to strengthen the institutional component and the quality of economic expertise of PPP projects.

Therefore, in order to improve the PPP mechanism and the attractiveness of concession projects, on July 5, 2008, the Law of the Republic of Kazakhstan "On Amendments and Additions to Some Legislative Acts on Concession Issues" was adopted, which made it possible to harmonize some concession issues in the legislation of the republic.

Some improvement of the regulatory framework for concession agreements also began in July 2010, when a number of amendments were made to the concession legislation. The changes concerned the procedures for transferring objects into concession, expanding state support measures, and increasing the attractiveness of concession projects.

From the point of view of experts, the turning point in the PPP development in Kazakhstan was 2011, when the first program document in the PPP field for the period until 2015 was adopted.

On April 24, 2012, at a meeting of the Government of the Republic of Kazakhstan, conceptual directions for the development of PPP for the medium term were approved. Thus, as one of the approaches, it was proposed to introduce a 2-tier system to support the implementation of PPP projects: for large projects, attract international financial organizations and large foreign companies, and for regional projects, use the potential of domestic investors. At the same time, in order to implement regional.

Law of the Republic of Kazakhstan dated July 5, 2008 No. 66-IV "On introducing amendments and additions to certain legislative acts of the Republic of Kazakhstan on concession issues": for PPP projects, the possibility of developing standard concession models for the relevant industries was considered.

In 2013, changes were made to the legislation on PPP, namely: administrative responsibility was provided for under concession agreements, the types of contracts were expanded, the possibility of attracting a private facility (concession agreement on a lease basis), measures

of state support and sources of cost recovery from the state were provided (availability fee, management fee).

However, these changes are not able to eliminate all existing obstacles to the development of PPP in Kazakhstan, and therefore, the improvement of the regulatory framework should continue at an accelerated pace.

To strengthen the institutional system and economic expertise of projects in this area, in July 2008, by decree of the Government of Kazakhstan, a specialized organization for concession issues was created – JSC "Kazakhstan Center for Public-Private Partnership" (hereinafter referred to as the PPP Center), the sole shareholder of which is the Government of the Republic of Kazakhstan in represented by the Ministry of Economic Development and Trade of the Republic of Kazakhstan.

The main activity of the PPP Center is economic expertise at all stages of concession projects: concession proposal, feasibility study, competitive documentation, concession application and draft agreement, as well as the development of recommendations for the authorized body and interested government bodies on improving the institutional system in the field of PPP.

The PPP Center has developed methodological approaches to the analysis, justification and selection of PPP projects for budget financing. The key points of the developed methodology are:

1) structuring methods and sources of financing budget investment projects within one document. As a result, a list of projects is formed, broken down by methods and sources of financing for 5 years (the planning horizon will allow for the preparation of PPP projects in advance);

2) application of the method of analyzing benefits and costs when conducting an economic examination of this document;

3) determination of the financing method, for which the public sector comparator (PSC) is used, which indicates the cost of the government's provision of goods and services in order to determine whether the best bid for the financing contract provides higher economic efficiency for the government. KGS is a quantitative criterion;

4) implementation into practice of a comparator as a tool for comparing financial indicators and a mechanism for step-by-step strategic determination of the possibilities of an investment project. It is the basis or reference material for comparing several options and methods

of provision. Its main advantage over traditional public procurement of infrastructure and public services is the assessment and grading of projects based on the economic and social indicators benefiting from the use of PPPs. The public sector comparator is a tool for comparing financial indicators and allows to determine the ratio of government and private business participation in a project in monetary terms and takes into account the risk components of the project for the parties.

The current concession legislation of the Republic of Kazakhstan provides for a contractual form of PPP in the form of a "building-transfer-operation" (BTO) agreement.

At the same time, the Ministry of Economic Development and Trade of the Republic of Kazakhstan has developed a bill "On introducing amendments and additions to some legislative acts of the Republic of Kazakhstan on the introduction of new forms of public-private partnerships and expanding the scope of their application", providing for the introduction of institutional and contractual forms of PPP, including including expanding the range of contractual PPPs through BOT, BOO, DBFO contracts and other models used in international practice.

Concessions in Kazakhstan are the main element of partnership relations between the state and business structures and represent a system of economic relations through which the state government transfers certain rights to a private, public or mixed company for the construction, modernization, reconstruction, operation and management, maintenance and use of an object owned by it for a certain period (i.e. on a return basis) for a certain fee. The main characteristics of concession mechanisms in the Republic of Kazakhstan are presented in **Table 19**.

Concession mechanisms include the development of concession proposals. The provision of objects for concession is carried out in several stages: development and examination of a concession proposal, development and examination of a feasibility study, development and examination of competitive documentation, announcement of a competition to select a concessionaire, submission of a competitive application, consideration and examination of applications, determination of the best competitive application, examination of the draft agreement and concluding a concession agreement. One of the key stages is holding a competition to select a concessionaire.

Table 19. Main characteristics of concession mechanisms in the Republic of Kazakhstan

Main document	**Law of the Republic of Kazakhstan dated July 7, 2006 No. 167 "On Concessions"**
1	**2**
Definition of concession	Agreement
General provisions	Concessor – the Republic of Kazakhstan, on behalf of which the Government of the Republic of Kazakhstan or a local executive body, as well as state bodies authorized by them to conclude a concession agreement, act. Concessionaire is a legal entity (with the exception of state-owned enterprises and government agencies) that has received rights to the concession object in accordance with the concession agreement
Scope of concession agreements	Existing state-owned objects and objects that will arise in the future as a result of the fulfillment of the terms of the concession agreement
Subsoil use issues	Objects in all sectors (spheres) of the economy can be transferred for concession, with the exception of objects, the list of which is determined by the President of the Republic of Kazakhstan
Duration of the concession	Up to 30 years (can be extended)
The rights of the concessionaire to carry out a defined type of activity	According to the legislation of the Republic of Kazakhstan
Ownership rights to the concession object	Concession objects that arose as a result of the fulfillment of the terms of the contract are transferred to the state: 1) after completion of construction of the concession object with subsequent operation by the concessionaire of these objects; 2) after the completion of the period of operation of the state-owned property specified in the concession agreement

Continuation of Table 19

1	2
Risk and insurance	In accordance with the concession agreement
Guarantees for foreign investors	In accordance with the legislation of the Republic of Kazakhstan
Concessionaire selection	On a competition basis
Deadline for competitions	Not specified
Concessionaire payments	In accordance with the legislation of the Republic of Kazakhstan

The most common form of PPP in the Republic of Kazakhstan is also social entrepreneurial corporations (SECs) – a fundamentally new institution that has no analogues in the world practice of regional planning and management.

At the same time, issues related to the objective necessity of these structures, their similarities and differences with foreign analogues are widely discussed in the scientific community and among the public (EDS – Regional Economic Development Corporation, CRDC – Certified Regional Development Corporation, LVEDC – Economic Development Corporation in the USA, social enterprises in Denmark, ADA – Territorial Development Agency, DREE – Department of Regional Industrial Development in Canada), lack of development of mechanisms, principles of their creation and operation.

The idea of creating an SEC in the Republic of Kazakhstan was first voiced by the President of the Republic of Kazakhstan on March 1, 2006 in the Address to the people of Kazakhstan "Strategy for Kazakhstan to become one of the 50 most competitive countries in the world". In accordance with this Address, as well as the Strategy for Territorial Development of the Republic of Kazakhstan until 2015, seven SECs were created in Kazakhstan in 2007.

In accordance with the Decree of the Government of the Republic of Kazakhstan dated April 6, 2011 No. 376 "On approval of the list

of national management holdings, national holdings, national companies", there are 16 SECs operating in the Republic of Kazakhstan, covering all regions of the republic:

1. JSC "NC "SEC "Caspiy".
2. JSC "NC "SEC "Pavlodar".
3. JSC "NC "SEC "Ertis".
4. JSC "NC "SEC "Zhetisu".
5. JSC "NC "SEC "Almaty".
6. JSC "NC "SEC "Atyrau".
7. JSC "NC "SEC "Baikonir (Baikonur)".
8. JSC "NC "SEC "Astana".
9. JSC "NC "SEC "Aktobe".
10. JSC "NC "SEC "Saryarka".
11. JSC "NC "SEC "Soltustik".
12. JSC "NC "SEC "Tobol".
13. JSC "NC "SEC "Oral".
14. JSC "NC "SEC "Esil".
15. JSC "NC "SEC "Taraz".
16. JSC "NC "SEC "Shymkent".

SECs are designed to promote the economic development of regions by consolidating the state and business structures, creating a single economic market based on a cluster approach. Typically, SECs take the form of national companies with 100 % state participation. SECs are engaged in reviving existing unprofitable industries and reinvesting profits into projects in the region.

Using the example of JSC "NC "SEC Baikonir (Baikonur)", the scheme of SEC participation in projects is considered.

Joint Stock Company National Company Social Entrepreneurial Corporation Baikonur (hereinafter referred to as SEC "Baikonur") is a regional development institution whose activities are aimed at promoting the development of the region on the public-private partnership basis.

Cooperation between the Baikonur SEC and private businesses is carried out in the form of creating a joint venture and transferring assets as contributions to the authorized capital. The assets of a joint venture company and a private business entity can be cash, real estate, land plots and other liquid assets. The SEC can act as a guarantor

when raising borrowed funds. The share of SEC participation in projects cannot exceed 49 % of the total cost.

At Stage I, a private business entity must submit an application and a completed questionnaire – a project passport (without providing documents). Within 7 working days, the SPK conducts a preliminary assessment of the project and submits the issue to the SPK Board for consideration.

In case of a positive decision at Stage II, the private business entity must provide a complete package of documents within 15 working days. Within 10 working days, the SEC carries out an examination of the project and submits the issue for consideration by the Investment Committee. The project is submitted to the Board of Directors of the SEC if the share of SEC participation in the project is more than 10 %.

Upon approval of the project, the authorized capital is formed, the enterprise is registered and an executive body is appointed, which implements the approved business plan.

Based on practical experience in the functioning of SECs in the Republic of Kazakhstan, the following problems of their development have been identified:

– despite all the material, financial and organizational resources invested in the creation of the SEC, they still remain another economic structure with a complex management system;

– SECs are focused on the PPP development in the regions, but do not yet work as a transparent, effective mechanism for interaction between the public and private sectors;

– shifting priorities: the creation of any new economic structure with state participation presupposes a mandatory redistribution of resources (our own between local authorities and new structures);

– according to the organizational and legal form, SECs are created as non-profit corporations, but are designed to solve the problems of making a profit and investing in the socio-economic development of the region;

– in the Republic of Kazakhstan, corporate and cooperative activities are widely developed (this is the SEC activity), but they do not bear responsibility for the social development of the regions. According to the current legislation of the country, they are not responsible for promoting the social development of society.

Kazakhstan is associated with a variety of established institutions, which reduces the efficiency of decision-making; duplication of each other's functions by institutions; creation by the state of market institutions in the regions.

The following are proposed as recommendations for the SEC development in the Republic of Kazakhstan:

– analyze the effectiveness of the implementation of adopted sectoral and regional development programs in order to determine the feasibility of changing the mechanisms for financing budget development programs through newly created corporate governance structures;

– conduct comprehensive monitoring of the effectiveness of the institutional environment, which would include not only the SEC, but also other regional development institutions;

– determine a transparent mechanism for reviewing and making decisions on the implementation of projects by business structures.

4.4. Features of investment activity management based on the development of public-private partnerships

In the investment sphere, public-private is considered as an institutional and organizational alliance between the state and business in order to implement socially significant investment projects and programs in a wide range of industries, from industry and R&D to the service sector. Public-private partnership is the transfer of part of the functions, the responsibility of which is traditionally assigned to the state, to private sector companies. The division of responsibilities between the state and private capital can range from non-state companies performing the functions of a contractor to the complete transfer of certain types of state activities to private hands.

At the same time, the state shifts part of the risks to private sector companies, while at the same time taking advantage of the experience and creative capabilities of the latter. An additional benefit of such a partnership for the state may be a reduction in the need for budgetary financing of projects. In turn, private companies receive new customers and consumers, or even entire sales markets, which are usually more stable compared to traditional market niches.

The purpose of a public-private partnership is, firstly, to find an effective property manager, part of which the state reserves for itself, secondly, to ensure the creation of greater added value to increase the provision of public services, and thirdly, to carry out an effective transfer to a private partner the risks associated with planning, construction, investment and management of the ongoing activities of a particular facility. In addition, the state benefits from an increase in budget revenues associated with the project, as well as from indirect effects – revitalization of market conditions and increased investment attractiveness of innovative projects, increased tax revenues, etc.

Despite the inherent risks of public-private partnerships, their importance for doing business is constantly increasing. This is due to the fact that management of investment activities based on the PPP development is recognized today as the most convenient and multidisciplinary. In addition, despite the fact that this type of partnership is similar to other forms of interaction between the state and business structures, it has its own specific features that allow it to be a universal means of successfully implementing investment activities.

The most common institutional forms of public-private partnerships are lease agreements (a private firm undertakes the operations and maintenance of the enterprise) and contract agreements (a private company designs and constructs a structure for public use). Less commonly used are schemes where a company leases a constructed structure to the state, continues to manage it and takes part in financing the project. There are also reverse schemes, when a state enterprise is leased to a private company or temporarily privatized. Concessions are sometimes used, where a private company charges services directly to consumers, with a small subsidy from the government (**Table 20**).

Public-private partnership projects in foreign countries are most often infrastructure projects – construction of roads, utilities, waste disposal systems, provision of information, utilities and medical services, construction of buildings and sports facilities, scientific, technical and innovation spheres. This limitation is due to the fact that infrastructure services, among all government functions, are the closest to market ones.

Public-private partnerships provide undoubted advantages over conventional methods used to manage investment activities (**Fig. 9**). Potential risks and disadvantages of PPP are presented in **Fig. 10**.

Table 20. Institutional forms and types of partnerships between the state and the private sector in the investment sphere of the economies of leading countries

Institutional form	**Type**
Government contracts	To carry out work
	For management
	For the provision of public services
	For the supply of products for government needs
	To provide technical assistance
Rent	Traditional rental
	Leasing
Concessions	"Build-manage-transfer" type
	Build-own-manage type
	Assuming operation without construction stage
	"Shadow" concessions
Production Sharing Agreements	Production Sharing Agreements
Joint ventures	Corporatization (corporatization)
	Joint ventures without corporatization
FIG	Consolidation of diverse enterprises from various sectors of the national economy

Source: compiled by the authors

One of the positive trends of the last decade in the development of the country's grain product subcomplex is inter-farm cooperation and agro-industrial integration. Public-private partnerships can also be called a modern form of vertical cooperation.

PPP is of fundamental importance for the country's agro-industrial complex, since its use is an innovative method for solving many problems in the development of the grain product subcomplex.

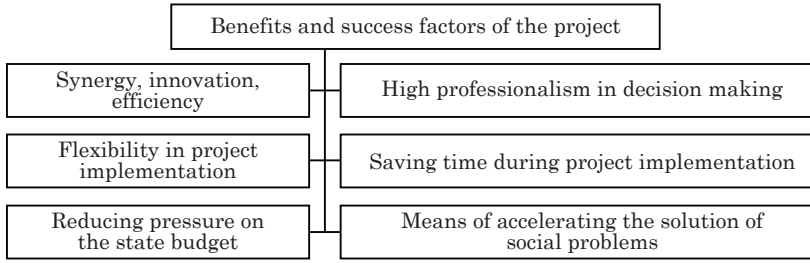

Fig. 9. Benefits and success factors of public-private partnerships

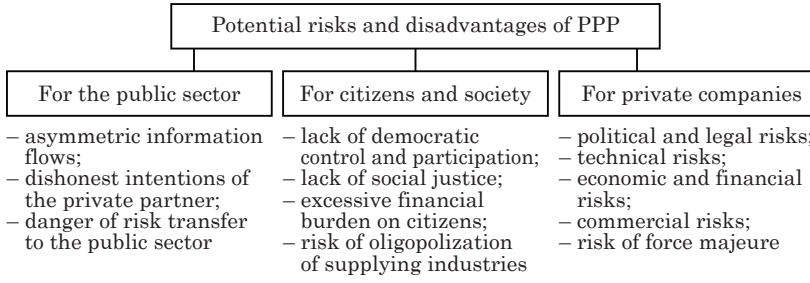

Fig. 10. Potential risks and disadvantages of public-private partnerships

Adaptation of various PPP models to solve the problems of the grain product subcomplex involves the legal and economic institutionalization of PPP, that is, solving, respectively, legal and economic issues of the development of public-private partnerships.

The legal (contractual) model of interaction between the state and agribusiness within the framework of a public-private partnership cannot in principle be reduced to any standard model, since it must be adapted to a specific type of cooperation and integration in the agro-industrial complex.

The most important key points of the legal (contractual) model of public-private partnerships include the following requirements:

– taking into account the legislative and industry framework of application;

– compliance with the state property regime;

– detailed study of the financial position of the PPP parties, including the existing obligations of the private (foreign) investor partner, as well as accounting rules;

– detailed delimitation of risks between PPP participants;

– exercising control by government agencies;

– detailed study of the tax obligations of the parties, etc.

For the grain products subcomplex, two different forms of legal institutionalization of public-private partnership can be proposed.

First form. The public sector and private partners join an existing subset of the company or jointly form a mixed company. The main characteristic of a mixed company is the combination of public and private investments, whereby different objectives are focused on the board of directors. The participation of the public sector extends to the extent of obtaining a blocking minority and thereby the state acquires sufficient influence in the company.

Second form. Public and private partners enter into an agreement (contract). Joint partnership in achieving complementary goals is indeed most easily achieved through contractual coordination of interests. The following types of contracts may apply:

1. Cooperation agreement. Organizational details of cooperation are established in accordance with the agreement. In other words, the partners are independent of each other.

2. Company management agreement. This type of contract is often drawn up for a limited period of time and is used to overcome some stage at which, for example, there is a lack of managerial experience, personnel and know-how.

3. Agreement on assignment (concession). In most cases, such contracts are concluded between the public sector (state, municipality) and their own companies, mixed companies or private companies. At the same time, a concession is defined as a long-term process of cooperation between authorized bodies of state (municipal) authorities and (private) investors with the aim of the latter making a profitable investment in the construction of large facilities, public infrastructures of the subcomplex and managing them over a long period.

4. Implementation agreement. In this case, the public sector enters into a contract with a private partner, entrusting it with the creation of

the company, technical support (planning, construction, financing) and implementation at cost.

5. Leasing agreement. Construction and services are planned, financed and provided through leasing agreements by private players or the public sector.

PPP in the form of mixed (joint stock) companies, although it has a fairly developed legislative framework in Kazakhstan, however, as the practice of recent years shows, for a number of reasons, in its pure form for the agricultural sector, it is an unattractive option for both investors and the state.

The PPP concession model is a universal model that meets the requirements and features, since this form of partnership is the most functional and flexible. The PPP concession model is essentially an expanded form of cooperation, which represents the relationships not in the production and economic process, but between the entities that create the conditions for this process.

For the purposes of implementing the National Project for the Development of the Agro-Industrial Complex for 2021–2025, such a PPP model as an implementation agreement is of particular interest. In accordance with the functional classification of approaches to the implementation of PPPs accepted in economically developed countries, the following types of implementation agreements can be used:

– construction–ownership–management – with this scheme, a private investor finances the creation of an object in a subcomplex, takes ownership of it and carries out its operation. The state, which has granted the entrepreneur the necessary rights and land allotments, dictates, by virtue of the concluded contract, the operating conditions – regulates access to the facility, prices, coordinates development plans, etc.;

– construction–management–transfer – differs from the previous one in that the ownership of an object built by a private investor is transferred to the relevant government bodies, and after the expiration of the contract, the private company must again win the right to operate it on competitive terms. There may also be the opposite option: the public sector finances and creates an object, transfers it for operation to a private company, which gradually acquires ownership of this object;

– purchase–construction–management – such projects begin with a transaction for the privatization of an existing facility (unfinished, fallen

into disrepair, exhausted its resource). A private company pays the purchase price and, in addition to this, undertakes obligations for further investments – completion, re-equipment, development of the facility.

The economic institutionalization of PPP presupposes the interconnection of the goals of the state and business structures.

The private sector strives to achieve profit. To do this, it is necessary to create revenue streams that are independent of market stability or instability, as well as the risks of political interference and other risks. In addition, entrepreneurial structures strive to remain competitive and expand their business. They also look for opportunities to spread or reduce risks. Private partners also want to help local development – this helps improve their image.

The public sector, for its part, is looking for ways to attract extra-budgetary investments that would allow the implementation of additional large socially significant payback projects in the subcomplex without redistributing budget financial flows to the detriment of other investment projects already being implemented or scheduled for implementation.

This serves, among other things, the interests of society. For this purpose, the public sector is trying, within the framework of a partnership structure, to improve its financial position, restore degraded rural settlements, promote investments, improve the competitive position of the region, create jobs, and solve other problems. State and regional authorities, carrying out the tasks of developing PPPs in the subcomplex, are trying to benefit from the market knowledge and business competencies of private partners. The choice of any PPP model must be economically justified.

The methods used to evaluate public-private partnership projects are the same for all its models. The sequence of calculating the effect of using the public-private partnership model is presented in **Fig. 11**.

The algorithm presented in Figure 11 allows to evaluate the effects obtained by state and regional authorities and agribusiness. A comprehensive assessment of the effectiveness of investment activities using the PPP model allows to identify the positive effect of the entire society from the partnership of state and regional authorities and agribusiness in the agro-industrial complex. In general, the assessment can be carried out by comparing the invested funds (investments) and the resulting effect (income) and vice versa.

In relation to public-private partnership models, the coefficients of change in investment and income can be expressed as follows. Attracted private sector investments in PPP projects will lead to an increase in gross income, which will be reflected in the overall effect indicator. In turn, the overall increase in gross income will lead to the deployment of even more projects, and this leads to an increase in the desired private sector investment in the development of various sectors of the economy. The increase in investment will be expressed in an increase in the coefficient of investment activity. It should be noted that the coefficients under consideration can act as indicators that determine the priority for the implementation of PPP projects.

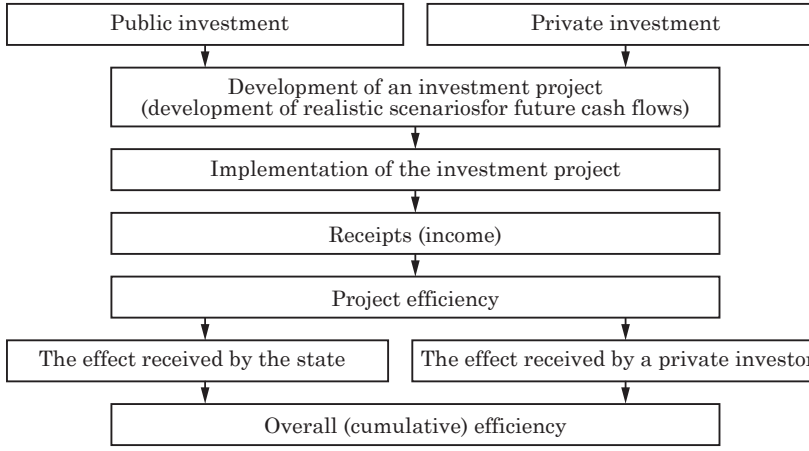

Fig. 11. Algorithm for assessing the effectiveness of the public-private partnership model

Public-private partnership models are of particular interest to the country's agro-industrial complex, where priority national projects are currently being implemented. The corresponding methodological support for the use of PPP models in the agricultural sector is proposed.

To assess the effectiveness of the implementation of the public-private partnership model in the agro-industrial complex, appropriate methods are needed. Since we are talking about evaluating an

investment project, it will be relevant to use a number of well-known techniques. But using only traditional methods for assessing the effectiveness of projects will not give the desired result.

It should be noted that, on the one hand, the degree of government intervention should be strictly limited by the economic framework, taking into account the goals and objectives set, and not be reduced to the implementation of the functions of a direct coordinator of the existing market process. On the other hand, proper targeted investment requires an active position of the state, focused on the comprehensive development of the investment activities of business structures.

The methods of economic influence of government bodies on investment activity are widely varied. It is advisable to carry out state participation in the investment process and its coordination through the further development of institutional forms of public-private partnership.

The division of responsibilities between the state and private capital can take different forms and range from the performance of contractor functions by non-state companies to the complete transfer of certain types of state activities to private organizations. The model provides for the government to transfer part of the risks to private sector companies, taking into account their experience and creative capabilities. This type of partnership creates additional benefits for the state, including reducing the need for budgetary financing of projects. In turn, the advantages for private companies will be: expansion of the clientele (gaining new customers and consumers), stability of activity, ownership of entire sales markets, in comparison with traditional market niches. In Kazakhstan, the implementation of public-private partnership projects in the management system of transport and logistics companies in the field of rail transportation of grain cargo has become widespread.

And at present, the introduction of the mechanism of public-private partnerships into the management system of transport and logistics companies transporting grain cargo has not lost its relevance.

4.5. Leasing as a form of public-private partnership

In the economies of a number of foreign countries, the concept of public-private partnership (PPP) is widely used as an alternative to the

privatization of objects. The interaction between the state and business is a characteristic feature of the modern mixed economy.

This partnership is implemented using a variety of models and can take different forms. The task is to choose a form (the legal basis for the implementation of a specific model) in which PPP will be the most rational and effective. Leasing, which has financial, investment, organizational, operational, service, practical and other advantages, is one of the most acceptable forms of PPP for implementation in modern conditions of the domestic economy. The indicated advantages of the parties to a leasing agreement and its fundamental difference from leasing, which lies in the fact that when leasing, the private sector, entering into partnerships with the state, not only applies management skills, but also invests capital, are prerequisites for its widespread implementation.

At the same time, the overall positive dynamics of the leasing market development is not sustainable. The situation can be reversed if the investor (including foreign) is guaranteed a return on the invested funds and has the opportunity to make a profit. As a solution to the problem, it is proposed to use non-standard approaches when carrying out leasing operations, in particular, using scoring. It must be emphasized that the use of scoring is most effective when the leasing market is on the rise and efficiency of project assessment and standardization of procedures become in demand, and the speed of servicing participants in the leasing agreement plays a major role.

This advantage becomes a disadvantage in the current market situation, when a more balanced risk assessment is required, and for this reason, scoring models require constant refinement and updating every one and a half to two years. The use of leasing as a form of PPP will not only provide professional experience, effective management, flexibility and efficiency in decision-making, and the ability to innovate, but will also demonstrate serious investment activity. This, in turn, will make it possible to introduce new equipment and more efficient technologies, create new enterprises, and increase the demand for highly qualified workers in the labor market.

The interaction between the state and business, usually referred to abroad as Public Private Partnership (PPP), is called "public-private partnership" (PPP) in the scientific literature.

It represents an institutional and organizational alliance of government and private business with the aim of implementing socially significant projects in a wide range of areas of activity - from the development of strategically important sectors of the economy to the provision of public services throughout the country or individual territories. PPP models (specific projects that arise as a result of a legal and transparent procedure for selecting appropriate participants on the part of a private partner to solve specific problems of the state's economic policy) can be organizational, cooperation and financing. The last of these models, in particular, includes leasing. The PPP form is the legal basis for the implementation of a specific PPP model.

And PPP itself can be considered, on the one hand, as a principle of interaction between the state and business, and on the other, as a form of such interaction. The rapid development of diverse forms of PPP in all regions of the world, their wide distribution in a variety of sectors of the economy make it possible to interpret this form of interaction between the state and business as a characteristic feature of a modern mixed economy. Global experience in implementing PPP projects suggests the following main forms of interaction between the public and private sectors: contractual, programmatic, mixed and administrative. Software and mixed are sometimes combined into hybrid ones.

In Kazakhstan, based on the analysis of ongoing and proposed projects, the forms can also be divided into four groups.

The challenge is to make this interaction rational and effective.

To solve this problem, various forms of partnership are used. Leasing is included in the first of the listed blocks or is a contractual form of PPP and is a type of investment activity that combines elements of rent and credit, involving the transfer of ownership of the leased asset to the lessee after payment of all payments. As the global experience of PPP shows, the extent of specific participation of the state and private business and the conditions for their combination can vary significantly. Thus, the private component in partnerships can act as one of the parties to the contract.

Partnerships with shared ownership rights include leasing (rental) agreements. In modern conditions, leasing, in our opinion, is one of the most acceptable ways to finance projects implemented in various sectors of the domestic economy, including using PPP mechanisms.

Advantages of the parties to the leasing agreement:

1. Financial: issues of acquiring fixed assets and financing this operation are simultaneously resolved. The volume of leasing financing can be 2–3 times greater than the value of the assets owned by the enterprise or organization.

2. Investment: since the leased asset can be used as collateral, it is easier to lease the property than to obtain a loan to purchase it.

3. Organizational and operational: the use of the leased asset generates immediate income, which goes to pay lease payments and the profit of the lessee.

4. Service: the lessee can use services for: insurance, transportation, installation, personnel training, maintenance.

5. Practical: leasing payments are included in the costs of the lessee, which reduces taxable profit, the accelerated depreciation coefficient is 3 at a depreciation rate of –10 %, the period is 3.3 years. After full depreciation and repurchase of the equipment at a symbolic cost, it is credited to the lessee's balance sheet at zero assessment and no property tax is paid.

In addition to the above, one should also take into account the fact that when choosing a scheme for attracting investments in some industries, for example, in housing and communal services, leasing not only has advantages over a loan, but often seems to be the only possible option. At the same time, the generally positive dynamics of the development of the leasing market in the Republic of Kazakhstan, unfortunately, are not sustainable. To assess it, it seems to be possible to use such an indicator as the volume of new transactions concluded during the calendar period. It seems to be the most correct, as it allows to assess the productivity of leasing companies and the growth rate of their portfolios.

Maintaining a positive trend and, ideally, making it more dynamic is impossible without the development of the classical scheme of functioning of this mechanism, presented in **Fig. 2**, and the use of non-standard approaches when carrying out leasing operations.

The latter include, for example, the introduction of scoring models for reviewing applications from potential applicants for the purchase of equipment. Credit scoring is a fast, accurate and sustainable procedure for assessing credit risk that has a scientific basis.

That is, a mathematical or statistical model is created, on the basis of which it is determined how likely it is that a particular potential borrower will repay the loan on time. Scoring, in general, is a simplified procedure for reviewing a project and making a decision, analyzing the client's business in a short time, and quickly concluding a deal. The use of scoring when carrying out leasing operations allows not only to predict the financial viability of the lessee for the period of the leasing agreement, but also to optimize the leasing portfolio.

The identity of mathematical methods for assessing risks when modeling scoring for credit institutions and leasing companies does not eliminate the need to take into account a number of significant aspects that are unique to lessors. Thus, the likelihood of a client's failure to fulfill its loan obligations is assessed by both, but when leasing, such an assessment should be carried out taking into account the characteristics of the property leased, for example, related to its value, who the supplier is, etc.

This is due at least to the fact that the expected decrease in the book value of this property and the possible change in its price on the market during the period of validity of the leasing agreement (especially long-term ones) may vary significantly. The business of leasing companies and credit organizations also has a number of differences from the point of view of possible risks.

The most significant of them are the following. The first difference is due to the fact that the lessor only has ownership of the leased asset, while the bank, in addition to the collateral in the form of the financed asset, also has additional collateral or a guarantee. Another is that credit institutions usually do not interact with suppliers of financed property, unlike leasing companies, which often independently select the manufacturer of the equipment leased.

Thus, the main differences between the scoring models used for leasing and credit businesses are due to the need to take into account the specifics of the property being financed (leased) and the nature of the risks. Scoring models used in leasing companies and credit institutions may differ significantly from each other. The specificity of the domestic leasing market is that scoring is usually used in small projects in which an increased level of risk is possible. These usually include projects implemented by small and medium-sized businesses.

On the other hand, scoring allows the lessor to introduce new technologies for its work and ensure a stable portfolio. Working with small projects gives it stability by introducing the so-called "peck at the grain" principle. Bank financing of small volume and term and uncomplicated transactions is the most common and safe way of its work.

At the same time, interaction between a credit institution and a leasing company should not be limited only to the development of standard financial products for the transaction in question, but also extend to its support. Companies that have developed this strategy and use scoring in their activities have shown stable positive dynamics even during the crisis. and have kept it to this day.

With some degree of assumption, the following three types of scoring models used in leasing operations can be distinguished:

– statistical;

– expert;

– hybrid.

The presented classification is based on the idea that scoring is an analysis of statistical data rather than financial indicators. Attribution to one or another type of the above depends on the quantity and quality of data that the leasing company has (initial for the project, specific for the industry, personal for the client, etc.).

At the same time, there are general factors that apply regardless of the type of model, which include: the client's financial indicators and its credit history, expert assessments of the reliability of the manufacturer (supplier) of the property and price forecasts for it on the secondary market.

In other words, scoring technologies are based on an express assessment of the financial condition of potential lessees, verification of clients by the security service and determination of the maximum transaction amount limit. Considering Contra & Pro scoring, we note that it is most effective when the leasing market is on the rise and the lessor's service speed plays a major role.

During this period, its features such as efficiency of assessment and standardization of procedures become in demand. Given the current market situation, a more balanced risk assessment is required and the use of only scoring models for this purpose and for making financing decisions becomes insufficient. Standardization of the

borrower assessment procedure also begins to play a negative role, since it is not adapted to changing economic conditions. For this reason, coring models require constant refinement and updating, which is carried out abroad every one and a half to two years.

Since scoring programs do not consider the financial situation of the lessee, their financing in the banking community is considered riskier compared to classic leasing. In this regard, the credit institution is forced either to incur significant intellectual and financial costs to verify the solvency of the lessee, or to cooperate with a trusted and well-known partner, most often its subsidiary.

At the same time, the bank may show interest in a non-standard program and an unrelated leasing company when the cost of the service increases, due to the increased risks of the transaction and, accordingly, the emerging opportunity to obtain a higher profitability, but the lessor may remain "outside the brackets".

The way out of this situation is seen in expanding interaction between credit institutions and leasing companies in the development of new financial products, which will allow the former to more fully use financial opportunities, and for the latter, to increase the attractiveness of leasing services.

The main advantages of the scoring model include short terms for making decisions and signing contracts (up to five working days), standard leasing and sales contracts, a minimum package of documents for reviewing a leasing transaction and simplified requirements for the financial condition of the lessee.

The advantages of scoring also include the opportunities provided to improve the accuracy of the lessee's assessment, reduce the time for making a decision on the feasibility of a leasing transaction, and optimize the business processes of leasing activities. In addition, the leasing company reduces the level of non-returns and creates a data bank on lessees.

In other words, with the help of scoring, the financial viability of the lessee is predicted and the lessor's portfolio is optimized. The approach in which scoring is considered as a business decision-making process for financing leasing projects and as a system for managing the risk portfolio of a leasing company, as well as the simplicity of this method, are decisive when Russian lessors choose risk management options.

Higher technologies require a higher level of Russian managers. Another advantage of scoring for leasing companies lies in increasing their human resources: through the development of effective sales skills among staff, who are able to process a larger number of transactions using simple models.

To determine the financial solvency of the lessee, technology is used, using which its ratings are formalized, analyzed and changed throughout the "life" of the leasing project.

It is called Application-scoring. During the period of validity of the leasing agreement, which is concluded, as a rule, for several years, the financial condition of the lessee is subject to dynamics, and for this reason it is necessary to monitor it, on the basis of which changes in the leasing portfolio as a whole are tracked.

The system, using which these problems are solved and decisions are made within the framework of leasing portfolio management based on the financial statements of individual lessors, is called Behavioral-scoring or behavioral scoring.

We consider it appropriate to make some provisions on the need to consider leasing as an independent form of PPP, and not as a form of rental relations.

Lease relations (in its traditional form of a lease agreement) between the state and private business arise when, under the conditions specified in the agreement, state or municipal property is transferred to a private partner for temporary use and for a certain fee.

Traditionally, experts believe that lease agreements imply the return of the subject of the lease relationship, and the authority to dispose of the property remains with the owner and is not transferred to the private partner. In specially specified cases, rental relations may end with the purchase of the leased property.

In the case of a leasing agreement, the lessee always has the right to purchase state or municipal property. That is, in their opinion, the main difference between renting and leasing is the right to purchase property. In our opinion, the main thing is that when leasing, the private sector, entering into partnerships with the state, not only applies management skills, but also invests capital.

According to the definition, leasing is a type of investment activity, and for its development, the state partner must create conditions under

which the investor must be confident in the return of the invested funds and can count on making a profit. Thus, the regulatory activities of the state in the field of partnership with private business should not be limited only to the development of strategy and principles, the formation of an institutional environment, the organization and management of PPP, the development of its forms, models and specific mechanisms.

In this case, the expectation will be justified that as a PPP result, the business will not only provide professional experience, effective management, flexibility and efficiency in decision-making, and the ability to innovate, but will also show serious investment activity. This, in turn, will make it possible to introduce new equipment and more efficient technologies, create new enterprises, and increase the demand for highly qualified workers in the labor market.

The leasing market in Kazakhstan has finally begun to meet long-established expectations. Last year, the market grew, despite the crisis in the economy, thanks to government support, which goes to lessees through several channels. These incentives are so strong that they extend to private companies, which are growing dynamically despite the high cost of funding them. Private players will demonstrate the highest growth rates in 2021.

These conclusions follow from a study of the leasing market in Kazakhstan conducted by Kursiv Research in March – April of this year. State support is decisive despite the toughest economic shutdown in 22 years in 2020 (GDP of the Republic of Kazakhstan decreased by 2.6 %), the portfolio of leasing companies that became respondents to the study of the leasing market of the Republic of Kazakhstan last year grew by 29 % and amounted to 393 billion tenge. The lion's share of this volume (99.7 %) is occupied by financial leasing.

The portfolio of surveyed leasing companies at the end of 2020 amounted to 752 billion tenge and grew by 32 %. If to consider the volume of new business in relation to the current portfolio, then at the end of 2020 this figure was 52 % (53 % in 2019). The total number of concluded contracts increased by 19 %, to 5,797 transactions. The volume of lease payments received also increased comparablely, reaching 99 billion (+28 %).

Simultaneously with the growth of the portfolio, there was a reduction in the level of overdue debt (loans unperformed for more than

90 days): according to respondents, over the year it decreased from 6.5 to 5.6 %. As in previous years, the trend is formed by state institutions, and the common growth factor for the market remains direct government support through subsidizing leasing rates and indirect support through the provision of preferential loans to SMEs for investment purposes and for replenishing working capital.

Participants in the Kursiv Research study note that the structure of their loans is dominated by loans to small businesses – 48 % (2020), another 9 % – to medium-sized businesses. Large businesses form 42 % of the total portfolio. Small and medium-sized businesses are the subject of government programs that subsidize leasing rates. For example, the state Industrial Development Fund (formerly DBK-Leasing) under the Business Road Map 2025 provides leasing of technological equipment in the amount of 80 million tenge for a period of up to 10 years at a rate of 5 %.

Another state institute, KazAgroFinance (KAF), provides agricultural machinery for leasing: under the most favorable conditions for the lessee, the leased object can go to the farmer at a rate of 9 % without subsidies, and if the borrower receives subsidies – 7 %; The minimum rate offered by CAF is 6 %. Under the "Damu Leasing" program, the partners of the state Entrepreneurship Development Fund "Damu" are several private leasing companies; the borrower can enter into an agreement for an amount of no more than 500 million tenge for a period of up to 7 years at a rate of no more than 16 %, and the final rate, taking into account subsidies, can reach up to 6 %.

Let's remind that the annual inflation rate in the Republic of Kazakhstan is 7.0 %, the current base rate of the National Bank of the Republic of Kazakhstan is 9.0 %. This means that many recipients of preferential leasing attract loans at negative real rates. "To a large extent, leasing financing in Kazakhstan has been developing in recent years through government programs to support the economy", commented KazAgroFinance. "At the beginning of 2020, there were just over 20 operating leasing companies in Kazakhstan. Two leasing companies belong to the state, the rest are private companies, nine of which with the participation of banks". Funding for leasing companies in 2020 was 33 % represented by own funds, 50 % by long-term loans, and another 17 % from other sources, including advance payments.

The weight of the last article in the overall structure increased by 15 % over the year. Problems with cheap funding and restrictions on the participation of private players in government programs are two limiting factors that market participants talk about. "Today, there is government support for subsidizing the interest rate through the Damu fund, where the final rate should be no more than 14 % per annum, of which the subsidized rate is 8 %, for the final lessee the interest rate will be 6 % per annum, independent leasing companies are financed through second-tier banks at 13–14 % per annum, and this financing product on the market is not effective for private leasing companies". Pandemic as a brake and stimulus is the most significant event of the past year for the leasing market (as well as for other sectors of the economy) was the COVID-19 pandemic. The players hoped to grow more actively than what happened in the end. KazAgroFinance assesses the dynamics of last year as a slowdown, which is associated "with a decrease in purchasing power as a result of the pandemic and with the introduction of restrictive measures, the closure of borders and the optimization of the volume of updating the technical base of enterprises".

The impact of the pandemic has been felt for private companies as well. "The demand for leasing services decreased significantly in the period from March to July; some recovery began to appear from the end of August. In the fourth quarter, largely due to government support through subsidy programs, the demand for leasing services increased. Small and medium-sized businesses tried to catch up and fulfill annual plans", Yusuf Karshy, General Director of the Kazakhstan Ijara Company (KIC), describes the situation. He observes difficulties associated with the pandemic in import transactions – we are talking about the same supply chain breaks that most participants in foreign economic activity in all countries of the world have faced: "The period of production and delivery may drag on for a longer period than expected".

Medium-sized private players receive their share of positive benefits from the improvement in the overall economic situation, which occurred after the end of the active quarantine phase, but continue to be in unequal conditions with state institutions. "The overall development of the country's economy, a favorable environment for the development of entrepreneurial activity, support from the state if necessary, as well as the development of competition", lists the factors influencing market growth.

Leasing Group cites the following factors affecting the market: "Firstly, the lack of cheap funding for leasing companies. Secondly, the average remuneration rates of leasing companies are higher than the rates of second-tier banks". Among the trends that appeared in the market in 2020, Halyk Leasing notes the growing recognition of leasing as a product and the fact that private leasing companies began to jointly solve common problems of the leasing market. The same and medical equipment, not many changes occurred in the industry structure of the new business of leasing companies over the year. As before, more than half of the volume is formed by agricultural and railway equipment: in 2020, agricultural equipment and livestock accounted for 33.8 %, railway equipment – 26.4 %, the volume of leased freight vehicles decreased – in the structure its weight fell from 24.2 to 6.8 %. The champion of growth was the segment of medical equipment and pharmaceutical equipment, which grew from 0.2 to 11.1 %, and in absolute values – to 43.5 billion tenge.

At the end of 2020, there was an increase of 2.5 times. This growth is caused by the increasing interest of the medical sector in the leasing product.

Agricultural machinery and livestock are in the lead (39.7 %), railway equipment is in second place (29.3 %), and truck transport is in third place (10.6 %). Since many regions of the Republic of Kazakhstan are specialized in certain industries, the geographic structure of the market reproduces the industry structure. Nur-Sultan received the largest share in the structure of new business in 2020 (28.1 %). In the capital, there are companies that lease railway and other types of equipment.

In second and third places are Kostanay and North Kazakhstan regions (23.6 and 7.5 %, respectively), where consumers of agricultural machinery are concentrated. Another 5.5 % falls on the third northern agricultural region – Akmola region. Karaganda region is fourth on the list with a 6.0 % share of new business volume.

The most dynamic growth of new business of participants in the Kursiv Research study occurred in the Mangystau region – 425 % per year (from 0.6 to 3.4 billion tenge), in the Kostanay region the growth was 319 % (up to 92.7 billion tenge), in the Karaganda region – 191 % (up to 23.6 billion). Shymkent (–95 %), Atyrau (–61 %) and Pavlodar (–36 %)

regions recorded a strong drop in volumes. Fighters in different scales. A distinctive feature of the Kazakh leasing market in recent years is the large weight of state players: in 2020, IDF and KAF accounted for 95 % of new business and 97 % of the portfolio of study participants.

The market leader in terms of new business volume in 2020 was the Industrial Development Fund. The IDF, which provides leasing of railway equipment and industrial equipment, as well as special and even agricultural equipment, carried out 407 transactions over the year, and increased the volume of new business by 37 %, to 264 billion tenge. The company's portfolio grew by 44 % and reached 466 billion tenge. "The increase in the volume of the leasing portfolio is associated with an increase in financing of leasing transactions. In 2020, leased items were transferred, and financing of leasing transactions also started", commented the Industrial Development Fund.

The second number on the list, KazAgroFinance, achieved an increase in the volume of new business by 11 %, to 111 billion tenge. The company concluded 4,927 transactions in 2020 (85 % of all transactions of study participants) and increased its portfolio by 14 %, to 264 billion tenge. KAF associates portfolio growth with high demand from the company's clients – agricultural producers.

"At the moment, KazAgroFinance remains the undisputed leader in the leasing market for agricultural enterprises, despite the lack of budget investments since 2014", the company notes. "KazAgroFinance" programs are preferred by farmers due to the seasonal principal repayment schedule (payment once a year after harvest), long leasing terms, and low advance payment".

The secret of KAF's success is not only in low rates: agriculture is bypassed by second-tier banks, which consider the industry to be high-risk and with a long production cycle that is inconvenient for the lender.

In the group of medium-sized players, Kazakhstan Ijara Company stands out, which for the second year holds third place in terms of new business volume. At the end of 2020, KIC concluded 75 transactions and increased the volume of new business by 16 %, to 5.6 billion tenge. The portfolio increased by 9 % and reached 7.8 billion tenge. KIC finances enterprises in the construction, transport, manufacturing and mining industries.

The share of enterprises in these industries is more than 80 % of the company's leasing portfolio. Among the factors for portfolio growth in the past year, the company cites receiving funding from Damu. Fourth place is occupied by Leasing Group with 113 transactions and an increase in the volume of new business by 15 %, to 4.4 billion tenge; The company's portfolio grew by 13 % and amounted to 6.6 billion tenge.

According to estimates of the company, which leases mainly road construction and cargo equipment, the growth of Leasing Group last year was associated with improved competitive conditions in the market and the fact that the activities of freight carriers suffered less than others. Halyk Leasing stands apart in the ranking.

A subsidiary of Halyk Bank resumed operations in 2020 after a five-year moratorium, but was able to quickly gain momentum: 42 transactions were completed, the volume of new business amounted to 4.1 billion tenge, the portfolio at the end of the year was 2.8 billion. Halyk Leasing provides financial rental of special equipment, agricultural machinery, rolling stock, trucks and passenger cars: "For us, 2020 was not an easy year, since during the years of absence from the market it was necessary to restore our image, recruit a team, develop partnerships and establish a work pattern. Despite the changes in the market and many conditions in it, our company solved all the tasks with a worthy result".

Astana Motors Finance noted a modest increase in leasing volume: in 2020, the volume of new business increased by 2 %, to 3.7 billion tenge, mainly due to operating leasing (+12 %), which amounted to just over 40 % of the total volume of new the company's business last year.

In total, the company concluded 158 transactions (third place in the ranking) and increased its portfolio by 9 %, to 3.3 billion tenge. Astana Motors Finance provides passenger cars for rent. "Business has a huge request for new vehicles with a lower (on average 2 times lower) monthly payment, with zero advance payment and the above services included in payments from our company", says company director Arman Dzhapakov. "Today, this type of service is beginning to develop in our country, the main consumers of this type of service are foreign companies in the Republic of Kazakhstan, and local business is not yet ready. Over time, the stereotype should change: the market will come to a type of service such as operational leasing (vehicle fleet outsourcing),

since during the pandemic many companies were not ready to service their existing fleet with resources".

Capital Leasing Group. The company began to operate actively in 2020, managed to conclude 42 transactions and generate a volume of new business in the amount of 773 million tenge, the portfolio at the end of the year was 860 million. "Based on the structure of our portfolio – we provide construction and road-building equipment for leasing. The most significant event for us last year was the increase in government support".

The growth of its new business was 28 %, 222 million tenge, which was the result of 33 concluded transactions. The company's portfolio amounted to 266 million (+135 %).

Expecting better in 2021, the situation in the sector will be related to the general dynamics of the economy and investment activity of small and medium-sized enterprises, the sustainability of financing under government programs, as well as the availability of market financing for private players. The forecast for the dynamics of all these factors as of May 2021 is rather positive. Current forecasts for economic growth in Kazakhstan, which are given by national and international analytical structures, boil down to the fact that GDP growth in 2021 is expected in the range of 3.2–4.3 %. The dynamics of investment in fixed capital at the end of the first quarter remains negative, however, the main clients of leasing companies – small and medium-sized enterprises – are steadily increasing capital investments, and with a general increase in investment in fixed capital for small enterprises by 22.3 %, there is an increase in investments in the purchase of machinery and equipment – 60.6 %; for medium-sized businesses the figures are similar – 172.5 and 70.3 %, respectively. The Government of the Republic of Kazakhstan does not plan to reduce funding for state business support programs; directly or indirectly it continues to support its development institutions.

Both public and private players are actively attracting financing on the stock market through bond loans: since the beginning of 2021, the Industrial Development Fund has received 50 billion tenge (for 10 years, coupon – 11.50 %), TechnoLeasing – a total of 2.4 billion (two issues for 4 years, the rate on both issues is 17.00 %), Capital Leasing Group – 1.3 billion (for 3 years, yield to maturity – 18.00 %, total issue volume –

2 billion), "Leasing Group" – 1.3 billion tenge (for 270 days, yield to maturity – 13.50 %; total issue volume – 2 billion).

Participants in the Kursiv Research study in 2021 aim to achieve the same volumes of new business as a year earlier, however, if we analyze the expectations of private companies ranked from third to eighth in our ranking, they plan to increase the volume of new business by 87 %.

In terms of industry, the greatest activity is expected in sectors that enjoy government support through instruments of subsidizing rates and guarantees or are contractors under government orders. Capital Leasing Group associates positive expectations with the restoration of business activity after the pandemic and the intensification of various government support measures for the economy. "We expect business activity in the industries we focus on – building, transport, manufacturing and mining – to increase in 2021 compared to 2020".

The forecasts are confirmed by the positive dynamics of growth in a number of industries since the beginning of the year; as an argument, he cites official statistics, according to which the physical volume of housing commissioned and investments in fixed assets in the manufacturing industry continue to grow. Based on the results of January–March 2021, the volume of investments in fixed assets in the manufacturing industry increased by 136 %, and in construction by 39 %.

From year to year there is a positive trend of investment in fixed assets and growth of the leasing and loan portfolio. Additional prospects are opening up in other areas, such as real estate leasing, medical and commercial equipment leasing.

MedLeasing expects that the growth trajectory in the medical equipment segment will continue in 2021. Leasing Group also expects an increase in demand for leasing, but explains it differently: SMEs have fewer and fewer alternatives in financing due to the closure or reduction in activity of SMEs.

The passenger car segment will also continue to grow. Even against the backdrop of all the negative factors, the availability and popularity of leasing services continues to grow. Since businesses will always have a need to update and expand their fleet, companies will choose leasing as the optimal mechanism for the development of SMEs.

Market participants propose to adjust the legislation. Astana Motors Finance proposes to change the norms of the Tax Code –

to allow lessors to offset VAT when purchasing passenger cars used as fixed assets.

Although a company purchasing passenger cars for operational leasing does not have the right to offset VAT, when purchasing such a car it purchases insurance, carries out state registration of the car, and bears the cost of transport tax, while the lease payment is fully subject to VAT. An increase in the cost of VAT payments negatively affects demand and the financial burden on the tenant, which hinders the development of this service market.

Halyk Leasing has high expectations for industry self-organization. Thanks to our initiative and the work that began in 2020, already in January 2021, the Leasing Committee was created under the Association of Financiers of Kazakhstan, on the basis of which private leasing companies had the opportunity to talk with the state and solve the problems of the leasing market. Private leasing companies will have more opportunities for funding and participation in government programs aimed at developing small and medium-sized businesses.

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