AGRICULTURAL SCIENCES IN THE CONTEXT OF REFORM: PROACTIVE POLICY AND GLOBALIZATION OF FOOD SECURITY

Abstract. In Kazakhstan, it is necessary to move from the system of stochastic theory of patching emerging gaps to the theory of sustainable development of agriculture with a gradual transition first to food independence for the main food products produced, and then to comprehensive food security. In the context of globalization, the problem of forming an effectively functioning food security system is very urgent for Kazakhstan. Sustainable development of domestic food production plays an important role in ensuring food security of the state.

Raw materials for food production are products produced by agricultural producers, i.e. the agro-industrial complex of the country as a whole. It follows that the role of the country’s agricultural sector in ensuring food security is very important.

The material conditions of production underlying the formation and development of a single economic complex dictate both the opportunity and the need to improve methods of control and management of the economy in response to changing conditions and factors of production. They require a reorientation of enterprises, industrial associations and intermediate performance in the final results.

Agro-industrial complex (AIC), as well as other cross-sectoral national economy, should effectively fulfill its operational requirements. The achievement of this goal contributes to functional and sectoral structure of the complex of production.

The merit of the authorities, of course, should be to put what she conducts a proactive policy, not hidden, and builds defenses. To paraphrase a famous saying, we can say that the Kazakh government is preparing a sled in the autumn, so as not to have problems in the winter, and the current December proved faithful to these steps. In contrast to the many governments that have always played a waiting game, our calculates the situation a step further and build a policy based on domestic resources.

Today, in a globalized world agricultural markets and mainstream food security of the country, agro-industrial complex of Kazakhstan has a tendency of stable growth of agricultural production. And this growth we have created all conditions.

In order to ensure the sustainable development of agriculture, the development of national competitive advantage of domestic products on an ongoing basis to study foreign experience of agricultural development, the positive trends which can be adapted in the Republic of Kazakhstan.

Keywords: agriculture, strategy, development, performance, economy.

Introduction

Today, the state of the agro-industrial complex (AIC) of the Republic of Kazakhstan can be characterized as stable, the production of agricultural goods has formed, the villagers are mainly occupied on land. But agricultural producers are concerned about the channels for selling goods, and the selling price of goods on the market. Because, in many cases, public funding does not reach the end of the needy. One can hear from many peasants that they do not need state subsidies, they are more interested in how much, what kind of products, and at what prices the state will buy products.
The socio-economic situation of the agricultural sector of the republic, despite the measures taken and the positive trends of recent years, remains difficult, and in the long term, the strategic priorities for the development of agricultural production should be: ensuring food security through the rational use of land, water and scientific potentials; increase in the production of competitive products, import substitution; improving the efficiency of agricultural production through the introduction of intensive technologies; development of cooperation with large industrial enterprises, improvement of the sales system by organizing sales cooperatives and collection points; the organization of medium and large-scale production in crop and livestock production, export-oriented and more capacious markets for manufactured products; the growth of material and technical and financial support for developing industries; accelerated development of processing, market infrastructure, the formation of organizational structures.

Methods

The methodological basis of the study is the general scientific methods of cognition – deduction and induction, analysis and synthesis, content – media analysis, sociography, a system and comparative historical method that allows us to identify the genesis, sequence and functioning of the stages of digitalization in the agricultural sector.

The theoretical source of the research was the scientific works of Russian and foreign scientists and specialists on the problems of introducing innovations and digitalization tools in the agricultural sector.

Results and discussion

The food problem is a complex, multifaceted phenomenon that includes aspects of the economic, social and political plan. The decline in production in many sectors of the economy, the global crisis and natural disasters affects the country's food security.

The UN and Kazakhstani legislation defines food security as: «the state of the economy, including the agro-industrial complex, in which the state is able to ensure the rights and needs of the population in food and drinking water in the quantity and quality stipulated by physiological consumption standards sufficient for physical and social development personality, health and expanded reproduction of the population». Being an integral part of the country's national security, ensuring food security in many respects depends on the development of the country's agricultural sector. The existing uncertainty of world prices for raw materials and oil, which is key for the raw material orientation of the Kazakhstan economy, is another reason for the responsible attitude of the state to the development of the agro-industrial complex. The total area of farmland is 223 million hectares (including 24 million hectares of arable land), 47 % of the rural population indicates an impressive agricultural potential. However, in fact, the proportions are less impressive.

The current situation in the world is characterized by the presence of a huge number of starving people in third world countries. And on the other hand, the excess production and consumption of food in developed countries, the share of the population of the latter does not exceed 20%. Countries whose inability to provide the population with their own food in accordance with physiological norms of nutrition forces them to import food in exchange for strategic material resources and political concessions. According to scientists, food independence can be maintained if the share of imports in domestic consumption does not exceed 20 percent. The level of food independence of 20-30%, according to Western experts, is a threshold. Meanwhile, in Kazakhstan, according to statistics agency, for the first 3 months of 2015, imported $2 billion worth of imported food was imported into the country (according to the forecast, $4 billion per year). The volume of food imports to Kazakhstan is only increasing every year, varying from 30 to 60% depending on the type of food. For the most part, Kazakhstan imports the main consumer products, and only in smaller quantities expensive delicacies. This situation is dangerous for the country's economy: dependence on the foreign market is only increasing, competition, both in the domestic and foreign markets, is intensifying. Kazakhstan provides itself and neighboring countries with few positions, mainly bread and bakery products. Although the production of many of the imported goods can be carried out in the country (canned meat, pasta, margarine, yoghurts, sausages, confectionery, vegetable oils, etc.). But at the moment, the level of import dependence on basic food products is high [1, 2]

The provision of food to the population is one of the most pressing global problems, as evidenced by the observed increase in food prices throughout the world and in the Commonwealth states, among others.
The issues of food security and the development of mutually beneficial cooperation in the agricultural sector occupy an important place in the economic policy of the Commonwealth of Independent States. The Council of Heads of Government of the CIS in recent years, on the proposals of the Commonwealth states, has adopted a number of regulatory documents, including the Concept of Agreed Agricultural Policy, the Main Directions for the Creation and Functioning of the Grain Market of the CIS Member States, the Market for Meat and Dairy Products, the Market for Fruit and Vegetable Products and Potatoes and others. Important documents on food security adopted in recent years in the Commonwealth are a set of joint measures to improve food security, and the Concept of improving food security of the CIS member states.

In the food sector, the most important state needs (national interests) are realized:

- a) in ensuring the sustainable development of domestic food production, and, therefore, in achieving food independence of the Republic of Kazakhstan;
- b) in ensuring the safety of food products (including imported) at all stages of their production, storage, transportation, processing and sale;
- c) in achieving and maintaining physical and economic accessibility for every citizen of safe food, regardless of external and internal threats.

Therefore, ensuring the availability of high-quality and safe goods in the National Security Strategy of the Republic of Kazakhstan until 2020 is defined as a guarantee of achieving a strategic national priority – improving the quality of life of Kazakh citizens.

Ensuring food security in Kazakhstan is fraught with risks that can significantly weaken it.

Ensuring national food security is associated with overcoming the influence of negative factors that create threats to food security, leading to a decrease in the quantity, absence or deterioration of the nutritional and energy value of the main types of food products. These include: a significant excess of the threshold value of saturation of the domestic market with imported products; low level of effective demand of the population for food products; price imbalances in the market of agricultural and fish products, raw materials and food; violation of the stability of the financial and credit system; insufficient level of development of the infrastructure of the domestic market; moral and physical aging of the material and technical base of agricultural and fishery complexes; lag in the innovation sphere; reduction of national genetic resources; possible expansion of biofuel production from agricultural products and raw materials; lack of qualified personnel.

In ensuring food security of the state, the sustainable development of domestic food production plays an important role.

Raw materials for food production are products manufactured by agricultural producers, i.e. agribusiness of the country as a whole. It follows that the role of the country's agribusiness in ensuring food security is very important. To ensure food security, it is necessary to cultivate domestic varieties for the production of grain, potatoes, vegetables, melons and fruit and berry crops.

Unlike foreign ones, domestic varieties of agricultural crops are created without the inclusion of GMOs. Domestic varieties are also created taking into account local soil and climatic conditions. Using as a raw material for the processing industry products made from domestic varieties of agricultural crops will ensure the food security of our republic.

Under the conditions of the constant presence of any dangers emanating from other people, foreign states or the elemental forces of nature, security acted as a target setting that defines all the activities of the state. «Own security is the highest law in politics ...», N. Karamzin wrote.

At present, there has been a significant expansion of perceptions of safety, both in relation to objects of abuse and in relation to sources of danger, and in fundamental matters when defining the concept of «security» we are still talking either about the ability (sometimes property, quality) of which Either the system withstands encroachments, or about the state of an object characterized by security from danger or the absence of the very possibility of a destructive effect.

It should be noted that in domestic studies on security issues, as well as in the West, there has been a tendency to move away from the concept of state (national) security and transferring the center of gravity to the global level of solving the problems of all mankind [2,3,4].

Security is a state of protection of the vital interests of the individual, society and the state from internal and external threats [5, 6].
Today, ensuring food security is becoming a priority policy of an increasing number of states and interstate unions [7, 8, 9]. Food is one of the most stable currencies in the world of the present and the future. Recently, the 7 billionth inhabitant of the planet was born, soon there will be 10 billion people on earth. «How to feed these billions?» - this is the main question of the coming era. According to UN forecasts, humanity's need for food will more than double by 2050. In the 21st century, a problem arose, such as the «famine of plenty». Due to high food prices, hundreds of millions of people cannot eat properly. This affects their performance, creating families and raising children. The World Food Organization has identified an area of potential global hunger. It includes some neighboring countries.

It is estimated that more than a billion people, i.e. every sixth inhabitant of the planet may be suffering from malnutrition. The international community is mobilizing to address this situation and eradicate hunger from the face of the earth. The Committee on World Food Security (CWFS) is the United Nations forum for the analysis and monitoring of measures to ensure world food security. It also addresses issues affecting the food situation in the world. The CFS was created as a result of the food crisis of the 70s on the recommendation of the 1974 World Food Conference [10,11].

At its 35th session, CWFS members endorsed a wide-ranging reform aimed at transforming the CFS into the broadest international and intergovernmental platform for jointly coordinated work in the field of food security and nutrition and making it a central element of the developing Global Partnership on Agriculture, Food safety and nutrition.

CWFS reforms aim to focus the Committee's vision and role as coordinator of international efforts to eradicate hunger and ensure food security for all. They cover assisting national hunger plans and activities; ensuring that all relevant positions are taken into account in the political debate on food and agriculture; strengthening ties at the regional, national and local levels; and substantiation of decisions by confirmed scientific data and advanced knowledge [12, 13, 14].

The situation in the agricultural sector of Kazakhstan, the pledge of the country's food security, is alarming [15, 16]. There are no such basic areas for the development of agriculture as agricultural machinery, the production of chemicals and fertilizers, product processing, integrated transport and logistics services. In general, the infrastructure has been significantly reduced, most of it is worn out. If we are talking about world leadership in the export of grain, providing the necessary number of elevators, grain receiving points, grain carriers is a task that must be solved.

The low level of economic development of the country entails problems of food security of the country (low productivity of agricultural sectors and labor productivity, an extensive method of managing the agricultural sector, etc.). As a result, the high cost of domestic products is inaccessible to the population at those prices at which the products enter the markets. All measures to eliminate these problems are already described in the programs of the Ministry of Agriculture, the main thing is that the final results are positive.

Many scientists note the need to address the problems of the agricultural sector comprehensively. Plants built under the next program are sometimes in stagnation due to a lack of additional infrastructure (processing, storage, transportation, etc.). In this regard, horizontal and vertical integration at the agro-industrial complex level is necessary. N.A. Nazarbayev has repeatedly spoken about this. Also, Serova, an employee of the International Food and Agriculture Organization (FAO), notes that the state’s agri-food policy should be focused on the development of cooperation and agro-industrial integration, which are one of the factors for solving the problem of national food security.

The need is partially and stage-by-stage compensated by state agricultural development programs (agricultural development program for 2010-2014, 2013-2020) [9, 17, 18]. However, this is not enough, since there are inconsistency among the responsible authorities, the factor of corruption, etc. And the reason for the low activity of the business is often the lack of collateral and means of co-financing in such areas as the cultivation of open ground vegetables, the construction of vegetable stores, and the production of milk. Targeted programs, first of all, should ensure the safety of the industry. Programs should not stop at the implementation stage, or even worse at the organization stage due to bureaucratic pockets. Control and, no less important, a qualitative analysis of the work done should reach the beneficiaries. National, including economic security, cannot be guaranteed if the state does not satisfy the population's need for quality food. Ignoring this problem can bring enormous losses for the country.
Of course, in order to timely resolve the issues of the agro-industrial sector by the state, a set of measures is being taken to improve it – funding volumes are increasing, new programs are being developed, new mechanisms of state support are being formed. From year to year, statistics show positive dynamics in this area, including: an increase in gross output, an increase in foreign investment in domestic production, and the formation of new agricultural facilities. However, the current measures are not enough if the agenda still raises questions about increasing imports of household products, rising food prices, the irremovability of agricultural export mechanisms and structures, etc.

The main leitmotif of the problem regarding the development of domestic agriculture is that most of Kazakhstani agricultural products are characterized by a low level of productivity, competitiveness both in the domestic and world markets [19, 20].

Therefore, for a deeper understanding of the problems in the agricultural system of the republic, it is necessary to identify important, at the moment, individual reasons that, if they are structurally omitted, could negatively affect the food and economic security of the country.

In this period of economic development of the Republic of Kazakhstan, an analysis of the agricultural sector, from the point of view of the availability of its production factors, allows us to assess it as a very attractive sector for inclusion in the priority list, in order to accelerate development through a cluster approach. The existing regional market is characterized by great demand for Kazakhstani products, in particular, for grain, meat, milk, fruits and vegetables, cotton, leather, wool, fish and products of their deep processing.

Summary and Conclusion

We consider the development of agriculture to be important. Here we can highlight the issue of agricultural processing. As the Head of State recently noted at an expanded government meeting, only 30 percent of meat and 40 percent of milk is processed in Kazakhstan. To improve the situation, it is necessary that agricultural products reach the markets without intermediaries, and it is still necessary to provide farmers with affordable "long" financial resources. In all areas, branches of regional chambers of entrepreneurs have been created, which will work in this direction.

The level of productivity in the agricultural sector increased by 50%. However, small efforts have been put into this by the Government and the ministry. This is because the main tools for increasing labor productivity have appeared recently in the new «Agribusiness 2020» program, which has not even started yet.

Despite the above results in the agricultural sector and progressive elements in the research direction, a number of problems remain that play an important role in the development of agriculture in Kazakhstan:
- the lack of scientific organizations of modern scientific and material and technical infrastructure. To date, the bulk of buildings and structures (71.1%) have been in operation for over 30 years and 22.1% for over 20 years, 71.4% of all available agricultural equipment is subject to write-off;
- limited financial resources for research and development (the amount of allocated funds does not exceed 0.3% of gross agricultural output, whereas in countries with developed agriculture this figure is from 1% to 4%);
- low level of entrepreneurial culture based on the use of new technological solutions and innovations, low innovative activity of agribusiness entities;
- the underdevelopment of the system for introducing scientific developments into production;
- low competitiveness of scientific products and technologies in the international scientific market. Due to the lack of financial resources, the internship of young specialists in the leading foreign scientific centers is poorly carried out, joint international scientific research is not carried out, and measures to attract leading foreign scientists are not implemented;
- the lack of an effective mechanism for consolidating, motivating and socially supporting young scientific personnel in domestic agricultural science has led to a deterioration in the social status (decrease in the authority of scientists in society) of a scientist and a rupture of the continuity of generations of scientists;
- low wages in agriculture;
- lack of qualified personnel due to the lack of effective methods for forecasting the need for personnel, insufficient allocation of state orders for the training of agricultural personnel and the low level of employment of graduates of agricultural and veterinary specialties (16-30% of the number of graduates
of higher education). Lack of personnel is also noted in areas where technical and vocational education institutions are not available;
- the lack of social support measures for young professionals that stimulate their consolidation in the countryside;
- underdevelopment of the social and engineering infrastructure of the village as a whole, including the organization of cultural leisure;
- Weak interaction between agricultural enterprises and universities and colleges, as well as the lack of awareness of graduates of universities and colleges about the availability of vacant places in enterprises.

Issues of agricultural development in recent years cause genuine interest. New technologies have come to plant growing, equipment is being updated, the subsidizing system is being improved. The development of livestock production has received a new impetus. The state allocated huge funds for the development of this industry, which in previous years was not given the necessary attention. But agriculture differs from other sectors of the national economy in that, by definition, is fraught with many difficulties that need to be addressed promptly.

In order to boost the rural economy over the past ten years, state and industry programs have been adopted to develop and support the agricultural and agricultural sector, supported by substantial financial resources. In 2018 alone, 60 billion tenge of a budget loan was allocated for lending to agribusiness entities.

Agricultural development is an important priority for Kazakhstan. Economic integration with Russia, Belarus, and the republic’s entry into the World Trade Organization are focusing on increasing the competitiveness of the domestic agro-industrial complex.

During the observation, it was also found that many difficulties of the agricultural sector should be resolved thanks to the efforts and constructive dialogue of stakeholders, however, the state, its concentrated attention and strong support are the backbone of the entire agricultural system and the processes taking place in it. In the meantime, only financial assistance will not be able to change the whole situation, since management problems through a proper information policy, implementation of the agricultural development strategy and structural reforms are still on the agenda of the state agricultural policy. In the light of Kazakhstan’s accession to the WTO, all these problems can negate the agricultural sector, accordingly, government measures should be systematic and efficient.

Г.М. Жұрыныов, Б.Ш. Сыздықов,
Б.Б. Оразова, Г.М. Таскулов, М.Ж. Таласов

Халқыраалық гуманитарлық-техникалық университеті,
Шымкент қаласы, Қазақстан Республикасы

РЕФОРМА КОНТЕКСТІНДЕГІ АОҚ ЖҮЙЕСІ: БЕЛІСІНДІ САЯСАТ ЖӘНЕ АЗЫҚ-ТУЛІК ҚАУІПСІЗДІГІН ЖАБАЛАНДАРУ

Аннотация. Қазақстанда пайда болған әлкілдіктерді жою әдістемесін құйысмен АОҚ тұратын даму теориясына кошу қажет: ол үшін, адамдық, әкімдік оңдірістің табыс орнында азық-тұлғы тәуелсіздігіне, содан кейін кешенін азық-тұлғы қауіпсіздігінің біртұтас құқыс қажет. Қазақстанда жағдайына, Қазақстан үшін тілдің әдіс ісітінің азық-тұлқы қауіпсіздігінің жұмыс істеуі қауіпсіздігі мен қалыптастыру мүмкінсіз етеді. Мемлекеттің азық-тұлқы қауіпсіздігінің қамтамасыз етуде өтініші азық-тұлғы тұратын қамтамасыз етуге арнайы әрекет жасайды.

Азірі ауылшаруашылық оқыту әдісімінде анықтау әдісін қабылдау үшін, оның әдісінде, елдің агрондірістік кешенін құрабы. Бұл тұстар еліміздегі АОҚ-тың әзірі азірі қауіпсіздігінің қамтамасыз етуге арнайы әрекет жасайды.

Біртұтас әлкілдік оқыту оқыту әдісінде анықтау әдісін қабылдау үшін, оның әдісінде, елдің агрондірістік кешенін құрабы. Бұл тұстар еліміздегі АОҚ-тың әзірі қауіпсіздігінің қамтамасыз етуге арнайы әрекет жасайды.

Агрондірістік кешені (АОҚ), басқа да салынған азірі әлкілдік оқыту кезеңдері сыйқты, озінің құрылысының міндеттерін тілді өрніту қажет. Бұл мәселетін жетілдірген оқыту әдісінде, кешенің қызметін-салыналық құрылысына есеп етілетін байланысты.

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Оқимет, зерине, бұл жерде тасада қалмай, білесінің сақат жұрғізумен катақ, корганды механизмдерің тузды. «Қыс шашының жағдай сайт» деген мақада айтылғанған, Қазақстан үкіметі қысы мәселелерге ұрындауыны өсі жылы жеткізген санырсітті. Көргін елдерінің үкіметтерінің айымрышшылығы – бізде бір қақат алға шығып, ішкі ресурстар есебіне куткен негізінде корытқышылықтарға алға тырысқасы.

Бұтін танда, елдің аграрлық әскә-түлік нарықтарын зияндайдыры және елдің әскә-түлік қазаңыздығын камтамасыз ету мәселелерін өзектеңіз жағдайында, Қазақстандық ағроерекісіптиң кешені ауыл шаршылығы ендірісінің тұрғысы осу ұрдістіріне не. Бұл ушін бізде бұлардың қаралып қаласын.

АОК салаларының тұрғысы дамуының камтамасыз ету, отандық өндірістің ұлттық бөлінестік артықшылықтарын дамуына мұқтама, тұрғыстары негізінде ауыл шаршылығын дамытуын қалай тәжіріби сөзсіздері, оның қағыттары Қазақстан Республикасында бейімделуі мүмкін.

Түйін сөзлер: ауыл шаршылығы, стратегия, даму, өнімділік, экономика.

Г.М Жұрышов, Б.Ш. Сұлықов, Б.Б. Өразова, Г.М. Тасқұлаева, М.Ж. Таласов

Международный гуманитарно-технический университет, город Шымкент, Республика Казахстан

СИСТЕМА АПК В КОНТЕКСТЕ РЕФОРМЫ: ПРОАКТИВНАЯ ПОЛИТИКА И ГЛОБАЛИЗАЦИЯ ПРОДОВОЛЬСТВЕННОЙ БЕЗОПАСНОСТИ

Аннотация. В Казахстане необходим переход от системы стихастической теории лагания возникающих проблем к теории устойчивого развития АПК с постепенным выходом вначале на продовольственную независимость по основным производным продуктам питания, а затем уже на комплексную продовольственную безопасность. В условиях глобализации для Казахстана весьма актуальная проблема формирования эффективно функционирующей системы продовольственной безопасности. В обеспечении продовольственной безопасности государства играет немаловажную роль устойчивое развитие отечественного производства пищевых продуктов.

Старым для производства пищевых продуктов является продукция, производяемая сельскохозяйственными организациями, т.е. агропромышленным комплексом страны в целом. Отсюда следует, что весьма важна роль АПК страны в обеспечении продовольственной безопасности.

Материальные условия производства, лежащие в основе формирования и развития единого народнохозяйственного комплекса, диктуют одновременно возможность и необходимость совершенствования методов регулирования и управления экономики в соответствии с меняющимися условиями и факторами производства. Они требуют переориентации предприятий, промежуточных объединений и промежуточных показателей работы на конкретные результаты.

Агропромышленный комплекс (АПК), как и другие межотраслевые народно-хозяйственные комплексы, должен эффективно выполнять свои функциональные задачи. Достижению этой цели способствует функционально-отраслевая структура комплекса соответствующего производства.

В заключение, можно сказать, что в странах с переходной экономикой, где доля сельского хозяйства в ВВП значительно выше, чем в развитых странах, агропромышленный комплекс оказывает значительное влияние на экономику страны. Агропромышленный комплекс Казахстана имеет тенденции стабильного роста сельскохозяйственного производства. И для этого страны созданы все условия.

Сегодня, в условиях глобализации мировых агропродовольственных рынков и актуализации вопросов обеспечения продовольственной безопасности страны, агропромышленный комплекс Казахстана имеет тенденции стабильного роста сельскохозяйственного производства. И для этого страны созданы все условия.

Ключевые слова: сельское хозяйство, стратегия, развитие, производительность, экономика.

Information about authors:
Zhuryshov G.M. – candidate of economic Sciences, senior lecturer, International Humanitarian and Technical University, city of Shymkent, Republic of Kazakhstan, https://orcid.org/0000-0003-3494-0714;  
Syzdykov B.Sh. – doctor of economic Sciences, senior lecturer, International Humanitarian and Technical University, city of Shymkent, Republic of Kazakhstan, https://orcid.org/0000-0002-5649-958X;  
Orazova B.B. – candidate of economic Sciences, senior lecturer, International Humanitarian and Technical University, city of Shymkent, Republic of Kazakhstan, https://orcid.org/0000-0003-3181-4915;
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