

Integration of Kazakhstan corn market into EaEU and prospectives of its development

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Abstract. In the following article we have analyzed the rates of corn market development, the export-import operations with corn produce in scopes of realization of integration project of EaEU. The results of a performed analysis allowed us to make a conclusion that economic relations between countries-members of EaEU can become a crucial factor of solving world and regional problems in spheres of food supplies and regional stabilization in conditions of world economy instability. The author has studied the main integration hindering factors, which are under-developed shipping-logistics infrastructure of corn market of countries of EaEU, and also a preserving tendency of technological underrun by A.I.C enterprises. The author has outlined possible spheres of relations of Kazakhstan Republic with the other members of EaEU concerning the realization of common shipping-logistics infrastructural projects and also directing the developing of innovational agrotechnologies in grain-growing of Kazakhstan.

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Introduction

The corn market is a strategic branch of A.I.C., which provides the food supplies safety of the country and which forms the export potential of Kazakhstan Republic [1]. Nowadays according to rates of corn produce Kazakhstan is among the leading countries of the world (is in top-10 of world producers). The Kazakhstan part in world production of wheat in years of plenty is about 3.3% [2]. But at the same time the corn complex of Kazakhstan is developing very unstably on the basis of substantial changes of yields of corn, relative underrun as a result of economic directing on monocultures growing in export of agriproduct up to 1991, the influence of social, economic and institutional changes after gaining the independence [3].

Unique opportunities in solving the food supplies problems, forming of developed corn market, growing of production stability, decreasing of import dependence are given to Kazakhstan due to its being a part of integration projects if EaEU and Common Economic Space (CES). The production rates of agriculture and particularly – of grain-growing are dominantly influenced by effective functioning of integration unions [4].

The solving of the problems of strengthening of food supplies safety, development and increasing of efficiency of corn complex of Kazakhstan republic are stipulating the necessity of extending and search of possible branches of cooperation in scopes of united agricultural politics of CES countries.

Main part

On post-Soviet territory EaEU can be deemed nowadays as the most effective model of economic integration of 3 countries – Belarus, Russia and Kazakhstan. The agreement about EaEU forming and creation of common customs zone was signed by Russia, Belarus and Kazakhstan on the 6th of October, 2007. During this time there were several attempts to evaluate the aspects of social, political and economic influence of the countries-members of the union. The influence on grain-growing market was also evaluated.

The grain-growing is an important factor of development of agricultural sector, all kinds of livestock farming and a main source of profit for agricultural producers on the territory of EaEU. The products of the grain processing are about 40% and more in the menu of the local population.

The potential of developing the grain-growing complex of countries-members of EaEU is defined by geographic closeness to regions with growing demand for corn, and also by presence of water and cropland resources [5].

So the level of croplands availability per one citizen in Kazakhstan republic is 1.51 ha per capita [6], in Russia – 0.89 ha per capita., in Belarus – 0.56 ha per capita. It can be compared to similar results of other countries: correspondingly the USA – 0.75, China – 0.08 and Japan – 0.03 ha per capita.

The corn and pulse crops in countries of EaEU and CES are grown on 63, 406 thousands of hectares (61.2% of all croplands), in Belarus – 2,723

thousands of hectares, Kazakhstan – 16,244 thousands of hectares, Russia – 44,439 thousands of hectares. Concerning the types of corn growing, the predominant type in EaEU and CES countries is wheat: in Belarus – 26.4%, in Kazakhstan – 82.9%, in Russia – 55.5%.

Countries of EaEU and CES produce 7.9% of the world's amount of wheat [7] and 3.7% of the amount of other corn and pulse crops.

In 2013 the total gross collection of corn (weight after refinement) in countries of EaEU and CES was 118.2 million of tones, which is 25.2 more than in 2012 [8]. The part of corn-growing industry of Kazakhstan is 15.4% of total gross collection of corn in countries of EaEU and CES (Fig.1.)

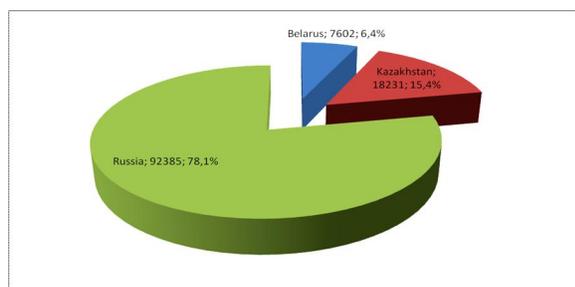


Fig. 1. The structure of production of corn cultures by countries of EaEU and CES in 2013, %.

The specific feature of grain-growing in Kazakhstan is a strong dependence on the climatic conditions, which is the main reason of grain-growing production instability in republic (Fig. 2.)

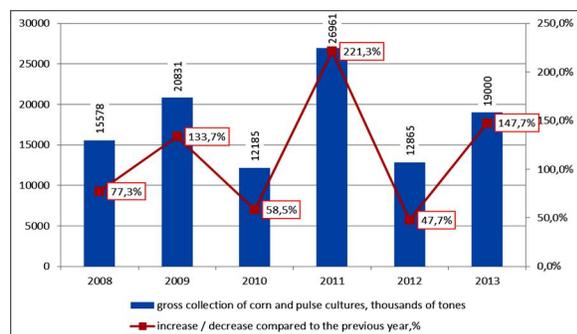


Fig. 2. The dynamics of gross collection of corn and pulse cultures in Kazakhstan in 2008-2013

Republic Kazakhstan belongs to the group of countries with efficient rate of corn production per capita: in 2013 this rate was about 1,115 kg while the norm is 1,000 kg. This rate is higher only in France (1,135 kg), and among EaEU members Kazakhstan occupies the 1st place. On the 1st of January 2014 there were 13.7 million of tones of corn and pulse cultures, which is 0.3% more than in the previous year.

According to totals of 2013, the average harvest of corn cultures in countries of EaEU has increased up to 3.4%, from 20.4 dt/ha to 21.1 dt/ha in 2013. We should mention, that Kazakhstan has the lowest rate of yield of corn cultures (with the processed area taken into account) (Fig. 3.).

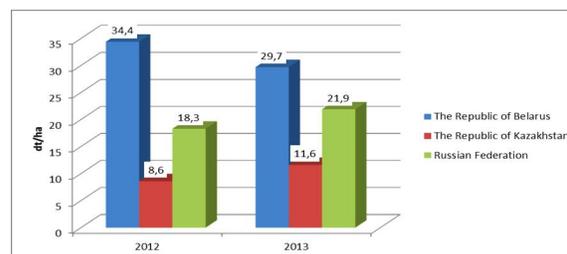


Fig. 3. The yield rates in EaEU countries in 2012-2013, dt/ha.

As we can see the main yield increase (34.8%) is viewed in Kazakhstan. In Russian Federation this rate is less – the yield increase of corn cultures was 19.7%. In Belarus the decrease was observed – to 13.7, to 29.7 dt/ha.

During the last decade Russia, Kazakhstan and other CIS countries has stated themselves as large exporters of the corn cultures on the world market. During the last years corn is the key element of food supplies export of Kazakhstan to other countries of the world, which envisages its contribution to providing global food supplies safety [9].

Table 1. The export of corn cultures by biggest world exporters

Countries	Average rate in 10/11-12/13 marketing years		2013/14 marketing year (preliminary estimation)	
	Thousands of tones	Spec.gravity, %	Thousands of tones	Spec.gravity, %
USA	73.5	24.0%	72.8	21.7%
EU countries	26.60	8.7%	38	11.3%
Canada	22	7.2%	26.3	7.8%
Australia	27.3	8.9%	25.7	7.7%
Brazil	18.6	6.1%	25.1	7.5%
Russian Federation	15.7	5.1%	22.9	6.8%
Argentina	31.6	10.3%	20.6	6.1%
India	15.1	4.9%	17.8	5.3%
Thailand	8.4	2.7%	9.5	2.8%
Kazakhstan	8	2.6%	7.8	2.3%
Other countries	59.4	19.4%	69.2	20.6%
Total, millions of tons	306.2	100.0%	335.7	100.0%

The export of the corn of CES and EaEU countries is mainly represented by export shipments of Russia and Kazakhstan. Belarus is almost not exporting corn. According to preliminary estimation in 2013, the corn export from EaEU and CES countries was about 30.7 millions of tones, including from Russia – 22.9 millions of tones, Kazakhstan – 7.8 millions of tones [10]. The part of EaEU countries in world amount of corn export is about 9.1% (Table 1).

The dynamics of export corn shipment is unstable due to natural and climatic conditions and

present market situations. But we should also mention the stable increase of cost volume of interrelated trade of EaEU countries (Table 2).

Table 2. The dynamics of cost volumes of corn export in 2011-2013

Year	The volume of export with third parties	The volume of related trade (export) between EaEU countries	Total amount of corn export, millions of dollars	Spec.gravity of related trade in the general export amount, %
2011	5163.4	67.4	5230.8	1.29%
2012	7771.4	190.8	7962.2	2.40%
2013	5748.7	322.8	6071.5	5.32%

In 2013 the amount of related trade of corn cultures between EaEU countries has increased up to \$132 millions, or up to 69.2% if comparing with the rate of 2012. The part of reciprocal shipments in the general turnover of food supplies of CES countries has increased in 2012 up to 1.3%. The main part of the shipments (91.9%) is made by Kazakhstan. The basis of the corn shipments from Kazakhstan are making as usual the wheat of strong kinds for bakery, rice, products of corn processing.

At the same time the main tendency of corn complex development of EaEU countries within the last years in the desire to diversify ultimately the structure of corn production, to deepen the processing of agricultural materials and increasing the export shipments with high added value.

The customs duty, stated on the boards of EaEU, is designed for protection of the customs territory from the competitive produce with high added value from the third parties (countries).

In 2013 in EaEU and in CES the export prices were higher than in 2012: rye – up to 14.2%, rice – up to 10.8%, serial – up to 18%, sunflower seed – up to 12%. The price for flour has increased up to 14.3%.

The import prices are substantially higher than export prices: rye – in 16.5 times, sunflower seeds – in 16.7 times, flour – в 1.6 times, barley – up to 43.5%, wheat – up to 28.8%.

In Kazakhstan the import prices are strongly prevailing over the export prices in the following kinds of plants-growing: sunflower seeds – in 13 times, flour – in 3.5 times, barley – in 2 times, wheat – in 1.7 times, rice – up to 38%.

The main partner of Kazakhstan on the corn market of EaEU is Russia. Due to territory closeness to RF the prices for Kazakhstan wheat are usually lower, that those of worlds market, where Russia buys this corn (Fig. 4).

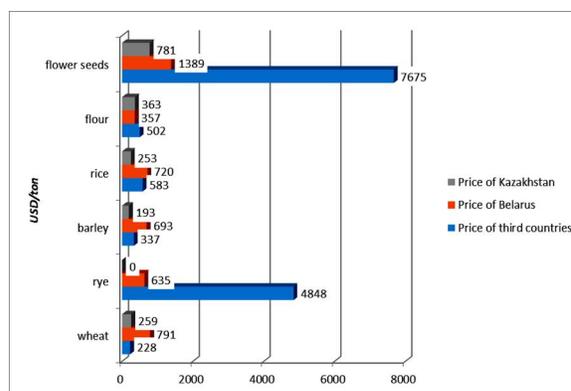


Fig. 4. The prices of corn import to Russian Federation in 2012 – 2013, USD per ton

In general while making the conclusions of economic cooperation we should mention that EaEU is working and bringing profit – it is reflected by results of economics of EU countries. The EaEU in general and each member of it has a huge potential on a world corn market. The economic cooperation between EaEU countries can become a defining factor of the regional stabilization in conditions of world economic situation instability and substantial price changes.

At the same time we should mention that integration connections of EaEU countries are hindered by a set of factors such as poorly developed infrastructure of storing, processing, shipping and export of the corn. The problem of corn depots' deficiency is really crucial, especially in the years of plenty, when car, marine and river shipping, depots and elevators cannot cope with the increased amounts of shipments and storing. This also leads to losses of grown harvest and complicates the inter-state shipment of corn and its processing products in scopes of the EaEU itself and outside of it.

The factor, which hinders the increase of Kazakhstan position on the global corn market is the preserving tendency of technological underrun of A.I.C. enterprises as a result of lack of financial resources for new agrotechnologies implementation.

The perspectives of the Kazakhstan corn complex development is scopes of EaEU integration project is indissolubly tied to the solving of the existing problems in the following directions:

1) The development of shipment-logistics infrastructure of countries-members of EaEU.

One of the main factors for extension and increasing of the efficiency of cooperation of countries, integrating in EaEU is the creation of transport corridor, the extension of the existing grain depots' capacities.

The CES countries (Russia, Kazakhstan and Belarus) are using the territory of each other for conducting of export-import shipments and connection with the other countries. E.g., the Kazakhstan Republic is exporting corn to more than 70 countries of the world, including the countries of Central Asia, Afghanistan and Iran. It also uses the Russian territory as a complimentary channel of export via the ports of Russia, Ukraine and countries of the Baltics.

More than half of the Kazakhstan corn, moving through the Russia, is exported via shallow ports on the Black Sea and Azov Sea, particularly, via The Azov port elevator. One of the branches of transport infrastructure development on CES is the building and/or buying grain terminals by Kazakhstan companies in Russian ports.

The routes of the Northern Corridor of TransAsian railway line, which is used for shipments from China to Europe via transition point Dostyk-Alashankou in Kazakhstan is working on the very verge of its capacity. There are cases of trains stopping on the borders of Russian and Kazakhstan, particularly as a consequence of incoordinate performance of repair windows.

The shipment of Kazakhstan corn is performed also via the corn terminal in Latvian deep-water port Ventspils (Ventspils Grain Terminal, VGT), which is a joint Kazakhstan-Latvian enterprise and its 50% belong to companies, being part of the Kazakhstan corn union [11].

The state politics of Kazakhstan is directed on re-orientation of export lines from Aktau port, which is oriented on shipping corn in Iran, to Russian ports Eisk and Azov. The second goal is the reducing of the part of the shipment fee in the price of corn, which can sometimes be about 50%.

The successful example of realization of common projects in creation of transport infrastructure of countries – EaEU members is the project of modernization of the part of line Aksaraiskaja-2 – Kigash (which connects Privolzhskaya railroad – the affiliate of open joint stock company “RZhD” and railroads of Kazakhstan), after conducting of which the speed of passenger trains has increased from 80 km/h to 100 km/h, and of shipping trains – from 60 km/h to 80 km/h.

The other example of possible extension of transit possibilities of the Russian territory is the project of building a railroad White Sea-Republic of Komi-Ural (“Belkomur”), which was supported by Kazakhstan and China. The line should connect the Scandinavian countries and North-Western part of Russian with Asia via the shortest route.

In mid-term perspective the following project can be rather attractive: the creation of highspeed

railway line Minsk-Moscow-Astana-Almata, the initiator of which is the president of Kazakhstan Republic Nursultan Nazarbaev.

For achieving substantial results of shipping system of the integration it is necessary to solve the problems of state and development of road networks, the shipping-logistics centers and increasing the number of depots, equipped with the modern techniques, the elimination of working railway transport deficiency. The more complicated tasks are the unification of charges for railway traffic on the whole territory of EaEU, the organization of shipment moving via multimodal routes with the united shipment papers, the conducting of electronic base of papers in transportation sector of countries-members of the union [12].

In the view of grain-growing infrastructure development it is necessary to build new and to extend the existing grain depots' capacity on the territories of the main corn-producing regions of the Northern Kazakhstan. With the view of developing the western and the southern branches of corn export it is necessary to envisage the building of new capacities for corn shipment.

2) Forming of conditions for accelerated innovative technological breakthrough in grain-growing branch of A.I.C.

One of the priority directions of creating a competitive and highly-productive grain complex in Kazakhstan and on the territory of the other countries-members of EaEU is a development and implementation of innovative agrotechnologies in grain-growing, their further implementation in production process. Nowadays 37 research projects are realized in scopes of program-target financing of a joint-stock company “KazAgroInnovatsija”. The receivers are 48 scientific-research organizations, and 32 of them are subsidiary companies of joint stock company “KazAgroInnovatsija” [13].

The existing system of knowledge distribution gives the opportunity to build cooperation between science and agricultural business, orienting on their real needs and producing abilities. As a result the development of new technologies will be based on the ideas, suggestion and practical experience of agricultural producers [14, 15].

In order to implement the perspective innovation in the system of agricultural science there was a branch office of commercialization opened in 2009 – the Center of transfer and commercialization of agrotechnologies. Such centers exist in all leading systems of agricultural research. The systemic approach to commercialization of technologies has given the opportunity to realize new innovative projects in the shortest possible terms.

Among the most perspective projects we should mention the studied of diversification of production in crops-growing, innovative technologies of growing crops and developing of biological methods of plants protection.

In order to form new scientific-innovative system of regeneration and distribution of avant-garde knowledge in the sphere of grain-growing it is necessary to increase the budget financing of agricultural science and increase their part in GDP to the average level of developed countries. It is necessary to create conditions for attracting private investors in grain-growing complex of the republic and development of state partnership in a sphere of innovative technologies implementation.

Conclusion

Performed researches allowed us to make a conclusion that notwithstanding the substantial achievements and positive results of integration of Kazakhstan economics, there is still a set of factors which hinder the development of grain-growing in republic in scopes of EaEU work. The existing problems can be overcome in case of realization of complex of actions, directed on the development of shipping-logistics infrastructure, and also forming of the circumstances for accelerated innovational technological breakthrough in grain-growing in A.I.C.

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References

1. Aigarinova, G.T. and G.K. Shulanbekova, 2013. Legal Backing of Food Security as a Major Component of the National Security of the Republic of Kazakhstan. *Procedia – Social and Behavioral Sciences*: 510-513.
2. United States Department of Agriculture (USDA). Market Forces Constrain Future Growth in U.S. Wheat Sector. Date Views 08.06.2014 www.ers.usda.gov/topics/crops/wheat/usda-wheat-baseline,-2013-22.aspx.
3. Lioubimtseva, E. and G.M. Henebry, 2009. Climate and environmental change in arid Central Asia: Impacts, vulnerability, and adaptations Review Article *Journal of Arid Environments*, 11(73): 963-977.
4. Christopher, A. Hartwell, 2013. Eurasian (or the Soviet Union?) Consequences of further economic integration in the Commonwealth of Independent States. *Business Horizons*, 4: 411-420.
5. Zlochevki, A.L., R.E. Bulavin, A.V. Korbut, E.A. Gan and I.V. Kobuta, 2012. Grain-growing politics EaEU. Saint-Petersburg: Center of integration studies of Eurasian development bank: 120.
6. Characteristics of land resources of Kazakhstan republic. Official internet-portal of Bureau of Land Management of Kazakhstan regional development Ministry. Date Views 08.06.2014 www.kuzr.gov.kz/ru/component/content/article/18-zemfond/78-about-lands.
7. Analytical review of production and marketing of corn on the territory of countries-members of EaEU and United economic space. Official site of Eurasian economic commission. Date Views 08.06.2014 www.eurasiancommission.org/ru/act/prom_i_agroprom/dep_agroprom/monitoring/Documents/po%20зерну%20анализ%20TC%20и%20ЭП.pdf.
8. Eurasian economic integration: figures and facts. Date Views 08.06.2014 www.eurasiancommission.org/ru/Documents/broshura_26_RUS_v5.pdf.
9. Rau, V.V., 2013. Russia in EaEU: agricultural aspect. *Problems of forecasting*, 1: 102-111.
10. GIEWS, 2014. Food Outlook, Biannual Report on Global Food Markets, Date Views 08.06.2014 www.fao.org/docrep/019/I3751E/I3751E.pdf.
11. Tsvetkov, V.A., K.H. Zoidov and A.A. Medkov, 2013. New evolutionary model of forming the shipping infrastructure of countries of united economic space on a high-tech basis. *Socionet*.
12. Golovaneva, A.A., 2011. The problems of forming shipping-logistics infrastructure of EaEU space (on the territories of Belarus, Kazakhstan and Russia). *Scientific researches of RAS*. Date Views 08.06.2014 www.ecfor.ru/pdf.php?id=books/sa2011/17.
13. Article Kazakhcorn. 37 innovative projects in A.I.C. sphere are now realizing in Kazakhstan. Date Views 08.06.2014 www.kazakh-zerno.kz/index.php?option=com_content&view=article&id=81831:2013-08-20-05-19-45&catid=14&Itemid=108.
14. Razakova, D., 2013. Pricing in the Market of Grain and Grain Products. *Middle-East Journal of Scientific Research*, 13: 218-223.
15. Razakova, D., 2013. Current Trends and Outlooks of the Development of the Kazakhstan Grain Market. *World Applied Sciences Journal*, 25(6): 875-881.

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