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ECOLOGIZATION OF THE AGRO-INDUSTRIAL COMPLEX: PROBLEMS OF SOCIO-ECONOMIC MODERNIZATION ON THE EXAMPLE OF EAST KAZAKHSTAN REGION

Abstract. The article considers the current state of the agro-industrial complex of Kazakhstan. Particular attention is paid to the development of the agricultural sector of the East Kazakhstan region, its livestock sector, depending on the natural and climatic conditions and economic activities: dairy and beef cattle breeding, fine-wool and coarse-wool sheep breeding, pig breeding, horse breeding, and poultry farming. The important role of the adoption of programs providing for measures of financial support for agricultural formations is revealed.

The problems of the agro-industrial complex of the republic are identified, the solution of which will contribute to the successful development of agro-industrial production. These are, first of all, the low rates of structural and technological modernization of the industry, the unsatisfactory level of market infrastructure, the small-scale commodity in agriculture, the financial instability of the industry, the insufficient inflow of investments to increase its potential, and the shortage of qualified personnel.

The article also discusses the factors of ecologization of agricultural production that affect the efficiency of farming. In order to prevent an

environmental threat in the process of using agricultural land, a set of environmental measures has been prepared to solve environmental safety problems, which make it possible to develop the most effective management measures based on greening.

It is concluded that in the East Kazakhstan region there is a significant potential for the development of agro-industrial production.

Key words: East Kazakhstan region, agro-industrial complex, production, cereals, oilseeds, gross output.

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АГРОӨНЕРКӘСІП КЕШЕНІН ЭКОЛОГИЯЛАНДЫРУ: ӘЛЕУМЕТТІК-ЭКОНОМИКАЛЫҚ ЖАҢҒЫРТУ МӘСЕЛЕЛЕРІ ШЫҒЫС ҚАЗАҚСТАН ОБЛЫСЫНЫҢ МЫСАЛЫНДА

Аннотация. Мақалада Қазақстанның агроөнеркәсіп кешенінің қазіргі жағдайы қарастырылады. Шығыс Қазақстан облысының ауыл шаруашылығы саласын, табиғи-климаттық жағдайлары мен шаруашылық қызметіне байланысты мал шаруашылығын дамытуға ерекше көңіл бөлінуде: сүтті және етті мал шаруашылығы, биязы жүнді және биязы жүнді қой шаруашылығы, шошқа шаруашылығы, жылқы шаруашылығы, құс шаруашылығы. Ауыл шаруашылығы құрылымдарын қаржылық қолдау шараларын қарастыратын бағдарламаларды қабылдаудың маңызды рөлі айқындалды.

Республиканың агроөнеркәсіптік кешенінің проблемалары айқындалды, оларды шешу агроөнеркәсіптік өндірістің табысты дамуына ықпал етеді. Бұл, ең алдымен, саланы құрылымдық және технологиялық жаңғыртудың төмен қарқыны, нарықтық инфрақұрылымның қанағаттанарлықсыз деңгейі, ауыл шаруашылығындағы ұсақ тауарлық, саланың қаржылық тұрақсыздығы, оның әлеуетін арттыруға инвестицияның жеткіліксіз түсуі, және білікті кадрлардың тапшылығы.

Мақалада ауылшаруашылығының тиімділігіне әсер ететін ауылшаруашылығы өндірісін экологияландыру факторлары да қарастырылған. Ауылшаруашылығы мақсатындағы жерлерді пайдалану процесінде экологиялық қауіп-қатердің алдын алу мақсатында экологиялық қауіпсіздік мәселелерін шешу үшін экологиялық шаралар кешені дайындалды, бұл жасылдандыруға негізделген басқарудың неғұрлым тиімді шараларын әзірлеуге мүмкіндік береді. Шығыс Қазақстан облысында агроөнеркәсіптік өндірісті дамытудың айтарлықтай әлеуеті бар деген қорытынды жасалған.

Түйін сөздер: Шығыс Қазақстан облысы, агроөнеркәсіп кешені, өндіріс, дәнді дақылдар, майлы дақылдар, жалпы өнім.

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ЭКОЛОГИЗАЦИЯ АПК: ПРОБЛЕМЫ СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЙ МОДЕРНИЗАЦИИ НА ПРИМЕРЕ ВКО

Аннотация. В статье рассмотрено современное состояние агропромышленного комплекса Казахстана. Особое внимание уделяется развитию аграрного сектора Восточно-Казахстанской области, его животноводческой отрасли в зависимости от природно-климатических условий и хозяйственной деятельности: молочному и мясному скотоводству, тонкорунному и грубошерстному овцеводству, свиноводству, коневодству, птицеводству. Раскрыта важная роль принятия программ, предусматривающих меры финансовой поддержки сельскохозяйственных формирований.

Выявлены проблемы АПК республики, решение которых будет способствовать успешному развитию агропромышленного производства. Это, прежде всего, низкие темпы структурно-технологической модернизации отрасли, неудовлетворительный уровень рыночной

инфраструктуры, мелкотоварность в сельском хозяйстве, финансовая неустойчивость отрасли, недостаточный приток инвестиций на наращивание ее потенциала, дефицит квалифицированных кадров.

В статье так же рассматриваются факторы экологизации сельскохозяйственного производства, влияющих на эффективность ведения хозяйства. С целью предотвращения экологической угрозы в процессе использования сельскохозяйственных угодий подготовлен комплекс природоохранных мероприятий для решения проблем экологической безопасности, которые дают возможность разработать наиболее эффективные меры хозяйствования на основе экологизации.

Сделан вывод, что в Восточно-Казахстанской области имеется значительный потенциал развития агропромышленного производства.

Ключевые слова: *Восточно-Казахстанская область*, *агропромышленный комплекс*, *производство*, *зерновые*, *масличные культуры*, *валовая продукция*.

Introduction. Increasing the pace of production of the agro-industrial complex is one of the main strategies for the development of the economy of the East Kazakhstan region. The agro-industrial complex is rightfully considered the driver of the region's economy, since the region ranks first in the country in the production of milk, sunflower oilseeds, honey and antlers, and second in meat production.

Certain successes have been achieved in the development of the intellectual property market, revealed by the results of the analysis of IPOs in the Republic of Kazakhstan. State programs provide for a large range of activities, which will require coordinated efforts of the authorities, the scientific community, enterprises and organizations, all those who are interested in this issue. At the same time, there is confidence that the steps taken by the leadership of the republic will allow successfully solving the assigned tasks (Arynova, Z.A. et al., 2020:17).

In modern conditions, intellectual property is becoming an increasingly important factor in the socio-economic development of the state. In this regard, the article discusses the formation and expansion of the intellectual property market in Kazakhstan and abroad, discusses the problems and prospects for the development of this market.

Materials and methods. The region is famous for its fertile soil, rich in reservoirs, arable land and pastures.

Today, the development of the agro-industrial complex of the East Kazakhstan region is carried out in accordance with the National project for the development of the agro-industrial complex of the Republic of Kazakhstan

for 2021-2025. And last year, the development of the agro-industrial complex of the region was carried out in accordance with the State Program for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2017-2021.

Depending on the natural and climatic conditions and economic activity in the East Kazakhstan region, dairy and beef cattle breeding, fine-wool and coarse-wool sheep breeding, pig breeding, horse breeding, poultry farming, and beekeeping are successfully developing. Dairy cattle breeding has been developed in Borodulikha, Glubokovsky, Zyryanovsky, Ulansky and Shemonaikha districts.

The agriculture of the region is predominantly livestock oriented, the livestock sub-sector accounts for 60-65% of the gross output of the agricultural sector of the region.

Results. The main branches of specialization of animal husbandry in East Kazakhstan region are: Breeding of cattle, sheep, goats and horses.

In terms of the production of raw milk and meat in slaughter weight, the East Kazakhstan region occupies the first and second places in the country, respectively, concentrating 14-15% of the production volume.

In terms of livestock, the region is among the leaders after Almaty, Kostanay and North Kazakhstan regions.

The fish farms of the East Kazakhstan region, located mainly on Lake Zaisan, produce up to 15% of the republican output of the fishing industry, which is the 4th result in the country after production located on the Caspian and Aral Seas and Lake Balkhash.

East Kazakhstan region is the only producer of deer antlers in the Republic of Kazakhstan. The industry has a high export potential in the countries of the customs union, as the existing production facilities are the basis for the development of the production of immuno-modeling agents for pharmacy and medical and recreational tourism.

East Kazakhstan region concentrates up to 70% of honey production in Kazakhstan and about 97% of the number of breeding bees. Further prospects for the development of the industry are associated both with the intensification of state support for breeding beekeeping, and with the development of exports of beekeeping products to China.

The development of animal husbandry in the East Kazakhstan region in recent years has been characterized by positive trends in production and the number of livestock, but is constrained by a number of factors specific to the development of animal husbandry in general in Kazakhstan. These factors include: The concentration of the proportion of cattle in private household plots; Lack and low quality characteristics of the forage base; Low share of pedigree

cattle in the total livestock in the region; Lack of livestock infrastructure facilities (industrial slaughterhouses, cattle burial grounds); Lack of technical and veterinary personnel in the regions; The underdevelopment of the practice of transhumance, the use of standard grazing and the use of anti-erosion adaptive grasses leads to the development of pasture land desertification processes near settlements. Problems of epizootic control.

The main specialization of crop production in the East Kazakhstan region is the production of sunflower seeds, fruits and vegetables and grain crops. About half of all sown areas fall on cereals and about 35% of the area on oil crops. In terms of sunflower production, the region is the leader in Kazakhstan, concentrating up to 70% of the gross harvest of this product.

In addition, EKR accounts for up to 13% of the gross potato harvest and 7% of vegetables. The share of the region in wheat production does not exceed 4%. The level of gross harvest and yield values for the main agricultural crops vary from year to year and are highly dependent on the accompanying weather and climatic conditions.

The development of crop production in the East Kazakhstan region is based mainly on the use of extensive agricultural technologies focused on the use of natural soil fertility with a very limited use of fertilizers, chemicals and advanced technologies. Only 22% of the cultivated areas are cultivated using moisture-saving technologies. In the region, technologies and terms of cultivation and cultivation of land are not observed, in particular, the share of fallows in the structure of arable land remains at an extremely low level and does not exceed 5-6% on average. There is also a significant need for adapted varieties of major crops.

Despite the fact that the production of fruit crops is quite developed in the region, the level of their retail prices in the region is one of the highest in Kazakhstan. The reasons for this situation include both the actions of a large number of intermediaries in this market, and the lack of technically equipped storage facilities for storing potatoes and vegetables, as well as facilities for their harvesting and processing.

With a fairly developed resource base, the East Kazakhstan region has a strong position in the Republic in the production of a number of food products. In particular, the region produces more than half of the volume of sunflower oil, and for the production of meat and food by-products from it, canned meat, cereals and wholemeal flour, the region concentrates up to 20 republican production.

The processing and conservation of fish is quite developed, the East Kazakhstan region accounts for up to 10% of the republican volume of this product. At the same time, despite the high raw material potential, one can

note a rather low degree of processing of agricultural products, in particular for meat and milk. Only 16% of meat is processed in the region. Also, despite the fact that East Kazakhstan region is the leader in the production of raw milk, only 9% of its volume is processed, which can cover no more than 25% of domestic demand. The processing itself is of a primary nature, while the production of deep milk processing products is almost not represented in the region.

The reasons for this situation include both a high level of obsolescence and physical deterioration of the equipment used, and serious difficulties in collecting primary raw materials.

The proportion of cattle is in the introduction of personal subsidiary plots, which affects both the quality characteristics of raw materials and the level of labor intensity during its collection, including due to a shortage in the area of specialized industrial slaughtering and milk collection points.

The degree of development of the sectors of the agro-industrial complex of the East Kazakhstan region varies greatly from region to region. Plant growing is most developed in the northern and northeastern regions of the region. Livestock, in turn, is concentrated in the western, southwestern and southern regions of the region. An exception is the Urdzhar region, which has a strong position both in crop production and in animal husbandry. It should be noted that the crop-growing northern regions of the region (Borodulikha, Glubokovskiy, Shemonaikha and Zyryanovsky) concentrate a high share of production in pig breeding. Beekeeping farms are also common in the northern regions of the region, antler reindeer husbandry is concentrated in the Katon-Karagai region. Food production is concentrated in the cities of Ust-Kamenogorsk, Semey, as well as in the Ulan region. For individual positions (sunflower oil, sausages), about 20% falls on the Shemonaikha and Urdzhar districts.

In order to systematically develop the agro-industrial complex of the regions and the country as a whole, programs have been adopted at the state level that provide for a number of measures of financial support for agricultural units: the preferential right to lease and receive investment subsidies for the purchase of agricultural machinery and equipment; subsidies for the organization of associations of auditors of agricultural formations, as well as preferential loans by subsidiaries of KazAgro NMH JSC.

At the end of 2021, the gross agricultural output amounted to 878.7 billion tenge, with an increase of 127% compared to 2020, the index of the physical volume of gross agricultural output reached 105.5% (note: in the Republic of Kazakhstan - 97.6%), investments in fixed capital of agriculture - 71 billion tenge with an increase of 180.9%.

In 2021, agricultural producers of the region purchased 1,618 units of agricultural machinery worth more than 17.9 billion tenge, including 508 units purchased through KazAgroFinance JSC for the amount of 7.7 billion tenge. The renewal of agricultural machinery is facilitated by state support measures, as part of the investment subsidy program, 7.3 billion tenge was paid in this direction.

The Agricultural Financial Support Fund (FFAF) has been designated as the main institution responsible for lending to agricultural cooperatives. During the period of its activity, FFAA issued loans for 3.4 billion tenge (about 8 million euros) to 353 agricultural units, 97% of these loans were provided to cooperatives engaged in the production of milk and / or meat.

According to the East Kazakhstan branch of Agrarian Credit Corporation JSC, in 2021, within the framework of various lending programs, agricultural producers of the region were issued loans in the amount of 11.4 billion tenge, 32.8 billion tenge of subsidies were allocated to support the development of the agro-industrial complex last year, including for the development of crop production - 5.6 billion tenge, livestock - 13.6 billion tenge, for investment subsidies - 8.5 billion tenge, the processing industry - 515.5 million tenge, for other areas - 4.5 billion tenge. Allocated funds have been disbursed in full.

Agricultural producers of the region purchased and delivered 4.3 thousand heads of imported breeding breeding stock of cattle at the expense of borrowed funds from the East Kazakhstan branch of Agrarian Credit Corporation JSC, including 3.5 thousand heads of meat directions. In addition, 15.6 thousand heads of breeding domestic breeds of sheep were purchased.

As part of the beef cattle breeding program, three feedlots for 7,000 heads were built in Ulan and Tarbagatai districts.

The region continues to implement measures to increase milk production. Thus, a dairy farm for 100 heads was built in the Kurchum region and a farm for 50 heads was reconstructed in the Katon-Karagay region. In addition, two milk collection points were created in Zharma and Shemonaikha districts with a total capacity of 2.5 tons per day.

Currently, the purchase of milk from the population continues. So, in the past year, 62.6 thousand tons of milk were purchased through 60 milk collection points - this is 100% of the plan. In addition, 69 dairy farms produced and sold for processing (also one hundred percent of the plan) 106.5 thousand tons of milk.

In addition to preferential loans, 50% investment subsidies were provided for collection points for raw milk (up to 2.5 million tenge), refrigerated milk trucks (up to 3.5 million tenge), slaughterhouses (up to 14.3 million tenge for livestock and 3 .5 million tenge per bird), cages for poultry (up to

800,000 million tenge), incubators (up to 3.5 million tenge), equipment (up to 2.5 million tenge), centers for sorting and harvesting vegetables, as well as milking machines.

Subsequently, based on production volumes, funds were paid to cooperatives for the production of beef cattle, milk, lamb and fodder crops (Bashirova A.A. 2017:15).

FFFA carries out guarantee activities within the framework of the State Program for the Development of Productive Employment and Mass Entrepreneurship for 2017-2021 under the Enbek program (loans/microcredits issued by microfinance organizations and credit partnerships in rural areas and small towns). Guarantees for grant recipients are provided free of charge.

In 2017-2019 guarantee agreements were concluded for a total amount of 3,669 million tenge, including: in 2017 - 248 agreements (for 981 million tenge), 2018 - 553 agreements (for 1,615 million tenge), 2019 - 341 agreements (by 1,073 million tenge) (Vishnyakov Ya.D. 2019:32).

As of October 2019, there were 195.7 thousand hectares of irrigated land in the East Kazakhstan region. 152.8 thousand hectares are assigned to economic entities, 43 thousand hectares are in the state land reserve, of which 94.7 thousand hectares of land (62%) were used.

In order to develop irrigated agriculture in the region, together with the Asian Development Bank, a state investment project is being implemented to restore demanded irrigated lands with a total suspended area of 82.2 thousand hectares. This work is being carried out in Kurchum, Tarbagatai, Urdzhar, Zharma, Zaisan, Kokpektinsky districts, the implementation of these projects will expand the area of irrigated land used by 2023 to 173 thousand hectares. Until 2030, it is planned to build 6 new reservoirs in the region with a total irrigated area of 44.5 thousand hectares.

The implementation of these projects will make it possible to put into circulation 379 thousand hectares of agricultural land by 2030 (Voinov V.V. et al., 2018:76).

In the sphere of the agro-industrial complex, state financial support for entrepreneurship is carried out by introducing preferential taxation for agribusiness entities, on cost elements during spring field and harvesting work and by providing investment subsidies:

However, despite the appropriate financial support in the agro-industrial complex, there are a number of problems:

- low availability of loans and subsidies for most agricultural enterprises;
- insufficient binding of subsidies to the final result and specialization of regions;
- lack of due interest of insurance companies and guarantors in the

mechanism of subsidizing insurance and guaranteeing loans to agribusiness entities due to the high credit risks of the industry;

- imperfection of the mechanism for subsidizing the amount of VAT to procurement organizations;

- low level of competition in the financial services market due to the weak representation of private financial organizations in rural areas;

- lack of targeted long-term loans for financing the agro-industrial complex within the framework of cooperation programs of the Government of the Republic of Kazakhstan and international financial organizations;

- high natural and climatic, epizootic, phytosanitary, quarantine, economic risks of the industry;

- lack of sources of long-term funding from private financial institutions;

- the legislation does not allow insurance companies to demand compliance with agricultural technologies and does not provide for the possibility of refusing insurance if the client clearly does not meet the insurance requirements;

- underdevelopment of instruments for guaranteeing the obligations of subjects of the agro-industrial complex;

- limited choice of financial instruments does not allow agricultural enterprises to find new sources of financing (Vitukhin A.D. 2018:76).

Despite the existing problems, the East Kazakhstan region has a significant potential for the development of agro-industrial production.

Today, on the basis of the adopted programs for the development of the agro-industrial complex of the Republic of Kazakhstan, the state provides appropriate support for the provision of legal and financial services.

Due to the pronounced technogenic type of development of the economy of the East Kazakhstan region, the state of the environment in some local points, despite the richness of the nature of the region as a whole, is in a critical state compared to any other region of Kazakhstan. Environmental problems are associated primarily with the anthropogenic impact of industry and have a negative impact on the migration outflow of the population and the unfavorable attitude of the population towards industrial facilities in general. According to the NGO "Center for the Development of Local Self-Government", 85% of the surveyed residents associate the deterioration of health with the environmental situation in the East Kazakhstan region. If we structure the environmental problems of the East Kazakhstan region, we can single out: air pollution; pollution of water resources; radioactive contamination; accumulation of industrial and household waste (Electronic resource.- 2019:06).

150 thousand tons of pollutants are emitted into the atmosphere of the

region annually, the main pollutants are sulfur dioxide, carbon monoxide, nitrogen oxides, heavy metals. This problem is especially acute in the cities of Ust-Kamenogorsk and Ridder. Ust-Kamenogorsk accounts for more than 40% of all emissions, and the sources of pollution (3 large metallurgical plants) are located within the city, in close proximity to the residential area. In Ridder, the main pollutant is the lead plant, and the gas is released in one gulp, it is during this period of time that the concentration of harmful substances is the highest. There are also significant emissions of pollutants into the atmosphere. Semey, Zyryanovsk, pos. Deep.

Discussion. Pollution of surface waters in the region with heavy metals continues to be high. R. Ertis, Oba, Emel and lake. Markakol are considered moderately polluted water bodies, the rivers are polluted. Breksa, Ulba, dirty - r. Quiet, Glubochanka; extremely dirty - r. Krasnoyarka is the only body of water in Kazakhstan that has this characteristic. The main reasons for this situation are as follows: Existing industrial production of the mining industry and thermal power engineering.

Every year, about 250 million cubic meters are discharged into surface water bodies. Wastewater. Pollution of surface and ground waters by unreclaimed overburden dumps, tailings, mines and adits located in water protection zones of reservoirs. Transboundary pollution of the Irtysh River. According to the boundary gauge, the water from China comes moderately polluted, and remains so throughout the river to the border with Russia (Kaidarova, L.K. 2019. -1. - P.121-129).

The main principle of the development of the agro-industrial complex of the East Kazakhstan region should be the greening of all measures for the development of agriculture, taking into account the natural features of the functioning of land resources. And already in accordance with this principle, with an orientation towards it, measures should be taken for mechanization, chemicalization, land reclamation, and the introduction of scientific and technological progress.

The most important direction in solving the problem of sustainable development of agriculture and the entire agro-industrial complex is to ensure simple and expanded reproduction of natural soil fertility. Ways to implement this direction should be envisaged when developing a subprogram for the greening of agriculture. It should include the fight against soil erosion, the use of organic fertilizers, agroforestry, cultural and technical reclamation, grass seeding, liming of acidic soils, minimization of technogenic impact on soils, soil protection technologies, biological methods of plant protection, optimal crop rotations, clean fallows, etc. These are “soft” measures to improve

soil quality, they do not make drastic changes in the ecological balance of agroecosystems.

The second component of the agro-industrial complex greening program is a subprogram for the accelerated development of the production and marketing sector, the implementation of which will improve the use and eliminate the loss of agricultural raw materials. Accelerating the development of infrastructure (roads, storage, trade, etc.) and processing industries (food and light) is important for stabilizing the environmental situation and solving the food problem.

Currently, the losses caused by the lag in the development of infrastructure and the processing industry are 20-30%. This means that an equivalent part of the natural resources of the agro-industrial complex used for the production of lost products is ultimately used irrationally (Shkuratov, A.I. 2017:225).

Conclusion. The resource-saving way of developing the agro-industrial complex based on the accelerated development of infrastructure and the processing industry seems to be the most effective in the short term due to the worsening situation in agriculture. In the coming years, it is necessary to withdraw from active use tens of millions of hectares of agricultural land, which have been especially heavily affected by anthropogenic impact and negative natural processes.

In essence, forcing the development of the production and marketing sphere of the agro-industrial complex is an alternative option for solving environmental problems in agriculture, a kind of compensation program in relation to natural resources. To conserve land and water resources, greater use should be made of such alternatives to increase final consumption.

An important result of the greening of the development of the agro-industrial complex should be the stabilization and reduction in the use of land and water resources with an increase in the final results of production (Kaidarova, L.K. 2019. :129).

The intensification, redistribution and concentration of part of the means of production in the agro-industrial complex make it possible to compensate for the reduction in land resources by increasing the final output of products.

The principles of ecological agriculture require agricultural producers to reconsider approaches to the production of agricultural products, at the same time, the state must create favorable conditions to stimulate this development. States developing ecological agriculture should allocate funds to support eco-producers with grants and subsidies, promote the development of ecological innovations

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REFERENCES:

Arynova Z.A. Agrarian sector memlekettik koldaudyn memlekettik retteudin elements retinde kazhettilig zhane roli / Z.A. Arynova, L.K. 2020:17.

Bashirova A.A. Ecological innovations in agriculture: place and role in the system of innovations / A.A. Bashirova, G.M. Gimbatov // Regional problems of transformation of the economy. - 2017. - No. 6. - P.11-15.

Code of the Republic of Kazakhstan dated January 9, 2007 No. 212 "Environmental Code of the Republic of Kazakhstan" [Electronic resource].- 2007.- URL: http//www.adilet.zan.kz (date of access: 06/08/2020).

Kaidarova // Problems of the agricultural market. -2017. - No. 1. - B.71-78. Kaidarova, L.K. Ecologization of the production of the food industry of the Republic of Kazakhstan / L.K. Kaidarova, Sh.Zh. Rakhmetullina // Problems of the agro market. -2019. -#1. - P.121-129.

National report on the transition of the Republic of Kazakhstan to a green economy for 2017-2018 (draft). Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan. International Center for Green Technologies and Investment Projects [Electronic resource].- 2019.- URL: http//www.igtipc.org (date of access: 06/09/2020).

Statistical compendium “Agriculture, forestry and fisheries in the Republic of Kazakhstan. Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan [Electronic resource].- 2018.-URL: http//www. stat.gov.kz (date of access: 06/09/2020).

Shkuratov A.I. Strategic imperatives of environmental safety management in the agrarian sector of the economy / A.I. Shkuratov // Issues of state and municipal management. - 2017. - No. 4. - S. 207-225.

Vishnyakov Ya.D. Ecologically oriented development of agro-industrial enterprises and advanced training of personnel in the field of agroecological management / Ya.D. Vishnyakov, S.P. Kiseleva, L.V. Makolova, V.V. Pham, H.T. Wu // Management. -2019. - No. 2. - S. 24–32.

Voinov, V.V. Development of ecological agriculture in Germany / V.V. Voinov // International Student Scientific Bulletin. - 2018. - No. 3-S. 1208–1210.

Vitukhin A.D. Foreign experience of environmental and economic regulation and assessment of damage from environmental pollution (on the example of Europe, the USA, Japan) / A.D. Vitukhin // Problems of the market economy. – 2018. - No. 4. - S. 69-76.

МАЗМҰНЫ

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