ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

Х А Б А Р Ш Ы С Ы

ВЕСТНИК

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

THE BULLETIN

OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

1944 ЖЫЛДАН ШЫҒА БАСТАҒАН
ИЗДАЕТСЯ С 1944 ГОДА
PUBLISHED SINCE 1944

1

АЛМАТЫ
АЛМАТЫ
ALMATY

2018

JANUARY
ЯНВАРЬ
ҚАҢТАР

NAS RK is pleased to announce that Bulletin of NAS RK scientific journal has been accepted for indexing in the Emerging Sources Citation Index, a new edition of Web of Science. Content in this index is under consideration by Clarivate Analytics to be accepted in the Science Citation Index Expanded, the Social Sciences Citation Index, and the Arts & Humanities Citation Index. The quality and depth of content Web of Science offers to researchers, authors, publishers, and institutions sets it apart from other research databases. The inclusion of Bulletin of NAS RK in the Emerging Sources Citation Index demonstrates our dedication to providing the most relevant and influential multidiscipline content to our community.

Қазақстан Республикасы Ұлттық ғылым академиясы "ҚР ҰҒА Хабаршысы" ғылыми журналының Web of Science-тің жаңаланған нұсқасы Emerging Sources Citation Index-те индекстелуге қабылданғанын хабарлайды. Бұл индекстелу барысында Clarivate Analytics компаниясы журналды одан әрі the Science Citation Index Expanded, the Social Sciences Citation Index және the Arts & Humanities Citation Index-ке қабылдау мәселесін қарастыруда. Web of Science зерттеушілер, авторлар, баспашылар мен мекемелерге контент тереңдігі мен сапасын ұсынады. ҚР ҰҒА Хабаршысының Emerging Sources Citation Index-ке енуі біздің қоғамдастық үшін ең өзекті және беделді мультидисциплинарлы контентке адалдығымызды білдіреді.

НАН РК сообщает, что научный журнал «Вестник НАН РК» был принят для индексирования в Emerging Sources Citation Index, обновленной версии Web of Science. Содержание в этом индексировании находится в стадии рассмотрения компанией Clarivate Analytics для дальнейшего принятия журнала в the Science Citation Index Expanded, the Social Sciences Citation Index и the Arts & Humanities Citation Index. Web of Science предлагает качество и глубину контента для исследователей, авторов, издателей и учреждений. Включение Вестника НАН РК в Emerging Sources Citation Index демонстрирует нашу приверженность к наиболее актуальному и влиятельному мультидисциплинарному контенту для нашего сообщества.

«Қазақстан Республикасы Ұлттық ғылым академиясының Хабаршысы».
ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)
Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы»РҚБ (Алматы қ.)
Қазақстан республикасының Мәдениет пен ақпарат министрлігінің Ақпарат және мұрағат комитетінде 01.06.2006 ж. берілген **№5551-Ж** мерзімдік басылым тіркеуіне қойылу туралы куәлік

Мерзімділігі: жылына 6 рет.
Тиражы: 2000 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., 220, тел.: 272-13-19, 272-13-18,
www: nauka-nanrk.kz, bulletin-science.kz

Типографияның мекенжайы: «Аруна» ЖК, Алматы қ., Муратбаева көш., 75.

«Вестник Национальной академии наук Республики Казахстан».
ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)
Собственник: РОО «Национальная академия наук Республики Казахстан» (г. Алматы)
Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан **№5551-Ж**, выданное 01.06.2006 г.

Периодичность: 6 раз в год
Тираж: 2000 экземпляров

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219, 220, тел. 272-13-19, 272-13-18.
www: nauka-nanrk.kz, bulletin-science.kz

Адрес типографии: ИП «Аруна», г. Алматы, ул. Муратбаева, 75

Bulletin of the National Academy of Sciences of the Republic of Kazakhstan.
ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)
Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)
The certificate of registration of a periodic printed publication in the Committee of Information and Archives of the Ministry of Culture and Information of the Republic of Kazakhstan N 5551-Ж, issued 01.06.2006

Periodicity: 6 times a year
Circulation: 2000 copies

Editorial address: 28, Shevchenko str., of. 219, 220, Almaty, 050010, tel. 272-13-19, 272-13-18,
http://nauka-nanrk.kz /, http://bulletin-science.kz

Address of printing house: ST "Aruna", 75, Muratbayev str, Almaty

BULLETIN OF NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN
ISSN 1991-3494
Volume 1, Number 371 (2018), 118 – 126

UDC 336.531.2:439 (510)

A. S. Baidalinova[1], A.M. Uakhitzhanova[1], Zh. Nurlankyzy[2]

[1]JSC "Financial Academy", Astana, Kazakhstan,
[2]JSC «S. Seifullin Kazakh Agrotechnical University», Astana, Kazakhstan.
E-mail: aynur.sultanovna@mail.ru; All_999@mail.ru; zhiba_22@mail.ru

STATE SPONSORSHIP OF AGRICULTURE – AN INITIAL CONDITION OF PROVIDING OF FOOD SAFETY OF THE COUNTRY (ON THE EXAMPLE OF SOUTH KOREA)

Abstract. The article considers the problem of ensuring food security and the role of public financial support as important conditions of its providing. Currently, the national food system trends impact on a planetary scale, contributing to the formation of potential threats to food security and the need for state financial support to the agricultural sector of the economy. The role of the state is considered in providing of food safety on the example of South Korea.

Key words: agriculture, food safety, investments, subsidies, state financing, import, export.

There is no doubt that the problem of food safety is important for any country and on the different stages of socio-economic development. Its providing is necessary not only with economic but also with social and political positions. The key problems of the economy, the real tendencies of development of agricultural production, food market, changes its degree of dependence on the world market, the social situation, solvency of the population as a whole and consumers in different regions are connected in the field of food security of the state.

Presently the tendencies of planetary scale impact on national food systems, stipulating forming of potential threats of food safety and necessity of state sponsorship of agrarian sector of economy. Economists and politicians name the number of arguments of a global nature in favor of such support.

Hasty economic growth and increase of population in many countries with developing economy. Passing ahead rates of height of solvent demand of population on food as compared to suggestion in such countries, as China, India, Brazil and other new industrially developed states, are violated balance in the global food system. As you know, demand, exceeding supply, conduces to the price advance. A price increase on food undermines the process of development of country, that causes slowing down of increase of production of agricultural goods, especially in the economically developed countries, which are its basic exporters. Thus world demand on food will always increase, as a population annually increases by 80 million people or by 1.4 % [1, p. 13]. About the same, the number of poor and hungry people annually increases. They become more every year, and food is less. In addition, the increase of prices on food exacerbates poverty, there are increases in social tensions and stratification of society.

Accelerated development of production and use of biofuels. The use of agricultural raw material for the production of liquid biofuels assists the height of demand on an agricultural produce, and also influences to the markets of other agricultural commodities. The height of production of biofuels not only has influence on the costs of the agricultural cultures, used for its production, but also conduces to the origin of potential connection between price changes on oil and agricultural raw material for an industrial production and other food stuffs. We will note that in recent years, price advance on oil is contributed to price increase on such food cultures, as wheat, corn, seed of oil-bearing cultures, and is resulted in retail price advance on basic food stuffs.

The rapid development of the production and use of biofuels is caused a reduction in food supplies on the world market, especially grain, which is a basic food product, not renewable due to the increase of agricultural production in the countries-importers. In recent years in foreign countries farmers mass abbreviate the sowing areas of food grain-crops in behalf on a corn and rape. About 80 % of EU biofuel is produced from rape. Among developing countries a leader in its production due to the grown cheap sugar-cane is Brazil. It is expected that world production of ethanol and biodiesel will increase rapidly [2, p. 548].

Reduction of level of world supplies of food, and, first of all, transitory supplies of grain.

The global change of climate. Over the past 100 years, the average global temperature on earth has increased by 0.3–0.6°C. In the future, as it is expected to rise by 1.5–4.5°C. The global change of climate will substantially influence on agriculture and cattle breeding, will strengthen degradation of soil and water resources, will considerably hamper providing of food safety. The increase of average annual temperature can lead to a reduction of the global volume of food production and cause the increase of prices. Thus, the decline of amount of fallouts and productivity is forecast in the countries of south group, and in the countries of north group, the productivity can grow.

Thus, the considered modern global calls of food safety are major arguments in behalf on the necessity of state sponsorship of agrarian sector of economy.

In this connection, the actual is a study of experience of foreign countries in area of financing of development of agriculture for providing of food safety of national economy. We will consider experience of South Korea in financing of agrarian sector of economy.

The structural transformation of Korea's agriculture was pursued with the rapid growth in Korea's economy and industrialization in the late 1960s, and also through the interaction between the agricultural and manufacturing sectors. The acceleration of urbanization due to economic growth led to an increase in the demand for agricultural products, and the farmers awakened witnessing the development of manufacturing and other industrial sectors, and the relevant advanced technologies were spread to the agricultural sector [3, 4].

Investment in social overhead capital such as roads, in the process of economic development, led to easier transportation of agricultural products, and the supply of farming materials such as fertilizers, thanks to the development of industry, contributed to the enhancement of agricultural productivity.

Korea's agricultural and rural development went through a 3-staged development process as seen in table 1. From the 1960s to 1970s, in the early stage of development during the pursuit of sustainable economic growth, the government directed policy concentrating on food production and self-sufficiency in staple grains to address food shortages and poverty [5-8]. From the 1980s to mid – 1990s, in the latter stage of development, the government focused on the enhancement of agricultural productivity, increasing agricultural household income, and the improvement of the agricultural structure. After 2000, Korea's agriculture entered the 'global era' and faced the new environment of market opening and trade liberalization in agricultural products, and the government had to go through a major transformation in its policies such as reducing subsidies on agricultural products [9].

Table 1 – Agricultural development of Korea by period

	Earlier Development (1960s–1970s)	Later Development (1980s–1990s)	Globalization Era (2000s–)
Economic policy	Poverty reduction Self-reliance econom	Economic growth Industrial developmen	Economic maturation Knowledge-based society
Goal of agricultural development	Agricultural production Self-sufficiency in staple food-grains	Enhancing agricultural productivity Creating farmers' income	Strengthening agricultural competitiveness Enhancing quality of rural life
Strategy of agricultural Developmen	Seed improvement, Technology development and extension Food production	Fostering commercial farms Increasing off-farm income	Promoting sustainable agriculture Integrated rural development
Source: KSP team based on the literature.			

Korea's agriculture experienced a rural exodus due to rapid economic development in the 1970s, but managed to respond to the reduction in the rural workforce by increasing capital investment [5, 6]. In other words, without major changes in land input, the government increased the input of intermediary goods along with the input of capital. From 1970 to 2012, total agricultural output increased annually with the slow relative increase rate of output. As result, Korea's actual labour productivity per household in agriculture was KRW 2,465 per hour in 1970 and KRW 13,972 per hour in 2012, showing an increase index with 5.67 times in table 2.

Table 2 – Trend of agricultural productivity in Korea

	1970	1980	1994	1995	2000	2010	2012
Labor productivity per household (KRW/hour)	2,465	3,506	10,540	9,593	11,017	15,480	13,972
(index)	(100)	(142)	(427)	(389)	(46)	(628)	(567)
Source: NH Economic Research Institute 2013.							

Continuous public investment in agricultural and rural development areas led to support in agricultural development and structural transformation. When formulating budgets, the government strengthened investment in agricultural infrastructure, such as the consolidation of arable land and agricultural irrigation, and conducted a dual pricing system for rice production with the aim of achieving income stability, higher production motivation for farmers, and the stabilization of inflation. In Korea's agricultural development and structural transformation, the improvement and strengthening of agricultural cooperatives' functions led to a nationwide agricultural financing and rural household credit system [10].

As a result of 40-year-long comprehensive economic and agricultural development projects undertaken since the 1960s, Korea could achieve a remarkable agricultural structural transformation as well as economic development as seen in Table 3. Due to economic growth, the rural population ratio of the total population was reduced from 58.2% in 1960 to 8.6% n 2000, and the agricultural production proportion of GDP was reduced from 36.8% in 1960 to 4.9% in 2000 [11].

Moreover, the agriculture employment ratio was reduced from 63% in 1960 to 10.5% during the same period. Concurrently, due to the restructuring of farmland, cultivation area per agricultural household increased from 0.9 ha per household in 1960 to 1.4 ha per household in 2000 [12].

Compared to other advanced countries, Korea's agriculture went through a relatively drastic structural transformation in a short period of time. The structural transformation was accelerated with market internationalization and opening that started in the 1990s. As seen in Table 3, agricultural structural transformation in advanced countries was achieved gradually over 40 to 70 years; in Korea, however, this was achieved within 25 years along with industrialization. Dramatic growth in Korea's economy enabled rapid structural transformation in agriculture; even though the contribution of agriculture to the nation's economy has decreased dramatically [13].

Table 3 – Korea's economic development and agricultural structural transformation

	1960	1980	2000
Economic growth rate (annual average, %)	2,3	-1,7	8,9
Per capita GDP (USD)	79	1,713	11,951
Proportion of rural population (%)	58,2	28,4	8,6
GDP share of agricultural production (%)	36,8	16,2	4,9
Proportion of employment in agriculture (%)	63,0	34,0	10,5
Cultivated acreage per farm household (ha)	0,9	1,0	1,4
Source: Korea Rural Economy Institute, National Statistics Office, and the Bank of Korea.			

Korea pursued government-led policies to effectively achieve the goals of agricultural development, which were the reduction of poverty and increase of agricultural productivity, responding to potential possibilities or market failure during the early stage of agricultural development [5,8]. In general, agriculture that depends highly on the natural environment is regarded as an infant industry with relatively more possibility of market failure than other industries. The following elements could lead to potential market failures in agricultural development:

Uncertainties of agricultural economy and imperfect competition:

- Unstable prices due to non-elasticity of supply and demand of agriculture
- The nature of public goods of agricultural infrastructure such as irrigation
- Public service taking charge of agricultural R&D and extension
- Disparity of income between agriculture and non-agriculture, urban and rural areas
- Asymmetric information of farmers and the limitations of their bargain power

In the early stages of agricultural development in Korea, agricultural development policies were carried out under the government's initiative in order to achieve the goals of agricultural development in a short period of time and visible progress in agricultural structural transformation, while responding to the abovementioned elements, with the possibilities of market failure [14].

In particular, among the factors above, market functions were ineffective in: 1) building agricultural infrastructure such as irrigation facilities, 2) R&D and extension system of agricultural technologies, and 3) policies to alleviate the income reason, Korea pursued government-led policies and strengthened public investment for effectively responding to potential market failure.

The agricultural development policy was, in part, consistent with the government-led national development strategy to overcome poverty and achieve sustainable growth in a short period of time [15].

However, in terms of overall economic or agricultural development policies, Korea did not focus only on government- led policies. In the early stages of development, Korea had scarce resources to work with, the domestic markets were small, and purchasing power was low due to low income levels. In order to overcome these limitations, the Korean government carried out government-led policies to enhance efficiency in resource allocation responding to potential market failure. Finally, Korea's economic policy, including agricultural policy, could be defined as a mixed-economy policy, tuning and harmonizing market functions in certain areas when required.

Korea achieved the goals of agricultural development, the increase of agricultural productivity and the self-reliance of staple food, through government–led agricultural policy during the early stage of development. However, it experienced several cases of price distortion and the impact of fiscal deficit where the government intervened in agricultural policies. Examples of price distortion brought about by governmental intervention can be found in subsidies for agricultural inputs such as fertilizer and machinery [10]. The Korean government supported a subsidy of approximately 20% for fertilizer in 1970s, which resulted in a great increase of agricultural productivity through the increased input of fertilizer. The subsidy policy, however, also brought about a shortage of financing and inevitable borrowing of currency from the Central Bank.

In this regard, Korea pursued government-led policy to achieve the goal of agricultural policy; to increase agricultural productivity and to release the food shortage, even though it allowed side effects to some extent, such as price distortion and the impact of fiscal deficit from government intervention

South Korea has experienced rapid industrialization resulting in a radical decline in agriculture. Food insecurity in South Korea is rooted in its heavy reliance on food importation and price volatility of staple foods. Food security policies have focused externally on establishing overseas grain production and securing alternative channels for grain importation [16].

Alarmed over a surge in global food inflation, Korea is ratcheting up its efforts to safeguard against price volatility and secure a stable supply.

The government and companies are joining hands to expand the country's overseas farming bases, establish a direct import channel and modernize agricultural production and distribution.

Fear about a food crisis has gripped the world in recent years as exploding demand, bad weather and speculative commodity investments combined to lift grain prices [17].

Among the countries hit was Korea, one of the world's largest importers of agricultural produce. The country's food supply has been further dampened by its worst outbreak of foot-and-mouth disease.

The government has recently advanced its plan to operate a grain trading firm in Chicago for direct importation and is expediting work to expand domestic grain stocks and boost investment in overseas farmland.

Experts call for bolder, better-informed strategies, increased funding and closer public-private sector cooperation, in order to cope with the cutthroat competition among countries to secure agricultural land and the global dominance by a few multinational behemoths [18].

Korea imports a majority of key grain products except rice. As of 2009, its self-sufficiency rates for wheat, corn and soybeans were 0.5 percent, 1 percent and 8.4 percent, respectively, government data showed.

The figure for grain in general currently stands at a mere 26.7 percent. In stark contrast, nations such as the U.S., China and Germany have kept their rates at around or greater than 100 percent – Korea ranks near the bottom among OECD nations [19].

The most urgent task, experts agree, is an early establishment of a stable international procurement system.

Last year's grain imports reached 14.2 million tons – corn with 9 million tons, wheat 3.7 million tons and soybeans 1.5 million tons – all from major agro-food groups that reign over the market oligopoly.

Cargill and ADM account for nearly half of Korea's imports of corn, wheat and soybeans, according to Samsung Economic Research Institute. The ratio goes beyond 70 percent if combined with Bunge, France's Louis Dreyfus SAS and Japanese traders such as Marubeni Corp. and Mitsubishi Corp. [20].

The limited range of dealers, coupled with heavy dependence on imports, further exposes the country to international price volatility.

The state-run Korea Agro-Fisheries Trade Corp. (aT) is set to open an agricultural trading firm in Chicago on March 31 in cooperation with Samsung C&T, CJ CheilJedang Corp., STX Corp. and Hanjin Transportation Co., Ltd.

The establishment, expected in May, has been pushed forward amid global instability and mounting public anxiety over inflation.

Under the public-private partnership, aT plans to invest 20 billion won ($17.8 million) and the four firms together will pump 25 billion won into the project this year, officials said.

The project is aimed at supplying up to 30 percent of Korea's grain needs, or 4 million tons, by gradually raising the amount of dealings over a 10-year period through 2020.

The total budget is estimated at about 240 billion won, of which 95 billion won will come from aT.

The operators plan to import 5 million tons of corn and soybeans each and purchase a grain elevator at a U.S. production site this year.

The 2017 Global Food Security Index provides a worldwide perspective on which countries are most and least vulnerable to food insecurity and how resource risks increase vulnerability [21].

The Economist Intelligence Unit's Global Food Security Index (GFSI), sponsored by DuPont, provides a common framework for understanding the root causes of food insecurity by looking at the dynamics of food systems around the world. It seeks to answer the central question: How food-secure is a country?

The Global Food Security Index considers the core issues of affordability, availability, and quality across a set of 113 countries. The index is a dynamic quantitative and qualitative benchmarking model, constructed from 28 unique indicators, that measures these drivers of food security across both developing and developed countries.

This index is the first to examine food security comprehensively across the three internationally established dimensions. Moreover, the study looks beyond hunger to the underlying factors affecting food insecurity. This year the GFSI includes an adjustment factor on natural resources and resilience. This new category assesses a country's exposure to the impacts of a changing climate; its susceptibility to natural resource risks; and how the country is adapting to these risks [22].

Food security is defined as the state in which people at all times have physical, social and economic access to sufficient and nutritious food that meets their dietary needs for a healthy and active life.

Using this definition adapted from the 1996 World Food Summit, the Global Food Security Index considers the core issues of affordability, availability, and quality across a set of 113 countries. The index is a dynamic quantitative and qualitative scoring model, constructed from 28 unique indicators, that

measures these drivers of food security across both developing and developed countries. The overall goal of the study is to assess which countries are most and least vulnerable to food insecurity through the categories of Affordability, Availability, and Quality and Safety. The index also looks at the impact that Natural Resources & Resilience have on food security [23].

While food security research is the subject of many organisations worldwide, this effort is distinct for a number of reasons. This index is the first to examine food security comprehensively across the three internationally established dimensions. Moreover, the study looks beyond hunger to the underlying factors affecting food insecurity [24].

This index includes the following categories:

Affordability - Measures the ability of consumers to purchase food, their vulnerability to price shocks and the presence of programmes and policies to support customers when shocks occur [25].

Availability – Measures the sufficiency of the national food supply, the risk of supply disruption, national capacity to disseminate food and research efforts to expand agricultural output.

Quality & safety – Measures the variety and nutritional quality of average diets, as well as the safety of food.

Natural Resources and Adjustment – Assesses a country's exposure to the impacts of climate change; its susceptibility to natural resource risks; and how the country is adapting to these risks [26, 27].

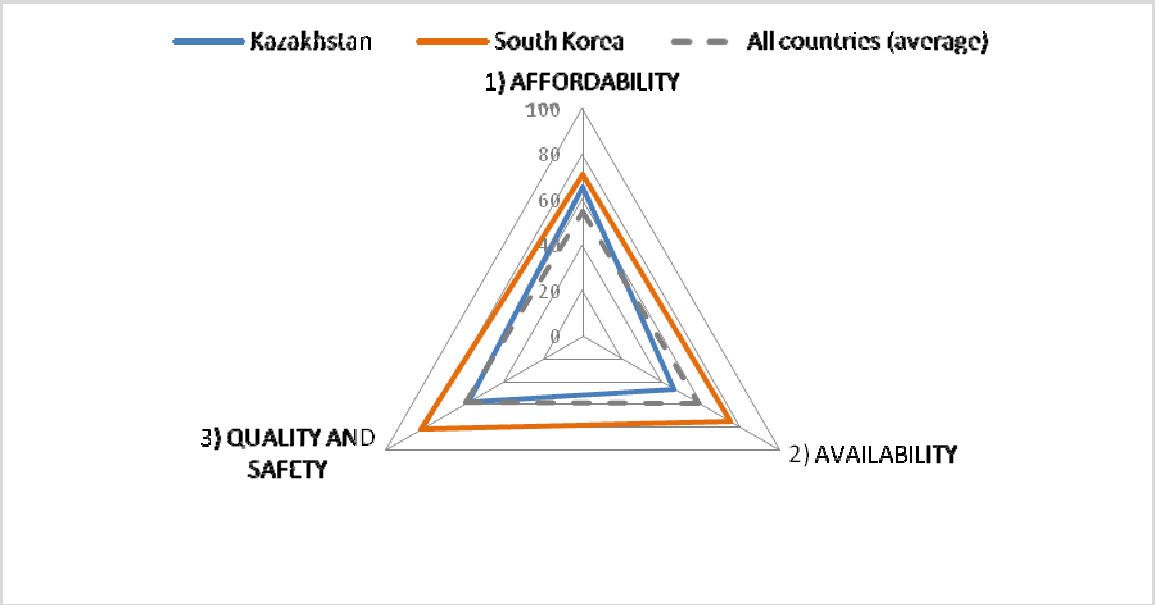
We will conduct the comparative analysis of Kazakhstan and South Korea on the index of food safety, according to the presented methodology.

Table 4 – The global index of food safety of Kazakhstan and South Korea on the state on September, 2017

Category	Score			Rank	
	Kazakhstan	South Korea	All countries (average)	Kazakhstan	South Korea
OVERALL	56,0	74,7	57,3	60	=24
1) AFFORDABILITY	65,5	71,2	54,8	45	35
2) AVAILABILITY	46,7	75,2	59,0	=90	22
3) QUALITY AND SAFETY	57,8	81,9	58,7	58	17
1.1) Food consumption as a share of household expenditure	48,4	88,0	58,6	73	18
1.2) Proportion of population under global poverty line	99,7	100,0	73,0	33	1
1.3) Gross domestic product per capita (US$ PPP)	16,6	24,9	14,5	38	28
1.4) Agricultural import tariffs	83,8	6,2	76,4	29	112
1.5) Presence of food safety net programmes	100,0	100,0	65,5	1	1
1.6) Access to financing for farmers	75,0	100,0	61,3	40	1
2.1) Sufficiency of supply	55,6	84,6	56,5	55	21
2.2) Public expenditure on agricultural R&D	0,0	50,0	15,0	62	8
2.3) Agricultural infrastructure	51,9	80,6	57,6	=59	=18
2.4) Volatility of agricultural production	56,2	94,2	86,2	112	32
2.5) Political stability risk	23,5	52,9	46,8	93	40
2.6) Corruption	0,0	50,0	37,4	90	25
2.7) Urban absorption capacity	64,9	72,3	66,6	78	27
2.8) Food loss	85,3	88,0	84,9	76	62
3.1) Diet diversification	73,2	64,3	56,4	33	44
3.2) Nutritional standards	0,0	100,0	79,1	=111	=1
3.3) Micronutrient availability	54,4	80,9	43,9	=42	1
3.4) Protein quality	55,5	76,2	49,4	46	23
3.5) Food safety	94,0	98,0	80,5	60	=46

Food safety is estimated from 0 to 100, where 100 is the best index. A rating estimation is conducted for to 113 countries, where 1 is the best index [28].

As be obvious from data of table 4 and picture 1 Kazakhstan on the majority categories of global index of food safety yields to South Korea, except presence of food safety net programmes.



The Global index of food safety of Kazakhstan and South Korea on the state on September, 2017

Necessity of providing of food and economic safety of country, satisfactions of necessities of population in foodstuffs and height of socio-economic efficiency of agriculture pull out the task of increase of competitiveness of domestic agroindustrial complex on the first plan. Without a high-efficiency and competitive agroindustrial production the decision of many primary and strategic concerns is impossible on development of economy of country and forming of the civilized agrofood market [29, 30].

Therefore, until in agroindustrial complex of Kazakhstan the sufficient inflow of investments is not provided with the purpose of realization of scale modernisation and reconstruction of agricultural production, technical and technological lag will be saved in industry, consequently, a problem of increase of competitiveness will be especially actual. At the same time, the most important conditions affecting competitiveness are [2]:

- it is positioning in the world market (stake of export in producing and her loud speaker);
- it is positioning at the internal market (stake of import at the market and its loud speaker);
- it is the technological level of industry, expressed in size of the accumulated investments and quality descriptions of powers;
- it is a level of concentration on markets, that suffices for a successful competition with world companies - leaders in corresponding industries;
- it is material well-being by the source of raw materials, development of co-operation, historical "attachment" of consumers to the producers.

REFERENCES

[1] Altukhov A. World food crisis: reasons of origin and problem of overcoming // Agroindustrial complex: economy, management. 2010. N 2. P. 3-25.

[2] Dadalko V.A. Food safety: national interests, problems, tendencies, риски, prospects / V. A. Dadalko, E. R. Mikhalko, A. V. Dadalko. Minsk: ICC of Ministry of finance, 2011. 696 p.

[3] Economic Planning Board (1982), Economic Policy of Development Era : 30 Years History from 1961-1980, Economic Planning Board.

[4] Economic Planning Board (1994), Economic Policy of the Liberal Open Era: 30 years history from 1981-1992, Economic Planning Board

[5] Lee D.P. (1999), 50 Years of Agricultural Administration of Korea II, 1999, Ministry of Agriculture and Forestry.

[6] Lee J.H. (1997), "Transformation of Agricultural Structure: Its Beginning and Ending", KREI Research Series 21.

[7] Mosher A.T. (1966), Getting Agriculture Moving; Essentials for development and modernization, The Agricultural Development Council. Frederic A. Prager Publishers, New York, Washington, London.

[8] Wharton C.R. (1963), "Research on Agricultural Development in Southeast Asia", Journal of Farm Economics, 45 (5): 1161-1174.

[9] Economic Planning Board, (April 29, 1977), Rationalization of the Grain Management Fund, The Bank of Korea.

[10] Shimeles A., Gurara D.Z., Birhanu D.T. (2015), "Market distortions and political rent: The case of fertilizer divergence in Africa",IZA Discussion Paper, 8998, Institute for the Study in Labor (IZA).

[11] World Bank (2015), World Development Indicators, The World Bank: Washington, DC. Accessible at: http://data.worldbank.org/indicator.

[12] Whan C.K. (2015), International Standard Model of Saemaul Undong, Korea Institute for Rural Development. AfDB (2013), Diversifying and expanding the sources of economic growth and opportunity in a manner that promotes greaterproductivity for sustained and inclusive economic development, AfDB Structural Transformation in Africa, 2013 Annual Meeting.

[13] Africa Union Commission (AUC) (2014a), Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods, Africa Union Commission.

[14] African Union Commission (AUC) (2014b), Implementation Strategy and Roadmap to Achieve the 2025 Vision on CAADP: Operationalizing the 2014 Malabo Declaration on Accelerated African Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihood, National Planning Authority.

[15] Bank of Tanzania (2011), Monthly economic review report, Bank of Tanzania.

[16] Bhargava A.K. (2015), "Natural Resource Impacts on Rural Livelihood: An Analysis of Land Degradation and Living Standards in Tanzania", Paper presented at the STAARS Conference, December 4-5, 2015, Addis Ababa.

[17] Central Intelligence Agency, The World Fact Book (https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html).

[18] Mekonnen D.A., Gerber N., Matz J.A. (2015), "Social networks, agricultural innovations and farm productivity in Ethiopia", Paper presented at the STAARS Conference, December 4-5, 2015, Addis Ababa.

[19] Ravnborg H.M., Bashaasha B., Pedersen R.H., Spichiger R., Turinawe A. (2013), "Land Tenure under Transition: An empirical analysis of tenure security, land institutions and economic activity in Uganda", DIIS Working Paper, N.3.

[20] Deininger K., Ali D.A. (2008), "Do Overlapping Land Rights Reduce Agricultural Investment? Evidence from Uganda", American Journal of Agricultural Economics, 90 (4): 869-882.

[21] Munyambonera E., Nampewo D., Adong A., Mayanja M. (2012), "Access and Use of Credit in Uganda: Unlocking the Dilemma of Financing Small Holder Farmers", Economic Policy Research Center (EPRC) and Global Development Network, Policy Brief Issue, No.25.

[22] Bachewe F. (2015), "Is the Green Revolution Coming to Africa? Assessing the Evidence in Ethiopia", Paper presented at the STAARS Conference, December 4-5, 2015, Addis Ababa.

[23] ISF (2014), "The Role of Government in Developing Agricultural Finance: A Look at the History of Germany, the US, and South Korea", The Initiative for Smallholder Finance Briefing 04, June 10, 2014. IMF, 2014, Country Report No.14/May, IMF.

[24] Diao X., Kweka J., McMillan M., Qureshi Z. (2015), "Should small business part of an growth strategy? Macro and Micro evidence for Tanzania", Paper presented at the STAARS Conference, December 4-5, 2015, Addis Ababa.

[25] Jun C.-G. (2002), Current Situation and Problem of Agricultural Wholesale Market, Korea Rural Economic Institute.

[26] KDI School (2013), Institutionalization of the Informal Credit Market and Financial Inclusion in Korea, KDI.

[27] Wondemu K. (2015), "Decomposing Sources of Productivity Change in Small Scale Farming in Ethiopia", Paper presented at the STAARS Conference, December 4-5, 2015, Addis Ababa.

[28] Koh Y.K. (2014), Understanding on Agriculture of Uganda and KOICA's strategy, KOICA Uganda Office.

[29] Korea Development Institute (1981), 40 Years of Korea's Finance, Korea Development Institute.

[30] Korea Institute for Development Strategy (2011), Establishment of an Innovative National Development Framework and Orientation of a New Development Strategy for DR Congo, Korea Institute for Development Strategy.

А. С. Байдалинова[1], А. М. Уахитжанова[1], Ж. Нұрланқызы[2]

[1]«Қаржы академиясы» АҚ, Астана, Қазақстан,
[2]С. Сейфуллин атындағы Қазақ агротехникалық университеті, Астана, Қазақстан

АУЫЛ ШАРУАШЫЛЫҒЫН МЕМЛЕКЕТТІК ҚАРЖЫЛЫҚ ҚОЛДАУ – ЕЛДІҢ АЗЫҚ-ТҮЛІК ҚАУІПСІЗДІГІН ҚАМТАМАСЫЗ ЕТУДІҢ БАСТАПҚЫ ШАРТЫ (ОҢТҮСТІК КОРЕЯ МЫСАЛЫНДА)

Аннотация. Мақалада азық-түлік қауіпсіздігін қамтамасыз ету мәселесі және оны қамтамасыз етудің маңызды шарты ретіндегі мемлекеттік қаржылық қолдаудың рөлі қарастырылған. Қазіргі уақытта ұлттық азық-түлік жүйесіне экономиканың аграрлық секторын мемлекеттік қаржылық қолдау қажеттілігі мен азық-

түлік қауіпсіздігінің әлеуетті қатерлерін анықтаушы ғаламдық масштабтағы үдерістер әсер етуде. Оңтүстік Корея мысалында азық-түлік қауіпсіздігін қамтамасыз етудегі мемлекеттің рөлі қарастырылған.

Түйін сөздер: ауыл шаруашылығы, азық-түлік қауіпсіздігі, инвестициялар, субсидиялар, мемлекеттік қаржыландыру, импорт, экспорт.

А. С. Байдалинова[1], А. М. Уахитжанова[1], Ж. Нұрланқызы[2]

[1]АО «Финансовая академия», Астана, Казахстан,
[2]Казахский агротехнический университет им. С. Сейфуллина, Астана, Казахстан

ГОСУДАРСТВЕННАЯ ФИНАНСОВАЯ ПОДДЕРЖКА СЕЛЬСКОГО ХОЗЯЙСТВА – ИСХОДНОЕ УСЛОВИЕ ДЛЯ ОБЕСПЕЧЕНИЯ ПРОДОВОЛЬСТВЕННОЙ БЕЗОПАСНОСТИ СТРАНЫ (НА ПРИМЕРЕ ЮЖНОЙ КОРЕИ)

Аннотация. В статье рассмотрена проблема обеспечения продовольственной безопасности и роль государственной финансовой поддержки как важного условия ее обеспечения. В настоящее время на национальные продовольственные системы воздействуют тенденции планетарного масштаба, обусловливающие формирование потенциальных угроз продовольственной безопасности и необходимость государственной финансовой поддержки аграрного сектора экономики. Рассмотрена роль государства в обеспечении продовольственной безопасности на примере Южной Кореи.

Ключевые слова: сельское хозяйство, продовольственная безопасность, инвестиции, субсидии, государственное финансирование, импорт, экспорт.

About the authors:

Baidalinova A.S. – PhD student, JSC "Financial Academy", Astana, Kazakhstan, aynur.sultanovna@mail.ru

Uakhitzhanova A.M. – PhD student, JSC "Financial Academy", Astana, Kazakhstan, All_999@mail.ru

Nurlankyzy Zh. – Master, Senior teacher, JSC «S. Seifullin Kazakh Agrotechnical University», Astana, Kazakhstan, zhiba_22@mail.ru

Publication Ethics and Publication Malpractice
in the journals of the National Academy of Sciences of the Republic of Kazakhstan

For information on Ethics in publishing and Ethical guidelines for journal publication see http://www.elsevier.com/publishingethics and http://www.elsevier.com/journal-authors/ethics.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the described work has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see http://www.elsevier.com/postingpolicy), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the Cross Check originality detection service http://www.elsevier.com/editors/plagdetect.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of Sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of Sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

www:nauka-nanrk.kz

ISSN 2518-1467 (Online), ISSN 1991-3494 (Print)

http://www.bulletin-science.kz/index.php/ru/

Редакторы *М. С. Ахметова, Т. М. Апендиев, Д. С. Аленов*
Верстка на компьютере *Д. Н. Калкабековой*

Подписано в печать 16.02.2018.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
14,2 п.л. Тираж 2000. Заказ 1.