Managing Corruption Risk in the Agricultural Sector of Kazakhstan and Its Assessment

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Abstract

Kazakhstan has a remarkable ability to become the core of food security in the Eurasian region. Obviously, the advantages of Kazakhstan in natural and climatic conditions help strengthen the agricultural sector's position in its economy. In particular, the positive factors of agricultural sector production are enormous land resources, inland geographical location, and historical background (nomadic cattle breeding, crop production). The agricultural sector is one of the riskiest sectors and manifests itself in climatic, political, technological, financial, corruption, and other issues. It is noted that investments in the industry are mainly represented by state funds (budget, extra-budgetary). Such massive public and private financial investments generate a corruption component effect. The opinion of importance to manage the corruption risk in agriculture is shown. The authors also give the corruption risk concept to analyze the corruption risk features in agriculture. Within the framework of the agricultural specifics, the classification of corruption risks is given. The authors also investigate this risk category's prerequisites, features, and types. The article presents the internal and external analysis of Kazakhstan's agriculture corruption risk. Modeling the corruption risk in agriculture as a matrix is proposed as one of the methods of its managing. Forming a standard matrix template with examples of its application shows the significance of preventing measures. In conclusion, there is the need for mutual goals to combat corruption risks both for the state and for agribusiness entities.

Keywords: Risk, Corruption Risk; Corruption; Agricultural Sector; Classification

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Қазақстанның агро секторындағы сыбайлас жемқорлық тәуекелін бағалау және оны басқару

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Түйін

Экономиканың аграрлық секторындағы сыбайлас жемқорлық тәуекелін басқару Қазақстанның Еуразиялық өңірде азық-түлік қауіпсіздігінің өзегіне айналу мүмкіндігін іске асыру үшін маңызды мәнге ие. Аграрлық сектордың өз экономикасындағы ұстанымын күшейту үшін Қазақстан табиғи және климаттық жағдайларда айқын басымдықтарға ие. Атап айтқанда, агро секторындағы өндірістің оң факторлары үлкен жер ресурстары, құрлықішілік географиялық орналасуы және тарихи алғышарттары (көшпелі мал шаруашылығы, Өсімдік шаруашылығы) болып табылады. Аграрлық сектор экономиканың ең қауіпті салаларының бірі болып табылады, ал соңғысы Климаттық, саяси, технологиялық, қаржылық, сондай-ақ сыбайлас жемқорлық сәттерінің болуымен көрінеді. Авторлар сыбайлас жемқорлық тәуекелі ұғымын келтіреді, экономиканың аграрлық секторындағы сыбайлас жемқорлық тәуекелінің ерекшеліктерін талдайды. Аграрлық бағыттың ерекшелігімен сыбайлас жемқорлық тәуекелдерін жіктеу берілген Сондай-ақ, авторлар сыбайлас жемқорлық тәуекелінің осы санатының алғышарттарын, ерекшеліктері мен түрлерін зерттейді. Саладағы салымдар негізінен мемлекеттік қаржыландыру көздері (бюджет, бюджеттен тыс қорлар) болып табылады. Осыған байланысты, мемлекеттік және жеке қаржылық салымдар өз кезегінде сыбайлас жемқорлық құрамдас бөлігі түрінде жанама нәтиже береді. Мақалада Қазақстан Республикасының ауыл шаруашылығы саласындағы сыбайлас жемқорлық тәуекелін ішкі және сыртқы талдау нәтижелері келтіріледі. Агросекторда сыбайлас жемқорлық тәуекелін басқару әдістерінің бірі ретінде матрица түрінде сыбайлас жемқорлық тәуекелін модельдеу ұсынылады. Авторлар матрицаның үлгі үлгісін ұсынды және оны қолданудың мысалдары келтірілді, сондай-ақ мемлекет үшін де, агробизнес субъектілері үшін де сыбайлас жемқорлық тәуекелімен күрес мақсаттарының өзара қажеттілігі туралы қорытынды жасалды.

Түйін сөздер: тәуекел, сыбайлас жемқорлық тәуекелі, сыбайлас жемқорлық, аграрлық сектор, жіктеу.

Оценка коррупционного риска в аграрном секторе Казахстана и управление им

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Аннотация

Управление коррупционным риском в аграрном секторе экономики имеет важное значение для реализации возможности Казахстана стать ядром продовольственной безопасности в Евразийском регионе. Казахстан имеет очевидные преимущества в природных и климатических условиях для усиления позиции аграрного сектора в своей экономике. В частности, положительными факторами производства в агросекторе являются большие земельные ресурсы, внутриконтинентальное географическое расположение и исторические предпосылки (кочевое скотоводство, растениеводство). Аграрный сектор выступает одной их самых рисковых отраслей экономики, и последнее проявляется в наличии природно-климатических, политических, технологических, финансовых, а также коррупционных моментах. Авторами приводится понятие коррупционного риска, анализируются особенности коррупционного риска в аграрном секторе экономики. Дана классификация коррупционных рисков со спецификой аграрного направления. Авторами исследуются также предпосылки, особенности и виды этой категории коррупционного риска. Отмечается, что вложения в отрасли в основном представлены государственными источниками финансирования (бюджет, внебюджетные фонды). Ввиду этого, колоссальные государственные и частные финансовые вложения в свою очередь порождают побочный эффект в виде коррупционной составляющей. В статье приводятся результаты внутреннего и внешнего анализа коррупционного риска в сфере сельского хозяйства Республики Казахстан. В качестве одного из методов управления коррупционным риском в агросекторе предлагается моделирование коррупционного риска в виде матрицы. Авторами предложен типовой шаблон матрицы и приведены примеры ее применения, а также сделаны выводы о необходимости обоюдности целей борьбы с коррупционным риском как для государства, так и для субъектов агробизнеса.

Ключевые слова: риск, коррупционный риск, коррупция, аграрный сектор, классификация.

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Introduction

In the conditions of a pandemic, Kazakhstan has all the prerequisites to become the center and source of ensuring food stability, at least on the territory of the Eurasian Economic Community, taking into account the advantages of the agricultural economic sector.

The problem of risks in the agricultural sector is present everywhere and is an integral part. Risks in this economic sector are more profound in their impact, as they directly affect the timeliness of supply chains, the state of food security, and, in general, the economic growth of the form [1, 2].

There are various types of risks, including environmental, investment, industrial, credit, entrepreneurial, banking, insurance, corruption, etc. All these types manifest themselves to one degree or another in the agricultural sector of the economy, and therefore their combined impact, under certain circumstances, is often disastrous for farmers.

In Kazakhstan, agriculture is supported mainly by implementing government programs, grants, subsidies. Many of these programs aim to finance agribusiness entities at a preferential lending rate, subsidizing the interest rate on existing loans, subsidizing core activities (depending on the type of activity), compensation for investments, etc.

In this regard, this area is most susceptible to corruption risk. So, for example, corruption issues affect such areas as land rights and are related to its registration, ownership, and sale, as well as the availability of loans, quality of supplies, irrigated agriculture, marketing, in government contracts or licenses for agricultural supplies, distribution of export quotas, etc.

Therefore, there is an urgent need for a proper understanding of this category of risk, determining the source of its occurrence for further assessment and improvement of the management strategy.

Literature review

In the scientific literature, there are many works devoted to the concept of risk, its classification, and assessment. First, it is necessary to define the concept of risk. In his works, American economist Frank Knight (1921) identifies risk as a measurable uncertainty that can be measured [3]. M.A. Rogov (2001) consecrates his own author's risk management course, including the concept of risks, their classification, and assessment [4]. P.A. Kabanov (2019) defines risk as an integral component of the activity of economic entities and a complex phenomenon involving the mandatory presence of uncertainty [5]. The uncertainty factor in the concept of risk is also given by E.I. Shokhin (2017). He defines risk as "the activity of economic entities associated with overcoming uncertainty in a situation of inevitable choice". Thus, in the process of overcoming such uncertainty, subjects have the opportunity to "assess the probability of achieving the desired result" [6].

In addition, the scientific literature contains a large number of works on the types and classification of risks, including categories of corruption risks. According to A.K. Solodov (2017), their specificity lies in the fact that they contain a complex of legal, economic, political, social and other types of risks. The assessment of such a risk is associated with determining the scale of the damage caused by it [7]. The general concept of corruption risk in the legislation of Kazakhstan is defined as "the possibility of causes and conditions contributing to the commission of corruption offenses" [8].

In accordance with this definition, L.M. Prozumentov, M.E. Dobrusina, N.G. Nabeeva (2019) distinguishes various types of corruption risk, such as municipal, regional, state, interstate, economic activities, management activities, social and labor relations, in the agricultural sector, etc. [9].

A large study was conducted by the World Bank Group Sandra Broka, Asa Giertz, Garry Christensen, Debra Rasmussen, Alexey Morgounov, Turi Fileccia, and Rhoda Rubaiza (2016) to assess the risks of the agricultural sector in Kazakhstan. The study was conducted for two years as part of a study to improve agricultural risk management at both national and regional levels. As a result, an important conclusion was made that a systematic approach is needed for effective risk management in agriculture. The private and public sectors should ensure coordination and complementarity while minimizing gaps and duplication. And, despite the high costs, effective investments in agricultural risk management also bring significant returns. However, in this study, the impact of corruption risks on the development of the farm sector is not reflected. The authors touch only on the corruption issues of the country's main transport corridors.

In turn, research related to the study and management of corruption risk in the agricultural sector is presented in the following works. Rodney (2002) emphasizes the impact of corruption on the farming sector of the economy and that this is an obstacle to the fair distribution of water resources, credit resources, subsidies, and dotation. In addition, in his opinion, bribes paid by farmers affect a higher percentage of low incomes in rural areas, the depletion of farmers' assets [11]. B. Silvestre, M. Monteiro, F. Viana, J. Filho (2018), Hayder & Azam (2020) study the issues

of corruption in supply chains and conclude that an increase in crime in the agricultural sector leads to a reduction in agricultural production, as well as its overall share in the country's GDP (gross domestic product) [1, 12].

The research of foreign authors Bellaubi and Boehm (2018) and the issues of the connection of corruption with the implementation of credit risks Hasan, R., Ashfaq, M (2021) are devoted to corruption risks in the field of water resources provision. It is also necessary to note the research of Kazakhstani scientists such as S.K.Mizanbekov, B.B. Kalykova, G.K. Nurmanbekov (2019), N.I. Dorogov, I.A. Kapitonov, N.T. Batyrova (2021), I.E. Digel, J.G. Imangali, E.I. Borisov (2021), which present important aspects of combating corruption elements in the agricultural sector as compliance control, project management, and also considers the relationship of corruption, economic growth, and quality of life of the population, issues of agro-food market and land relations, as well as the prevention of crime in the legislation of the Republic of Kazakhstan in general.

Due to the specifics of the field of activity, corruption risks in the agricultural sector should be separated into three categories due to the following features:

1) influence the institutions of the land market (land right, use, distribution),

2) hinder the fair distribution of natural resources, credit resources, subsidies, dotation;

3) affect the reduction of the share of agricultural production in GDP due to the disruption of supply chains (warehousing, transportation, licenses, sorting, etc.) leads to the vulnerability of the country's food security.

In turn, the damage from corruption actions can be represented in the form of financial, material, qualitative, institutional, social, etc., losses.

Thus, implementing any corruption risk in the agricultural sector leads to significant financial and economic losses of the state, business, and consumers.

Methodology

The purpose of this article is to assess the level of corruption risk in the agricultural sector of the Republic of Kazakhstan and discuss one of the possible solutions for risk management - the matrix of corruption risks.

The following two research questions are answered:

1. What is the level of corruption risk in the agricultural sector of the Republic of Kazakhstan?

2. How to use the matrix of corruption risks to limit the current level of corruption risk?

The structure of this article is as follows: introduction, literature review, methodology, results, discussion, conclusion, and references.

The methods of monitoring and assessing the level of corruption risks are general statistical methods, such as:

1) survey of agribusiness entities officials on specific topics of corruption;

2) questionnaires (anonymous and open) among the structural divisions of organizations in the form of distribution of questionnaires with questions,

3) methods of monitoring a particular circle of persons potentially prone to committing corruption offenses;

4) modeling corruption situations to identify factors provoking corruption offenses [7].

Based on the results of monitoring, internal and external analysis of corruption risks is carried out.

Internal analysis of corruption risk is carried out directly by the organizations themselves based on the decision of the first head. There can be created a working group or consolidated a specific unit responsible for conducting such an analysis. The frequency and necessity of such an analysis are determined by the heads of organizations and are fixed in internal documentation. It ends with the compilation of the final analytical report. Conducting an internal investigation of the corruption risk of organizations is difficult due to the low activity of subjects in matters of internal analysis of corruption risk [13].

The authorized anti-corruption body carries out the external analysis. It aims to disclose risks in legislation and the activities of organizations of state bodies and organizations, subjects of the quasi-public sector. When conducting an external analysis of corruption risks, it is allowed to involve specialists and experts [7].

In the course of the research, general scientific methods of cognition were used: analysis, synthesis, comparison, interpretation. Based on the systematization of the research results of foreign authors, the concept of corruption risk in the agricultural sector is defined, and its complexity and specificity are substantiated. The use of factor analysis of the driving forces in the commission of corruption offenses allowed the classification of corruption risks in the agricultural sector.

To assess the level of corruption risk, the results of a survey, questionnaire, observation, analysis of complaints, and statements were used, allowing organizing and conducting monitoring studies of corruption practices. Based on the monitoring results, the matrix of corruption risks

was compiled, making it possible to systematically monitor the dynamics of changes in the situation over time.

Based on the analysis of the causes and conditions contributing to corruption in the agricultural sector, the primary sources of corruption risk were identified, and measures to minimize it were justified.

Results and discussion

The analysis of the types of risk showed that the corruption field in the agricultural sector covers the areas most susceptible to corruption, such as legislation, the area of state control functions (veterinary, phytosanitary, tax control), the customs sphere, the area of subsidies and land right, as well as lending and distribution of state financial resources for agricultural producers. These risks are expressed in the pro-vision of incomplete or false information, manipulation of documentation, including documents submitted late and in violation of regulations, collusion to influence the final decision of the state body, etc.

The most common corruption risks in the agricultural sector of the Republic of Kazakhstan are presented in Table 1.

Table 1 - Classification of corruption risks in the agricultural sector

Classification feature	Area of corruption risk	The main corruption factors
By the source of corruption risks	private business	- facilitating the conditions for conducting agribusiness; - the level of legal literacy of farmers; - low public control (civil society)
	public authorities	- predisposition due to the conditions of everyday life; - financial demotivation and the search for alternative income.
	financial institutions	- lack of motivation for a long-term stay in the organization as an employee (employee); - the degree of application of automated and unified processes in the activity; - the number of decisions taken is not in favor of open procedures; - the level of legal support for procedures; - the degree of security of officials with internal regulations for conducting; - the share of qualified specialists, etc
	interstate and intergovernmental organizations	- facilitation of phyto, veterinary, sanitary, customs and tax control procedures; - lobbying the interests of large exporters/importers of agricultural products; - strengthening the role of import/export organizations in the territory of the partner country;
On the subject of a corrupt transaction	in the use of natural resources (land, water)	- equal access to publicly available resources of the agricultural sector; - frequent changes in legislation on land relations; - the level of awareness of users of natural resources;
	in the field of subsidies	- computer literacy of farmers; - regulation of the definition of the subsidy budget (subsidies are allocated without clear calculations of their needs). - access to a large number of types of subsidies
	in the field of lending	facilitating access to financial resources
By type of lending to agricultural producers	in the field of budget lending	- access to concessional lending within the framework of state programs; - subsidizing the interest rate on loans for farmers; - withdrawal of funds in the form of state subsidies for large investment projects. - the compliance control system is not developed
	in the field of commercial lending	

Note: compiled by the authors based on a literary review and the National Report of the Republic of Kazakhstan on Combating Corruption for 2020 [9, 14].

Having studied the external analysis of corruption risks, it was found that every third corruption offense falls on the bodies of the Veterinary Control Committee of the Ministry of Agriculture of the Republic of Kazakhstan and the State Inspection Committee in the Agroindustrial Complex of the Ministry of Agriculture of the Republic of Kazakhstan. Thus, among the state bodies most susceptible to corruption, the Ministry of Agriculture of the Republic of Kazakhstan has been among the leaders in the last three years. So, in general, in 2018-2019, the share of corruption offenses detected by anti-corruption services in the ranks of the Ministry of Agriculture of the Republic of Kazakhstan amounted to

5.6% and 6.9%, respectively. At the same time, despite the general decline in the number of detected corruption offenses from 2,375 facts to 2,245 in the Republic, according to the Ministry of Agriculture of Kazakhstan, there is an increase from 134 facts to 155 for the period under review [15,16].

An analysis of persons brought to criminal responsibility for corruption offenses showed that more than 3,000 people were convicted in total for the period from 2018 to 2020. On average, about 1,024 people were convicted per year; 24 of them (2.4%) were employees of the Ministry of Agriculture of the Republic of Kazakhstan and its territorial divisions (Figure 1).
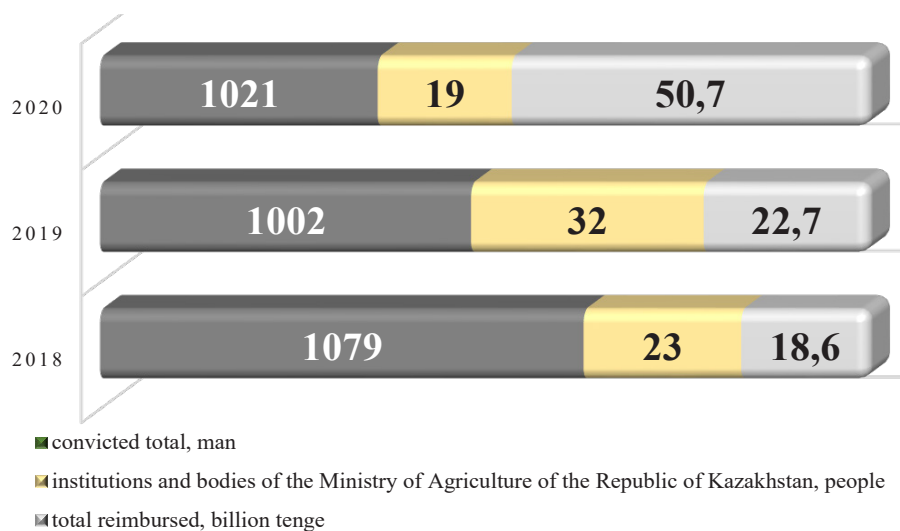

Figure1 - Dynamics of corruption offenses in organizations of the Ministry of Agriculture of the Republic of Kazakhstan 2018-2019

Note: compiled by the author based on the National Report of the Republic of Kazakhstan on Combating Corruption for 2018 and 2019 [15, 16].

At the same time, there is an increase in the amount of damage reimbursed to the budget from 18.6 billion tenge to 50.7 billion tenge. There is no information on the damage caused by departments, particularly territorial and central bodies of the Ministry of Agriculture and its committees.

The main measures to support the agricultural sector are carried out at the expense of budget funding. Thus, according to the results of 2018, the National Report of the Republic of Kazakhstan on Combating Corruption for 2018 announced that the most significant number of corruption facts (164) falls on the following state programs related to the agricultural sector:

1) 64 facts on the State Program for the development of productive employment and mass entrepreneurship for 2017-2021 "Enbek";

2) 53 facts on the State Program for the Development of Regions until 2020;

3) 42 facts on the State program of housing and communal development "Nurly Zher" and the Program of infrastructure development Nurly Zhol" for 2015-2019 [15].

Conducting a detailed analysis of corruption in the expenditure of budgetary funds is complicated by the lack of introduction of such specific statistics.

An external analysis of corruption risk in the agricultural sector in recent years in Kazakhstan has shown the obvious presence of the following sources:

1) The distribution of land resources is the primary source of corruption risks. The majority of farmers in Kazakhstan still do not have access to information about vacant land plots, their

areas, the composition of the land, and quality characteristics. Despite the presence of an automated information system of the state land cadastre, as well as the software product "Agromonitor" ("Qoldau.kz") for monitoring own and leased lands. The main reason is low awareness of farmers and limited access to Internet resources [17].

Thus, according to the Report on the results of a sociological survey conducted by Transparency International Kazakhstan in 2020, within the framework of the study "Monitoring the state of corruption in Kazakhstan" with the financial support of the United Nations Development Program in Kazakhstan, the TOP 10 corruption reasons were established, among which 5.7% is the position "solve the land issue". The main reason for the survey results was found to be "It is more convenient and faster to solve the issue" (53.6%). Most often in the list of issues that are solved with the help of an informal payment in the Land Relations Department, according to the results of the study as a whole, the solution of various issues in the field of land relations and the legal registration of a land plot is noted in 24 and 17 cases, respectively. At the same time, agreements on an informal solution to the issue are most often reached at the levels of specialists (41.2%) and department heads (23.5%) [18].

2) Frequent inspections by the regulatory bodies of phyto-sanitary, veterinary, epidemiological and tax control are a good prerequisite for the occurrence of a corruption fact [19].

3) Information systems (databases) used by farmers act as a source of corruption risks due to their imperfections [19].

Today, such digital platforms as "Qoldau.kz", "Identification of farm animals", "Automated information system of the State Land Cadastre", "UAMS" (Unified automated management system in the agro-industrial complex of the Ministry of Agriculture of the Republic of Kazakhstan, in which accounting and analysis of cargo flows of controlled products are carried out), "Subsidy.plem.kz" (subsidy information system).

The main imperfection of these systems is manifested in the lack of their mutual integration, and some of the information portals duplicate functions. In turn, the submission of applications is strictly regulated through these systems.

4) Frequent changes in legal acts regulating the issuance of subsidies. In addition, the rationale and reasons for changes in the rules of subsidies, changes in the number of subsidies are closed to many authorized state bodies such as the Ministry of National Economy of the Republic of Kazakhstan, the Ministry of Finance of the Republic of Kazakhstan, as well as the agribusiness entities themselves and the public in general,

and are not publicly available. This creates prerequisites for lobbying the interests of various interest groups [20].

It is rightly noted that there is a direct connection between the number of budget subsidies allocated and the corruption of this sphere [21]. At the same time, the primary purpose of giving subsidies, dotation, and benefits in the agricultural sector is to maintain market prices for food by reimbursing part of farmers' costs [22].

5) Low computer literacy of farmers. For example, on the portal "Qoldau.kz" farmers can apply for participation in the livestock subsidy program. The same function is provided on the portal "Subsidy.plem.kz". At the same time, an annual payment is provided for the use of the first portal (in the amount of 3 monthly calculation indexes per year), while the second carries out its work free of charge.

The procedures for subsidizing 16 types of public services are carried out through the information system "Qoldau.kz", which is complex and requires specific computer literacy.

Accordingly, farmers are forced to support assistants or contact regional agricultural departments, district and city agrarian departments. As a result of direct contact, conditions for corruption are created. And it also leads to the formation of a layer of "assistants" in the form of intermediary companies.

The sources of risks described above in the agricultural sector result from the lack of transparency in the provision of public services and the allocation of budget funds. Automation of the processes of providing public services within the framework of the direction "Digital Kazakhstan" acts as a tool to minimize contacts with public service providers ("Interactive map of budgets", "Ashyk budget", electronic applications for loans, etc.). On the other hand, the lack of provision of communications to remote agricultural territories does not allow them to fully access the services of existing automated portals at a high level (ultra-high-speed Internet, mobile communication and telecommunications services) [17].

Thus, any participant in agribusiness is subject to corruption, therefore, when carrying out their activities, there is a possibility of their employees committing corruption offenses. In this regard, it is an objective necessity to analyze and assess corruption risk and develop a system for managing it to minimize their prerequisites and consequences.

The corruption risk management system in the agricultural sector can be presented in the form of the matrix of corruption risk (Figure 2). All organizations, regardless of ownership forms, develop their own anti-corruption policy as a rule.
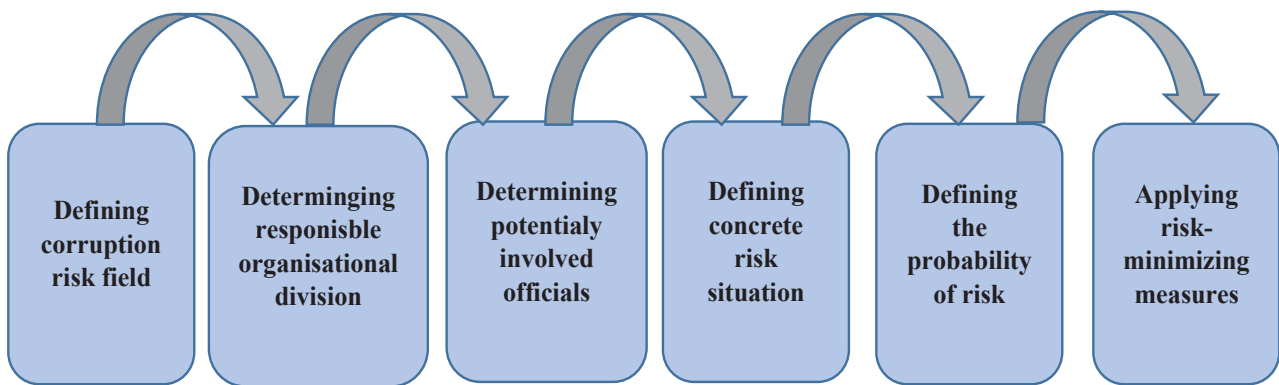
Figure 2 - Template of the matrix of corruption risk

Note: compiled by the authors

The first stage of compiling the matrix is the stage of determining the corruption risk field. As a rule, this sphere includes the powers of officials and other responsible persons within the framework of which there is a possibility of a corruption situation. These may be the powers of authorized persons to provide public services (obtaining a veterinary passport, issuing permits, state registration), represent the interests of an enterprise in court, bring violators to justice, etc.

After determining the terms of reference of the potential risk field, the structural units involved in the exercise of official powers are determined at the second stage. There may be several such structural units depending on the sphere of contact. These include customer services, legal services, documentation departments, HR services, management positions, etc.

As a result of the selection at the first and second stages, allocating a circle of responsible officials is necessary. The requirement to define a clear range of official positions is dictated by the need for the mandatory presence of a subject and the possibility of linking it to responsibility and the degree of further measures taken. This may be the head of the organization, the head of the structural unit, the executor/manager, etc.

When compiling the matrix of corruption risk, it is appropriate to give the most common examples of risky situations in an organization. What is meant here are specific risk situations hat arise within the defined scope of authority and that a particular official can commit. Such examples present the risk most clearly and allow it to be identified at an early stage. These may be specific facts of a loyal attitude to procedures, forgery of documents, etc.

The matrix of corruption risk is also based on the reflection of the degree of probability of corruption risk, determined depending on the terms of authority of the official and the risk of the situation, at the level of "low", "medium" or "high".

Consider the situation from practice. It is known that the agricultural sector is subject to the presence of corruption everywhere in the distribution of financial resources for agricultural enterprises allocated under government prog-rams, and especially in the distribution of subsidies. Thus, the Interdepartmental Commission that distributes subsidies included the head of the Department of Agriculture of the Akimat (local administration). In turn, the recipients of subsi-dies were the peasant farms of the district where his closest relatives are listed. If we estimate the losses, then for the period from 2014 to 2016, these entities received about 160 million tenge in the form of state subsidies for fuel and lubri-cants [23].

Considering this example through the prism of the matrix of corruption risk, the following analysis can be made (Table 2).

In the example under consideration, timely compliance control for the head of the Depart-ment of agriculture of the Akimat with business entities-relatives could exclude the commission of a corruption offense. Moreover, full automation of receiving subsidies would eliminate the risk of manually forming a list of recipients of grants. Namely, the first applicants could have an advantage. Thus, modeling a potential corruption risk makes it possible to determine preventive measures for its implementation in advance.

Table 2 - Example of compiling a matrix of corruption risk in the agricultural sector

Corruption area	Formation of a list of agricultural producers to receive subsidies
Organisational division	The department for subsidizing in the agro-industrial complex
Officials	Head of Department, specialist
The risk situation	1. Inclusion in the list of persons who do not meet the requirements of the subsidy rules. 2. Providing benefits for receiving subsidies in the first place. 3. Receiving remuneration for services rendered to receive subsidies outside the provisions of the Subsidy Rules.
Probability of risk	High
Minimizing measures	1. Conducting compliance control. 2. Automation of the procedure for forming a list of agricultural producers for receiving subsidies.

Note: compiled by the authors

Based on the matrix, the most critical and vulnerable areas are identified, such as: the potential circle of officials, potential benefits, ways of committing offenses, ways of circumventing internal control mechanisms, etc. Systematic application of the matrix is most effective about corruption schemes in the agricultural sector. In particular, the matrix of corruption risks can be applied on a quarterly basis and according to the results of the reporting period (year). Thus, the departments responsible for monitoring corruption risk have the opportunity to expand the scope of authority, add/exclude/adjust the list of responsible departments, as well as update risk situations from practice.

Conclusion

The analysis of the corruption component of the risk in the agricultural sector showed the following:

1) The agricultural sector belongs to the area of increased risk (in terms of agro-climatic, financial, etc. risks) and, despite various kinds of crisis situations, nevertheless ensures its effectiveness. Risks in the agricultural sector have their own peculiarity due to the depth of the consequences following the results of their implementation. The complex nature of corruption risk in the farming sector is a significant threat to the food security of the entire country or region.

2) To determine the probability of corruption risk, surveys, questionnaires, surveillance, and external and internal analysis are conducted as monitoring tools. According to the analysis results, it was found that specific prerequisites precede the corruption event. Therefore, the importance of managing the sources of corruption risks in the agricultural sector is very relevant. This is dictated by the fact that any pressure on agribusiness entails a decrease in the investment attractiveness of this area, job losses in rural areas, tax cuts and other socio-economic consequences.

3) It is proposed to use the corruption risk matrix to manage corruption risk. A carefully thought-out and properly organized corruption risk matrix will allow you to determine the potential risk field in advance, have a clear idea of the nature and options of corruption risk, predict the level of potential damage from its implementation, as well as identify preventive measures to eliminate or minimize them.

Thus, corruption risk is not eradicated but a specific system for managing it. For the actual use of these opportunities, it is necessary that decision-makers can correctly assess the level of risk and choose a reasonable strategy and tactics to reduce it in economic activity. This is especially important when allocating financial, including credit, resources in the agricultural sector, since it is critical that the funds allocated by the state for its development reach their intended purpose. Therefore, reducing the corruption risk in the agricultural sector of the economy is mutual for both the state authorities and the farm business entities.

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