



COUNTRY REPORT: KAZAKHSTAN

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1. MACROECONOMIC ENVIRONMENT AND POLICIES

1.1 Background data

The republic of Kazakhstan is situated in the center of Eurasia. It is ninth largest are in the world with the area of 2 724.9 thousand km². The territory of Kazakhstan is divided to 14 regions or oblasts, which are further divided to 162 districts or raions. The population of the republic as of the end of 2013 is 16.9 million people. The geographical position renders Kazakhstan to have limited access to international waterways for trade; the only maritime connection is in the west of the country through the ports of Aktau and Atyrau in the Caspian Sea. Kazakhstan shares most parts of the border with Uzbekistan and Turkmenistan on the south, with China on the west, and with Russia on the north and northwest.

Figure 1 Country map



Due to a large area of the country the climatic conditions are very diverse, though having some common characteristics that are subject to the position deep in the center of the continent: continental and arid climate.

The continentality of the climate is stronger of the east and south. On the even lands, the average temperature in January rises from the North to the South from -17 C° to - 1 C°, in July from 19 C° on the North to 30 C° on the South. The average annual temperature on the North is approximately +8 C°, on the South +14 C°. The winter on the North is long and cold. Some years the frost on the north leads to - 52 C°, but there are also thaw periods characterized by +5 C°. The maximum temperature on the north is under +41 C°, on the south +49 C°.

Kazakhstan is abundantly endowed with land. More than 80% of the area is classified as agricultural land, most of which (70%) is occupied by pastures. The lands were adversely affected by the Soviet era initiatives and lack of investments in the post-soviet period. Water resources in the country are limited and unevenly distributed over the territory. Agriculture is the largest water consumer. Most of the water is used in the southern part of Kazakhstan.

Table 1 Main country view 2013

Kazakhstan – Year 2013	
Population (1st January) (000 inhabitants)	16 910
Area (sq. km)	2 724 902
Real GDP growth rate (% change on previous year)	106.0
Unemployment rate (%)	5.2
Agricultural Utilized Area (ha)	96 278
Agriculture, hunting and fishing (% of total GVA)	4.5

Sources: Committee of the Statistics on the Ministry of National Economy (<http://stat.gov.kz>)

The territory of Kazakhstan is inhabited by more than 850 types of vertebrate animals, including 181 types of mammals, 500 types of birds (396 types of which nest here, others come in winter or spring and autumn), 50 types of reptiles, 12 types of amphibians, 104 types of fish, and 3 types of round-mouthed fish.

The vegetative cover of Kazakhstan counts about 5800 types of higher vascular plants. The distribution of the vegetation on the even lands is subject to the law of latitudinal zonality that determines the consecutive change of three zones: wooded steppe, steppe and deserts. The total forest area in Kazakhstan is 23.2 mln ha, including the wooded land of 11.5 mln ha (without lands used by other countries).

1.2 Macroeconomic developments

After the collapse of the Soviet Union and Kazakhstan becoming an independent state in the 1990s, the economy of Kazakhstan has entered a transition state to a market economy. The period was characterized by a hyperinflation and deep recession, starting to recover in the early 2000's mainly due to an oil boom. The exports of oil kick started the economic growth. The real GDP grew at almost 10% a year in 2000-2007. The revenues from the oil boom translated into an increase in the government budget. The information on the major macroeconomic indicators is presented in the table 2.

With the economic growth and a rise in the revenues, the government of Kazakhstan has started to actively invest in human capital, the diversification of the production structure, adopting new agricultural, industrial and social programs and other initiatives. The economic growth drove the increase in the average living standards, providing more convenient conditions for people that emigrated in the 1990's.

The growth of the oil and gas sectors leads to the decrease of the share of GDP in other sectors, as well as the decrease in their absolute values. The government has actively tackled the trend leading to the expansion of non-traded goods sector, especially the construction sector. The boom in the construction sector caused real estate bubble to grow and burst in 2007 causing the local banking crisis that slowed the economic growth dramatically. The anti-crisis plan was launched in late 2008, limiting the decline without stimulating the inflation or accumulating public debt. The cost of the plan was USD 10 billion, or 9.5% of GDP. The plan was successful. However, the global financial crisis in 2009 has struck the economy of Kazakhstan. The government has also reacted timely. Among the measures taken was a depreciation of Kazakh Tenge from KZT 120 to KZT 147 per US Dollar. Since then, the country has returned to an annual growth at 7% and the exchange rate remained stable.

The transition from the central planning to a market economy still has its effects on the structure of the economy, but in sum, Kazakhstan has responded to the challenges and implemented effective economic reforms, that allowed the country to become a fast growing economy.

Table 2 Main macroeconomic indicators in 2004–2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Population (1000 persons)	15 074,8	15 219,3	15 396,9	15 571,5	15 982,3	16 203,0	16 440,1	16 673,0	16 909,8	17 165,2
Real GDP growth rate (% change on previous year)	109,6	109,7	110,7	108,9	103,3	101,2	107,3	107,5	105,0	106,0
GDP at current prices (mill. NC)	5 870 134,3	7 590 593,5	10 213 731,2	12 849 794,0	16 052 919,2	17 007 647,0	21 815 517,0	27 571 889,0	30 346 958,2	33 521 193,4
GDP per capita at current prices (NC)	391 003,8	501 127,5	667 211,6	829 865,3	1 024 175,1	1 056 803,5	1 336 465,9	1 665 102,3	1 807 049,4	1 967 493,9
GDP per capita at purchasing power (PPS; USD)	7 734,6	8 657,8	9 766,3	10 797,8	11 207,9	11 133,7	11 880,1	12 829,8	13 525,9	14 133,4
GVA at current prices (mill. NC)	5 516 811,0	7 122 743,6	9 547 897,0	11 930 209,0	14 927 663,8	16 225 364,3	20 649 031,6	25 746 635,3	28 507 596,8	31 749 827,8
GDP deflator (%)	116,1	117,9	121,5	115,5	121,0	104,7	119,6	117,8	104,9	106,2
Inflation (annual average, % change on previous year)	6,9	7,6	8,6	10,8	17,0	7,3	7,1	8,3	5,1	5,8
Total employment (1000 persons)	7 181,8	7 261,0	7 403,5	7 631,1	7 857,2	7 903,4	8 114,2	8 301,6	8 507,1	8 570,6
Unemployment rate (%)	8,4	8,1	7,8	7,3	6,6	6,6	5,8	5,4	5,3	5,2
Current account balance (% of GDP)	n/a	-27,5	-37,8	-123,6	73,4	-57,5	15,3	89,8	8,9	-0,9
General government balance (% of GDP)	-0,3	0,6	0,8	-1,7	-2,1	-2,9	-2,4	-2,1	-2,9	-2,1
General government gross debt (% of GDP)	5,79	2,77	3,18	1,52	1,24	2,81	3,24	2,69	2,69	2,46
Exchange rate, annual average (NC/USD)	136,04	132,88	126,09	122,55	120,30	147,50	147,35	146,62	149,11	152,13
Exchange rate, annual average (NC/EUR)	169,04	165,42	158,27	167,75	177,04	205,67	195,67	204,11	191,67	202,09
Total government budget (mill. NC)	1 021 769,0	1 946 146,0	2 150 560,0	2 678 280,0	3 394 064,0	3 746 840,0	4 457 165,0	5 423 235,0	6 268 972,0	6 852 711,3

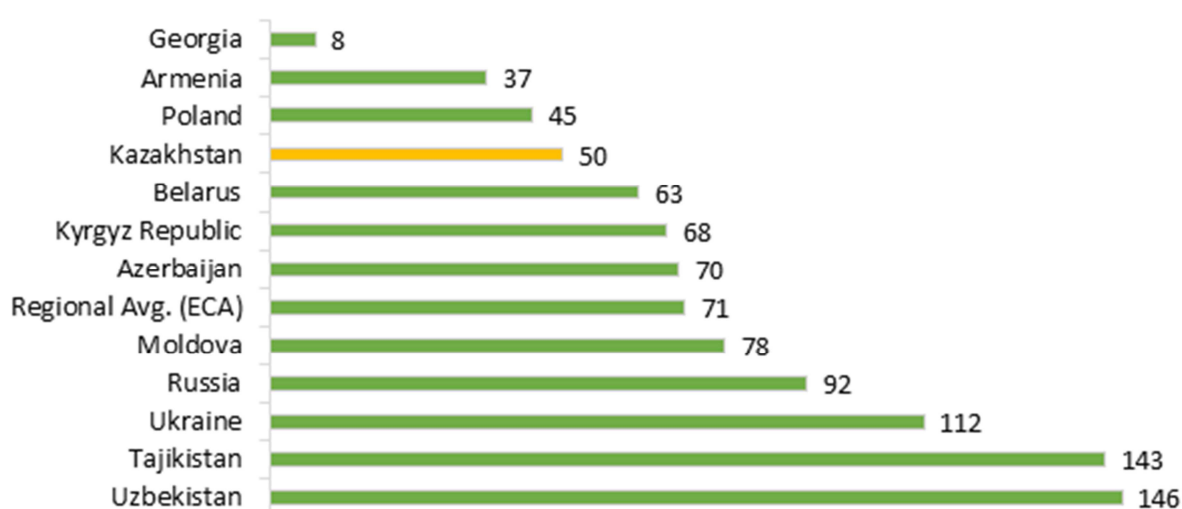
Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

1.3 Macro-economic and other general policies

Kazakhstan is a promising and actively developing country in terms of development of multiple business initiatives. The Government of Kazakhstan actively supports entrepreneurs. Nowadays the government has established the framework of simplified business registration, and licensing, options of preferential taxation are offered and other conditions are offered as well.

The “Strategic plan of development of the Republic of Kazakhstan till 2020” has indicated the objective of getting to top-50 list of World Bank and IFC Doing Business. Annual Doing Business publication in 2014 showed that Kazakhstan has improved its position and rose three points to 50th position from last year's 53rd place. In general, over the past three years, Kazakhstan has risen by 21 positions, leaving behind not only the countries of Central Asia but also its partners in the Customs Union. So, Belarus is now on 63rd place, while Russia is on the 92th. Neighboring countries in Central Asia - Kyrgyzstan, Tajikistan and Uzbekistan - are on the 68th, 143th and 146th positions respectively.

Figure 2 Ease of Doing Business: Kazakhstan and ECA region



Sources: World Bank (2013a)

Kazakhstan holds 18th position in ownership registration and taxation. The rise in ownership registration is caused by implementing the possibility of registering business online through government website. Kazakhstan's position in taxation has not changed since 2013. The taxation rules and schemes have not changed; they already provide businesses with convenient taxation systems. In receiving a building license Kazakhstan has risen to 145 positions, and in insolvency solution it has risen by 1 point.

Table 3 Ranking of Kazakhstan on Doing Business Topics

Subject	DB 2014 rating	DB 2013 rating	Changes in the rating
Registration of enterprises	30	27	▲ -3
Receiving a building licence	145	149	▲ 4
Connecting to the power-supply system	87	85	▲ -2
Ownership registration	18	27	▲ 9
Crediting	86	82	▲ -4
Protection of investors	22	21	▲ -1
Taxation	18	18	No changes
International trade	186	186	No changes
Guarantee of contract fulfilment	27	26	▲ -1
Insolvency solution	54	55	▲ 1

Sources: World Bank (2013a)

The worst position in Doing Business Kazakhstan holds in international trade. One of the reasons of this is landlocked position without access to the seas and weak transport infrastructure. Nevertheless, Kazakhstan is located very close to the rapid growing markets of China, Russia and India. In addition, the routes connecting the Pacific Rim with Europe and Near East are going through Kazakhstan.

The investors that operate in Kazakhstan and the potential investors have different opinions about the business attractiveness of Kazakhstan. Those who already work in Kazakhstan value the high level of economic, political and social stability of the country, and relatively low tax rates for business. Potential investors are still not aware of these advantages, and the main advantages they stress on are wages and entrepreneurial culture. However, both operating in Kazakhstan and potential investors noted the high level of development of telecommunications infrastructure and the size of the consumer market.

Table 4 Main factors of investment attractiveness of Kazakhstan on the basis of survey of investors

Investors operating in Kazakhstan	
Macroeconomic stability	81,2 %
Political and social stability	79,6 %
Telecommunications infrastructure	72,8 %
Size of the market	63,4 %
Corporate taxation	56,8 %
Potential investors	
Wages	46,5 %
Telecommunications infrastructure	40,6 %
Size of the market	37,4 %
Macroeconomic stability	35,9 %
Entrepreneurial culture	35,4 %

Sources: 2014 Kazakhstan Attractiveness Survey (number of respondents: 211, 78 – operating investors, 133 – potential investors), EY, 2014.

Nowadays in order to protect the rights of investors in Kazakhstan a multilevel system of development of direct dialogue between government and investors is created. It includes Foreign investors council under the President, the Council on improvement of investment climate under the Prime Minister of Kazakhstan, a special working body, chaired by the Deputy Prime Minister, acting on the basis of an investment ombudsman. National plan on attracting investment is adopted. National legislation and international legal framework are constantly improving, expanding the package of investment preferences. As of today bilateral agreements on promotion and protection of investments are signed (47 bilateral and 1 multilateral (Eurasian economic union)).

According to the Law “On investment” the investor investing into priority areas is subject to the following exemptions – zero customs rate on imports of equipment, raw materials necessary for the project, government land grants. For strategic investment projects (production of high value added products in the priority sectors in high-tech industries and with total investments no less than 50 mln USD) the investors subject to tax exemptions (land tax and property tax at zero rate), manufacturing preferences in regions with low level of social and economic development (partial compensation of costs of gas, electricity, land acquisition, purchase and construction of buildings).

In the period 2004-2013 Kazakhstan has attracted about 192 billion tenge of foreign investments. In 2013 overall FDI was more than 24 billion tenge. Agriculture (including fishery, hunting and forestry) has a small share of total amount of investments, FDI has amounted 5.6 million tenge while FDI in food processing sector accounted for 338.9 million tenge.

Table 5 FDI flows in 2004–2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
FDI (mill. NC)	8 317,0	7 915,8	12 066,1	19 417,7	21 301,3	21 436,6	22 245,6	26 467,3	28 934,8	24 136,5
FDI in agricultural sector (mill. NC)	-2,0	1,3	37,6	18,4	38,5	5,6	6,0	7,8	18,3	5,6
FDI in food-processing sector (mill. NC)	37,5	63,5	74,9	65,2	147,6	161,6	130,7	200,1	280,7	338,9

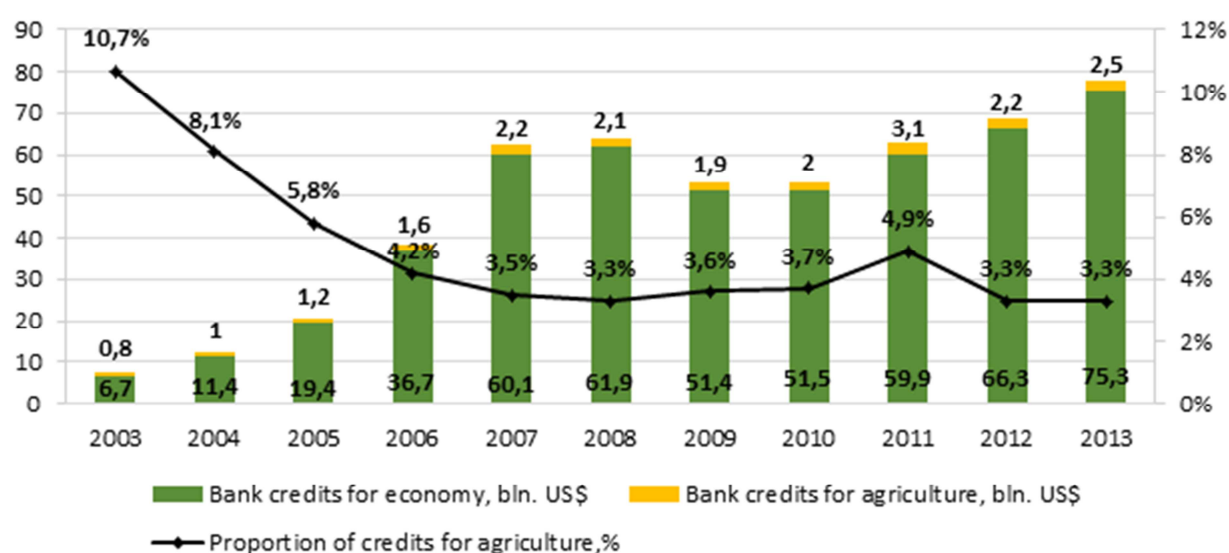
Sources: National Bank of the Republic of Kazakhstan

1.4 Institutional environment of the agro-food sector

Access to credits:

Since 2003 the volume of credits provided in Kazakhstan has grown by 11 times. Agricultural credits provided by second tier banks have also grown, but by lesser extent – only by 3 times in the period of 2003-2013. In 2013 the amount of credits for agriculture reached 2.5 billion dollars that is 3.3% of total credits for the economy of Kazakhstan. Most of the credits for agricultural purposes are provided by second tier banks and financial institutions of MoA's daughter company «National holding «KazAgro» JSC».

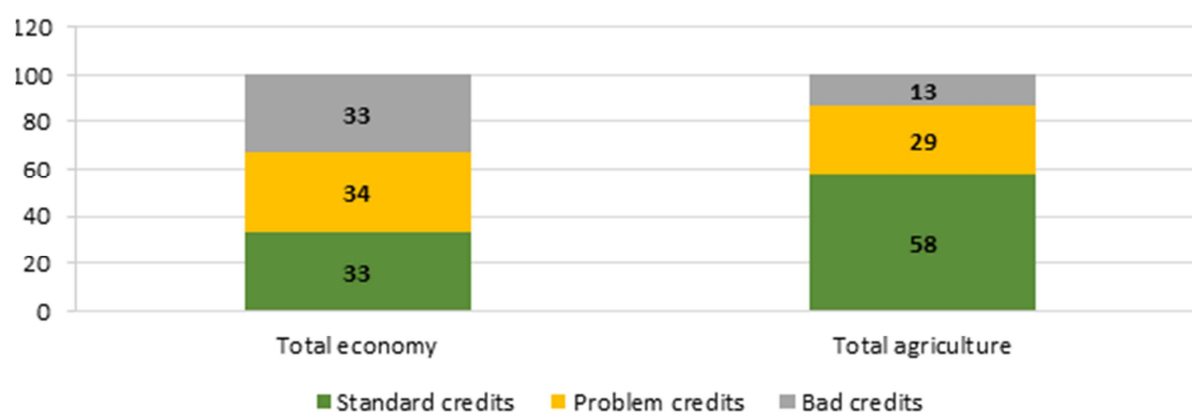
Figure 3 Amount of provided credits as of the end of a year 2003 – 2013, billion USD



Sources: National Bank of the Republic of Kazakhstan

The share of problem and bad credits is significantly lower than in the economy in general.

Figure 4 Bank credits classification as of January the 1st 2013, %



Source: National Bank of the Republic of Kazakhstan

As of 1 of January 2014 the agricultural credit portfolio of second tier banks and KazAgro financial institutions is 716 billion tenge. The amount of problem and bad credits to agricultural producers totaled about 300 billion tenge mainly due to the following factors:

- 1) The use of expensive and short-term credits for modernizing and renovation of machinery and equipment mainly in 2006-2008
- 2) The financial crisis in 2008
- 3) The ban on grain exports in the period of favourable prices (April 15, 2008 – September 1, 2008) the reduction of foreign currency earnings and partial loss of traditional grain export markets.
- 4) Limited access to foreign grain markets due to high yields in Russia and Ukraine, that lead to overstocking on the internal market and sharp decline in prices.
- 5) Devaluation of tenge in 2009 and 2014, that lead to the increase of credit pressure on businesses that took credits in foreign currency
- 6) Droughts of 2010, 2012 bringing low crop yields

As a result agricultural producers suffered from the problems of paying high interest rates and principal on loans. To address this problem the government has started a financial rehabilitation initiative in the framework of the “Agribusiness-2020” program. This means restructuring and refinancing the loans and investment projects.

The program “Agribusiness-2020” has introduced new form of government support in order to improve access to credits, which is subsidizing the interest rate for the credits. Nowadays second tier banks offer the credits to agricultural producers at the interest rate of 15% on average. The government can cover up to 8% of the interest rate; the farmer pays the rest 7%.

Access to market information:

An individual can access agricultural market information through the following channels:

- Statistics Committee of the Ministry of National Economy
- Ministry of Agriculture announcements
- Agricultural Web portal
- Agricultural periodic journals
- Country level, oblast level and district level mass media

For the purposes of providing comprehensive informational support of agricultural producers a JSC «Kazagromarketing» was formed under the Ministry of Agriculture with the following objectives:

- Marketing research of the agri-food markets
- Communication with marketing centres in CIS and foreign countries
- Developing and improving the marketing information system for the MoA
- Providing agricultural producers with marketing information
- Providing state agencies with analytical information in agriculture

“Kazagromarketing” JSC has 16 regional branches in every oblast and cities of Almaty and Semey, and 161 rural information and consulting centres that operate in close contact with local administration, agricultural producers and other participants of agri-food market.

Agricultural land ownership issues:

Land relations in Kazakhstan are regulated by Land Code and regulatory acts developed on national or local levels. According to these documents, the procedures of selling or long-term lending of the land to the farmers are set. The recommended prices on agricultural land by types are set, land cadaster is created, the requirements on land registration and other procedures are also set by these documents.

The land market in Kazakhstan is represented by two major activities:

- Selling of government land for private property at a standard price (primary market)
- Various land deals of private land by individuals or legal bodies (secondary market)

The standard price in Kazakhstan is a cadastral (estimated) value of the land. When the cadastral value is calculated the fees for selling of the private property right or the lease rights for the land are calculated, as well as the amount of the single tax.

However, there is no full-fledged land market, especially for agricultural land. This is due to the several factors: absence of a comprehensive Land Cadaster that gives proper description of any parcel of land, loosed land market, restrictions on the sale of land to foreign residents, low incentives of large local investors in purchase of agricultural land due to high risks.

There is also an issue in land use and soil conservation. Significant areas of agricultural land that are in a long-term lease are not used for its intended purpose or used minimally. Leaseholders usually do not carry out sufficient soil conservation, wind and water erosion prevention measures. According to the Committee for Construction, Housing Maintenance and Utilities and Land Management of the Ministry of National Economy up to 15% of agricultural land in the republic is misused. Today around 125 mln ha of pastures are not watered or not used. In addition, more than 20 mln ha of pastures adjacent to the settlements are degraded due to misuse.

Infrastructure and marketing efficiency:

The economy of Kazakhstan is highly dependent on the transport system due to economic and geographical characteristics of the country such as large area, uneven distribution of settlements, landlocked position. Transportation is the basis of the local and international markets, which ensures the development of a normal market economy.

According to the "Global competitiveness report 2012-2013" Kazakhstan holds 29th and 117th positions (out of 144) on the quality of railways and roadways respectively. The average density of railways is 5.36 km / 1000 km². Rail infrastructure is most critical in the grain-producing regions, such as North Kazakhstan, Kostanai region. The highest density of railway lines is in Akmola, North Kazakhstan, Zhambyl, Pavlodar and Kostanai regions. The total length of roads in Kazakhstan amounted to 97.2 thousand km, including hard-surface roads 86.2 thousand km or 89% of total roads. Density of hard-surfaced on the national average is 31.6 km/1,000 km².

Modern warehouses of class "A" and "B" are distributed unevenly throughout the territory of Kazakhstan. Most of them are concentrated in the Almaty region. More than 95% of the stores are designed for storage of goods on shelves and pallets. Warehouses of lower classes in Kazakhstan amount for more than 5 million square meters. However, the stores usually are not equipped with air conditioning and modern warehouse equipment, they have small areas and the price per unit of storage to users is generally higher than class "A" and "B" warehouses.

Agricultural education, research, and advisory services

The shortage of highly qualified specialists constrains the process of developments of state agricultural policy. In Kazakhstan, this is largely not due to the automation and modernization of production (as is the case in developed countries), but due to the decline in the prestige of the agricultural profession and low wages.

Average number of employed young people (aged 15-28 years) in agriculture declined from 718.6 thousand people in 2010 to 588.9 thousand people in 2013. The labor force is gradually moving to another sectors of economy, or unemployed. The reluctance of young professionals to work in agriculture generates another problem - the "aging workforce". For creating incentives for young professionals to work in rural areas the government launched the project "With diploma - to the village!" in 2009.

There are ten universities that teach and train students in 18 different disciplines along with 168 rural vocational schools for technical and professional education in 25 disciplines.

In 2007, in order to create a modern system of agricultural research in the structure of the Ministry of Agriculture created JSC "KazAgroInnovation", which unified under its management all sectoral research organizations and agricultural experimental stations.

There is an annual increase of introduction of technologies. For example, in 2013 the area of application water saving technologies in agriculture amounted to 12.5 million ha (3 times more than in 2007), the percentage of area under crops varieties of domestic breeding of the total area under cereals was 42,2%. In 2013 4 breeds of farm animals and 8 kinds of therapeutic drugs and vaccines for livestock were created. However, there are still problems that persist in agricultural science, that limit the development of agriculture in Kazakhstan. The major problems are:

- 1) Lack of finance - multiple difference in the amount of funding compared to the countries - the leading exporters of agricultural products;
- 2) Lack of qualified young personnel - researchers, auxiliary and technical personnel;
- 3) Moral and physical deterioration of infrastructure - the proportion of more than 20 years old equipment is 28%, agricultural machinery and vehicles - 41% buildings operated for over 20 years without major repairs - 95%;
- 4) Underdeveloped tools of introduction of scientific developments and interaction with the business society;
- 5) Lack of integration of the domestic agricultural science into the world scientific system.

Sanitary and phytosanitary services or National Quality Infrastructure

Government policy in veterinary safety is developed by the Department of Veterinary and Food Safety of MoA, and control and supervision is carried out by the Committee of Veterinary Control and Supervision of the MoA that has a network of subsidiary organizations:

- Territory inspections on different oblast, city and district levels
- State Veterinary Laboratory with branches on different levels: oblast, district. The network of veterinary labs is conducting veterinary diagnostics of animal diseases.
- State Anti-Epizootic Group with branches in every oblast (14 branches) that carries out measures on eradication of diseases.
- National Veterinary Reference Center conducts diagnostics of animal diseases, develops measures on ensuring food safety, stores national deposit of microbial strains, and conducts epizootic monitoring of animal diseases.

In addition there are Departments of Veterinary on local levels operating in local government bodies (akimats) that organize veterinary activities in cooperation with the MoA and its subsidiaries. There is also a network of private veterinary organizations in every settlement that provides veterinary services for the farmers.

Government policy in phytosanitary safety is developed by the Department of Production and Processing of Plant Growing Products and Phytosanitary Safety of MoA. Control and Supervision is carried out by the Committee of State Inspection of MoA and its subsidiary organizations:

- Territory inspections on different oblast, city and district levels
- State Center for Phytosanitary Diagnostics and Projections with branches on different levels : oblast and district. Its network examines the territory of Kazakhstan for prevention of plant diseases and pests spread.
- State Quarantine Laboratory carries out identification of quarantine objects
- State Quarantine Nursery for Introduction of Fruits and Berries identifies hidden diseases of imported young plants
- State Quarantine Nursery for Introduction of Field Crops identifies hidden diseases in imported seeds
- State Phytosanitary Enterprise carries out identification and localization of pest holes of quarantine organisms and analyzes products subject to quarantine.

2. SITUATION AND DEVELOPMENT OF THE AGRICULTURAL SECTOR

2.1 Role of agricultural sector in the economy

The agricultural sector plays a very significant role in the economy. Agriculture has become a priority sector for Kazakhstan strategic initiative. The transition to the market economy has brought more opportunities for the sector. The increase in efficiency and labor productivity allowed to reach self-sufficiency for the major food products, and also allowed to reach a significant growth in export of grain and oilseeds.

In 2013 the share of agricultural production in GDP accounted for 4,5%. Labor productivity in agriculture in 2008-2013 changed from 360 thousand tenge per capita to 730 thousand tenge per capita with average annual growth rate of 10% a year in rural areas were 7,63 million people or 45% of all population of Kazakhstan currently live. Agriculture is the largest sector in terms of employment, counting 25% of the total employed people. In 2013 2 million people were employed in agriculture, forestry and fishery.

Given that the new tendencies of world agrarian economy and demography are formed, the integration processes in the region have become more active. Kazakhstan has entered into the Eurasian economic union, which is formed on the basis of the Customs Union. In the nearest future it is planned to enter the World Trade Organization. However, such constraints as imperfection of technologies, small-scale production limit the growth of agricultural production on an intensive basis, limit the rational use of materials, labor and other resources, and follow ecological norms. These factors can reduce competitiveness of domestic agricultural sector that in the conditions of the WTO and Eurasian economic union can lead to increase of import production, decreasing the share of local producers from sales markets.

To avoid the negative consequences of integration processes it is planned to reduce the production of high water consuming cultures and replace them with more profitable vegetable, oleaginous and fodder products. It is also planned to implement a series of measures on effective consumption of agrochemicals, expansion of modern no-till technologies and other innovations in droughty regions.

2.2 Land use

The territory of the Republic of Kazakhstan is 272.5 million hectares. The land fund of Kazakhstan is very diverse. However, about a half of arable land of the country is located in areas of risky agriculture, created by the Soviet era initiatives and climate conditions.

The transition to market economy led to land privatization. These changes demanded measures for creation of conditions for the development of land relations, the land market and management of land resources, land management, monitoring and protection of lands. In recent years positive tendency of government involvement in use of land for various needs of different economy sectors have occurred.

The most essential changes happened in agricultural land use. Apparently in 2013 the area of the utilized agricultural area was 96 278 thousand ha (table X), or 35,3% of the total area of Kazakhstan, including 24 191 thousand hectares (25,1%) of arable land, 63 909 thousand hectares (66,4%) of pastures. Since 2007 the increase in UAA has reached about 9 million ha, including the increase of pasture lands by 8 million ha.

Table 6 Agricultural land use in 2007–2013, 1000 ha

	2007	2008	2009	2010	2011	2012	2013
Land area, total	272 490	272 490	272 490	272 490	272 490	272 490	272 490
Agricultural land, total	87 324	88 959	91 705	93 388	93 727	93 428	96 278
Pastures	55 840	57 468	59 628	60 944	61 171	61 123	63 909
Arable land	21 925	22 512	23 211	23 386	23 836	24 203	24 191
Fallow land	3 502	3 293	3 024	3 054	2 818	2 657	2 693
Meadows	1 806	1 866	1 962	2 102	2 059	2 040	2 046
Wooded area	6	6	4	4	4	4	n/a
Marshlands/Wetlands	668	171	178	178	180	186	n/a
Land under water	224	236	243	253	239	239	n/a
Other land	3 289	3 341	3 385	3 396	3 351	2 906	n/a
Permanent crops	66	67	70	70	70	70	75

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.3 Farm structures (including land properties)

Agricultural formations in Kazakhstan are divided into the large agricultural enterprises, peasant farms and household farms.

The agricultural enterprise – the legal entity or its structural division which is engaged in production, storage and processing of agricultural production, rendering services in the field of agriculture

Peasant Farms – family and labor association of persons in which implementation of individual business is inseparably linked with use of lands of agricultural purpose for production of agricultural production, and also with processing and sale of this production.

Household farms – personal subsidiary farms, collective gardens and kitchen gardens, country sites. Personal subsidiary farm – economy of the population activity in which is directed on satisfaction of own needs on the land plot located in rural areas and a residential suburb.

In 2012 the number of agricultural holdings in Kazakhstan reached 197 431, including active 172 821, of them 7 965 agricultural enterprises and 164 856 farms. The average size of farms in 2012 was 6, thousand ha. In crop production the number of registered agricultural holdings was 182.2 thousand units, using 42,9 million ha of agricultural land.

Table 7 Agricultural holdings by size classes by UAA

	2012	
	Area (ha)	No of agricultural holdings
TOTAL	42 871 203,6	182 180
< 50 ha	1 200 990,1	117 232
51 < 200 ha	3 013 621,0	28 960
201 < 500 ha	5 204 226,5	16 537
501 < 1000 ha	6 242 062,9	9 009
1001 < 10000 ha	23 363 973,6	10 221
10001 < 20000 ha	2 318 825,8	173
20000 < ha	1 527 503,7	48

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The main share of production of livestock sector in Kazakhstan is produced in peasant farms and household farms. Thus, the livestock sector in the republic depends more on personal subsidiary farms where generally there is no possibility of use high-performance equipment, new technologies, where manual extensive and unproductive skills are used. Household farms, as a rule, breed a small stock of animals. About 80% of household farms have fewer than 10 heads of cattle and 100 heads of sheep. Such small-scale, shattered farms cannot be engaged in expanded reproduction, increase production and ensure food security of the country. An additional negative consequence of dissociation of farms is the weak fodder supply chain, lack of breeding work, low productivity of cattle.

In 2013 the cattle was generally concentrated in households. They contained 4 034,5 thousand heads of cattle or 69% of the total cattle in the republic, sheep and goats - respectively 10 996,2 thousand heads or 62,6%, pigs – 562,4 thousand heads or 61,0%, horses – 995,0 thousand heads or 55,8%, camels – 91,7 thousand heads or 57,0%, poultry – 12 400,1 thousand heads or 36,3%.

The number of cattle in peasant farms counted 1 393,6 thousand heads (23,8% of total cattle in the republic), sheep and goats – 5 760,0 thousand heads (32,8%), pigs – 107,3 thousand heads (11,6%), horses – 678,7 thousand heads (38,0%), camels – 53,8 thousand heads (33,4%), poultry – 353,6 thousand heads (1,0%).

Agricultural enterprises contained 423,1 thousand heads of cattle (7,2% of total cattle), 804,4 thousand heads of sheep and goats (4,6%), 252,6 thousand heads of pigs (27,4%), 110,8 thousand heads of horses (6,2%), 15,4 thousand heads of camels (9,6%), 21,4 million heads of poultry (62,7%).

In plant growing, on the contrary, the main capacities and cultivated areas are concentrated at large enterprises, mainly grain holdings. In 2013 the agricultural enterprises utilized 13,1 million hectares or 61% of a total area under crops, peasant farms - 8,1 million hectares or 38%, in household farms - 241,6 thousand hectares or 1%. The production of soya beans, corn, potatoes, and vegetables is mostly concentrated in the peasant farms and household farms which results in low productivity. According to statistical data in 2013, the most part of cultivated areas of soya beans and corn maize was concentrated in peasant farms with the share of 75% and 76% respectively. The most part of cultivated areas of potatoes and vegetables was concentrated in household farms and counted 67% and 50% of a total area under these cultures respectively.

It is also necessary to note that the considerable part of agricultural constructions and constructions in crop growing and livestock sector is in situated in household farms (89,1% in crops and 97,5% in livestock). The major share of repair shops, points of maintenance of agricultural machinery is situated in the agricultural enterprises - 1718 units or 96% of total number of constructions.

2.4 Production and output (including major sectors and yields)

Gross output of agriculture in Kazakhstan annually increases, in 2013 the total amount reached 2 432 billion tenge, that is 3 times more in comparison with 2004. Gross output of crop production in 2013 was 1 313 billion tenge. Increase in production is caused mainly by increase in outputs of products of cereals and pulses, oilseeds, vegetables and fodder crops. In livestock sector increase in production is noted observed. Gross animal output in 2013 amounted 1 095.5 billion tenge.

Table 8 Agricultural output (mill. tenge, at current prices)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Crop output	391 249	400 218	432 492	630 796	761 117	936 850	662 653	1337194	981 190	1313 004
Cereals and pulses	207 345	177 226	199 394	323 071	397 942	506 200	236 164	710 096	311 493	530 254
Oilseeds	9 943	11 527	12 552	12 983	16 077	27 212	31 664	60 314	61 889	90 515
Fodder crops	49 072	51 964	59 238	85 855	102 123	140 741	116 656	179 388	193 843	250 945
Vegetables	42 321	59 764	59 371	80 915	92 374	95 213	105 909	141 515	184 304	203 214
Potatoes	47 441	55 301	63 365	83 409	104 829	128 509	109 740	178 552	147 388	161 039
Cotton plants	16 349	19 781	18 706	20 280	19 167	14 055	23 776	31 134	29 118	31 298
Other	18 779	24 655	19 866	24 284	28 605	24 920	38 745	36 195	53 155	69 257
Animal output	307 584	363 626	420 821	490 978	623 071	703 338	774 106	942 384	1011192	1095487
Cattle	184 894	216 439	250 643	284 296	374 768	419 405	466 036	578 298	596 409	662 056
Horses	15 678	17 694	20 781	27 143	35 849	45 283	49 859	63 682	80 527	96 336
Sheep and goats	31 709	38 094	44 820	51 609	62 845	73 170	81 103	103 158	131 090	147 158
Swine	37 487	42 903	47 169	63 204	77 578	87 965	99 969	111 477	109 008	49 349
Poultry	23 898	30 641	36 476	41 036	54 002	56 918	66 959	70 781	78 004	91 513
Other animals	13 918	17 856	20 933	23 691	18 029	20 597	10 180	14 989	16 154	49 075
Agricultural Goods Output	698 833	763 843	853 313	1 121 774	1 384 188	1 401 888	1 436 758	2 279 579	1 992 382	2 432 009

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The crop production of Kazakhstan creates more value than livestock. The majority of labor force is occupied here. Cereals production is the main direction of development of crop production in Kazakhstan. On the average for 2004 - 2013 it provided 25% of all gross output of agriculture. However, recent years showed that the greatest share in gross output of agriculture is provided by cattle production - 27% in 2013.

Table 9 Share of individual products in agricultural output (%)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP OUTPUT	56,0	52,4	50,7	56,2	55,0	57,1	46,1	58,7	49,2	55,0
Cereals and pulses	29,7	23,2	23,4	28,8	28,7	30,9	16,4	31,2	15,6	21,8
Oilseeds	1,4	1,5	1,5	1,2	1,2	1,7	2,2	2,6	3,1	3,7
Fodder crops	7,0	6,8	6,9	7,7	7,4	8,6	8,1	7,9	9,7	10,3
Vegetables	6,1	7,8	7,0	7,2	6,7	5,8	7,4	6,2	9,3	8,4
Potatoes	6,8	7,2	7,4	7,4	7,6	7,8	7,6	7,8	7,4	6,6
Cotton plants	2,3	2,6	2,2	1,8	1,4	0,9	1,7	1,4	1,5	1,3
Other	2,7	3,2	2,3	2,2	2,1	1,5	2,7	1,6	2,7	2,8
ANIMAL OUTPUT	44,0	47,6	49,3	43,8	45,0	42,9	53,9	41,3	50,8	45,0
Cattle	26,5	28,3	29,4	25,3	27,1	25,6	32,4	25,4	29,9	27,2
Horses	2,2	2,3	2,4	2,4	2,6	2,8	3,5	2,8	4,0	4,0
Sheep and goats	4,5	5,0	5,3	4,6	4,5	4,5	5,6	4,5	6,6	6,1
Swine	5,4	5,6	5,5	5,6	5,6	5,4	7,0	4,9	5,5	2,0
Poultry	3,4	4,0	4,3	3,7	3,9	3,5	4,7	3,1	3,9	3,8
Other animals	2,0	2,3	2,5	2,1	1,3	1,3	0,7	0,7	0,8	2,0
AGRICULTURAL GOODS OUTPUT	100	100	100	100	100	100	100	100	100	100

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The greatest growth of production in agriculture is registered for oilseeds and cereals production. In 2013 the increase in outputs to previous year for oilseeds reached 57%, cereals and pulses – 42,0%, vegetables – 7,3%, fodder crops – 7,2%. Agriculture production considerably decreased in 2012 in comparison with 2011. These fluctuations are subject to the climatic conditions. The years 2004, 2006, 2008, 2010 and 2012 were droughty, the production decreased during these years.

In livestock sector increase in production in 2013 in comparison with of 2012 was only 2,4%. The sector is highly dependent on the crop sector, as the main condition for the development of livestock sector is fodder availability. There is a tendency of decreasing in animal output connected with the decrease of fodder output in previous years.

Table 10 Gross Agricultural Output volume changes (% change from previous year)

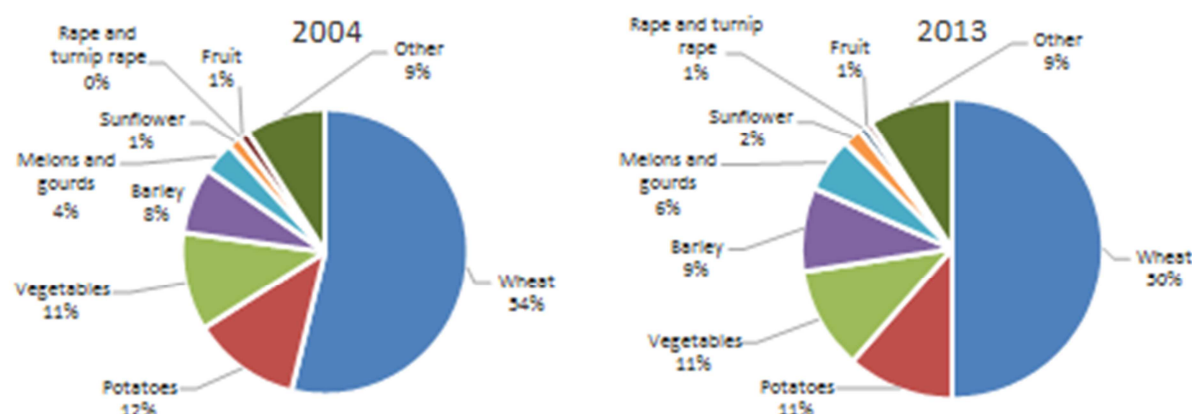
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP OUTPUT	95,1	109,5	107,7	113,8	86,6	123,5	77,4	158,9	72,4	120,7
Cereals and pulses	83,7	111,4	119,8	121,8	77,0	133,7	57,6	130,0	46,3	142,0
Oilseeds	90,7	111,1	104,3	100,1	90,5	170,0	110,2	150,3	88,7	157,0
Fodder crops	100,3	105,9	114	114,1	96,6	107,9	95,4	117,4	95,4	107,2
Vegetables	107,2	104,6	96,6	109,6	106,8	105,1	112,0	112,3	112,4	107,3
Potatoes	97,9	111,5	93,7	102,3	97,5	117,0	92,7	123,5	101,0	106,1
Cotton plants	116,0	99,5	733,7	101,4	71,9	85,0	88,8	140,1	113,0	104,5
ANIMAL OUTPUT	105,6	104,6	104,5	103,8	102,5	102,4	102,6	99,6	96,2	102,4
Cattle	106,1	105,0	104,7	100,6	103,0	100,7	101,8	97,2	93,1	102,0
Horses	104,4	98,5	105	115,6	101,0	107,9	100,4	103,3	111,4	109,1
Sheep and goats	105,8	106,4	105,7	102,2	106,5	102,4	102,6	104,3	103,3	100,4
Swine	105,5	99,7	98,2	119,6	107,2	100,8	98,7	104,5	90,0	94,5
Poultry	102,7	110,1	109,3	100,3	108,2	113,4	117,9	100,5	107,1	107,5
AGRICULTURAL GOODS OUTPUT	99,5	107,3	106,2	108,9	93,6	113,9	88,3	126,8	82,2	111,7

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.4.1 Crop production and yields

The structure of crop production in 2004 and 2013 shows that wheat is priority crop in Kazakhstan. In 10 years there was a decrease in production of wheat for 4% and potatoes for 1%, having made in 2013 respectively 50% and 11% of the general production in the republic. This was a result of a diversification strategy that is still in force. Production of other crops (like barley, sunflower, rape and melon) increased by 5% in total.

Figure 5 Crop production structure in in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Cereals

Climatic conditions of northern, northeast and considerable part of the western and central regions of the country are favorable for cultivation of cereals. In this regard, cereals production is one of strategic objective of the republic on which the food security of the country, the income and population employment, development of accompanying branches (animal husbandry, poultry farming, food and processing industry) depends.

Table 11 Crop area under cereals in 2004–2013, 1000 ha

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEREALS (with rice and pulses)	14 045,4	13 824,1	14 113,9	15 162,6	15 400,1	16 570,0	15 155,9	15 992,9	14 920,0	15 688,4
Wheat	11 785,2	11 813,2	11 861,2	12 683,0	12 906,3	14 279,8	13 138,0	13 686,4	12 410,9	12 953,5
Barley	1 642,3	1 450,6	1 671,3	1 837,8	1 966,7	1 709,3	1 332,8	1 515,3	1 634,0	1 836,7
Corn maize	102,7	104,0	89,3	92,3	95,4	99,2	95,6	96,7	100,3	107,9
Oats	169,8	135,9	155,6	169,8	146,5	149,2	162,8	143,4	165,4	220,5
Rice	80,7	84,9	87,6	87,4	75,5	86,9	94,0	93,3	93,0	89,4
Rye	28,1	30,3	40,4	52,3	53,8	57,7	43,5	24,9	32,1	39,4
Triticale	na	na	na	na	na	3,8	0,3	0,1	0,9	na
Buckwheat	85,9	77,2	87,6	138,1	53,9	57,4	63,8	67,0	76,2	81,5
Panicum	78,3	48,8	44,1	36,6	na	35,3	26,7	39,4	35,4	54,2
Spiked cereals	39,4	48,9	45,1	29,1	29,4	29,8	110,4	219,3	233,9	202,0
Pea	26,5	24,2	24,0	31,5	31,7	49,6	69,7	76,6	76,3	53,2
Green/golden gram (Phaseolus aureus)	na	1,9	1,5	1,7	1,2	2,5	3,8	2,8	1,9	2,0
Chick pea	na	3,3	5,3	3,9	10,3	10,3	11,9	21,8	44,2	33,8
Bean	0,5	na	na	na	na	0,2	0,3	0,2	0,2	0,2
Other pulses	na	na	na	na	na	na	1,8	5,3	14,0	12,2

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Cereals production is dominated by wheat with around 85% of total area under cereals. The strategy of diversification began implementing in 2009 with gradual decreasing the areas under wheat to other cereals and oilseeds. The results of the strategy in cereals sector are increasing areas under barley (by 7.5% compared to 2009), corn maize (8.7%), oats (47.8%), and buckwheat (41.9%).

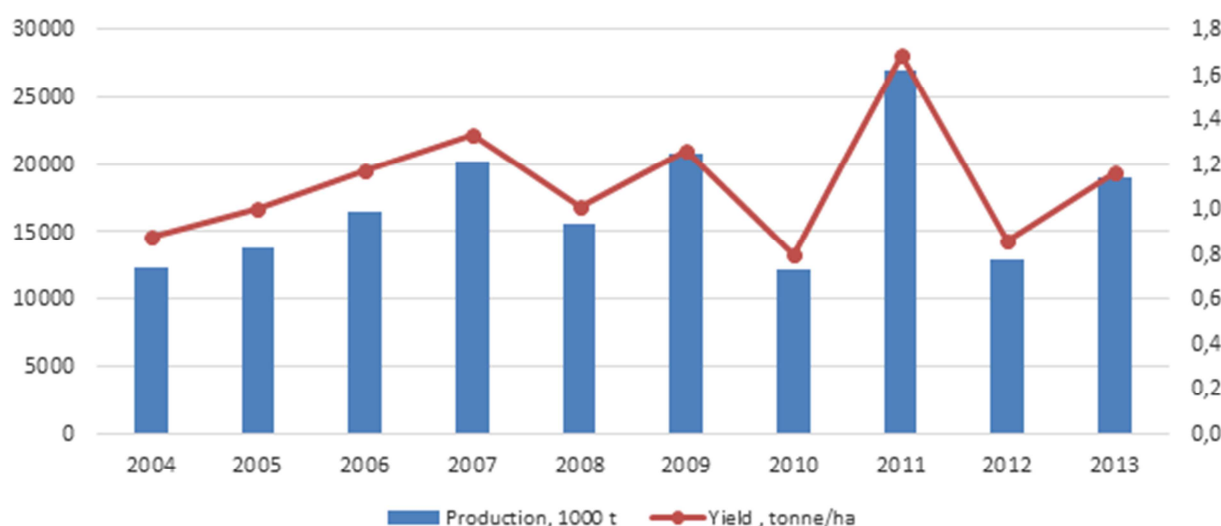
Table 12 Cereals production in regions in 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEREALS										
Total	12 374,2	13 781,4	16 511,5	20 137,8	15 578,2	20 830,5	12 185,2	26 960,5	12 864,8	18 981,1
Akmola	2 475,4	2 967,4	3 476,5	4 456,8	3 012,1	5 068,2	2 142,2	6 597,9	2 822,5	4 751,8
Aktobe	373,9	220,7	129,3	459,2	553,6	394,7	64,4	428,6	94,7	212,6
Almaty	977,6	980,2	967,4	1 059,8	659,8	1 190,5	1 066,3	1 120,1	1 021,9	1 103,9
Atyrau	0,4	0,1	0,1	0,1	0,4	0,0	0,0	0,3	0,0	0,1
East Kazakhstan	672,4	561,4	516,4	711,5	196,0	885,3	467,7	540,9	580,9	816,8
Zhambyl	676,8	655,2	431,1	425,9	152,5	553,3	372,6	393,5	229,5	480,0
West Kazakhstan	371,1	149,6	271,0	422,9	714,4	146,5	76,3	347,3	129,3	198,4
Karaganda	570,0	269,8	401,7	554,1	350,0	553,1	293,9	709,6	403,4	780,0
Kostanay	2 393,0	3 537,2	4 733,0	5 899,3	4 790,2	4 913,0	3 039,9	7 900,0	2 449,5	4 388,7
Kyzylorda	252,3	259,2	256,2	263,3	218,3	270,5	328,3	301,0	291,0	295,1
Pavlodar	354,9	286,6	354,7	514,8	185,6	826,7	232,1	384,9	168,6	718,6
North Kazakhstan	2 782,4	3 493,4	4 613,0	5 027,9	4 550,2	5 620,8	3 730,4	7 879,4	4 391,1	4 763,8
South Kazakhstan	474,1	400,6	361,0	342,4	195,3	408,0	371,3	357,0	282,6	471,4

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

In recent years in the crops sector, including cereals production the main focus of government policy was a stimulation of farmers to introduce new technologies, increase of efficiency of land use by diversification of crops growing, chemicalization, modernization. It allowed to achieve certain success in cereals production. During 2009-2013 the average annual output of grain reached 18,4 million tons that is 2,7 million tons or 17,2% higher in comparison with the previous five years (2004-2008).

Figure 6 Cereals production and yields in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Productivity of cereals in Kazakhstan fluctuates from year to year depending on weather. Over the last ten years average productivity in the country amounted 1,12 tons/hectare. Basically cereals sowing regions of the country – Akmola, Kostanay and North Kazakhstan region, productivity of cereals there is lower, than in the southern regions of the country - Almaty, Zhambyl, Kyzylorda and Southern Kazakhstan area. It is explained by the cultivation of cereals on irrigated lands in the southern regions of the country.

Wheat

Dynamics of wheat production in Kazakhstan has unstable character as the main cultivated areas are in a zone of risky agriculture, the output remains in considerable dependence on climatic conditions.

Over 3/4 of cereals area are occupied by spring wheat. It is cultivated generally in northern part of the republic, and in the south winter wheat is cultivated. As well as in previous years, the main wheat production comes from three regions - Akmola, Kostanay and North Kazakhstan, their total volume of production in 2013 reached 11,9 million tons or 81,3% of all wheat production in Kazakhstan.

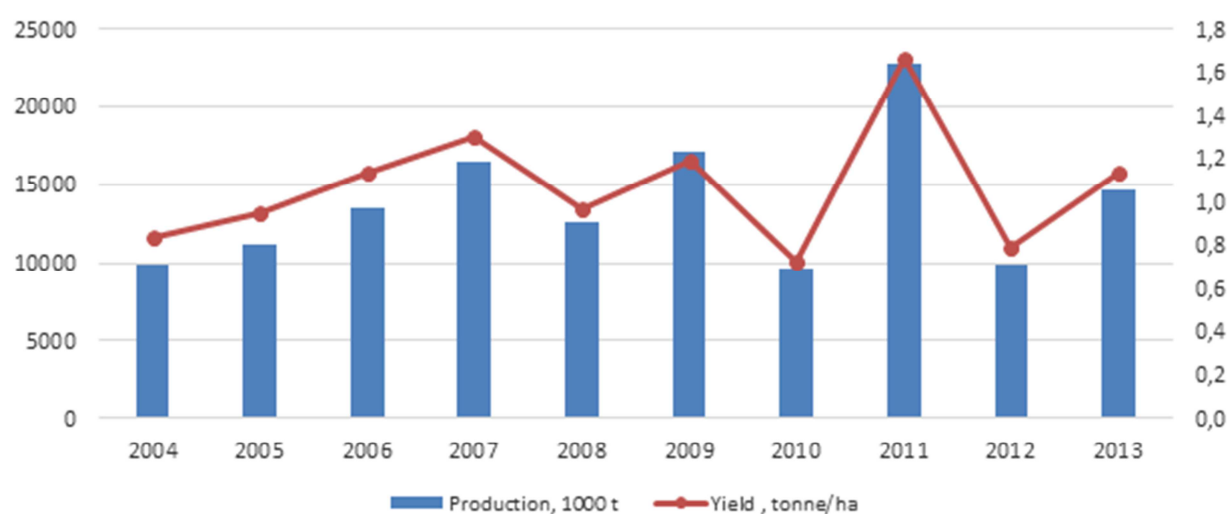
Table 13 Wheat production in regions 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
WHEAT										
Total	9 937,0	11 198,3	13 460,5	16 466,9	12 538,2	17 052,0	9 638,4	22 732,1	9 841,1	14 595,6
Akmola	2 215,4	2 622,5	3 060,8	3 942,7	2 620,9	4 414,2	1 969,0	6 052,4	2 552,9	4 084,7
Aktobe	306,8	178,8	108,2	365,4	419,6	328,2	59,7	376,1	72,7	176,5
Almaty	431,7	446,9	407,5	407,6	143,1	425,3	399,6	405,5	305,7	305,9
Atyrau	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
East Kazakhstan	488,7	398,4	343,0	461,2	132,0	626,8	316,6	380,2	376,6	527,9
Zhambyl	422,1	416,2	233,4	227,4	63,3	248,1	182,4	183,6	84,4	163,6
West Kazakhstan	276,9	106,9	164,7	261,1	437,1	126,3	65,2	256,2	101,1	145,6
Karaganda	510,5	243,5	350,0	474,2	309,7	476,9	261,3	611,4	332,2	610,2
Kostanay	2 217,9	3 256,6	4 320,2	5 442,7	4 415,6	4 626,4	2 858,9	7 341,3	2 246,1	3 957,1
Kyzylorda	14,6	16,6	14,6	11,1	6,4	9,4	6,3	5,2	2,7	2,5
Pavlodar	255,3	210,7	255,0	353,6	144,2	643,5	194,2	311,1	123,7	487,6
North Kazakhstan	2 429,5	3 013,0	3 943,9	4 259,9	3 721,8	4 836,5	3 081,2	6 574,6	3 505,8	3 825,5
South Kazakhstan	367,7	288,2	259,2	260,2	124,7	290,7	244,1	234,6	137,2	308,5

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Productivity of wheat in Kazakhstan considerably varies year by year that is caused, mainly, by weather conditions. However, on average over the last 5 years (2009-2013) average yield grew by 6% in comparison with 2001-2005. Thus, in the long term, production of wheat in Kazakhstan has positive dynamics of efficiency due to introduction of more perfect resource-saving technologies, steady grades, also some value has a factor of gradual warming of climate.

Figure 7 Wheat production and yields in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Oilseeds

Kazakhstan, holding the leading positions in the cereals market, actively increases production of oilseeds. Over the last ten years, growth of production of oilseeds is considerable. In 2004 the production of oilseeds was 395,8 thousand tons, in 2013 – 1 498 thousand tons, that is 3,8 times more than in 2004. The main oilseeds cultivated in Kazakhstan are the sunflower, soya beans, rapeseed, safflower, oil flax and mustard. Sunflower holds the largest share in oilseeds areas (44%), following by oil flax (20.5%), safflower (14.8%) and rapeseed (13.6%). The areas under oilseeds since 2009 have begun to increase substantially as the strategy of diversification started implementing.

Table 14 Crop area under oilseeds in 2004–2013, 1000 ha

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
OILSEEDS AND OLEAGINOUS FRUITS (including seeds), total	643,2	629,3	691,3	640,2	752,0	1 090,7	1 553,2	1 708,3	1 608,9	1 869,3
<u>Rape and turnip rape</u>	14,4	41,4	111,7	160,7	152,8	180,8	304,6	154,6	203,1	254,3
<u>Sunflower</u>	446,5	422,0	453,1	349,7	453,8	646,8	744,5	882,5	682,3	822,4
<u>Soya beans</u>	31,9	38,1	46,4	49,4	51,2	52,4	61,6	70,1	84,3	103,1
<u>Flax</u>	1,0	1,1	5,1	4,5	12,8	58,4	225,2	309,7	369,6	384,3
<u>Safflower</u>	140,4	122,0	70,4	74,0	79,9	147,7	194,0	241,5	243,4	276,5
<u>Other oleagenious products</u>	9,0	4,7	4,6	1,9	1,5	4,6	23,3	50,0	26,1	28,6

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The biggest share of oilseeds (more than 64%) is cultivated in three regions of the country: in Almaty, East Kazakhstan and North Kazakhstan areas. Also the dominating oilseeds for the specified regions are: for the East Kazakhstan region – sunflower; for Almaty region – soya beans, sunflower and safflower; for the North Kazakhstan area – rapeseed and oil flax.

Table 15 Oilseeds production in regions in 2004–2013, 1000 t

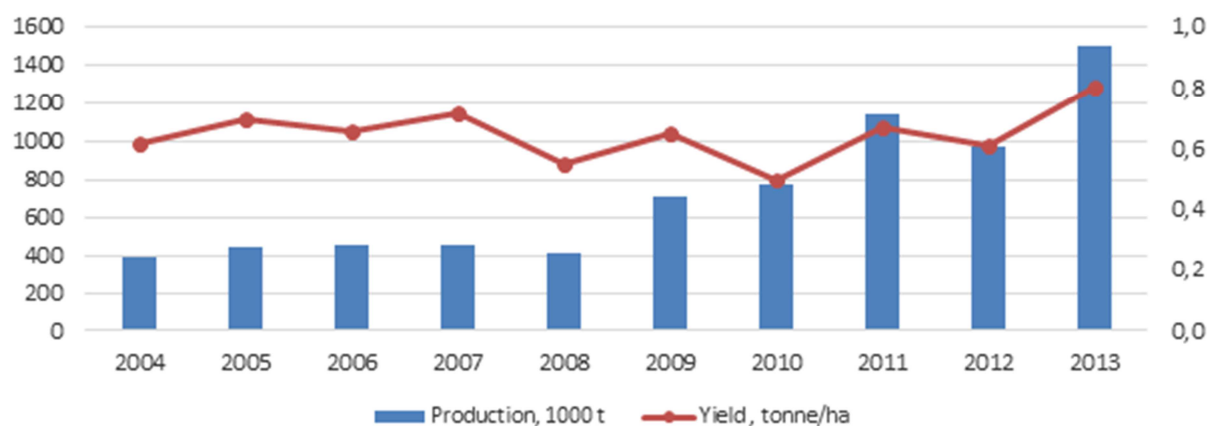
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
OILSEEDS										
Total	395,8	439,8	458,9	459,4	414,0	703,6	775,5	1 141,9	976,8	1 498,0
Akmola	2,0	4,9	8,1	6,7	7,3	13,5	28,4	95,2	71,5	127,5
Aktobe	1,2	0,9	1,3	3,1	6,9	6,0	3,1	10,4	2,9	8,1
Almaty	86,5	106,7	122,0	124,4	126,3	145,7	168,4	194,0	217,7	245,1
Atyrau	0,0	0,0	0,1	0,4	0,4	0,0	0,0	0,0	0,0	0,0
East Kazakhstan	179,7	170,8	159,4	115,0	85,6	191,1	193,8	216,5	274,9	325,4
Zhambyl	22,1	19,9	13,0	14,6	13,6	30,9	40,9	48,3	38,5	55,0
West Kazakhstan	2,7	3,3	6,4	6,0	17,1	3,8	7,8	25,3	5,2	15,7
Karaganda	0,1	0,1	0,0	0,0	0,6	0,2	0,7	3,2	4,9	15,9
Kostanay	1,4	4,6	13,9	32,7	27,3	25,3	46,5	125,5	38,8	139,0
Kyzylorda	2,7	1,7	1,6	1,9	1,3	1,3	1,5	1,0	0,9	0,8
Pavlodar	30,4	29,1	31,8	28,3	17,3	82,5	40,7	51,3	33,5	79,8
North Kazakhstan	7,8	41,8	60,5	89,4	72,4	142,8	164,9	299,3	215,4	391,3
South Kazakhstan	59,2	56,0	40,8	37,2	37,8	60,4	78,8	72,0	72,6	94,3

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Productivity of oilseeds in 2013 averaged 0,8 tons/hectare, in relation to 2004 growing by 29%. Over the last ten years the lowest level of productivity was observed in 2008 – 0,55 tons/hectare during the drought, and the highest in 2013 – 0,8 tons/hectare.

In the regions of the country where oilseed production is developed, productivity was higher than average about the country. So in Almaty in 2013 productivity reached 1,53 tons/hectare, the North Kazakhstan area – 0,92 tons/hectare, the East Kazakhstan region – 0,82 tons/hectare.

Figure 8 Oilseeds production and yields in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Fruits and vegetables

Population of Kazakhstan produces vegetables and fruits for domestic use mainly (except apples). The structure of vegetable production is heterogeneous. Approximately equal areas are distributed among table vegetables – tomatoes, cucumbers, cabbages, carrots and onions. In the fruits group traditional to Southern parts of Kazakhstan apples occupy the dominating position. The climate conditions are not favorable for effective production of other fruits, the households in Southern regions of Kazakhstan produce them for own consumption.

Table 16 Crop area under fruits and vegetables in 2004–2013, 1000 ha

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
VEGETABLES, total	110,7	110,6	102,4	104,1	111,8	112,4	120,2	129,1	130,8	135,8
Tomatoes	25,1	25,7	23,2	22,9	25,2	22,2	25,7	26,5	27,5	27,9
Pepper	4,2	4,8	4,7	5,2	6,3	6,0	6,9	6,8	7,6	8,1
Cucumber	14,7	14,6	13,3	12,6	13,8	11,7	15,4	16,1	16,8	16,4
Eggplant	2,6	3,1	3,4	2,6	2,5	1,3	3,0	3,0	3,4	3,7
Cabbage	14,4	14,0	13,3	14,2	15,3	12,9	17,3	19,0	17,7	19,5
Table beet	4,8	4,8	4,4	4,2	4,7	3,2	5,2	5,9	5,5	5,5
Carrot	12,8	13,0	12,3	12,9	13,2	11,6	15,2	17,7	18,5	19,6
Onions	17,7	18,1	16,3	17,5	18,5	16,4	20,4	23,9	22,7	21,5
Garlic	2,3	1,3	1,3	1,1	1,1	0,7	1,2	1,3	1,5	1,4
Pumpkin	4,0	3,7	3,6	3,5	3,4	3,7	4,5	4,1	4,3	5,2
Other vegetables	8,1	7,5	6,6	7,4	7,8	22,7	5,4	4,7	5,5	7,0
MELONS AND GOURDS, total	43,3	43,1	41,5	38,3	54,4	51,7	63,2	67,1	79,8	80,6
FRUIT, total	50,0	47,5	34,6	31,9	33,5	31,3	37,0	38,5	40,5	39,9
Apple	36,4	34,1	26,2	24,4	25,8	26,1	29,7	29,1	30,3	30,3
Pear	3,2	3,2	2,7	1,7	1,7	1,3	2,0	1,9	2,4	2,2
Peaches and nectarines	0,7	0,5	na	0,3	0,3	0,1	na	na	na	na
Apricots	1,5	1,8	1,7	2,0	2,3	2,3	2,5	3,1	3,5	3,0
Cherry and sour cherry	3,7	3,6	1,9	1,7	1,7	0,9	1,7	1,8	1,7	1,7
Strawberry	2,3	2,1	1,0	0,8	0,8	0,1	0,8	0,8	0,9	1,2
Plums, sour plums and sloes	1,9	1,8	0,7	0,7	0,6	0,2	na	1,3	1,1	1,0
Nuts (in a shell)	0,3	0,4	0,4	0,3	0,3	0,3	0,3	0,4	0,5	0,5

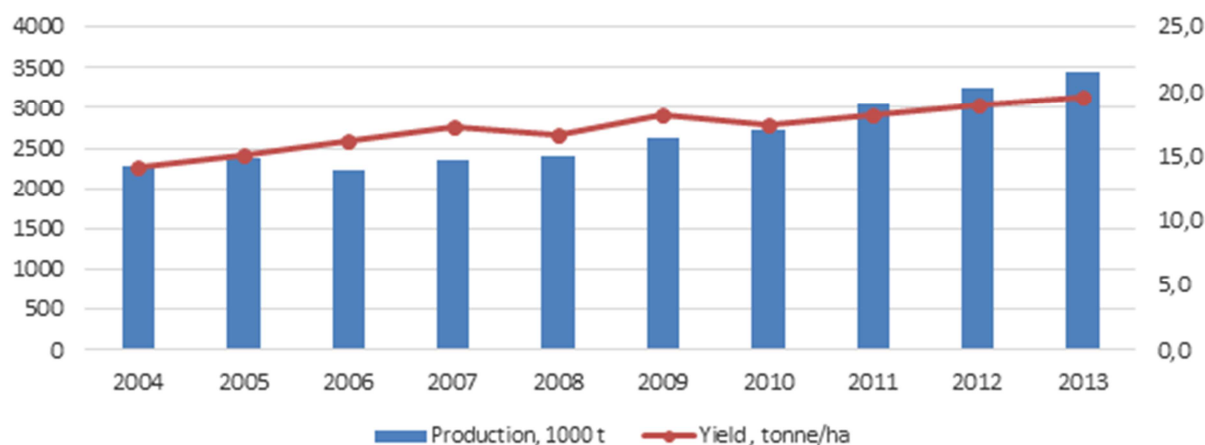
Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Production of vegetables and fruits from 2004 to 2013 has increased by more than 1 100 thousand tons, growing about 52% in total.

The main regions that lead in production of vegetables and fruit are the southern areas of Kazakhstan. More than 65% of all vegetables and fruit production belong to Almaty, Zhambyl and Southern Kazakhstan regions. Potatoes are made practically in all regions of the country.

Over the last 10 years during 2004-2013 productivity of vegetables and fruits increased by 5.4 tons/hectare or 38.2%.

Figure 9 Fruits and vegetables production and yields in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.4.2 Animal production

The livestock sector in Kazakhstan is one of primary sector in agriculture of Kazakhstan. The vast pasturelands and favorable climatic conditions create a good basis for the development of livestock sector.

In animal production, the number of animals and poultry, except for pigs, demonstrated a stable rising. From 2004 to 2013 the number of cattle has increased by 12.4%, sheep by 34.6%, goats by 11.3%, horses by 59.2% and poultry by 33.4%.

Table 17 Livestock number in 2004–2013

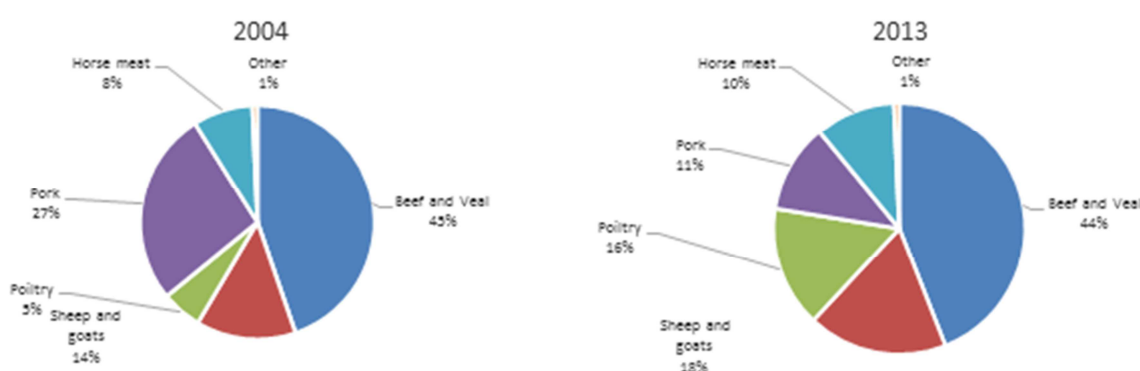
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of animals (1000)										
Cattle (total)	5 203,9	5 457,4	5 660,4	5 840,9	5 991,6	6 095,2	6 175,3	5 702,4	5 690,0	5 851,2
of which cows	2 376,2	2 442,6	2 569,0	2 605,6	2 675,4	2 717,3	2 751,3	2 502,8	2 580,1	2 734,9
of which dairy cows										
Pigs (total)	1 292,1	1 281,9	1 304,9	1 352,7	1 347,3	1 326,3	1 344,0	1 204,3	1 031,6	922,3
of which sows	238,7	228,7	257,1	243,0	242,6	239,9	249,6	218,7	158,1	139,9
Sheep	11 286	12 005	12 813	13 470	14 126	14 660	15 313	15 439	15 137	15 197
of which ewes	6 552,9	6 879,3	7 868,1	7 627,9	7 865,0	8 177,1	8 370,6	8 538,5	8 377,6	8 596,9
Goats	2 122,4	2 329,0	2 536,6	2 609,9	2 644,3	2 708,9	2 675,0	2 652,5	2 496,1	2 362,8
of which she-goats	1 200,2	1 296,2	1 578,4	1 469,8	1 458,2	1 476,8	1 431,3	1 436,3	1 370,6	1 325,5
Horses	1 120,4	1 163,5	1 235,6	1 291,1	1 370,5	1 438,7	1 528,3	1 607,5	1 686,2	1 784,5
of which she-horses	480,3	493,7	534,0	537,9	567,0	600,3	639,5	681,3	721,2	785,2
Poultry	25 606	26 215	28 239	29 506	30 148	32 686	32 780	32 870	33 474	34 173
Other animals										
Rabbits	92,8	92,6	82,1	79,7	68,5	75,2	75,2	82,1	78,6	77,9
Camels	125,7	130,5	138,6	143,2	148,3	155,5	169,6	173,2	164,8	160,9

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Livestock sector development in Kazakhstan was initially stimulated by the existence of vast areas of natural fodder grounds. The most important branch of animal production of the republic is cattle breeding. Sheep breeding, pig-breeding, poultry farming, horse breeding and camel breeding are also important directions of the development. Character of natural fodder grounds predetermines development of mostly meat cattle breeding. Its share in total animal production in 2004 was 45%, in 2013 declined to 44%.

Significant increase in a share of production in production structure in 2013 in comparison with 2004 is observed in production of poultry meat. The increase was 11%. Production of pork was reduced by 16% and contracting to 11% in 2013. That substantially affected increase in a share of production of sheep & goats and horse meat, by 4% and 2% respectively.

Figure 10 Livestock production structure in 2004 and 2013



Sources: Statistical bulletin "Major indicators of livestock development" (Agency of statistics of the Republic of Kazakhstan <http://stat.gov.kz>)

Beef and Veal

Production of beef and veal in Kazakhstan according to Agency on statistics during the period 2004-2013 has increased by 53,8 thousand tons. In 2013 the total volume of production of beef and veal accounted 383,5 thousand tons. The main producers of beef and veal are household farms, their share in production is 80%, 15% and 5% respectively are the shares of peasant farms and agricultural enterprises. In a regional breakdown, the greatest outputs are recorded in Almaty, East Kazakhstan and Southern Kazakhstan regions. Their total share of production is equal to 43,1% of the general production of beef and veal.

Table 18 Beef and Veal production in regions in 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEEF AND VEAL										
Total	329,7	348,3	366,5	385,9	400,1	396,1	406,8	392,8	373,5	383,5
Akmola	28,4	29,8	29,4	29,3	29,5	29,7	28,1	20,8	18,5	19,6
Aktobe	19,9	21,6	22,9	26,1	27,2	28,1	29,1	29,0	31,7	32,9
Almaty	51,0	50,2	53,6	59,5	65,9	63,2	66,0	64,7	62,9	62,9
Atyrau	10,8	11,1	11,6	12,2	12,3	12,6	11,9	12,0	12,5	12,8
East Kazakhstan	43,8	46,3	51,5	52,5	55,2	54,1	58,6	58,1	56,3	56,4
Zhambyl	15,6	17,3	18,1	20,3	19,6	18,6	20,5	22,5	22,0	22,5
West Kazakhstan	21,8	22,6	23,2	23,9	24,7	25,9	26,0	25,6	22,1	21,9
Karaganda	21,9	24,3	27,5	28,4	31,1	30,6	29,5	30,4	29,5	28,8
Kostanay	32,6	33,7	37,3	39,8	37,1	35,4	35,5	34,2	20,6	24,2
Kyzylorda	6,5	7,4	7,6	7,6	8,7	8,7	8,5	8,7	8,7	8,8
Mangystau	0,3	0,2	0,3	0,2		0,2	0,2	0,5	0,8	0,6
Pavlodar	21,9	23,3	23,4	23,7	23,2	23,0	23,0	22,2	21,2	21,7
North Kazakhstan	22,1	24,1	23,6	23,8	24,9	24,6	27,8	20,6	22,8	24,3
South Kazakhstan	33,1	36,4	36,5	38,6	40,7	41,7	42,1	43,5	44,2	46,1

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Milk production

Unlike the developed countries where the chief producers of livestock production are large agricultural formations, in Kazakhstan the main production of milk is concentrated in households estimating 84%, and only 16% of milk production is shared by agricultural enterprises and peasant farms. From 2004 to 2013 the milk output in the country increased by 373,5 thousand tons or 8,2%. The greatest amount of milk is made in the East Kazakhstan region reaching 758,2 thousand tons or 15,4%, the Southern Kazakhstan area – 13,8%, Almaty – 13,7% and the North Kazakhstan area – 9,3% of the total production of milk in the country.

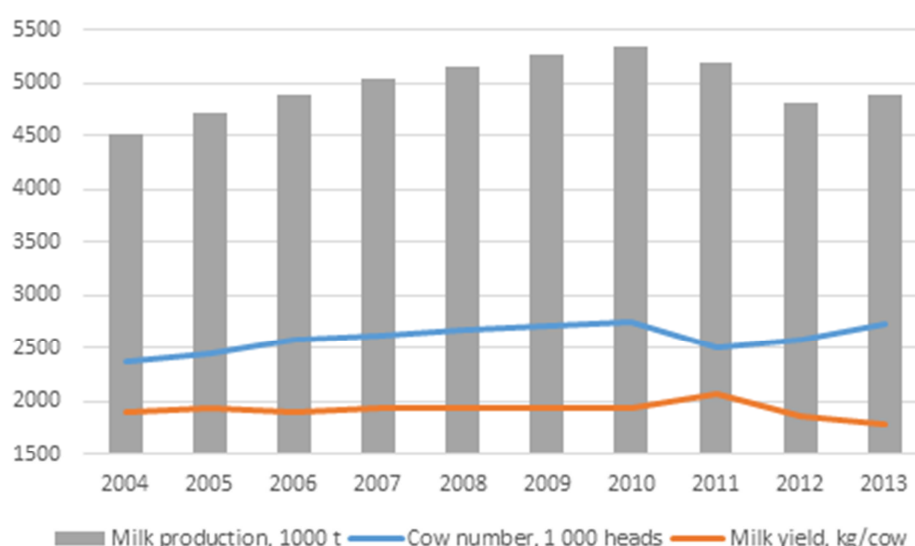
Table 19 Milk production in regions in 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
MILK										
Total	4 556,8	4 749,2	4 926,0	5 073,2	5 198,0	5 303,9	5 381,2	5 232,5	4 851,6	4 930,3
Akmola	440,2	449,5	451,9	454,3	454,7	455,1	455,8	364,3	307,6	331,7
Aktobe	253,2	270,3	277,6	288,0	302,0	310,8	318,2	325,3	328,9	301,4
Almaty	598,5	618,2	645,1	658,3	670,6	672,1	670,2	671,0	672,6	674,9
Atyrau	46,6	48,5	50,3	52,7	54,9	55,5	55,5	56,6	57,3	57,6
East Kazakhstan	602,9	634,6	661,4	677,1	678,7	697,9	711,0	723,8	740,1	758,2
Zhambyl	234,0	244,1	253,0	260,8	266,9	269,1	273,8	279,3	284,1	284,2
West Kazakhstan	210,3	214,0	219,9	228,8	232,5	234,7	237,6	226,7	223,6	224,7
Karaganda	269,2	283,7	299,8	313,8	334,5	354,1	362,1	352,7	357,9	374,5
Kostanay	538,9	567,9	588,6	609,6	627,6	636,3	641,8	580,6	332,3	341,1
Kyzylorda	63,6	64,6	68,3	71,2	74,2	76,4	77,4	79,0	78,3	83,3
Mangystau	5,3	5,9	6,1	6,5	6,8	7,1	7,3	7,7	9,1	8,9
Pavlodar	324,6	339,3	343,0	343,4	338,6	343,8	347,5	348,4	351,4	351,8
North Kazakhstan	504,4	512,9	523,4	531,3	547,7	573,3	586,9	555,1	447,8	458,5
South Kazakhstan	465,1	495,7	537,6	577,4	608,3	617,7	636,1	662,1	660,7	679,5

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The growth of milk production is extensive rather than intensive. Increasing production is mostly connected to the increase of the number of cattle while the productivity grows slower.

Figure 11 Milk production, cow number and milk yield in 2004 and 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Sheep and goats

Sheep and goat breeding in Kazakhstan is the most ancient and developed branch of livestock sector that is widespread on all territory of the republic. During 2004 - 2009 production of sheep and goat production increased, in 2010 there was a considerable decrease. In total, over the last 10 years,

production decreased by 23.4 thousand tons. Subject to the climatic factors influencing a year-round pasture period, and also subject to the fodder supply chain sheep breeding is most developed in the southeast of the republic. About 50% of the general production of Kazakhstan in 2013 is produced in Southern Kazakhstan, Almaty, East Kazakhstan and Zhambyl regions.

Table 20 Sheep and goats production in regions 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
SHEEP AND GOATS										
Total	101,6	106,6	114,9	123,7	130,8	134,9	142,9	74,7	76,9	78,2
Akmola	2,3	2,5	2,7	3,1	3,4	3,2	3,2	1,6	1,9	2,0
Aktobe	5,9	6,0	6,3	7,1	8,3	9,4	10,3	5,3	5,5	5,1
Almaty	18,8	17,7	17,8	19,4	19,8	20,9	23,5	12,7	12,5	12,6
Atyrau	5,5	6,0	5,6	5,9	6,5	6,6	7,4	3,8	3,6	3,3
East Kazakhstan	13,5	14,9	16,9	18,5	19,8	20,9	20,6	11,3	11,7	12,1
Zhambyl	11,8	13,0	13,8	14,1	15,5	15,2	15,9	8,1	8,2	8,8
West Kazakhstan	5,6	5,5	6,2	6,1	6,7	6,7	7,0	3,3	3,6	3,8
Karaganda	6,1	6,3	7,0	7,7	8,2	8,1	10,1	5,1	5,2	5,5
Kostanay	1,7	1,8	2,3	1,8	2,4	2,3	2,4	1,2	1,2	1,2
Kyzylorda	3,9	4,0	3,9	4,3	3,9	4,4	4,4	2,2	2,1	1,9
Mangystau	2,1	2,1	2,3	2,6	2,5	2,5	2,5	1,2	1,2	1,4
Pavlodar	2,5	2,8	3,0	3,4	3,9	4,3	4,5	2,4	2,6	2,7
North Kazakhstan	1,2	1,6	1,9	2,1	2,1	2,1	1,8	0,8	1,1	1,3
South Kazakhstan	20,7	22,4	25,2	27,6	27,8	28,3	29,5	15,7	16,3	16,5

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Pork

In 2013 in Kazakhstan 99,9 thousand tons of pork was produced. The main share of pork production of pork is produced in the northern regions of the country: Kostanay, North Kazakhstan and Akmola regions, total production in these areas in 2013 exceeded 50% or 53,8 thousand tons. According to the Agency of statistic, during 2004-2013 production of pork in the republic decreased by 98,7 thousand tons, it is connected with change of data collection and methodology calculation for reflection of more realistic situation in pig-breeding of Kazakhstan.

Table 21 Pork production in regions in 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
PORK										
Total	198,6	196,5	193,4	193,9	206,2	208,9	206,0	213,6	192,7	99,9
Akmola	13,7	13,7	13,8	14,6	14,0	13,5	13,0	10,6	12,0	12,2
Aktobe	10,3	10,7	11,1	7,6	8,5	9,4	10,4	13,9	11,2	7,3
Almaty	18,0	17,2	13,9	13,7	15,9	14,1	10,9	11,1	12,2	9,7
Atyrau	0,1		0,1	0,1	0,1	0,1	0,1	0,0	0,1	0,0
East Kazakhstan	13,5	9,7	8,9	9,8	10,2	9,2	9,0	9,9	10,8	6,3
Zhambyl	4,7	4,6	4,7	4,6	4,7	6,0	5,9	4,4	5,6	3,4
West Kazakhstan	3,4	2,2	1,8	1,9	2,1	2,0	1,9	1,9	1,6	2,1
Karaganda	12,4	12,7	14,6	13,7	15,1	11,7	10,8	10,7	10,7	8,9
Kostanay	89,9	93,9	92,3	94,1	98,6	105,2	108,0	110,1	91,7	22,9
Kyzylorda	0,2	0,3	0,3	0,2	0,3	0,2	0,2	0,3	0,2	0,2
Mangystau				0,1	0,1	0,0		0,0	0,0	0,0
Pavlodar	8,5	7,6	7,7	8,0	7,9	7,2	7,7	7,2	7,2	6,5
North Kazakhstan	21,0	21,6	21,8	23,2	26,0	27,3	26,2	31,8	27,6	18,7
South Kazakhstan	2,9	2,3	2,4	2,3	2,7	2,9	1,9	1,8	1,9	1,8

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Poultry

In Kazakhstan, production of poultry consists of industrial production by the agricultural enterprises and production by household farms. From 2004 for 2013 number of a poultry in all categories of farms demonstrated stable growth increasing from 25,6 to 34,2 million heads, or by 34%. Thus poultry meat outputs for the same period grew by 3,2 times from 41,3 thousand tons to 135,8 thousand tons.

Leaders on production of poultry meat in Kazakhstan are Almaty and East Kazakhstan areas, more than 77% of the general production of poultry meat comes from these two regions in 2013.

Table 22 Poultry production in regions in 2004–2013, 1000 t

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
POULTRY										
Total	41,3	45,7	64,5	64,3	65,3	79,5	103,0	102,0	123,1	135,8
Akmola	3,4	3,0	2,2	2,4	1,8	1,9	2,1	1,8	1,7	2,1
Aktobe	0,6	0,5	0,5	0,8	1,0	1,2	1,6	2,1	2,4	2,0
Almaty	11,9	14,9	32,5	29,7	31,9	42,8	62,6	56,8	67,1	73,4
Atyrau						0,0		0,0	0,0	0,0
East Kazakhstan	12,3	13,8	15,4	17,9	17,3	19,2	21,0	21,1	28,7	31,9
Zhambyl	1,3	1,2	1,1	1,1	1,1	1,0	1,0	1,0	0,7	0,7
West Kazakhstan	0,3	0,3	0,4	0,3	0,4	0,5	0,5	0,5	0,6	0,5
Karaganda	3,8	3,9	5,8	6,7	6,3	7,4	6,7	7,7	8,2	8,8
Kostanay	3,6	3,7	2,2	0,9	0,8	1,0	1,4	2,4	3,4	3,9
Kyzylorda	0,2	0,2	0,2	0,2	0,1	0,1	0,1	0,1	0,1	0,1
Mangystau						0,0		0,0	0,0	0,0
Pavlodar	1,0	1,2	1,2	1,1	1,0	1,0	0,8	1,0	0,6	0,4
North Kazakhstan	1,2	1,3	1,3	1,5	1,4	1,2	2,1	1,6	1,9	3,2
South Kazakhstan	1,7	1,7	1,7	1,7	2,2	2,2	3,1	5,9	7,7	8,7

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.4.3 Organic production

The market of Kazakhstan suffers from separation of organic farms and absence of strong organic farmer associations, labor unions and the unions with distributors, consumers and suppliers. In the region, there is no system of continuous ensuring of further growth of application of organic methods and the principles of organic production, and also there is no support for farmers during the process of certification and initiation of organic farms. In this regard in June 2013 the Kazakhstan federation of movements of organic agriculture (KAZFOAM) which is urged to solve the specified problems was created.

Application of the latest technologies for production, processing and storage of organic products is at present complicated due to the lack of good legislation, technological and research base. There are also problems of practical introduction of the scientific developments into the farming itself. The lack of interactions of producers of organic production with the research institutes is caused by the weak mechanism of research in the institutes. Also there is no integrated approach to researches in the field of organic production. The considerable problem for development of export of organic products is represented by absence of laboratories (on research on pesticides, GMO, etc.), accredited according to the international standards.

In spite of the fact that "The ecological code" of the Republic of Kazakhstan provides the basic provisions concerning marking of "ecological products", ecologically pure and clean production does not correspond to the international understanding of organic production.

In Kazakhstan, the prefix "bio" is used for the food products enriched with vitamins and useful bacteria. Usage the concept "organic" is not regulated.

Nowadays, in Kazakhstan has no state system of certification of organic production. However, there are three European certifying companies accredited for production certification in Kazakhstan, exported on the international markets. According to data of one from the certifying companies, in Kazakhstan 8 enterprises are certified, whose most part of production is focused on export.

2.5 Prices, costs and income

2.5.1 Prices

From 2004 to 2013 the price index on agricultural production averaged 112,5%, only decreasing in 2010 and 2012. Thus in crops sector the situation similar to the total values, and in animal and livestock production growth on the average for 112,6% is noted.

Table 23 Agricultural output price indices; nominal (previous year=100)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP PRODUCTS	138,5	94,0	95,4	126,6	151,9	100,5	83,5	135,6	86,9	103,3
Cereals	143,1	93,9	93,6	128,7	156,3	100,4	80,4	135,9	86,9	125,9
Oilseeds	99,2	103,8	104,9	101,9	133,0	100,4	97,0	137,4	93,5	108,2
Potatoes	100,5	101,7	118,5	123,8	120,5	104,8	91,6	128,2	77,6	107,0
Vegetables	105,1	104,0	109,6	111,8	130,5	102,6	97,5	128,2	83,8	110,8
ANIMALS AND LIVESTOCK PRODUCTS	111,0	111,6	108,5	112,0	122,5	106,6	106,5	116,4	107,9	123,5
Live animals	109,1	111,8	109,8	111,3	121,8	111,0	107,1	115,7	111,9	103,3
Milk	110,5	107,9	106,0	113,0	123,4	103,8	109,9	127,7	103,5	102,7
Hen Eggs	120,0	114,6	106,8	115,2	124,5	89,8	99,1	102,9	96,2	105,0
Sheep wool	120,5	99,7	102,2	103,4	104,5	102,2	102,8	113,1	113,3	102,2
AGRICULTURAL GOODS	127,1	101,4	101,2	120,3	139,4	103,1	93,3	127,6	96,2	115,5

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The prices of wheat (durum and soft) in 2013 increased twofold in comparison with 2004. Insignificant reduction of output prices in 2005, 2006, 2010 and 2012 was defined by increase in the supply, with favorable weather conditions for harvesting.

Also over the last 10 years the prices of barley, rye, grain maize, oats, buckwheat and panicum increased by more than 2,5 times. The prices of rice increased slightly in comparison with other cereals by only 15%, having reached in 2013 year 37 230 tenge per ton, thus in comparison with minimum price for the last ten-year recorded in 2006, the price in 2013 increased almost twice.

In domestic market of oilseeds, annual increase of demand was observed. During 2004 - 2013 sunflower seeds prices have risen by three times, in 2012 the reduction in prices by 6.8% was recorded, and in 2013 they rose again, by 19%. The domestic manufacturing enterprises had other price situation: in 2013 vegetable oil fell in price for 4.7% and 3% respectively.

Prices dynamics of vegetable and potatoes production have seasonal nature and, in many respects, depend on saturation of the market by them. Dynamics of the prices of vegetable production in 10 years increased on average by 3 times, thus the greatest growth was noted in the prices of tomatoes – by 5,6 times. Potato prices also increased having made in 2013 year 49 262 tenge per ton against the price in 2004 of 20 985 tenge per ton. The greatest jump in prices of potatoes was observed in 2011 when the average annual price of producers reached 60 450 tenge per ton.

The livestock sector is least subject to influence of weather conditions and world factors of fluctuations of the world prices for output of products unlike a crop sector. The change in price in animal output happens at the expense of indicators of internal supply and demand in the republic. So in Kazakhstan in animal production the increase of the prices of producers is annually observed. During 2004 - 2013 price for cattle has increased by 3,4 times, for pigs by 2,4 times, for sheep by 3 times, for poultry by 1,6 times, for milk by 3 times and for eggs by 1,8 times .

It is also necessary to note reduction of prices for pigs and poultry in 2013 in comparison with previous year by 10% for a pig and by 1.5% for poultry.

Table 24 Average producer (selling) prices for certain agricultural products (NC/kg)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Soft wheat	14 458	12 742	12 120	16 795	26 774	25 371	20 868	27 907	25 546	29 823
Durum wheat	17 167	15 598	14 523	16 494	25 987	30 740	27 930	35 916	29 531	35 450
Rye	11 280	12 269	12 117	12 165	18 249	21 139	19 915	21 005	25 286	29 085
Grain maize	12 387	13 752	13 551	15 082	21 266	23 279	22 541	27 094	28 933	30 533
Barley	8 576	9 289	9 205	10 696	17 925	18 479	13 599	17 001	18 641	24 120
Oats	6 987	7 830	8 241	8 718	12 028	13 486	12 201	19 500	18 978	18 227
Rice	32 495	34 111	20 925	24 319	32 271	45 582	46 558	34 629	36 808	37 230
Buckwheat	28 873	29 641	29 711	27 191	31 151	34 392	32 951	90 076	72 910	68 569
Panicum	10 522	10 826	12 158	12 935	15 056	15 771	14 492	25 037	26 808	27 264
Rape and turnip rape seed	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	47 889
Sunflower seed	25 123	26 211	27 359	29 266	40 504	42 369	43 599	66 685	60 570	72 099
Soya bean	n/a	n/a	30 603	31 571	38 802	45 312	46 125	50 747	55 520	70 267
Raw tobacco	n/a	n/a	n/a	n/a	190 065	251 666	230 000	226 000	493 816	369 920
Sugar beet	n/a	n/a	n/a	n/a	7 493	8 020	9 430	10 333	10 033	10 970
Cotton fibre	n/a	n/a	n/a	n/a	60 365	52 055	99 127	92 646	76 695	78 890
Fibre flax	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	58 379
Potatoes	20 985	21 938	26 831	34 541	44 524	46 310	45 059	60 450	46 039	49 262
Tomato	20 552	28 853	29 281	35 690	50 372	48 543	53 639	66 150	113 574	115 269
Red beet	23 956	24 520	28 856	33 862	46 874	51 432	42 113	55 036	48 401	54 963
Cucumber	46 726	54 933	53 273	74 510	81 886	47 338	55 373	62 682	76 136	84 545
Carrots	22 134	22 697	24 181	30 375	46 830	48 024	40 566	58 962	51 288	55 966
Onions	12 609	13 949	15 883	17 013	25 995	31 902	31 568	41 056	39 314	34 338
Cabbage	20 652	20 270	22 042	24 711	33 912	34 949	33 701	45 095	34 222	40 827
Pome fruits	17 200	19 797	21 154	20 007	55 945	49 450	55 445	72 455	71 731	96 650
Drupes	16 812	17 939	19 709	29 433	46 237	49 186	63 054	70 253	75 329	68 567
Berries	54 121	67 156	74 199	72 717	135 120	158 042	180 991	216 280	245 441	248 642
Melons and watermelons	7 793	8 622	9 305	11 520	15 802	16 025	17 594	19 444	20 679	24 779
Dessert grapes	24 013	25 196	23 851	24 318	32 910	34 274	45 152	53 531	73 825	103 891
Cattle	122 034	140 709	158 606	172 816	212 564	253 817	276 294	327 427	383 355	417 106
Pigs	144 185	177 591	202 915	227 182	259 024	268 128	302 372	319 142	389 833	349 885
Sheep	133 498	144 222	159 986	181 394	208 966	233 126	248 177	311 865	379 074	419 410
Poultry	139 901	147 770	152 747	165 184	195 104	208 203	214 330	225 731	233 895	230 241
Cows milk	22 344	24 642	26 674	30 984	41 256	42 703	47 555	63 180	66 264	68 930
Horse milk	n/a	n/a	103 558	107 232	138 865	158 255	179 225	269 294	291 710	335 145
Camel milk	109 156	107 149	109 348	113 287	126 655	133 664	160 419	270 056	366 419	409 803
Eggs (in a shell)	7 113	8 335	8 926	10 201	12 576	11 302	11 293	11 864	11 803	13 121
Sheep wool	97 477	91 739	95 101	98 804	99 458	103 060	107 003	125 120	149 483	155 809
Camel wool	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	340 910

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.5.2 Costs

Crops

The costs of production of a ton of crop products have grown 2-3 times since 2004. The costs of production show dramatic increase in 2010 and 2012. The main reason for the costs increase in those years is the severe droughts bringing total per ton costs up. The following years the costs went down.

Table 25 Cost of production of 1 ton of major crop products in 2004-2012, NC/ton

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Wheat	10 450	9 624	9 155	11 034	15 949	n/a	21 410	11 610	24 689
Rice	14 080	16 801	18 928	22 037	33 255	n/a	29 188	36 540	34 130
Oilseeds	18 480	19 156	19 119	21 879	30 656	26 920	38 992	29 480	42 645
Sunflower seeds	16 610	16 468	19 038	21 189	32 695	25 860	37 128	30 120	33 485
Cotton	38 120	34 798	37 266	47 219	50 277	43 150	n/a	74 390	64 355
Potatoes	12 930	14 757	18 372	22 051	25 076	20 960	28 307	26 110	25 978
Melons and watermelons	5 360	4 841	4 840	10 667	6 568	16 540	7 529	8 550	7 357
Grapes	20 150	18 452	26 935	29 551	73 311	23 790	48 628	43 370	27 250

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The costs structure for major crop products show high share of fixed costs with labor as the highest expenditure in the fixed costs group, especially in rice (30%) and grapes (34%) production, where hand-labor is most required. Variable costs account for 48-77% of total costs distributing in different proportions across the types of expenditures.

Table 26 Structure of costs for major crop products in 2012, %

	Wheat	Rice	Oilseeds	Cotton	Potatoes	Vegetables	Melons and Watermelons	Grapes
Fixed costs	45%	43%	41%	25%	38%	37%	23%	52%
Capital costs	16%	7%	12%	4%	9%	9%	2%	11%
Labor	14%	30%	13%	15%	20%	19%	17%	34%
Other costs	15%	6%	16%	7%	9%	9%	4%	7%
Variable costs	55%	57%	59%	75%	62%	63%	77%	48%
Water	0%	4%	1%	3%	2%	5%	4%	4%
Mineral fertilizers	5%	15%	7%	9%	7%	9%	7%	10%
Services performed by outside organizations	7%	5%	7%	42%	8%	13%	39%	15%
Spare parts, repair	10%	8%	15%	2%	4%	3%	2%	4%
Seeds	15%	11%	13%	4%	30%	19%	14%	1%
Fuel	17%	13%	15%	12%	8%	10%	10%	13%
Electricity	1%	0%	1%	2%	2%	4%	1%	0%

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Animal production

The costs of livestock production have also increased 2-3 times in the period 2004-2012. The costs of livestock production are highly dependent on the costs of feed, and thus on the weather conditions. During the dry years and one year following the drought the costs rose substantially as the costs for the feed could increase twice. Nearly 70% of the costs for livestock production is fodder costs, thus whenever the costs for the feed grows up, the costs of livestock products increase accordingly (Table 27).

Fixed costs in livestock sector are less than in crop production mainly due to the pasture based production system, with minimal expenditures on buildings, machinery and other fixed assets, with exception of poultry and milk production where facilities and equipment play a major role. Labor costs have relatively high share, especially in sheep breeding and wool production. The large herds of sheep need more yardmen and there is literally no equipment for wool shearing on the farms and enterprises. Feed is the largest expenditure in livestock sector, and in the periods of droughts, the costs rapidly increase (Table 28).

Table 27 Cost of production of 1 ton of major livestock products in 2004-2012, NC/ton

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cattle, live weight	198 030	220 740	256 877	265 748	248 075	275 800	286 288	408 790	526 815
Horses, live weight	454 850	419 102	482 089	620 024	526 249	644 720	488 562	649 910	1 083 703
Pigs, live weight	186 280	217 194	229 141	235 895	215 437	297 430	280 619	282 660	333 903
Poultry, live weight	147 720	150 647	190 792	211 081	226 198	0	182 772	218 100	257 343
Cow milk	19 430	22 653	23 341	27 220	35 509	37 080	48 246	49 770	54 888
Camel milk	80 150	100 070	155 932	84 819	107 396	139 940	233 741	155 350	189 685
Horse milk	92 940	102 205	123 727	179 974	132 896	90 260	104 435	111 360	122 880
Wool	99 050	87 522	82 654	84 082	84 571	89 510	83 750	112 540	102 805
Honey	242 300	240 633	317 185	270 235	599 109	682 130	841 584	885 560	774 583
Eggs	62 530	60 116	69 671	89 725	93 509	82 680	88 759	95 140	96 503

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Table 28 Structure of costs for major livestock products in 2012, %

	Beef	Horse meat	Sheep meat	Pig meat	Poultry	Cow milk	Wool	Eggs
Fixed costs	38%	31%	39%	23%	48%	44%	51%	25%
Capital costs	5%	2%	2%	5%	33%	10%	2%	6%
Labor	18%	19%	25%	11%	8%	20%	28%	8%
Other costs	15%	10%	12%	7%	7%	13%	20%	10%
Variable costs	62%	69%	61%	77%	52%	56%	49%	75%
Water	1%	1%	1%	0%	0%	1%	1%	0%
Feed	41%	26%	42%	61%	42%	42%	24%	65%
Services performed by outside organizations	10%	35%	10%	2%	2%	2%	11%	4%
Spare parts, repair	4%	3%	2%	5%	4%	3%	5%	2%
Fuel	4%	3%	5%	2%	2%	4%	6%	2%
Electricity	2%	2%	1%	5%	3%	4%	3%	3%

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

2.5.3 Farm income

The profitability levels fluctuate from year to year, showing overall growth pattern for livestock sector, but still remaining very low. The profitability of the crop production mainly depends on weather conditions. In this regard the indicators show dramatic decrease in 2009, 2010 and 2012 (Table 29).

Table 29 Profitability of the farms producing crop and livestock products in 2004-2012, %

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Crop products total	19	9	25	67	52	20	19	44	30
Wheat	22	8	29	76	61	21	19	50	30
Rice	0	5	-6	-3	23	16	1	10	-1
Oilseeds	21	35	15	58	23	26	37	35	43
Sunflower seeds	36	48	23	77	30	31	51	47	90
Cotton	5	3	8	18	-2	23	21	17	
Potatoes	23	22	31	33	32	43	30	40	29
Melons and watermelons	17	13	11	8	21	22	16	32	26
Grapes	45	31	-11	5	-4	161	0	-15	45
Livestock products, total	7	11	8	16	9	8	15	15	14
Beef	-7	-5	-1	4	1	3	6	10	1
Horse meat	2	8	5	9	8	8	23	15	-8
Pig meat	-9	-1	0	0	18	9	9	3	9
Poultry	6	13	2	23	1	-2	17	17	16
Cow milk	22	24	22	22	27	25	30	42	28
Wool	-10	-5	-1	-6	-12	-6	-3	12	25
Honey	13	-5	8	14	0	10	32	51	40
Eggs	10	20	18	17	13	14	15	8	16

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

3. SITUATION AND DEVELOPMENT OF UPSTREAM AND DOWNSTREAM SECTORS

3.1 Input production and use

3.1.1 Input production

Agricultural chemistry

The volume of the Kazakhstan market of agricultural chemistry in 2013 is amounted about 71.8 billion tenge, imports accounted for more than 58% of the market. Import capacity of the macro-region in the priority product groups is about 6.8 billion USD. The sector's share in the manufacturing industry in 2012 was 0.6%, its share in the production of chemical industry was almost 20%. The potential demand for fertilizers is estimated 1 million tons in pure nutrients, 58.4% of which are phosphorus, 40% - nitrogen and 1.6% potassium. In 2013, the farmers applied 84.5 thousand tons of fertilizers, which is 12 times lower than the desired application rate. The agricultural lands treated with mineral fertilizers in 2013 amounted to 1.4 million hectares. The volume of exports of mineral fertilizers and pesticides in 2012 decreased by 13.6% compared to 2008 and amounted 63.5 million USD, while the volume of imports for the period increased by 36% and amounted almost 117 million USD. Decline in exports and increase in imports are related to the growth in domestic demand. Kazakhstan imports most of the fertilizers from Russian (51%) and Uzbekistan (43%). The main export partners are Turkmenistan (22%), Kyrgyzstan (13%), Russia (13%), Ukraine (11%) and other Central Asian countries.

In Kazakhstan, the production of mineral fertilizers is mainly represented by the manufacturers of phosphate and nitrogen fertilizers: "Kazphosphate" LLP (superphosphate, ammonium phosphate) and "KazAzot" LLP (ammonium nitrate). There are currently no large potassium fertilizers producers; however exploration work on the potash mine in the western region of Kazakhstan is conducted. Production of pesticides is represented by small enterprises that are mainly engaged in formulation of plant protection products: "Agrochemicals" LLP, "KazTrastKem" LLP, "Bai Gers" LLP, «Astana-NanChemicals» LLP, "Herbicides" JSC. Nowadays DuPont are considering creating the production of chemical products for agriculture on the territory of the Republic of Kazakhstan. One of the largest producers of mineral fertilizers in the Russia JSC "EuroChem" plans to build a plant for the production of complex fertilizers.

Agricultural machinery

The demand for agricultural machinery is mainly met by imports (80%). Import capacity of Kazakhstan is estimated around 6 billion USD. Today most (around 80%) of the agricultural machinery is imported from Belarus and in lesser proportions from EU. There is a high latent demand in Kazakhstan for agricultural machinery, characterized by a significant level of deterioration (more than 80%). The introduction of new technologies in agriculture will lead to the development of new types of agricultural machinery. In order to support the buyers of agricultural machinery concessional credit programs are being implemented. A significant level of development of agricultural technology is observed in the northern regions of the country (Kostanai, North Kazakhstan, Akmola and Pavlodar region).

Financial services

Since 2003, the volume of loans in the economy has grown by almost 11 times. Agricultural lending by banks has also increased, but to a much smaller scale - only 3 times during the period 2003 - 2013. A significant share in providing loans in agriculture is held by JSC NMH "KazAgro", which finances half of investment projects implemented in agriculture. The loans provided to agricultural goods processing-industry by Second tier banks in 2009-2013 totaled 396 billion tenge.

Over the past 5 years, the annual volume of direct investments in agriculture increased by almost 2 times, namely from 77 billion tenge in 2009 to 142 billion tenge in 2013. The share of direct investment in agriculture in the total investment in the economy of the Republic of Kazakhstan for the last 5 years remained almost at the same level, accounting for 1.6% and 2.3% in 2009 and 2013, respectively, while the share of agriculture in the country's GDP amounted to more than 5%. Thus, the relative investment attractiveness of agriculture compared to other industries over the years has not increased.

3.1.2 Input use

The use of fertilizers has increased dramatically since 2004 reaching 129.6 thousand tons in 2012 and declining to 84.9 thousand tons by 2013. In 2013, the government has changed the rules for subsidizing mineral fertilizers. According to former rules, 50% of the costs of all mineral fertilizers both local and imported were subsidized. In 2013, the government has changed the rates subsidizing 50% of the costs for local fertilizers and 30% for imported fertilizers. The changes in the rules decreased import of fertilizers by 20%. The capacities of local producers were not enough to cover the demand, thus leading to a decrease in fertilization. Potential demand for fertilizers in Kazakhstan is 1.8 mln ton, that is 21 times more than current use of fertilizers. Today the average application of fertilizers is 60 kg per ha, given that only 5.8% of arable land is fertilized. The most used fertilizers in Kazakhstan are nitrogenous, comprising 65.7% of total fertilizer application, phosphate fertilizers account for 30% of total amount and potassium fertilizers are used the least – 4.3%. Nitrogenous and phosphate fertilizers are mostly used for wheat, with slight variations between the regions, potassium fertilizers are used mostly for potatoes.

In order to facilitate the use of fertilizers in Kazakhstan the Ministry of Agriculture subsidizes the purchase of mineral fertilizers for farmers.

Table 30 Fertilisation in 2010-2013

	2010	2011	2012	2013
Pure nutrients use, total	58 753,9	87 411,9	129 657,2	84 908,6
<i>N, total</i>	40 743,3	47 523,2	105 264,3	55 741,6
<i>P₂O₅, total</i>	14 793,4	35 530,1	20 783,7	25 626,2
<i>K₂O, total</i>	3 217,2	4 358,6	3 609,3	3 540,7
Fertilised area, ha total	793 646,2	973 256,9	1 461 454,9	1 397 457,1

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Agricultural machinery in Kazakhstan is mostly obsolete, despite the growth of the number of machines and equipment. Nowadays according to the data from Ministry of Agriculture, approximately 80% of grain combine harvesters is aged 15-16 years that normally should operate 8-10 years. 71% of grain combine harvesters, 93% of tractors and 95% of seeders are subject to write-off. The average retirement rate of agricultural machinery in 2004-2013 is positive (0.2-0.7% per year).

Table 31 Agricultural machinery in Kazakhstan in 2010-2013

	2009	2010	2011	2012	2013
Tractors	158 276	158 143	155 580	153 815	152 800
Combine harvester	48 507	48 503	47 197	46 610	45 600
Sowing machines	2 203	2 537	2 629	2 788	3 030
Seeding machines	91 340	91 725	91 686	89 233	89 700
Harvester	15 665	15 279	15 233	14 955	16 100

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The formation of Customs Union and Eurasian Economic Union has significantly increased the customs rates on imports of machinery from outside the Customs Union territory. In addition, the equipment for using no-till and mini-till technologies is not produced within the Customs Union in the sufficient

amounts. Today the government of Kazakhstan is providing subsidies of interest rates for leasing the machinery and equipment in order to maintain the renovation and expansion of vehicle fleet.

3.2 Food industry

3.2.1 Food production

Food industry is strategically important in terms of ensuring food security of the country. Over the last 10 years a steady growth of the population, an increase in food consumption and changing consumption patterns towards more quality products have been observed. The sector is closely linked to agricultural production as a supplier of raw materials. The food processors are mostly concentrated close to the consumption centers (cities, large towns).

Food production since 2000 has been growing at an annual rate of 13%. In 2013, the volume of food production was 6.4 billion USD. The rate of production decreased during the period 2008-2009 due to the global financial crisis, when the economy went into decline, and there was a devaluation of the tenge, and the state of food producers in credit debt has worsened since the majority of loans were in foreign currency.

There is also a slight decrease in the growth of production in drought years due to lack of raw materials. The share of food industry in the processing industry output has decreased from 18.6% in 2008 to 16.5% in 2013, while in the same period production of food products increased by 56.0%. The growth of other industries was higher than food industry mainly due to the oil and gas sector. GVA in food production from 2008 to 2013 increased by 1.5 times.

The major indicators of the food industry are shown in the table32.

Table 32 Main indicators of the food sector in Kazakhstan in 2008-2013

	2008	2009	2010	2011	2012	2013
Food production, mln tenge	5 183	4 270	4 718	5 647	5 805	6 396
Share in processing industry	18,6%	21,4%	18,1%	17,2%	15,9%	16,5%
GVA, mln tenge	1 917	1 794	2 446	2 915	3 171	2 336
Employment (1000 person)	52,3	52,6	52,8	53,9	53,2	52,4
Labor efficiency, USD/person	35 548	35 808	51 696	60 970	65 759	46 980
Number of enterprises	2442	2 402	2 326	2 263	2 219	1 573
Depreciation of fixed assets, %	27,9	33,8	32,5	50,9	35,5	-
Direct investments, mln tenge	191	211	270	232	249	221
Fixed assets replacement rate, %	14,3	13,8	11,6	8,9	10,1	-

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The production of food products in physical terms has shown different growth in different sectors. Years 2008-2010 for all of the products was characterized by decrease in the growth rates of decrease in the production due to the crisis. Overall production of meat and meat products grew 3 times in 2004-2013, milk products – 3 times, fruit and vegetable juices - 2.2 times, dairy products – 1.7-2.2 times. Other less socially important sectors grew by smaller rates.

Table 33 Production of food products in Kazakhstan in 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Meat and meat products,	68,8	85,7	91,5	112,3	113,5	129,3	157,2	164,9	188,1	214,8
Fish, fresh or frozen	n/a	n/a	n/a	n/a	28,3	27,0	36,4	20,6	22,4	17,9
Processed fish and caviar	n/a	n/a	n/a	n/a	8,9	11,4	12,5	13,9	9,9	10,1
Fruits and vegetables, canned and processed	17,8	21,9	26,5	27,9	22,9	22,3	22,1	32,7	24,7	21,7
Tomato paste	8,6	10,1	12,8	12,4	8,4	12,4	12,8	10,4	10,4	10,3
Fruit and vegetable Juices, mln litres	77,3	99,5	130,0	168,0	122,5	136,8	180,1	223,8	188,2	172,6
Vegetable oils	159,3	167,5	212,7	237,4	188,9	203,5	222,9	235,0	292,6	275,7
Margarin	25,2	26,9	25,8	29,0	34,1	44,0	46,6	51,9	52,8	56,7
Milk	154,4	179,7	225,8	261,1	265,5	250,7	295,0	338,5	372,5	476,8
Dairy butter	13,0	19,7	18,6	19,7	16,6	15,3	14,0	14,6	12,2	13,5
Cheese and curds	13,0	15,0	17,0	17,2	15,5	15,6	16,3	17,6	19,2	22,1
Dother dairy products	95,4	108,0	123,2	131,3	125,6	126,6	139,1	159,2	180,7	208,0
Bread	536,2	564,8	588,6	614,6	655,2	659,6	736,7	731,7	721,7	742,5
Bakeries and grits products, pastries	143,2	157,2	185,7	214,6	213,9	207,6	227,5	252,7	253,6	255,9
Chocolate and confectionary	51,9	69,8	74,7	77,6	77,1	90,2	96,5	102,4	96,4	93,4
Tea and coffee	17,2	18,7	20,0	19,4	20,2	19,8	21,2	20,2	22,3	22,3

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

3.2.2 Structure of the food sector

The main share in the structure of food production is occupied by grain processing (23.5%), mil processing (16.3%), bread production (15.3%), meat processing (13.4%), vegetables and fruits processing (8.1%), oil and fat production (7.8%) and others (15.6%).

Grain processing

The major players of the market of grain processing industry are vertically integrated holdings, the structure of which includes production and processing grain and marketing of the products. These companies are LLP "Grain Industry", Concern "Tsesna-Astykh", "Ivolga Holding" LLP, JSC "Holding KazExportAstykh" and "Agrocenter-Astana" LLP. "Ivolga-Holding" LLP facilities and resources, allowing to have the entire production cycle, and has more than 1.5 million ha of land in Kazakhstan and Russia. The group of companies "Grain Industry" includes 14 enterprises: elevators with a total capacity of over 1 million tons, milling complex with capacity 1430 tons and grain terminal on the Caspian Sea. JSC "Holding KazExportAstykh" is one of the largest grain companies in the North-Kazakhstan and Akmola region. Processing plants of the holding are "Kzyltuysky flour mill", "Shchuchin flour mill" LLP. Concern "Tsesna-Astykh" LLP is vertically integrated company with more than 40% of the products exported. "Agrocenter-Astana" LLP is represented by 27 major agricultural enterprises in Akmola and North Kazakhstan regions, which include 5 line elevators, 3 grain reception centers, 4 mills, 4 plants for the production of bread and bakery products and others.

Meat and milk processing

According to the Statistics Committee the number of enterprises, producing livestock products in Kazakhstan in 2013 was 468. In Kazakhstan, more than 80% of cattle is owned by household farms. The largest companies on the market of meat production are "Karasu" LLP, "Crown-Batys farm" in Kostanay

region and "Agriproduction" LLP in Akmola region. Also in 2010, the innovative project «KazBeef Ltd» was created with the participation of the subsidiary of national holding "KazAgro" - JSC "KazAgroProduct" and the American company Global Beef, whose goal is to market the meat production in Kazakhstan and abroad.

Kazakhstan has 191 companies producing dairy products, of which the main output is produced by 24 dairies. The largest producer of dairy products is "FoodMaster", which is represented by 4 plants (2 plants in the Almaty region, 1 in South Kazakhstan, 1 in Pavlodar region). Leading positions on the dairy market are also occupied by JSC "Adal" in Almaty region, agricultural company "Rodina" in Akmola region, "Zenchenko&Co" in North Kazakhstan, and "DEP" LLP in Kostanay region.

According to the Statistics Committee in 2013, there were 173 enterprises with producing poultry meat. The main shares of all businesses are small businesses employing fewer than 40 people (79.2%). Poultry meat production is concentrated in the south and east of the country, and egg production is mostly situated in the north and center of the country. In the southern region, largest ones are JSC "Alel Agro" and JSC "KazRossBroyler", in East Kazakhstan - "Ust-Kamenogorsk Poultry Farm" with a production capacity of about 30 thousand ton per year.

Oilseeds processing

The largest enterprises in sunflower seeds processing are leading manufacturers in every region of the country: JSC "Shymkent Mai" and "Arai" LLP in the southern part of the country, "Maslo-Del" LLP in the northern part of Kazakhstan, JSC "May" in eastern part and LLP "Savola Foods CIS" in the western part Kazakhstan. Existing capacities of the major companies in Kazakhstan for sunflower oil production can process up to 740 thousand tons of sunflower seeds to get up to 300 thousand tons of oil. However virtually all businesses do not operate at full capacity due to lack of the necessary volumes of oilseeds.

The main producer of soybean oil is "Company Sary-Bulak" LLP that produced 44% of soybean oil of the total amount of 12 741 tons in 2013. Large enterprises specializing in the processing of rapeseeds are "K-Oil" LLP and "Maslo-Del" LLP, with aggregate annual capacity of 198 thousand tons of rapeseeds or 79 thousand tons of rapeseed oil. In the processing of oil flax in Kazakhstan the largest producer is "Maslo-Del" LLP with a share of the country's total production of 88%. The annual capacity of the company is amounted 3 thousand ton of oil flax for the production of 1 thousand tons of flax-seed oil. However, the utilization of "Maslo-Del" plan was only of 32% in 2013, while the production of flax-seed oil was 323 tons.

Fruits and vegetables processing

The highest proportion (59%) of fruit and vegetable production is concentrated in the Almaty region, a significant portion of the total output is produced in the South Kazakhstan region (20%) and Zhambyl region (16%). Most processing plants are located in those regions: March, Akzhol, EcoProductGroup (Almaty), Zhibek Zholy, Zailiysky product (Almaty region), VM (Zhambyl region). The major products are juices, dry fruits and canned vegetables (potatoes, tomatoes, and cornichons).

The rest of the Kazakhstan has very low share of total production. This is due to the fact, that the processing of the fruits and vegetables in the northern regions of Kazakhstan without own raw materials is not economically feasible. Existing processing enterprises in these regions are "Soy" LLP (Pavlodar), JSC "Era" (Ust-Kamenogorsk), "Friends" (Kostanay) and others.

3.2.3 Prices, costs and performance indicators

The prices for major food products in Kazakhstan in the period 2001-2013 were rising at an average rate of 7.9%, which corresponds with rates of inflation. In 2008 as a result of the crisis and currency devaluation the prices for food products rose dramatically (7.2%-44%). The biggest increase in prices for bakeries and grits products in observed in 2008 (35.7%) and a decrease in 2010 when the economy has started to recover from the crisis.

Table 34 Price indices for food products in Kazakhstan in 2001-2013, %

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bakeries and grits products	106,3	101,9	104,6	114,2	103,2	104,8	115,6	135,7	105,7	98,1	109,0	100,0	103,9
Meat and meat products	116,6	110,5	105,4	108,4	113,3	108,0	113,7	119,8	106,9	109,8	117,4	116,2	104,0
Fish and seafood	115,4	113,7	107,6	106,9	111,8	108,4	112,5	115,5	108,2	107,3	105,3	105,4	104,7
Dairy products	111,6	106,2	103,0	108,9	111,1	108,8	113,0	129,1	106,9	106,7	110,0	105,0	104,1
Eggs	112,3	100,6	108,4	117,7	110,2	109,9	118,4	120,1	93,3	100,5	106,0	101,7	105,1
Oils and fats	102,4	113,1	102,9	101,1	102,3	101,1	116,1	144,6	85,8	107,8	119,6	98,5	102,6
Fruit and vegetables	130,7	119,9	136,0	106,9	120,5	123,4	119,0	120,9	102,4	102,2	113,1	90,3	106,5
Sugar and confectionery	115,8	104,3	102,7	101,9	106,9	117,3	98,3	113,0	117,7	116,2	109,0	96,1	100,4
Soft drinks	105,2	102,4	103,6	103,4	103,1	103,8	105,0	109,9	115,4	110,6	107,2	105,3	104,5
Alcoholic beverages	100,4	100,5	102,0	102,4	103,4	105,8	107,2	112,6	113,0	105,8	104,8	104,5	104,0
Tobacco products	108,3	101,1	100,2	99,8	100,1	108,6	110,0	107,2	116,5	120,2	113,3	112,3	115,8

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The rates of growth of prices for meat products slowed down from 19% in 2008 to 4% in 2013. The prices for meat products are highly dependent on the production levels and climatic conditions, along with the veterinary situation in the country. The prices for dairy products and eggs increased at a steady rate of 9% and 8% respectively.

The performance of the food sector has increased in the period 2004-2013. The production value of meat products was rising by 12 bln tenge annually. The production of fish products has decreased over the last years as the resources for fish production are depleting and the program for the development of aquaculture is still under way. The production of fruits and vegetables after a slight decrease in 2008 rose sharply by 53 bln tenge in 2009. Dairy products demonstrate the same pattern, it almost doubled in 2009 and the consequent annual growth was by 15 bln tenge. The production on grain mill products has a stable tendency of growth, except for 2010 when the decrease in wheat production led to decrease in grain mill goods production. The production in physical terms demonstrate similar picture (see chapter 3.2.1).

Table 35 Production value of food products in Kazakhstan in 2004-2013, mil. tg.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Meat and production of meat products	19 786	24 288	28 801	39 825	48 014	69 686	77 570	102 821	120 119	130 770
Fish, crustaceans and molluscs	3 075	5 683	4 782	6 227	6 640	7 305	8 059	9 600	8 427	8 367
Fruit and vegetables	8 928	11 833	14 924	18 303	16 454	69 626	68 261	87 580	79 788	82 106
Vegetable and animal oils and fats	21 305	24 422	29 748	42 993	51 552	42 851	85 557	72 277	83 066	86 246
Dairy products	21 970	29 340	36 656	44 688	52 594	103 518	117 332	132 769	137 912	161 506
Grain mill products, starches and starch products	41 481	44 741	49 432	75 689	125 183	127 924	119 639	168 218	179 461	201 395
Bakery and farinaceous products	n/a	n/a	n/a	n/a	n/a	115 323	120 061	133 641	140 400	153 851
Beverages	51 879	72 017	82 772	109 717	118 154	120 707	149 693	153 243	181 950	202 459
Tobacco products	39 935	45 693	51 811	63 414	67 746	70 310	68 020	81 124	98 662	111 909

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

3.2.4 Food law

Food production and quality is regulated on national level and within the Eurasian Economic Union. Recent decade is characterized by major reforms in veterinary and phytosanitary system. Being a

member of Codex Alimentarius, the international food standard-setting organization and OIE the international organization on animal health, and also as a result of integration processes into Eurasian Union and planned accession into WTO, legislation in Kazakhstan has undergone a series of harmonization procedures and amendments. The following documents regulate food safety on the national level:

- **Code of the Republic of Kazakhstan «Health of People and Healthcare System»** mostly deals with the protection of human health in general, including some measures on protecting health of people from food borne diseases
- **Law «On Food Safety»** is the major law that regulates all issues of food quality and safety, defines the responsibilities of government authorities, inspection services as well as food producers, and refers also to other laws in food safety.
- **Law «On Technical Regulation»** regulates the standard setting in food sector among other sectors, sets the roles of government and its agencies.
- **Law «On Veterinary »** is the major law on animal health and safety of primary livestock products. It is aimed at ensuring veterinary and sanitary safety, safety of animal products and raw materials of animal origin, veterinary medications, fodder and feeding additives, and at population safeguard against common animal and human diseases.
- **Law «On Consumers Rights Protection »** - in the field of food safety deals with issues of nonconforming food products in markets, shops.

These laws today mostly comply with WTO SPS agreement. Given that Russian Federation has accessed WTO, and our countries are in the Eurasian Economic Union, a considerable part of the work on harmonizing the legislation according to WTO requirements was already done (USAID, 2013). The following decisions of Customs Union Commission (Eurasian Economic Commission) that include WTO requirements are already acting in full force in Kazakhstan:

- Decision of CU Commission №625 “About harmonization of legislation of Customs Union in the field of applying sanitary, veterinary and phytosanitary measures with international standards”, April 7, 2011;
- Decision of CU Commission №721 “About applying international standards, recommendations and manuals” June 22, 2011;
- Decision of CU Commission №835 “About equivalence of sanitary, veterinary and phytosanitary measures and risk assessment”, October 18. 2011
- Decision of Eurasian Economic Commission №161 “About Consultative committee on technical regulation, applying sanitary, and veterinary and phytosanitary measures”, September 18, 2012.
- Decision of Eurasian Economic Commission № 212 “About the provision on unified procedure of expert review of regulatory acts in the field of applying sanitary, veterinary and phytosanitary measures”, November 6, 2012
- Decision of Eurasian Economic Commission № 31 “About ensuring transparency in adoption of Eurasian Economic Commission in the field of applying sanitary, quarantine, phytosanitary and veterinary measures”, March 5, 2013.

Given the free flow of agricultural and food commodities within the Eurasian Economic Union the Commission of the union has developed the technical regulations, which apply in all partner countries. The following regulations have come to force since July 2014:

1. «On food safety» (TR CU 021/2011);
2. «Labelling of food products» (TR CU 022/2011);
3. «Technical regulation for fruit & vegetables juices» (TR CU 023/2011);
4. « Technical regulation for oil and fat products» (TR CU 024/2011);

5. «On safety of certain types of specialized food products, including dietary health and dietary preventive food » (TR CU 027/2012
6. «Safety requirements for food additives, flavourings, and processing aids » (TR CU 029/2012);
7. «Grain safety» (TR CU 015/2012).
8. «Dairy safety» (TR CU 033/2013);
9. «Meat and meat products safety» (TR CU 034/2013).

3.3. Bioenergy production

In Kazakhstan bioenergy production is underdeveloped. There are practically no bioenergy producers in the country. In 2006 in the framework of the program “30 cutting edge projects” in North Kazakhstan the plant “Biochem” on production of bioethanol was built. It was planned to produce bioethanol from grain. But due to financial problems and no support from the government the plant was closed. The perspectives of production of biogas in the republic are bright. Considering the number of livestock the potential of producing methane from animal waste is more than 52 thousands of tons of oil equivalent (Asenova, Talipov Uakhitov, 2013). The potential methane production from processing the farms sewage water is estimated to 1 800 tons of oil equivalent.

Today the usage of renewable energy is slowly developing in Kazakhstan. According to the data of Statistics Committee in 2013 only 0.3% of all energy produced was generated from renewable sources.

Table 36 Renewable energy generated in Kazakhstan in 2013

Region	Companies in possession of renewable energy plants or stations	Energy generated, TJ	Small hydroelectric power station	Including Wind power stations	Solar stations	Share of renewable energy in total energy produced, %
Akmola	2	0,3	-	0,3	-	0
Aktobe	-	-	-	-	-	-
Almaty	6	521,7	521,7	-	-	2,4
Atyrau	5	0,1	-	0,1	-	0
East Kazakhstan	12	201	201	-	-	0,8
Zhambyk	10	97,6	85,8	9,1	2,7	1,5
West Kazakhstan	7	-	-	-	-	0
Karaganda	24	0,1	-	-	0,1	0
Kostanay	-	-	-	-	-	-
Kyzylorda	6	0,4	-	0,2	0,2	0
Mangystau	1	-	-	-	-	0
Pavlodar	-	-	-	-	-	-
North Kazakhstan	4	66,7	59,5	7,1	0,1	0,7
South Kazakhstan	1	16,8	16,8	-	-	0,4
Kazakhstan	78	904,7	884,8	16,8	3,1	0,3

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The total amount of energy generated was 904.7 TJm of which 97.8% was produced by small hydroelectric power stations, 1.9% by wind power station, and 0.3% by solar stations.

Intensive development of renewable energy production is constrained mainly by the lack of financing and absence of state programs for the support of development of renewable energy sector and underdeveloped legislation for development of renewable energy (Alimgazin, 2007).

3.4 Food retail and consumption patterns

3.4.1 Food retail sector

Retail sector is taking considerable role in economic development of Kazakhstan. The recent decade (2004-2013) has shown the total growth of the retail sector by 4 times with average annual growth of

17.4%. The only drop in the trade values were observed in 2009 with the occurring of economic crisis. According to the official statistics, the total volume of retail trade in 2013 has reached 36 bln USD, which is 17.5% higher than in 2012. The share of food trade in the total retail volume is 33% on average. The dynamic growth of trade volumes in retail sector, growing political stability and growth in income of the population has led to increasing the presence of large retail shops in the republic. Since 2008, large retailers have started to enter the market rapidly and began expanding throughout the territory of Kazakhstan by 2013 exceeding the trade space of unstructured markets by 2.7 square kilometers.

Figure 12 Volume of retail trade in Kazakhstan in 2004-2013, bln. USD

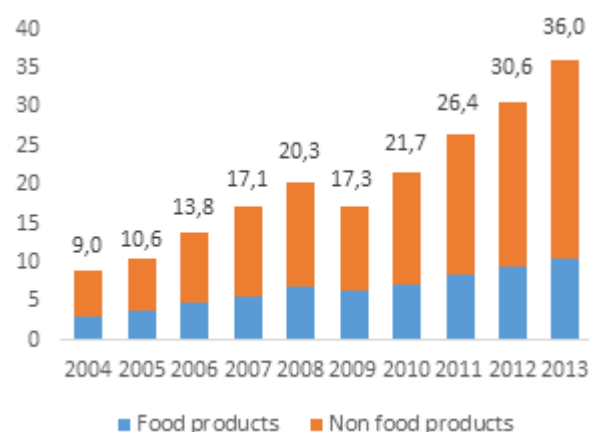


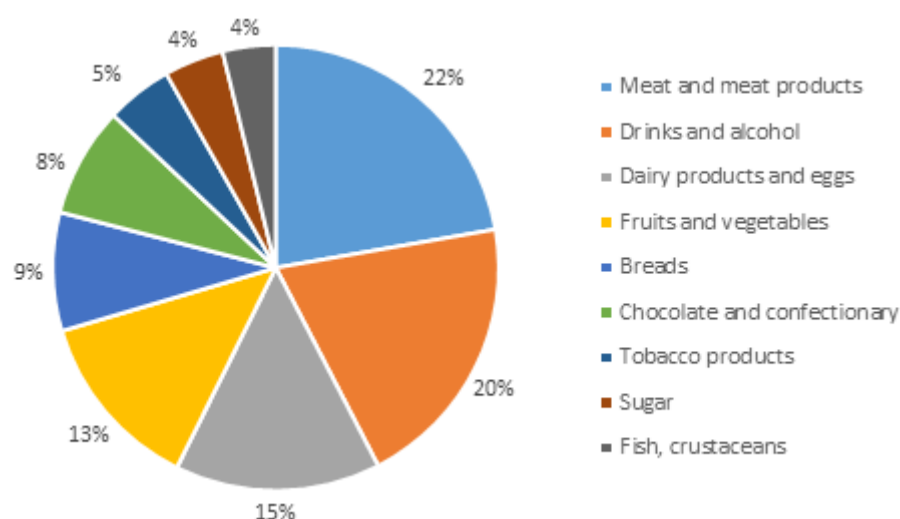
Figure 13 Trade floor space for structured and unstructured trade in 2004-2013, square km



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

In the structure of food trade the largest shares are secured by meat and meat products (22%), drinks and alcohol (20%), dairy products and eggs (15%), fruits and vegetables (13%), breads (9%), chocolate and confectionary (8%), tobacco products (5%), sugar (4%), fish, crustaceans (4%).

Figure 14 Structure of food retail trade in Kazakhstan in 2013, %



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

There are ten networks of supermarkets that occupy the largest share of the market. Typically, they are represented by 2-5 hypermarkets in big cities. The biggest share of the structured retail market is secured by JSC "Ramstor Kazakhstan" that was founded in 1998. Currently its network counts 14 hypermarkets in Almaty, Astana, Uralsk, Karaganda, Shymkent, Aktau and Atyrau with the trade floor space from 290 m² to 5 988 m². Total space of the network is around 49 900 m². Its turnover in 2013 reached 19 mln USD. The second largest actor on retail market is JSC "Skif Trade" with the brand "SMALL". Now it has 28 trade points in Almaty and surrounding cities, Astana, Kyzylorda, Taraz and Taldykorgan. The concept of the network is two types of shops "shop near your home" and

“supermarket”. It offers wide varieties of food products, goods for home and for kids. It has also its own confectionary and cookery. The turnover in 2013 amounted to 8 mln USD. Third largest company in terms of turnover is JSC “Metro Cash & Carry”. It entered the market in 2009 in Astana. By 2014 the number of the supermarkets in this network has grown to 8 in Astana, Almaty, Shymkent, Karaganda, Pavlodar and Oskemen. Each supermarket has the trade floor space of 7600-11000 m² with total space 70 000 m². Metro is operating under the format “business for business” aimed at professional clientele, including hotels, restaurants, offices. It offers more than 25 000 of goods, 13 000 food products and 12 000 non-food products. In 2013, its turnover reached 6.7 mln USD. JSC “Magnum Cash & Carry” is on the fourth place with 8 big supermarkets in Almaty, Astana and Karaganda. Each supermarket offers around 10000 different goods. Its turnover reached 5 mln USD in 2013. Other smaller players on the retail market are illustrated in the table below.

Table 37 Turnover of the biggest retailers in 2013

Name	Turnover, thou. USD
JSC “Ramstor Kazakhstan”	19 025
JSC “Skif Trade”	8 123
JSC “Metro Cash & Carry”	6 700
JSC “Magnum Cash & Carry”	5 045
JSC “Silk Way City”	4 590
Hypermarket “A-Store”	3 166
JSC “Trade network “GREEN Mart”	1 988
JSC “Dastarkhan”	1 369
JSC “Dastarkhan Trade”	1 150
JSC “Parade retail”	362

Sources: Kursiv Research

3.4.2 Consumption

According to the data of official statistics the consumption of basic food products during the period 2004-2012 has risen substantially. The increase is due to the rise of the effective demand and economic growth.

Table 38 Human consumption of certain agricultural products in 2004-2013 (kg/head)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total cereals (excluding rice)	17,7	18,6	19,0	18,7	18,9	18,8	18,9	18,9	18,8	na
Vegetables, melons, watermelons	150,6	176,3	158,3	169,9	198,7	185,8	182,5	195,2	198,2	na
Fruits and grapes	16,8	14,0	16,6	17,7	20,5	32,1	44,4	48,2	54,3	na
Meat and meat products	54,3	58,1	63,3	64,8	64,8	65,4	68,1	70,7	71,1	na
Milk and milk products	272,6	302,7	304,8	300,2	306,7	313,6	318,4	na	na	na
Eggs (pieces/head)	148,8	159,4	159,5	167,6	174,3	188,4	215,0	205,0	202,3	na

Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

The increase in wealth of the population has brought a shift in the diet. The consumption of more expensive food products like sugar, vegetable oil, red meat, dairy products, vegetables, has increased. Consumption of cheap food products, the sources of carbohydrates, like bread and flour decreased. According to the statistical bulletin “Consumption of food products in households of Kazakhstan” consumption of flour and decreased by 25% and 20%, respectively, and consumption of paste products as more value added good has increased by 16%. Official statistics data is not sufficient to make any conclusions about the consumption of groats. But the statistics has registered the rise of consumption of rice. The consumption of meat and dairy products has also increased significantly. The rise of protein food is connected to the rise of per capita income in the period of rapid economic growth of 2004-2012.

4. AGRI-FOOD TRADE AND TRADE RELATIONS

4.1 Agri-food trade

4.1.1 Overall agri-food trade

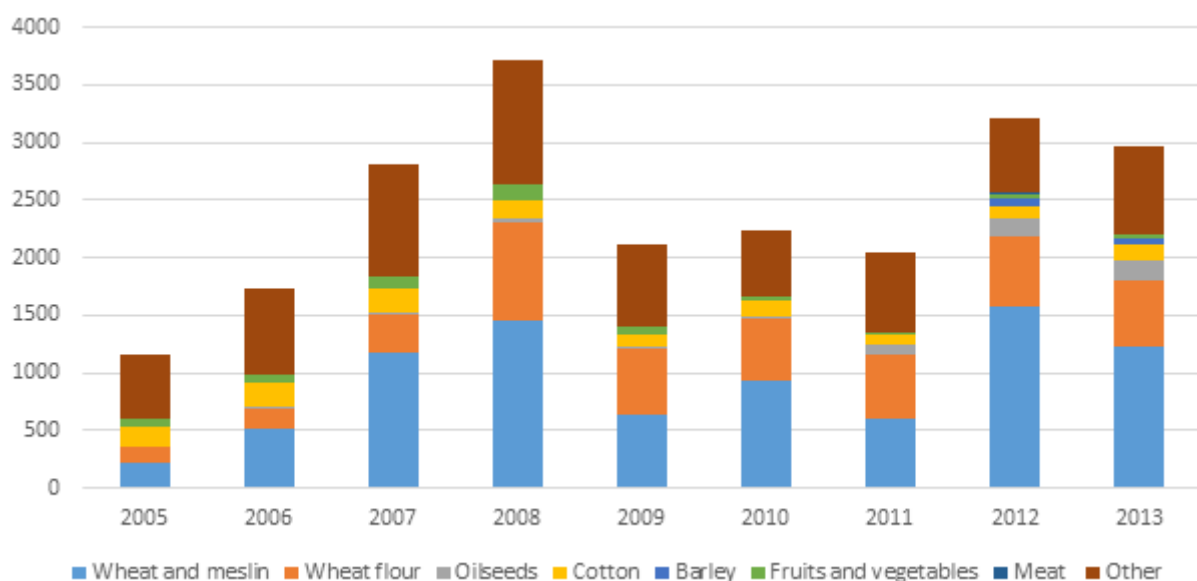
The trade analysis have been conducted using all of the commodities under groups 1-24, 29, 33, 35, 38, 40, 41, 43, 44, 45, 50, 51, 52 and 53 of HS nomenclature. Overall amounts of trade demonstrate growth pattern. The value of exports increased due to wheat exports. On the import side, the increase in values was due to the increase in income and strengthening of the national currency. Imports grew faster than exports and as a result Kazakhstan has become a net importer of agricultural food products.

Figure 15 Total agricultural trade in 2005-2013, thous. USD



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

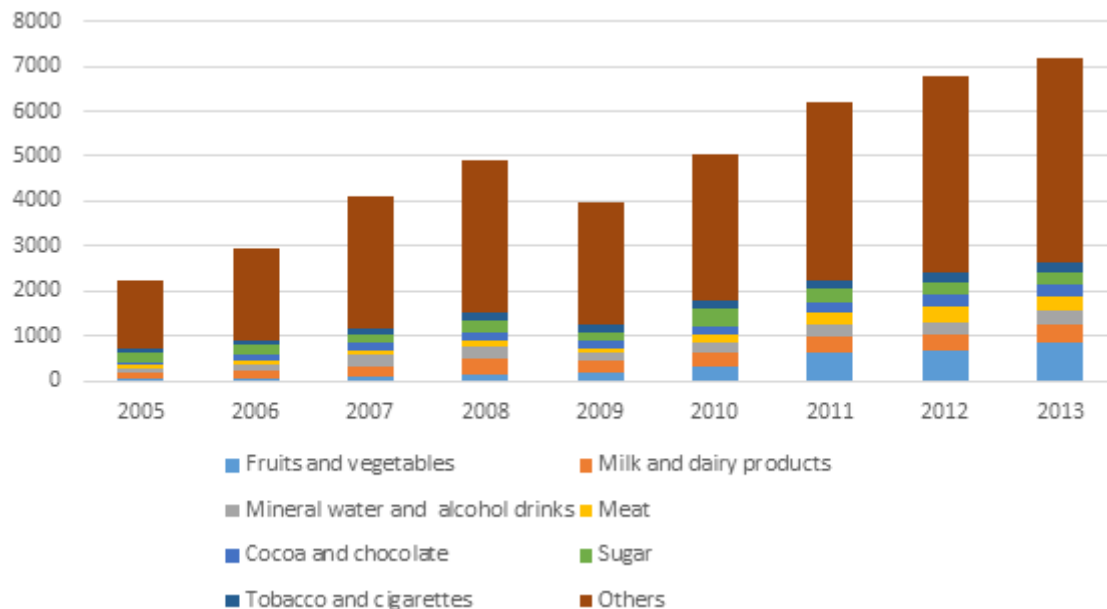
Figure 16 Most important Agri-Food Export in 2005-2013, mln. USD



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Export is mainly dominated by wheat and flour, although their share fluctuates because of the fluctuations in grain production. These commodities account for up to ¾ of total agri-food exports. Export of cotton has been declining in 2005-2013. Oilseeds export has started growing rapidly since 2007. Export of other main agri-food commodities has decreased dramatically. Exports of meat, eggs and potatoes stopped and Kazakhstan has become a net importer of potatoes, meat and dairy products.

Figure 17 Most important Agri-Food Import in 2005-2013, mln. USD



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

Imports are more diverse. Compared to the exports of agri-food products, imports are comprised of processed products such as dairy products, sugar, mineral waters and alcohol drinks, cocoa and chocolate.

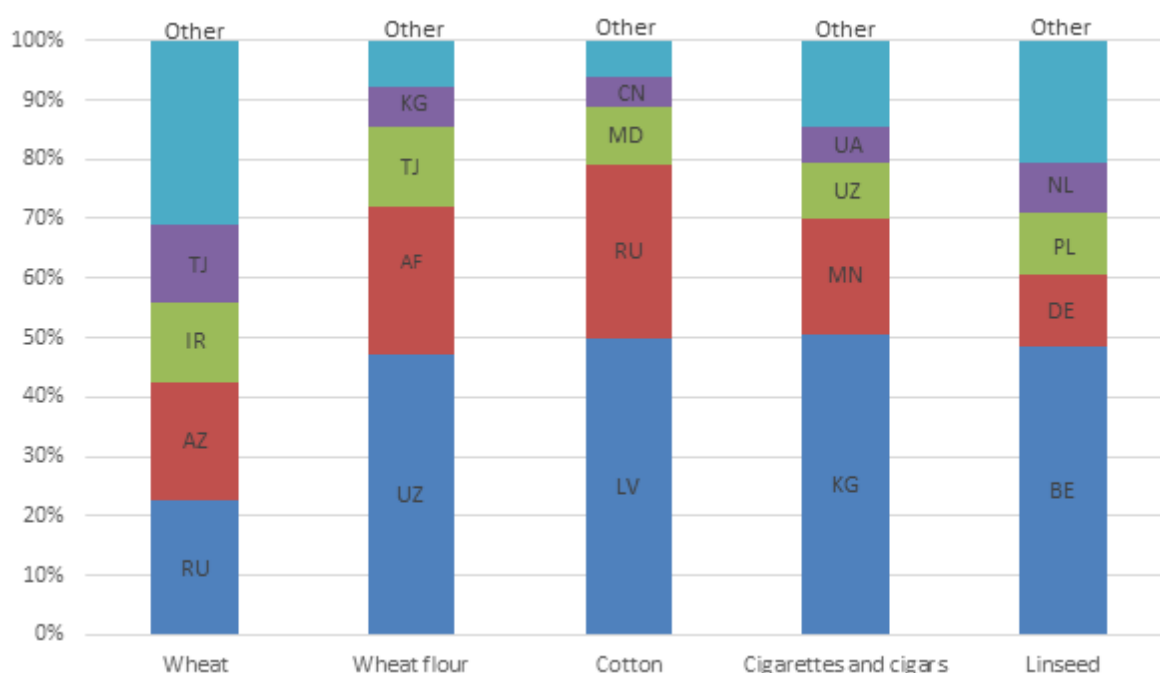
4.1.2 Agri-food trade by trading partner

The main export market of Kazakhstani agricultural and food products is the CIS countries, being more specific – Central Asian countries. Top five importers of Kazakhstani goods are Russia, Uzbekistan, Kyrgyzstan, Tajikistan and Azerbaijan. Together they account for 64% of Kazakhstan exports or 1.9 billion USD worth of exported agri-food goods. The formation of Customs Union has influenced the export of agri-food products in a positive way.

The exports in 2011-2013 compared to 2010 to Russia and Belarus grew by 3 times, reaching 575.4 million USD in 2013. Most of the goods within the Customs Union is exported to Russia (97.7%) and wheat export holds a share of more than 50%. The share of Customs Union in the total amount of exports of agri-food commodities in 2013 was 19.4%.

In 2013 in total EU accounted for 10.6% of Kazakhstani exports. The value of exports to EU from Kazakhstan in 2013 reached 314.4 million USD. The main commodities exported to the EU are linseeds and rapeseeds, cotton and fish.

Figure 18 Structure of agricultural exports in by products and trading partner in 2013



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

4.1.3 Agri-food trade by products

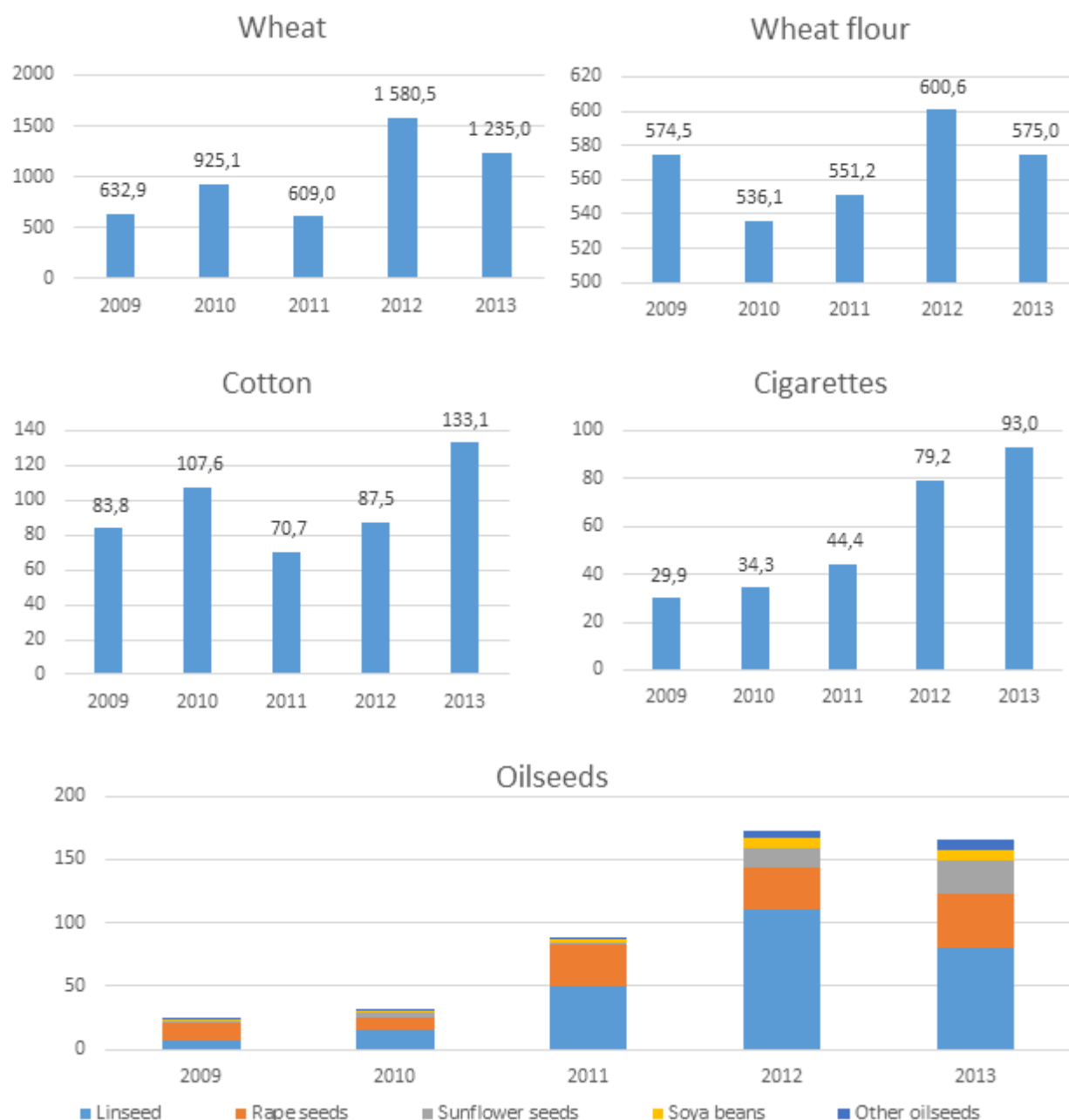
The export of agri-food is dominated by wheat and wheat flour, although their share is fluctuating mostly because of the unstable production in normal and dry years. Wheat and wheat flour account for half to ¾ of total agricultural exports. Over the last 5 years, export of wheat was fluctuating. Years 2009, 2011 and 2013 were unfavorable with droughts and economic recessions (2009), because of which the production and consequently exports of wheat in these years dramatically fell.

In 2012, the most favorable year in terms of climatic conditions, export of wheat reached 1.6 billion USD, in 2011, the driest year, exports reached 609 million USD. The following year was average, the exports amounted 1.2 billion USD. Wheat flour is less susceptible to weather changes as most processors usually keep stocks of wheat, thus the magnitude of fluctuations in wheat flour exports are not as large as for wheat. In favorable year 2012 the exports of wheat flour reached 600 mln USD, dropping to 575 in 2013.

Over the last five years the export of oilseeds has rapidly risen. The government policy of diversification has led to increase of oilseeds production and exports. Exports of oilseeds reached 165 mln USD in 2013. The values of export grew almost 8 times compared to 2009. In the structure of oilseeds export linseeds account for a half of exports, share of rapeseed is 26%, sunflower seed – 16% and soya beans 6%, and other 4%.

The next largest exported commodity is cotton. The value of exports of cotton in 2013 amounted 133,1 mln USD. In 2011 the export was the lowest in 5 years, the weather conditions seriously affected production and export of most crop products. Cigarettes are usually not considered as one of the major exporting goods, nevertheless in 2013 its exports reached 93 mln USD, growing 3 times compared with 2009. The production of tobacco in Kazakhstan is underdeveloped. The processors usually import raw materials (44.5 mln USD in 2013).

Figure 19 Export of the most important commodities in 2009-2013, mln. USD



Sources: Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>)

4.2 Trade policy and infrastructures

4.2.1 Measures directly affecting trade imports and exports

Trade policy in Kazakhstan is mainly determined by the rules of Customs Union that has formed on the 6th of July 2010 and the following Eurasian Economic Union that entered into force on January 1st 2015 ensuring the free flow of goods, services, capital and workforce throughout the Union. The upcoming changes in trade policy will be made in accordance to the agreements under WTO accession. The accession to the Customs Union brought unified tariffs for imports, common customs procedures and standards. Considering the levels of import protection, the average duty for agricultural commodities calculated on simple average method is 12.3% (Russia and Belarus 12.2%) whereas in other sectors of economy the import duties are 8.6%.

Table 39 Tariff rates

		Total	Agricultural commodities	Non-Agricultural commodities
Simple average MFN applied	2013	9.1	12.3	8.6
Trade weighted average	2012	9.2	16.9	8.5

Sources: Committee of Customs Control of the Ministry of Finance

One of the most significant changes in trade policy brought by Customs Union is the introduction of tariff quotas for meat that has significantly increased the internal market protection. See table 40 for details.

Table 40 Tariff rates and quotas for livestock products in 2010-2014

	2010 r.	2011 r.	2012 r.	2013 r.	2014 r.
Meat of bovine animals, fresh or chilled, 0201					
TRQ, ton	20	20	20	20	20
In-quota tariff	-----	15%, no less than 0,2 euro/kg	-----	15%	15%
Over-quota tariff	-----	50%, no less than 1,0 euro/kg	-----	50%, no less than 1,0 euro/kg	50%, no less than 1,0 euro/kg
Meat of bovine animal, frozen, 0202					
TRQ, ton	10 000	10 000	13 900	15 380	15300
In-quota tariff	-----	15%, no less than 0,2 euro/kg	-----	15%	15%
Over-quota tariff	-----	50%, no less than 1,0 euro/kg	-----	50%, no less than 1,0 euro/kg	50%, no less than 1,0 euro/kg
Meat of swine fresh, chilled or frozen, 0203					
TRQ, ton	7 400	7 400	9 400	9 700	9700
In-quota tariff	-----	15%, no less than 0,25 euro/kg	-----	0%	0%
Over-quota tariff	-----	75%, no less than 1,5 euro/kg	-----	65%	65%
Meat, edible offal of domestic poultry, 0207					
TRQ, ton	110 000	110 000	110 000	110 000	110000
In-quota tariff	-----	25%, no less than 0,2 euro/kg	-----	25%, no less than 0,2 euro/kg	25%, no less than 0,2 euro/kg
Over-quota tariff	-----	80%, no less than 0,7 euro/kg	-----	80%, no less than 0,7 euro/kg	80%, no less than 0,7 euro/kg

Sources: Committee of Customs Control of the Ministry of Finance

Overall, in terms of ease of trading across borders Kazakhstan was ranked 186 out of 189 in annual World Bank's Doing Business review stating that there are problems and barriers for exporting and importing. To export goods an individual or and enterprise needs to collect 10 documents whereas in OECD countries the number of required documents is 4, in Europe and Central Asia – 7 documents. The documents needed:

Table 41 List of documents required for importing and exporting

For export	For import
Bill of lading	Bill of lading
Certificate of conformity	Cargo release order
Commercial invoice	Certificate of conformity
Customs export declaration	Commercial invoice
Declaration of origin (Statement of manufacturer (zayavlenie)/ Certificate of Origin	Customs import declaration
Document certifying payment of customs fees (platejka/ chek)	Document certifying payment of customs fees (platejka/ chek)
Packing list	Inspection report
Railway bill (Transport document)	Packing list
Terminal handling receipts	Railway bill (Transport document)
Transit application/document	Technical standard certificate
	Terminal handling receipts
	Transit document

Sources: World Bank (2013a)

It takes 79 days to export a standard container of goods and costs 5285 USD. Most time spent by exporter accounts for inland transportation and handling (44 days) and documents preparation (21 days). Importing a standard container takes 67 days and 5265 USD. Most of the time here is spent on inland transportation and handling (33 days) and documents preparation (21 days).

4.2.2 Logistics and infrastructure

Geographic characteristics of Kazakhstan (vast territory, no access to the sea, uneven distribution of settlements and natural resources) makes its economy one of the most cargo intensive in the world, causing a high dependence on the transport system.

Being at the crossroads of Europe and Asia, Kazakhstan has great transit potential, providing Asian countries the only land transport link with Russia and Europe. There is significant transit potential of airspace of the republic. The proximity with countries that have large markets makes the development of the national transport system very promising.

The main share of a network of ground traffic connections is held by roads and railways (97.2 and 14.0 thousand km respectively). The length of navigable waterways is 3.9 thousand km, airways - 61 thousand km.

The average density of railways in the republic is 5.36 km/1000 km². Density of hard-surface roads in the national average is 31.6 km / 1,000 km². Density of roadways illustrates the availability of markets for the sale of agricultural products. Thus, large density of roads indicates that an increasing number of agricultural producers have the ability to transport the products to the consumers. The highest rates are in North Kazakhstan, South Kazakhstan, Akmola regions, the lowest are in the Kyzyl-Orda, Mangystau and Aktobe regions.

Another indicator of the availability of markets is the remoteness of the market from settlements. Most remote from potential markets like regional centers, cities, train stations, highways, which are an important component of economic performance, are rural settlements in Aktobe, Atyrau and Karaganda regions. The percentage of rural settlements located at a distance of over 100 km from the markets in these regions is 8.4%, 7.6%, and 5.7% respectively.

There are several ports operating in Kazakhstan: Aktau International Sea Trade Port, Pavlodar and Atyrau River ports, port Bautino, which is used as a base for oil and gas companies' operations. The capacity of the Pavlodar river port is up to 650 thousand tons per year, the Atyrau river port - up to 500 thousand tons per year. The current capacity of the port of Aktau is 5 million tons of dry goods, of which about 1 million ton for cereals. There is also a ferry service Aktau-Baku with the capacity of about 100 thousand tons per month. The total capacity of the port of Aktau is 1.2 mln tons of grain per year. The plans to expand the transshipment capacity of Aktau port by 3 million tons have been approved recently.

According to the rating Logistics Performance Index (LPI) of the World Bank in 2014, which has analyzed 160 countries, Kazakhstan took the 88th place, thus dropping in the overall ranking compared with 2012 by 2 positions.

Table 42 Development of Kazakhstan Logistics Performance Index

	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
2014	88	2,7	2,33	2,38	2,68	2,72	2,83	3,24
2012	86	2,69	2,58	2,6	2,67	2,75	2,83	2,73
2010	62	2,83	2,38	2,66	3,29	2,6	2,7	3,25
2007	133	2,12	1,91	1,86	2,1	2,05	2,19	2,65

Sources: <http://lpi.worldbank.org>

Compared with the results of 2012 the score has decreased in sections Customs, Infrastructure, and International shipments and Logistics competence. At the same time, there is a slight improvement on the position of "Tracking and tracing" and "Timeliness".

Analyzing logistics performance indicators we can define a number of basic problems of logistics development in Kazakhstan. Among them are the lack of investment in the development of logistics infrastructure, aborted 3PL-market services, the low level of training of specialists in the field of logistics, the drawbacks in the rules of customs and other controls on the external border, underdeveloped normative legal regulation, the lack of statistics at the national level of logistics indicators, weak integration into the Eurasian logistics and international transportation.

The government has adopted the measures to improve the logistics in the country. The government has set the goal to raise Kazakhstan's position in the ranking of LPI in 2020 to 40 position. Since 2005, Presidential Decree "On the Transport Strategy of the Republic of Kazakhstan until 2020" has been gradually implemented. At the same time, Government Resolution of 30 September 2010 has initiated the Program for the further development of transport infrastructure in the Republic of Kazakhstan for 2010-2014.

4.2.3 Main trade agreements

Currently, Kazakhstan and other CIS countries, as well as Georgia has free trade regime, regulated by the Agreement on free trade and bilateral trade agreements

The Agreement on free trade in the CIS, which covered eight countries (Kazakhstan, Armenia, Belarus, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine) was signed on 18 October 2011 and thus established a multilateral free trade zone. Uzbekistan has acceded to this Agreement in 2013 by the Protocol on the application of the Agreement on Free Trade Area of October 18, 2011 between the Parties and the Republic of Uzbekistan. According to the Agreement the Customs Union countries have align their trade regimes in relation to the CIS countries in terms of imports. On October 7, 2010 Kazakhstan signed a free trade agreement with Serbia.

Bilateral agreements with the countries of the Agreement today are not canceled and apply only to the extent that its provisions are compatible with the Agreement.

The major step in regional economic and trade integration was the creation of Customs Union in 2010 that included Russia, Kazakhstan and Belarus. The next step of integration was finished on 1 January 2015 when the agreement on creating Eurasian Economic Union has entered into force. Armenia has become a member of the Union since 2 January 2015 and Kyrgyzstan is planned to enter in May 2015.

Kazakhstan now is in the process of accession to WTO that started on 29 January 1996. In 2012, after Russia's accession to WTO negotiation process on Kazakhstan and intensified and over the last two years working group met 7 times.

To date, a significant part of the negotiation process is completed, but at the stage of multilateral negotiations there is still a number of issues. Kazakhstan had planned to complete the negotiation process for the ninth Ministerial Conference of the WTO in December 2013, but by that date the negotiations were not finished.

The main issues are related to the following problem areas:

- The level of bound tariff rates and tariff quotas
- Practical Application of Sanitary and Phytosanitary Measures
- Investment measures related to trade (TRIMs), including those conducted by state-owned companies
- the use of VAT exemptions
- questions of technical regulation

Concerning agriculture a significant progress was made the major issues were resolved, as was stated by the members of the working group. The key questions at the moment are import quotas for meat and the use of SPS measures.

As negotiations on Kazakhstan's accession to the WTO have not yet been completed and all content materials are private, for now it is impossible to provide any details regarding negotiation process.

5. AGRICULTURAL POLICY AND INSTITUTIONAL ENVIRONMENT

5.1 Agricultural policy framework

5.1.1 Agricultural policy objectives and mechanisms

Agricultural policy in Kazakhstan is implemented in accordance with the Program for the development of agricultural sector in Kazakhstan for 2013-2020 “Agribusiness-2020”. The main strategic objective of the policy is to provide conditions for improving competitiveness of agricultural entities to become more profitable and less risky. There are 4 main directions of government policy in agriculture.

- Financial restructuring
- Improving of accessibility of goods, work and services for agricultural producers
- Developing of state support systems for agricultural producers
- Improving the effectiveness of the systems of state regulation in agriculture

Financial restructuring is designed to ease loan debt burden of agricultural producers. As a result of a series of devaluations of national currency due to the financial crises of 2008-2009, and most recently in 2014, droughts in 2010, 2012, the loan debt issues became critical as most of the farmers debt was in foreign currency. To tackle this problem the government has launched the initiative of financial restructuring of the debts of farmers. By the end of 2014, the initiative has resulted in restructuring 1.7 billion USD of debt for 292 agricultural entities. New loan contracts were signed and interest rates were decreased to 7% in tenge and 5% in USD.

Improving of accessibility of goods, work and services for agricultural producers consolidates all government subsidies for the farmers. Along with already existing subsidies for units of produced goods, per hectare and input subsidies for fertilizers, seeds and diesel, the new measures of government support were introduced:

- Investment subsidies for priority projects in agriculture, mostly in livestock sector covering up to 30% of investments.
- Subsidies for loan insurance and credit bonding for farmers.
- Interest rate subsidies covering up to 8% of interest rate for loans for the farmers and food processors. Current interest rate for credits to farmers is averaged 15% annually.

In 2013 the Ministry of Agriculture has developed the scheme of agricultural specialization of the regions of Kazakhstan for the production of the most suitable in terms of soil, weather, market, infrastructure, and economic conditions agricultural products for the region. Starting 2016 the subsidies will gradually be distributed according to the scheme of specialization.

Developing of state support systems for agricultural producers contains two general objectives:

- Improving the system of phytosanitary safety
- Improving the system of veterinary safety

The main focus of this direction in the program is creating and instrumentation of veterinary and phytosanitary laboratories, diagnostics and monitoring of veterinary and phytosanitary safety, identification and registration of animals and reducing the threat of disease spreading.

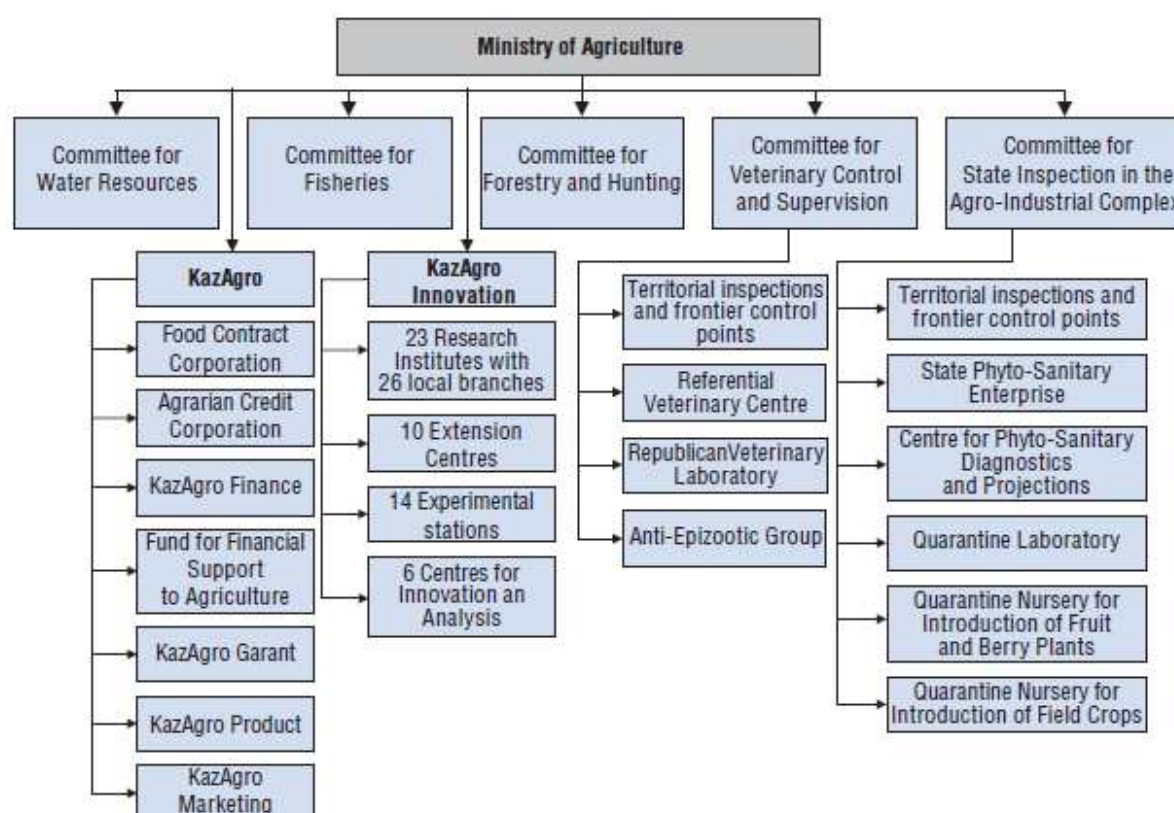
Improving the effectiveness of the systems of state regulation in agriculture consolidates the following measures:

- Improving the effectiveness of agrichemical services in agriculture
- Improving the system of information support to agriculture
- Improving the effectiveness of state crop variety testing
- Improving the system of public services for agriculture
- Improving the system of technical regulation in agriculture
- Improving the effectiveness of state control and supervision system
- Creating the conditions for improving the production and marketing of organic production

5.1.2 Institutional arrangements

The main institution responsible for development and implementation of the policy in agriculture is the Ministry of Agriculture of the Republic of Kazakhstan. The main strategic direction of country development is set by the President of Kazakhstan. Other ministries have indirect influence on agricultural policy. Ministry of Finance determines the amount of funding for agriculture, Ministry of National Economics regulates rural development, Ministry of Education and Science provides scientific support for agriculture, and regulates education system. On the figure below is the structure of the subsidiary agencies of Ministry of Agriculture.

Figure 20 The structure of the subsidiary agencies of the Ministry of Agriculture of the Republic of Kazakhstan



The Ministry of Agriculture develops the agricultural policy that is implemented by its subsidiary organizations. Subsidy distribution is carried out by local authorities – departments of agriculture in akimats in each oblast, and through the national holding KazAgro and its subsidiaries responsible for financial support like concessional loans, leasing of machinery, insurance. Being a state owned joint-stock company it manages seven subsidiary organizations operating in different fields of agricultural support system:

- Food Contract Corporation (FCC) carries out the tasks on purchase and management of state reserves of grain, purchase and marketing of the grain, export and development of the grain market
- KazAgroOnim/KazAgroProduct is a state purchase agency like FCC but in the livestock sector.

- Agricultural Credit Corporation implements the concessional credit programs targeted at agricultural enterprises
- Fund for Financial Support of Agriculture is providing concessional credits for rural population, small agricultural producers and microcredit organizations.
- KazAgroFinance is the operator of state machinery leasing program
- KazAgroMarketing is responsible for providing market information, price monitoring, marketing and informational support services.
- KazAgroGarant is a guarantee fund for grain and cotton warehouse receipts.

Control and Supervision in veterinary field is carried out by the Committee for Veterinary Control and Supervision and the laboratory network and Anti-epizootic Group. The Committee for State inspection in Agro-Industrial Complex and its subsidiaries are implementing the control and supervision in phytosanitary field. Scientific support of agriculture is provided by KazAgroInnovation and its research institutes and extension centers distributed throughout the country.

5.2 Main agricultural policy instruments and measures

5.2.1 Market price support measures

According to OECD classification of support market prices support is the largest component in Producer Support Estimate for Kazakhstan. The value of the MPS indicator shows the extent of support if the indicator is positive and taxation if the indicator is negative. Wheat is one of the major agricultural products and market price support measures mostly apply to wheat. The price regulations measures for grain are established in the Law "On grain" that set Food Contract Corporation to be an agent on maintaining and managing of state grain reserves and made it a major commercial grain purchaser and exporter. The MPS measures for wheat in the period 2004-2012 included export restrictions that occurred at the time of global financial crisis in 2008 when the world prices for wheat rapidly increased, during the years of good harvests the prices for wheat were supported through the state purchase at higher prices and the opposite during the drought years, and export subsidies. Export transportation subsidies were introduced in 2009 allowing the exporters to benefit from transport costs and higher revenues and discontinued in 2012. The OECD classifies MPS measures as most trade distorting and least effective measures of support. Starting in 2009 the MPS indicator for wheat started to grow reaching 18.6% in 2012.

Table 43 Market price support as a share of value of production at farm gate producer prices (%MPS)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Market Price Support									
Wheat	-15,4	13,6	10,0	-7,6	-10,4	9,7	7,4	17,8	18,6
Barley	-43,1	-20,7	7,5	-53,4	-33,9	36,6	-2,6	-45,6	-37,2
Maize	-35,8	-1,3	9,4	-4,0	-60,8	-11,3	-21,4	-47,4	-31,1
Oats	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Rye	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Sunflower	-13,6	-3,4	9,4	-15,0	-2,8	5,8	-40,4	16,4	7,3
Refined sugar	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Potatoes	0,0	0,0	0,0	1,5	2,0	7,8	0,0	7,8	8,2
Cotton	-36,3	7,0	16,6	17,8	20,0	0,1	35,4	-12,8	4,9
Rice	11,5	4,9	-52,6	-46,0	-120,1	-42,1	-30,6	-105,4	-89,5
Milk	20,3	21,1	10,0	0,6	0,5	21,1	0,0	0,3	4,7
Beef and veal	2,7	13,6	21,4	17,3	4,2	5,2	1,3	2,4	16,0
Pig meat	7,6	5,3	8,7	17,9	21,6	12,8	29,6	27,1	37,7
Poultry meat	56,8	51,8	53,6	21,2	23,8	4,6	8,5	8,4	3,4
Sheep meat	0,8	0,0	2,3	14,9	15,1	-0,3	0,0	0,2	7,1
Eggs	34,7	12,1	22,0	36,1	41,1	11,9	23,9	20,3	5,7
Non MPS commodities	0,2	11,3	11,2	2,3	-0,4	10,6	4,7	7,6	10,5

Sources: OECD PSE Database

In the livestock sector the major products that are subject to market price support measures are meat and milk. Meat products are protected by tariff measures. There is a tariff quota for beef, pig meat and poultry products, the duties over the quota are set 50% for beef and pig meat and 80% for poultry in order to support local producers. The activities similar to Food Contract Corporation in price stabilization in livestock sector are performed by KazAgroProduct JSC. But market interventions in livestock sector are very rare and occurred in only 2007 for meat and in 2008 for milk. OECD includes additional support measures in MPS in livestock sector in Kazakhstan due to the prices of forage grain that are usually lower than in the world. The highest MPS indicator in livestock is observed in beef (16% in 2012) and pig meat (37.7% in 2012).

In 2011 in order to stabilize price hikes and minimize the seasonal price fluctuations on food products the government has introduced the regional stabilization funds. They receive concessional credits for purchase, storage and marketing of the products. In 2011 the list of products included vegetables only. The stabilization funds purchase the vegetables in fall when the price are lowest and sell them in winter and spring when the prices are highest at the prices below the market prices (up to 30% below the market price). Today the list of products includes 29 commodities including meat, dairy products, fruits and vegetables and groceries. The Ministry of Agriculture estimates the demand for each product in each region and sets the volumes for each product to procure and sell through the stabilization funds, fluctuating for 1% to 22% of the total demand for the product.

5.2.1 Budgetary and other transfers to agriculture

Overall budgetary and other transfers to agriculture over the five years 2008-2012 have increased from 776.5 million USD to 1 094 million USD. In 2004 the total amount of BOT was 240.4 million USD. In the period before 2007 the budget transfers were mostly in the form of input subsidies (seeds, fertilizers, agricultural chemistry and diesel) and the concessional crediting for spring sowing campaign and for machinery leasing program.

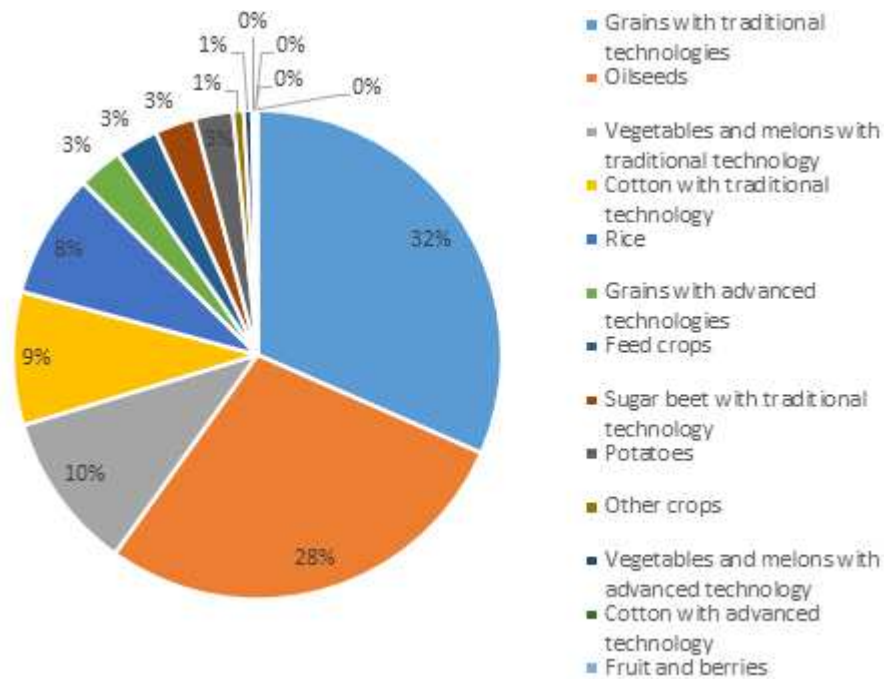
Table 44 Budgetary and other transfers arising from policy measures that support agriculture (mill. USD)

	2008	2009	2010	2011	2012
Transfers to producers (BOT to producers)	512,6	414,4	510,1	553,8	632,7
Payments based on output (A2)	82,0	79,2	97,8	121,0	133,5
Payments based on area/animal/receipts/income (C)	174,3	112,1	86,4	132,4	128,2
Subsidies to variable inputs and on-farm services (B1+B3)	131,8	115,2	192,1	183,4	202,1
Transfers reducing the on-farm investment cost (B2)	124,6	108,0	133,7	116,9	165,8
Other producer support (D+E+F+G)	0,0	0,0	0,0	0,0	3,1
Financing of public services, institutions and infrastructure (GSSE)	217,9	217,7	362,7	415,5	439,5
Agricultural knowledge generation and transfer (H)	41,3	50,4	52,4	62,0	50,1
Food inspection and control (I)	126,5	126,6	235,6	253,3	290,6
Development and maintenance of rural infrastructure (J)	20,6	16,8	23,3	74,5	78,8
Marketing and promotion (K)	21,7	15,3	15,3	18,6	3,0
Other general support (L+M)	7,7	8,6	36,1	7,1	17,0
Transfers to consumers (TCT)	36,0	24,4	41,0	50,2	21,9
Total budgetary and other transfers to agriculture (BOT)	766,5	656,6	913,7	1 019,6	1 094,1
BOT as a share of value of production at producer prices (%)	6,7	5,9	9,3	6,5	8,4

Sources: OECD PSE Database

Since 2007 the government introduced per hectare subsidies for priority crop products that removed the subsidies for fertilizers and agrichemistry (in 2009 they were reintroduced). The list of the priority crop products is defined by the local governments and is unique for each region. The subsidy rates are differentiated according to the technology used, stimulating the farmers to use modern agricultural technologies. Farmers that use drop irrigation, or comply with the scientifically based agricultural technologies receive subsidies 2-3 times larger than those who use traditional technologies. In 2012 The government allocated 127 million USD for subsidies per hectare. Most of the subsidies are paid for grains (32%), oilseeds (28%), vegetables (10%) and cotton (9%).

Figure 21 Structure of subsidies for crop production in 2013

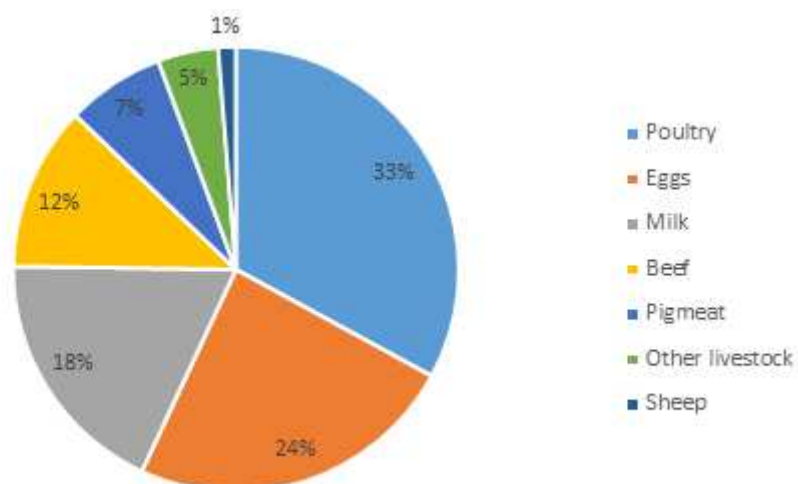


Sources: Ministry of Agriculture of the Republic of Kazakhstan

The highest share in variable inputs in 2012 went to fertilizers subsidies (48%), second largest share goes to concessional credits for sowing companies (29%) and third largest is seed subsidies (7%). Other 16% are distributed among feed subsidies, subsidies for maintenance of mother stock plantations and subsidies for young plants and other.

Output subsidies are distributed exclusively for livestock products. The farmers receive the subsidy in the form of per ton payment of the marketed production. In 2012 the total amount of output subsidies was 133 million USD. Poultry meat and egg producers received the largest share of the subsidy (33% poultry, 24% eggs), milk producers received 18% of total output subsidies and beef producers account for 12% of output subsidies.

Figure 22 Structure of output subsidies for livestock production in 2013



Sources: Ministry of Agriculture of the Republic of Kazakhstan

In terms of the transfers reducing the on-farm investment cost the measures include:

- Direct payments for the establishment and maintenance of perennial fruit plantations and vineyards (introduced in 2007)

- Subsidies for purchase of pedigree livestock
- Concessional credit programs for purchase of livestock
- Concessional loans:
 - Feedlot construction
 - Livestock reproduction farm construction
 - Milk complexes (construction and equipment)
 - Poultry complexes (construction and equipment)
 - Greenhouses
 - Drop irrigation equipment
- Concessional leasing program for agricultural machinery and special equipment

The total amount of funding for reducing the on-farm investment costs have increased from 124.6 million USD in 2008 to 165.8 million USD in 2012.

Financing of public services, institutions and infrastructure has grown 217.9 million USD in 2008 to 439.5 million USD in 2012. The highest growth is observed in food inspection and control – veterinary and phytosanitary services that account for 63% of total amount of GSSE. Government of Kazakhstan is focused on ensuring the veterinary safety of the country and dedicates considerable resources for anti-epizootic measures, diagnostics of animal diseases and construction of veterinary laboratories. Infrastructure is the second largest part of the GSSE with most of the finance allocated to water management and restoration of inter-farm water channels.

Marketing and promotion has decreased in 2012 with the maximum amount of funding in 2011 when the measures on improving the competitiveness of agricultural products, development of food processing, and the system of warehouse receipts and distribution of market information were prioritized.

The financing of Agricultural knowledge generation and transfer was fluctuating over the years. Most of the financing (66% in 2012) are dedicated to the applied researches by science institutions operating under KazAgroInnovation, the daughter company of MoA. Agricultural education received only 23% of the financing on agricultural knowledge generation and transfer.

6. FUTURE PERSPECTIVES FOR THE AGRICULTURAL AND FOOD SECTOR

6.1. Strengths and weaknesses of the agricultural and food sector

Strengths

- Vast and diverse land resources, allowing to produce wide range of agricultural products
- Rich land reserves (pastures) that have a considerable potential
- Traditional specialization on wheat production. Kazakhstan is one of the world's leaders in wheat and wheat flour exports
- Geographical position close to the growing markets of China, Russia and India
- Developing government support programs
- High potential of organic production
- Cheap labor force

Weaknesses

- Small scale production, around 80% of livestock is in private households that constrains the development of the sector
- Low productivity compared to other countries with similar climatic conditions
- Lack of skilled labor force
- High dependence on wheat production
- Extreme continental climate and droughts decrease the yields dramatically and make the whole territory of Kazakhstan an area of risky farming
- Obsolete equipment and high credit pressure
- Most of the machinery in Kazakhstan is obsolete and high credit pressure does not allow most of agricultural producers buy or lease new machinery
- Transport infrastructure, namely the roads, warehouses are underdeveloped
- Lack of investment due to high risks
- Low level of introduction of new technologies

Opportunities

- Increasing global demand for food. Kazakhstan can potentially become one of the major food supplier.
- Stabilization of wheat yields by introducing short rain crops, moisture saving technologies
- Potential for increasing productivity of crop and livestock production
- Diversification into oilseeds, fodder crops and other more value added crops
- Development of low cost pasture based livestock breeding
- Import substitution and development of export potential
- Development of infrastructure
- Entering new markets with the accession into WTO
- Transfer of the technologies from developed countries

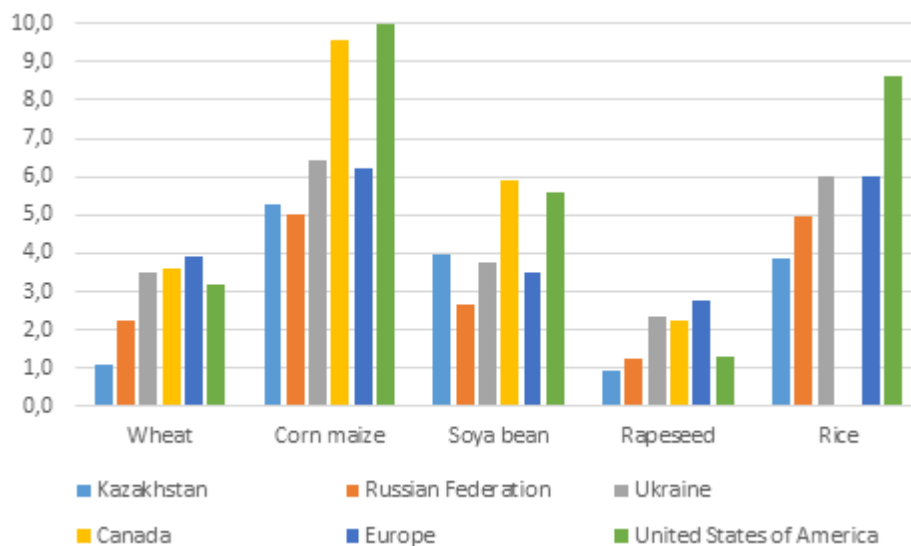
Threats

- Increased competition on the international market after accession into WTO
- Climatic changes both short term (droughts, frosts) and long term (global warming, deficit of water resources, degradation of land)
- Spillover effect of the political relationships between Russia and EU
- Global and regional crises and recessions
- Outbreaks of animal diseases, also due to the accession of Kyrgyzstan into European Economic Union

6.2. Potential of production and yields by sectors

The comparison of yields between the countries with similar agricultural conditions showed that yields in Kazakhstan are very low. In 2013 the wheat yield in Kazakhstan was 1.1 ton per ha, compared to Russian 2.2 t/ha, Ukrainian 3.5 t/ha, and Canadian 3.6 t/ha.

Figure 23 Yields for selected crop products in selected countries in 2013, t/ha



Sources: FAO, Committee of the Statistics of the Ministry of National Economy (<http://stat.gov.kz>).

Corn maize yields are higher than in Russia but still lower than in Ukraine, Europe and by a larger extent that in US and Canada. Corn maize and soya bean are cultivated on the irrigated arable land, wheat on the contrary is mostly rain-fed.

The yields of soya bean (4 t/ha) are higher than in Russia (2.7 t/ha), Ukraine (3.8 t/ha) and Europe (3.5 t/ha). Rapeseed and rice yields are the lowest among the countries observed. There is a potential for intensive growth of production. To minimize yield gaps there has to be a proper irrigation, fertilization and relevant technologies and equipment.

6.3. Bottlenecks for the future development of agri-food sector

At the present state of the agricultural sector of Kazakhstan, there is a number of problems both system-wide, such as physical and moral depreciation of fixed assets production and problems hindering the rates of innovation development of the industry like low level of science development and others.

Inefficient use of land resources

Human influence and pressure on land resources from year to year increases rapidly, increasing the risk of further development of erosion and deflation processes.

One of the major constraints in increasing the productivity of crops is the poor quality of around 80% of agricultural land the Republic of Kazakhstan. Only 20% of agricultural land is not affected by negative signs, the remaining land is partly blowout land, swampy, waterlogged or washed away.

On fallow lands the work on grassing and reclamation are not carried out, that is a potential risk for the development of negative anthropogenic processes such as development of water erosion and blowing out.

About 30% of irrigated land today is not used. The main reasons for that is the fault of the irrigation and drainage network, salinity, flooding, waterlogging, lack of water supply and others.

More than 35% of the area of pastures is subject to varying degrees of degradation. Manifestation of environmental change in the state of pastures is the predominance of secondary vegetation groupings, blowing out or water erosion. These pastures are usually used haphazardly, making it worse every following year. For example, in Kazakhstan pastures with secondary vegetation account for 70% of downed pastures, and the rest are foul, or they are chaffs and trails. Farmers do not tend to use sustainable technologies like no-till, mini-till, the use of mineral fertilizers is several time below the necessary amount according to the norms.

Inefficient use of surface water resources

In the context of dwindling reserves of water resources the question of efficiency of water use is becoming more important. In Kazakhstan agriculture uses about 9 km³ of water from surface sources, most of which goes to irrigated agriculture. The current state of irrigation systems is characterized to be of high wear, low efficiency (ratio less than 0.53), lack of facilities for water measurement. Water losses are estimated to be about 2.5-3.0 km³ per year. There are high levels of pollution of surface waters in the regions where the mining, metallurgical and chemical industries are developed, as well as in major cities.

Inefficient use of ground water resources

In agriculture, groundwater is used mainly for pastures watering. The reserves of ground water sources account for about 15.4 km³ per year. In 1990, Kazakhstan had 80% of pastures watered, but nowadays there is about 30% of watered pastures. The main reason for that is dramatic depreciation of water wells that were built in the Soviet times.

Lack of finance

High credit burden on the agricultural producers limit their possibilities for growing and developing their production. The investors do not tend to engage in agriculture due to high risks and low returns. Most of small household farms do not have the necessary collateral to access credits.

Moral and physical deterioration of infrastructure

Most of the infrastructure in agriculture remains from the soviet times and has not undergone any reconstruction. Agricultural farms, processors, scientific institutes suffer from lack of modern equipment, machinery. The proportion of more than 20 years old equipment is 28%, agricultural machinery and vehicles - 41% buildings operated for over 20 years without major repairs - 95%;

Processing industry

The main factors constraining the development of the processing sector are:

- 1) poor quality and shortage of agricultural raw materials, as well as underdeveloped procurement and transportation logistics, and raw materials storage facilities, which leads to low utilization of processing facilities;
- 2) Underdeveloped trade and logistics infrastructure that leads to scattered small scale producers and increase in the costs of production;
- 3) low competitiveness of domestic agricultural products and processed products on the domestic and foreign markets;
- 4) Issues in marketing of food products on the local market due to the presence of a significant amount of imported goods.

Veterinary safety

Development of the system of veterinary and food safety is hindered by a number of factors. Most of the livestock is scattered in private household farms having 3-5 heads of cattle, which significantly complicates the veterinary inspection and control. Veterinary information systems do not provide traceability "from farm to table", are not able to carry out epizootic supervision, monitoring and

forecasting of disease outbreaks. The existing infrastructure does not provide the proper level of veterinary safety, veterinary organizations (public state-owned enterprises, regional and district veterinary laboratories) are not equipped properly with all necessary equipment.

Agricultural science

As it was stated in Chapter 1.4 there are problems that persist in agricultural science, that limit the development of agriculture in Kazakhstan. The major problems are:

- 1) Lack of finance - multiple difference in the amount of funding compared to the countries - the leading exporters of agricultural products;
- 2) Lack of qualified young personnel - researchers, auxiliary and technical personnel;
- 3) Underdeveloped tools of introduction of scientific developments and interaction with the business society;
- 4) Lack of integration of the domestic agricultural science into the world scientific system.

Trade

At the moment, the policy of the Republic of Kazakhstan in agriculture and food security is closely linked with future accession into the World Trade Organization. Membership in the WTO imposes a number of obligations and restricts support measures to agriculture and makes adjustments in the policy of support and protection of local producers. The imminent entry into the WTO sets a number of requirements that local producers will suffer from in the short term. The main ones are: reduction or elimination of tariffs on a number of imported goods; increased accessibility of foreign companies to the Kazakhstan market; rejection of state financial support for exports of agricultural products; subsidizing of agriculture in accordance with WTO rules; gradual reduction of subsidies to agriculture.

The compliance to the rules of sanitary and phytosanitary measures is the most problematic aspect. In particular, there is a need to update the material and technical base of laboratories, to harmonize sanitary-epidemiological, veterinary and quarantine rules and regulations with international standards in order to meet the requirements of the WTO for Sanitary and Phytosanitary Measures.

Another serious obstacle to enter international market is the quality of animal products, which is largely determined by animal health situation in the country. In Kazakhstan many highly dangerous animal diseases are natural focal, in other words the pathogens circulate in the bodies of wild animals for a long time (up to 100 years) and can live in soil and in the natural environment. To effectively identify pathogens in animals and natural environment the veterinary laboratories must be equipped with modern equipment and instruments. The problem is compounded by the fact that most of the livestock is in private household farms. There is an urgent need to monitor the safety of slaughter and disposal of diseased cattle.

Table 45 Influence of various factors on agricultural sector in Kazakhstan

	(1-5)
Domestic market	5
CIS market	4
International market (outside CIS area)	2
National grants	3
International grants	3
National agricultural development policy	5
Policies of other countries	3
Competitiveness at national level	5
Competitiveness at international level	5
Bureaucracy in the national institutions	5
Corruption in the national institutions	3
Legal frameworks and regulation	5
Knowledge and information	5
Solidarity in society with agriculture/rural areas	3

6.4. Growth attractiveness for specific commodities

The table below illustrates the growth attractiveness for major Kazakhstani agricultural commodities.

Table 46 Yields and growth attractiveness for specific commodities in Kazakhstan .

Commodity	Yield	Producer price	Growth attractiveness	Potential market
Wheat	40% below of average	Average	Very attractive – potential for yield growth	Existing partners – Central Asian countries Potential countries – Iran, UAE
Linseed	30% above average	Below average	Attractive – growth and export potential	EU, CIS
Rapeseed	50% below average	Average	Attractive – growth and export potential	EU
Soya bean	Average	Below average	Attractive – high export potential	China
Grain maize	Average	Average	Moderate – average export value, used for forage	CIS, Iran
Beef	20% above average	Above average	Attractive – high demand on local market and export potential	Russia
Sheep meat	Nearly average	Below average	Moderate – local market is saturated, export potential	Iran and Middle East countries

There is a strong potential for Kazakhstani wheat yield growth by applying modern technologies, developing drought resistant varieties. Along with the traditional markets for exports there is a potential to export wheat to Middle East countries. The strategy for diversification has shown a great potential of oilseeds production growth, as they are more value added and have higher yields. Exports have risen substantially in the recent years. The growth potential is mainly for export purposes to EU, China and CIS countries. Kazakhstan is in the middle of the implementation of the program for developing export potential of chilled beef. The target market is Russian Federation. Kazakhstan is fully self-sufficient in sheep meat production, there is potential for exporting mutton to Iran and other Middle East countries, traditional sheep meat consumers.

7. RECOMMENDATIONS

Despite the developments in agriculture of Kazakhstan there are still drawbacks and potential to develop. A lot of work is needed in the legislative field and institutional development of agriculture. Agricultural science system needs development and reforms. The productivity of crop and livestock production is less than in the countries with similar conditions. Conducting the analysis of agriculture in Kazakhstan the following recommendations were developed:

PROBLEMS	SOLUTIONS AND RECOMMENDATIONS
Inefficient use of land and water resources	1. Create a comprehensive land cadaster and an effective legal framework ensuring that the land in ownership and rent are cultivated and used effectively 2. Launch a Pasture Recovery program with the help of international financing institutions 3. Ensure the recovery of watering wells on the pastures with providing investment subsidies for the farmers
Small scale production	1. Facilitate cooperation through government support and preferential crediting, tax exemptions
Moral and physical deterioration of infrastructure, obsolete equipment	1. Provide public investments in rural infrastructure building, roads, gas, energy etc. 2. Provide cheap credits and facilitate investment into agricultural infrastructure
Lack of finance, high credit pressure	1. There is a need to create favorable conditions for local and foreign investment. This could be done by creating and Agricultural Investment Fund with participation of the government, foreign institutes and venture funds 2. Prolong the program of Financial Rehabilitation 3. Provide subsidies for the processors for the purchase of raw materials
Lack of skilled labor force	1. Provide incentives for young specialists to move to rural areas and engage in agriculture by providing concessional credits for purchase of apartments, salary bonuses, etc. 2. Provide scholarships for agricultural specialties in foreign universities with the condition of working on the chose specialty in Kazakhstan after the graduation. 3. Organise targeted training in the existing extension centres.
Underdeveloped tools of introduction of scientific developments and interaction with the business society;	1. Facilitate creation of scientific and development centers in cooperation with large agricultural enterprises 2. Facilitate communication between agricultural science and business to ensure the development of the technologies demanded by the business
High dependence on wheat production	3. Diversify into oilseeds, corm maize and fodder crops in order to reduce risks and develop livestock production

8. CONCLUSION

Agricultural sector plays one of the major roles in the development of social and economic welfare of the Republic of Kazakhstan. Over the last 20 years, the sector has undergone substantial changes and integration into international unions and organizations. At the times of growing demand for food products Kazakhstan can potentially become one of the biggest food suppliers to the world. Kazakhstan has already taken the place of one of the major wheat and wheat flour exporters. Diversifying the production into oilseeds and fodder crops the production and export of these commodities shall increase substantially.

Accession into WTO will open the markets of the member states. However, the presence of more competitors on the market can be a threat to local producers, which will require the help of the government to raise the competitiveness of Kazakhstani producers. Facilitating the investment into agriculture, cooperation, providing access to cheap financial instruments and developing agricultural science is the key to successful development of agricultural sector of Kazakhstan.

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