# **CENTIL.LAW**

# **CENTRAL ASIA INSIGHTS:** THE AGRICULTURE

In this series of insights into the Central Asian region, Centil aims to provide investors with a snapshot of the development and state of various spheres of interest. These snapshots usually include a collection of relevant facts and figures, with a small amount of concise analysis. In certain instances, we provide more in-depth discussion when the information and conclusions require.

# **KEY AGRICULTURE INDICATORS**

The Central Asian (CA) region is nestled between Asia and Europe and is made up of relatively small countries that have an abundance of high-priced natural resources, such as oil and gas (Kazakhstan, Turkmenistan and Uzbekistan), gold (Uzbekistan and Kyrgyzstan), aluminium (Tajikistan), uranium and numerous other metals.

Moreover, the CA countries have high literacy rates and reasonably good healthcare systems, both of which are primarily financed by the state. The countries have also built sophisticated infrastructures that enable them to capitalise on their strategic location.

Since the collapse of the Soviet Union in 1991, CA embarked on market-oriented economic reforms, becoming one of the fastest growing regions globally from an economic perspective. At present, whilst some are still in a transition period, CA

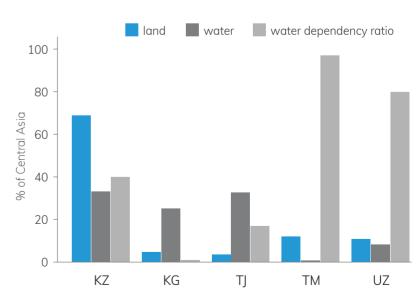


Total land area is 3.9m sqkm, the population is 68.7m people

Distribution of land and population in 2015

Source: National Statistics Agencies of CA countries, World Development Indicators, 2017 economies are more aligned with the more market-based economies found elsewhere around the world.

The total land area of the CA region is 3.9 million km2, representing 3% of the world's dry land mass. Of this area, Kazakhstan represents 69%, Uzbekistan and Turkmenistan together represent 23%, and the two smallest countries - Tajikistan and Kyrgyzstan - make up 8%. In addition, 9.6% of this land is arable, which is slightly lower than the world average of 10.9%. Although Uzbekistan and Kazakhstan have done well at cultivating their land, with their share of arable land keeping up with the world average, the share of permanent cropland lags way behind the world average in all CA countries. The leaders in terms of the proportion of permanent cropland are Tajikistan and Uzbekistan, two traditionally sedentary societies, with 1% and 0.9% respectively (Table 1).



Distribution of land and water resources in 2014

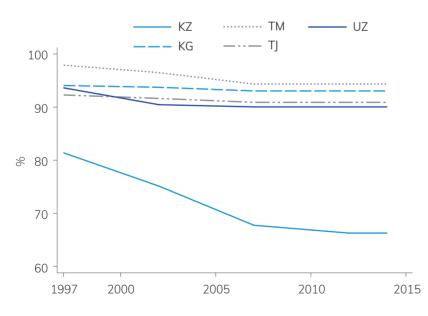
Total internal renewable water resources (water) in CA in 194.5 bcm

Source: AQUASTAT, World Development Indicators, 2017

The distribution of the 68 million people living in the CA countries is also uneven: Uzbekistan and Kazakhstan are the most populous countries, together comprising 72% of the CA population. However, Uzbekistan and Tajikistan score the highest in CA when it comes to population density, whilst Kazakhstan's population density is way below the world average.

The region's land-locked location within the Eurasian continent makes water a scarce resource in most CA countries and, due to its uneven distribution across the CA countries, much conflict surrounds the issue of water use within the region. Although Kyrgyzstan and Tajikistan together cover a relatively small area of land, the two collectively possess 58% of internal renewable water resources (IRWR). Sirdarya and Amudarya, the two longest rivers in CA, originate from the Tien Shan and Pamir mountain ranges,

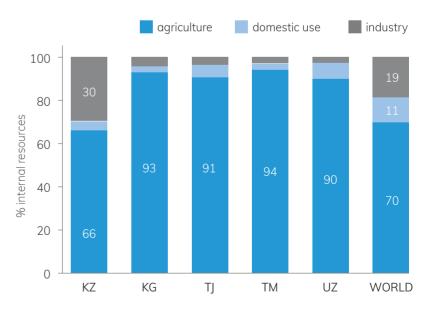
# Annual freshwater withdrawals by agriculture



Source: World Development Indicators, 2017

located within these two countries. In contrast. Turkmenistan. Uzbekistan and Kazakhstan are downstream countries whose dependency ratio, i.e. the percentage of renewable water originating from other countries, stand at 97%. 80%. and 40% respectively. Kazakhstan has a somewhat smaller dependency in view of the fact that. unlike the other two downstream countries, it has access to the Caspian Sea, the world's largest lake, in addition to other internal river basins.

Demand for water resources is grouped into demand for agriculture, domestic and industry purposes. In view of its irrigated nature, agriculture accounts for a staggering 90% of freshwater withdrawals in all CA countries except Kazakhstan - the only country whose annual water withdrawal for agriculture is below the world average (66% compared to 70%).



# Annual freshwater withdrawals 2014

Source: World Development Indicators, 2017

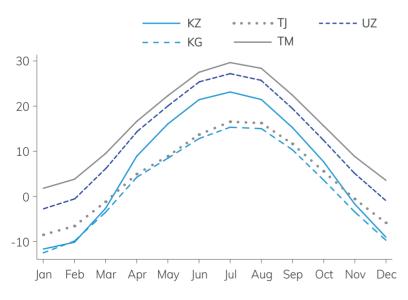
Water scarcity and a land-locked location lend the CA countries a continental climate that is characterised by significant differences in daily and seasonal temperatures, solar radiation and humidity.

Due to the presence of desert and mountainous areas across the CA countries, there are subtle differences between their climates. Long-term average annual precipitation varies from 161mm in Turkmenistan, 80% of which is desert, to 691mm in Tajikistan, 93% of which is mountainous. Even in this mountainous area, this level of precipitation is still lower than the world average of 802mm. There are also minor differences in temperature across the countries: in the region's drv countries. such as Turkmenistan and Uzbekistan. average temperatures throughout the year are higher than in the wet countries,

such as Tajikistan and Turkmenistan. Kazakhstan has an extremely wide range of temperatures, resulting in the coldest winters and hottest summers: this is caused by the widespread presence of deserts, steppes and arid areas.

Since 1991, economic reforms have brought about changes in the region's aaricultural sector, which so far has been a stable source of output. The agricultural profile of the CA countries shows that they are generally more "agrarian" than the average country or region worldwide. There are many indicators of this fact. Firstly, the agricultural value added as a share of GDP ranged from 4% in Kazakhstan to 27% in Tajikistan in 2015, which is higher than the world average of 3.9%. The data shows that this share has been in gradual decline since the institution of

### Monthly average temperature (C) in CA countries covered period: 1990-2002



Source: World Bank Climate Change Knowledge Portal, 2017

Monthly average rainfall (mm) in CA countries

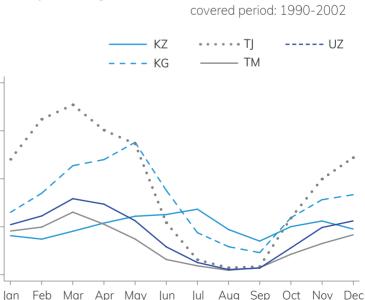
80

60

40

20

0



Mar Apr May Jun

Source: World Bank Climate Change Knowledge Portal, 2017

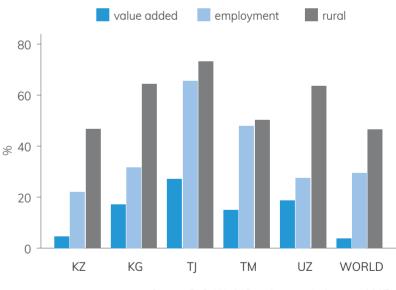
transition reforms by CA governments, which is in line with international trends in agriculture. Secondly, the agricultural sector is a core source of employment in CA: the proportion of people employed within the agricultural sector varies from 24% in Kazakhstan to 65% in Tajikistan, all compared to a global average of 30%. Indeed, only in Kazakhstan and Uzbekistan is this indicator below the global average. Thirdly, the proportion of the population living in rural areas is relatively high in CA countries: an overwhelming 60% of people in CA live in rural areas, whereas the global average for this indicator is around

47%. At the individual national level, the proportion of the population living in rural areas varies; in Kazakhstan this indicator hovers around the world average, whilst in Tajikistan it is 73%. Although countries with a "high" agricultural profile generally tend to have a lower GDP per capita and, therefore higher levels of poverty and income inequality, the region's abundance of natural resource generally makes it an exception to this rule.

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### Agriculture, value added (% of GDP)

# Agrarian profile of CA countries in 2014

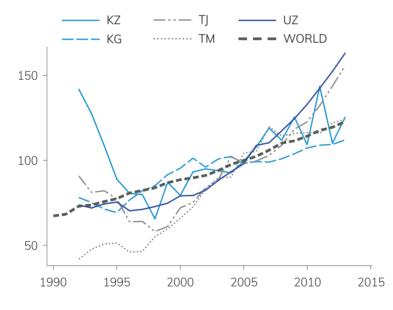


Source: FAO, World Development Indicators, 2017 Data for Turkmenistan (TM) is estimated

Source: World Development Indicators, 2017

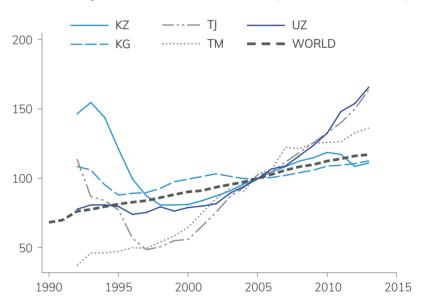
Simultaneously, whilst the share of agricultural contribution to GDP has been declining in all the CA countries, the sector has generally experienced positive growth rates over time. An increase in the volume of agricultural value added is supported by a steady rise in food production index and livestock production index in CA countries. In Uzbekistan and Tajikistan, both food production and livestock production are growing more rapidly than the global average. The data reveals that agricultural production indices exhibit higher levels of volatility than the global average. One reason

Food production index in CA (2004-2006=100)



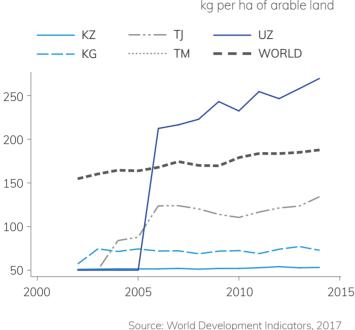
Source: World Development Indicators, 2017

for this is that agriculture is mainly irrigated and therefore, as discussed above, is heavily dependent on the unevenly distributed water resources across the CA region. Secondly, water scarcity increases the cost of irrigation, and newly established private farmers do not have sufficient resources to pump water in order to irrigate land or buy the appropriate amount of fertilizer at an individual level. There are also other reasons for this, such as past political outbreaks in Kyrgyzstan and Tajikistan, which explain the levels of volatility in agricultural production.



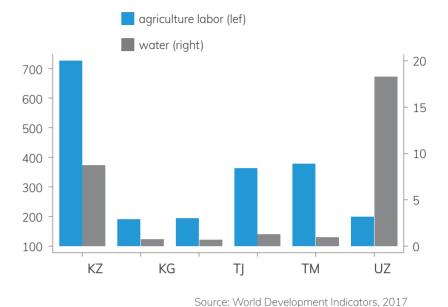
# Livestock production index in CA (2004-2006=100)

Source: World Development Indicators, 2017



# Fertilizer consumption in CA countries

kg per ha of arable land



Agriculture labor productivity for Turkmenistan is provided for 2010

Agriculture labor and water productivity in CA, 2014

in 2010 constant USD

Moreover, in order to supply sufficient nutrients to the soil and increase agricultural productivity, famers in CA apply fertilizers. Interestingly, the pace of fertilizer application in Uzbekistan has exceeded that of the global average by a high margin since 2006. One explanation for this is that cotton production is generally associated with land degradation due to the pollution of both water and the environment. The dehydration of the Aral Sea saturates the soil in the western part of Uzbekistan with salt. In order to compensate for this loss, farmers have to use larger fertilizer. amounts of sometimes in volumes that may exceed the nationally and internationally accepted levels of fertilizer application.

In terms of productivity in agriculture, we consider two indicators: the first is agricultural labour productivity, which is measured as the constant 2010 USD agricultural value added per person working in agriculture. Kazakhstan leads in this indicator, with a labour productivity that exceeds USD 7,000. Uzbekistan and Turkmenistan follow, with just under USD 4,000 per agricultural worker, which is twice the global average. Kyrgyzstan and Tajikistan have lower levels of productivity than the global average. The second indicator is water productivity, which is defined as the constant 2010 GDP per  $m^3$  of total freshwater withdrawals. As discussed above, water use is inefficient in CA, and therefore all the countries in the region score lower than the global average of \$18.2/m<sup>3</sup>. Kazakhstan leads amongst the CA countries, with \$8/m<sup>3</sup>, which is 6 times higher than that of Turkmenistan and 8 times higher than that of Uzbekistan. Interestingly, Kyrgyzstan and Tajikistan, which have an abundance of water resources, score lowest among the countries of CA.

Furthermore, during the Soviet period the CA countries were essentially suppliers of cotton (Tajikistan, Uzbekistan and Turkmenistan) and wheat (Kazakhstan) produced by collective and state farming firms called kolkhozs and sovkhozs. Aaricultural reforms implemented during the subsequent period aimed to decrease land degradation caused by salinization and waterloaging, stop deforestation, diversify crop production for food security reasons, move towards the production of cereals, privatise the land and increase water productivity. Consequently, collective and state farming enterprises have been abolished and, instead, small private farming firms have been established with different forms of ownership (often long-term leasing in Turkmenistan, Tajikistan and Uzbekistan, and private ownership in Kazakhstan and Kyrgyzstan)<sup>1</sup>.

With the changes in the structure of CA economies, the structure of agricultural production has also changed. The emergence of private farming in CA gave rise to the adoption of advanced agricultural technologies. Consequently, agricultural production has been diversified and animal, poultry and fish farming, along with horticulture, have undergone a new wave of development in the CA countries.

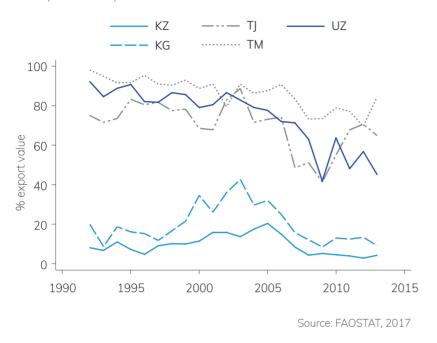
share The of cotton has been dramatically reduced in cottonmonocultures. In 1992. cotton lint had an agricultural export share that ranged from 88% in Tajikistan to 92% in Uzbekistan and 98% in Turkmenistan. Since then, this share has gradually declined, although it still remains significant, accounting for 64%, 45% and 84% respectively in 2013. The same can also be said of wheat in Kazakhstan, where the product's share in agricultural exports has declined from 83% in 1992 to 45% in 2013.

The decrease in the export shares of cotton and wheat came at the expense of the development of other agricultural products. Table 4a, found below, lists top 70% of agricultural exports by the CA countries. As you can see, exporting items have increased in numbers in all the countries except for Tajikistan and Turkmenistan. Kyrayzstan was not a cotton or wheat monoculture during the Soviet period - a factor that has helped the country to diversify its food exports more than any other CA economy, with 15 items falling within the top 70% and the lowest Hirschman-Herfindahl Index of 0.05.

<sup>1</sup> However, some forms of the command structure of production quotas, fixed procurement prices and soft budget constraints remain in place in Turkmenistan and Uzbekistan. This is also the case with the marketing and distribution of agricultural produce.

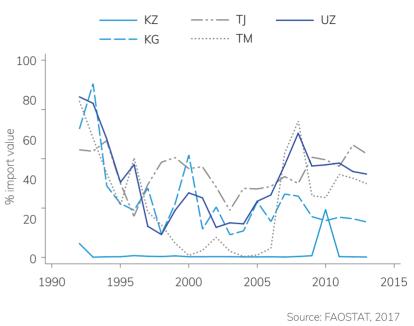
### Cotton lint in agricultural exports

Cotton lint was within top 3 agricultural products exported in 2003



# Wheat products in agriculture imports





The import profiles of the CA economies share some similarities. Firstly, although the agricultural policies have been directed towards grain self-sufficiency in all CA countries, imports of wheat (wheat, flour and products bran from wheat) dominate imports in all CA countries, with the exception of Kazakhstan. Whilst Tajikistan declared itself to be wheat self-sufficient in 2015, its share of wheat products in agricultural imports has been steadily increasing since 2003 and, by 2013, its share of wheat products in agricultural imports exceeded 40%, the largest amongst the CA economies. Similarly, the share of wheat in agricultural imports in Uzbekistan, which declared wheat self-sufficiency a long time ago, was 34% in 2013, representing the country's largest agricultural import item that year. Secondly, the CA countries appear to be dependent on the rest of the world for its refined sugar. This is especially true for Uzbekistan, whose share of refined sugar in agricultural imports is 13.8%, the largest amongst the CA economies, despite the fact that sugar is produced locally and is banned from exports. This is also the case with imports of chocolate; in all the CA countries except Uzbekistan, chocolate imports appear to be in the top 3 imported foods. Finally, sunflower oil is also an important item on the list of imports into CA, and is in the top 3 agricultural imports in Uzbekistan.

# TABLE 1. General land characteristics of Central Asian countries

Data for 2014-2015, the latest available

Country —	Total land area		Desert / mountainous area	Agricultural land	Cultivated area, % of land area		Population		
	km2	%	% land area	% land area	arable	permanent cropland	millions	%	density, per km²
Kazakhstan	2,699,700	68.8	80 (desert)	80.4	10.9	0.0	17.5	25	6.5
Kyrgyzstan	191,800	4.9	87 (mountainous)	55.0	6.7	0.4	6	9	31.1
Tajikistan	138,786	3.5	93 (mountainous)	34.2	5.3	1.0	8.5	12	61.1
Turkmenistan	469,930	12	80 (desert)	72.0	4.1	0.1	5.4	8	11.4
Uzbekistan	425,400	10.8	60 (desert)	62.9	10.3	0.9	31.3	46	73.6
Central Asia	3,925,616	3	71% desert 8% mountainous	74.6	9.6	0.2	68.7	0.9	17.5
World	129,733,173			37.5	10.9	1.3	7,346.4		56.6

Source: World Development Indicators, AQUASTAT, 2017

# TABLE 2. Renewable water resources and water withdrawals in CA, 2014-2017

Data for 2014-2017, the latest available

	average	-term e annual itation	Annual renewable water resources			Annual water withdrawals						
Country	Country		IR\	NR			RWR					
	depth, mm	volume, km <sup>3</sup>	depth, mm	volume, km³	Depen- dency ratio, %	volume, km³	m <sup>3</sup> per inhabitant (2011)	billion m <sup>3</sup>	agricul ture, %	domestic, %	Industry, %	% internal resources
Kazakhstan	250	681	24	64.4	40	107.5	6,632	21.1	66.2	4.2	29.6	32.9
Kyrgyzstan	533	107	245	48.9	1	23.6	4,319	8	93	2.8	4.2	16.4
Tajikistan	691	99	445	63.5	17	21.9	3,140	11.5	90.9	5.6	3.5	18.1
Turkmenistan	161	79	3	1.4	97	24.8	4,851	28.0	94.3	2.7	3.0	1989.3
Uzbekistan	206	92	37	16.3	80	48.9	1,760	56	90	7.3	2.7	342.7
Central Asia	309	1,058	52	194.5		-	-	124.6	87.2	5.3	7.5	608.6
World	812							3985.7	69.9	11.5	18.6	9.3

# TABLE 3. Agricultural characteristics of CA economies

Data for 2010, 2013-2015, latest available

Real C Country		Real GDP, PPP Agriculture value added			Employment in agriculture	Rural population	Fertilizer consumption	Labour productivity	Water productivity
Country	billions USD	%	% GDP	% growth	% of the employed			Value added per worker	GDP per m3 of TRWR
Kazakhstan	407.8	59	4.7	3.5	24.2	46.7	3.4	7,256.8	8.7
Kyrgyzstan	18.6	3	17.1	6.2	31.7	64.4	23.1	1,900	0.7
Tajikistan	21.3	3	27.2	3.2	64.9	73.3	84.4	1,938.6	0.6
Turkmenistan	78.3	11	15		48	50.3		3632.7	1.3
Uzbekistan	165.7	24	18.8	6.8	27.6	63.7	219.8	3,777.1	1.0
Central Asia	691.7	0.6	10.3		32.6	59.5		2,862.2	
World	104,719.8		3.9		29.5	46.6	138	1,978.3	18.2

Calculations are based on data from National Statistics Agencies, World Development Indicators, various sources, 2017

# TABLE 4a. Matrix of the top 70% of agricultural exports of CA countries

Top 3 items are shown in bold. Data for 2013

Export items	KZ	KG	ТЈ	ТМ	UZ
Exportiteins			%		
Apples		4.2			
Apricots		4.6			4.5
Beans, dry		16.1			
Cabbages and other brassicas		2.1			
Carrots and turnips		4.9			
Cotton lint	4.1	9.0	64.9	84.4	45.1
Crude materials		2.5			
Flour, wheat	20.9				
Fresh fruit, not elsewhere specified					5.5
Grapes					9.6
Hides, cattle, wet salted		3.1			
Meat, beef, preparations		1.9			
Milk, whole fresh cow		3.5			
Onions, dry		2.2			
Potatoes		2.9			
Tobacco, unmanufactured		7.0			
Tomatoes		2.6			
Vegetables, fresh not elsewhere specified					4.3
Walnuts, shelled		3.1			
Wheat	44.9				
# of items	3	15	1	1	5
Hirschman-Herfindahl Index	0.247	0.052	0.421	0.712	0.220
Σ	69.9%	69.8%	64.9%	84.4%	69%

Source: FAOSTAT, 2017

# TABLE 4b. Matrix of the top 70% of agricultural imports of CA countries, 2013

Top 3 items are shown in bold. Data for 2013

Import items	KZ	KG	TJ	ТМ	UZ
import terns			%		
Apples	1.5				
Apricots	1.2				
Beer of barley	0.8				
Beverages, distilled alcoholic	2.8				
Beverages, non alcoholic	1.5	4.7		5.7	

Import items	KZ	KG	TJ	ТМ	UZ
importiteins			%		
Butter, cow milk	0.9				
Buttermilk, curdled, acidified milk	1.2				
Cheese, whole cow milk	2				
Cherries	0.9				
Chocolate products not elsewhere specified	5.9	8.1	8.4	12	
Cigarettes	3.3	8.6		7.5	
Crude materials	2.5				
Fat, nes (not elsewhere specified), prepared					3.8
Flour, wheat		5.1	12.3	6.9	23.4
Food prep nes	8.0	5.6			
Fruit, dried nes	1.1				
Infant food	1.1	2.3			
Meat, cattle	0.9				
Meat, chicken	4.3	7.3			
Meat, pig sausages	2.2				
Milk, skimmed dried	1.6				
Milk, whole evaporated	0.9				
Nuts, prepared (exc. groundnuts)	1.1				
Oil, sunflower	2.1	5.8	3.3	5.7	12.5
Pastry	3.4	3.4			
Persimmons	1.2				
Pet food	0.8				
Sugar confectionery	2.0	3.7	3.7		
Sugar Raw Centrifugal	3.9		7.3	6	
Sugar refined	1.6	6.6	5.4		13.8
Tangerines, mandarins, clementines, satsumas	1.3				
Теа	3.4				5.2
Tobacco, unmanufactured	1.2				
Tomatoes	1.0				
Vegetables, fresh nes	1.0				
Vegetables, preserved nes	0.9				
Wheat		9.2	29.8	23	10.3
Wine	1.2				
Σ	70.7%	70.2%	70.2%	66.8%	69%
# of items	35	12	7	7	6

# LEGISLATIVE AND REGULATORY ENVIRONMENT

INDICATORS	KZ	KG	ТЈ	ТМ	UZ
Types of agricultural entities	<ol> <li>Farms. A farm is a type of entrepreneurial activity and labour alliance of persons inextricably linked with the use of agricultural land to produce agricultural products, as well as the processing and marketing of these products.</li> <li>The farm is created on a voluntary basis and is considered to be established from the moment of the state registration of the rights to a plot of land, as well as following registration as an individual entrepreneur.</li> <li>Agricultural cooperatives. Agricultural cooperatives are legal entities that take the organisational form of a production cooperative created through a voluntary alliance of individuals and/or legal entities for the implementation of joint production and other economic activities.</li> </ol>	<b>1. Family-operated farms.</b> Family-operated farms are independent entities that have the status of a legal entity, or that carry out their activities without establishing a legal entity. Their activities are based primarily on the personal work of members of one family, relatives and other persons who jointly produce agricultural products. It should be noted that if the family- operated farm carries out its activities without the formation of a legal entity, then it must act in accordance with the rules stipulated by the legislation of the Kyrgyz Republic for an individual entrepreneur. The activities of family-operated farms are regulated by the Law on Family-operated Farms #47 dated 3 June 1999.	1. Dekhkan farms. Dekhkan farms are a subject of entrepreneurship, the production, storage, processing and sale of agricultural products based on the personal activities of one person or the joint activity of a group of individuals on the land and property belonging to them. Farms can be established either without the formation of a legal entity in the case of 1-50 members, or with the formation of a legal entity regardless of the number of members. A dehkhan farm established without the formation of a legal entity under the agreement on joint activity must register as individual entrepreneurs, indicating the term «Dekhkan Farm» in its name A dehkan farm established with the formation of a legal entity must register as an economic partnership or a company provided for by the legislation of the Republic of Tajikistan, with the words «Dehkan farm» in its name.	<ul> <li>1. Dayhan Farms. The dayhan farm is a farm formed by one or several families that produces and sells agricultural products through the personal labour of family members on the personal plot of land given to the founder(s) of the same farm. Dayhan farms are recognised as legal entities.</li> <li>2. Farmers association. Farmers associations are voluntary associations of individuals engaged in agricultural production. Farmers associations are established by the Resolution of the President of Turkmenistan and constitute legal entities.</li> <li>3. Agricultural Joint-Stock Company. A regular type of joint-stock company, which is fully engaged in agricultural production.</li> </ul>	<ol> <li>Farms. Farms are the main subject of agricultural production. They are independent economic entities, leading commodity agricultural production using land plots leased by the government.</li> <li>Dekhan farms. Dehkan farms are small-scale family farms that produce and sell agricultural products through the personal labour of family members on the personal plot of land given to the head of the family for lifetime inheritable possession.</li> <li>Shirkats. Agricultural cooperatives (shirkats) are self-managing entities with the rights of a legal entity, based on shares and a predominantly family (collective) contract, the voluntary association of citizens that produce marketable agricultural products.</li> </ol>

INDICATORS	кz	KG	TJ	ТМ	UZ
	The main activities of agricultural cooperatives are: the production, processing, marketing and storage of agricultural products and aquaculture products (fish farming), the supply of the means of production and materials and technical resources, and other types of services for members of the cooperative. Agricultural cooperatives require at least three members and are considered to be established from the moment of state registration.	2. Agricultural cooperatives. Agricultural cooperatives are voluntary associations of agricultural producers based on membership, focused on joint production or other economic activity, based on the combination of their property share contributions with monetary value, in order to meet the economic needs and other needs of its members. Agricultural cooperatives are subject to state registration as a legal entity. The activities of agricultural cooperatives are regulated by the Law #70 of the Kyrgyz Republic on Cooperatives dated 11 June 2004.			
Restrictions on the number of employees	Not limited	Not limited	Not limited	Not limited	Not limited

INDICATORS	КZ	KG	ТЈ	ТМ	UZ
Regulations of the ownership of land (which documents regulate the issues of land ownership, limitations of buying and selling the land, restrictions of the size of farms, etc.)	The Land Code #442-II dated 20 June 2003. Agricultural land in Kazakhstan is only provided to: 1) individuals and legal entities for farming purposes or marketable agricultural production, afforestation, research, experimental and educational purposes, subsidiary farming, gardening and livestock farming. Generally, such agricultural land is provided for use for a period of no less than 5 years. However, agricultural land for the purposes of family / privately operated farms shall be provided for use for at least 10 years. 2) citizens under private ownership for the development of personal subsidiary farming, gardening and dacha construction (temporarily suspended until 31 December 2021);	The Land Code Law #45- 46 dated 2 June 1999. The Law on the Administration of Agricultural land #4 dated 11 January 200; The regulation on the sale purchase of agricultural plots of land approved by decree of the government of the Kyrgyz Republic #427 dated 13 August 2001; Law #145 of the Kyrgyz Republic on the Transformation of Land Plots dated 15 July 2013. There are certain restrictions with regard to the ownership of agricultural land. Pursuant to the legislation, only local companies that are involved in agriculture and citizens can own agricultural land. Transferring ownership of agricultural lands to foreign individuals and legal entities is prohibited.	The Land Code Law #326 dated 13 December 1996; The Law on the State Registration of Real estate and Rights to It #375 dated 20 May 2008. The land legislation of Tajikistan provides for the state's exclusive ownership of land. However, legal entities and individuals are granted land use rights only. Land use rights for an indefinite term and lifetime inheritable use is only granted to legal entities and citizens of Tajikistan. Foreign investors may obtain temporary land use rights for up to 50 years. However, this right does not extend to agricultural and specially protected categories of land. There are also restrictions on foreign investors and individuals owning residences.	The Land Code Law #243- Il dated 25 November 2004. Land is a state property and is classed as national wealth, subject to rational and effective use, protected by the state. Land ownership rights only belong to the government of Turkmenistan (except for those plots allotted to Turkmen citizens) and can only be allotted to legal entities for permanent or temporary use or lease. The allotment of land plots is carried out by the Cabinet of Ministers of the Republic of Turkmenistan, regional hokimliks, the city of Ashgabat, cities in the order established by the legislation. Any allotment of land is subject to registration with the competent authority, and the rights to land plots shall only be transferred upon this registration.	The Land Code Law #598- I dated 30 April 1998. Regulations on the procedure for the sale of private objects of trade and services, together with the land plots on which they are located and land plots for lifetime inherited possession (Appendix No. 3 to Resolution No. 126 of the Cabinet of Ministers of 11.04.1995). Land is state property and national wealth, subject to rational use, protected by the state and not subject to sale, exchange, gift or pledge, except in the cases established by legislation. Ownership rights of legal entities and individuals to land plots arise in accordance with the procedure established by law, with the privatisation of the objects of trade and services, together with the land plots on which they are located.

INDICATORS	KZ	KG	тј	ТМ	UZ
	3) foreigners, stateless persons, foreign legal entities, as well as legal entities with more than 50% foreign participation for the purpose of a temporary lease for a maximum period of 25 years (temporarily suspended until 31 December 2021). Selling agricultural land to foreign entities is prohibited.	For these purposes, companies that are registered in Kyrgyzstan and of which foreign persons own over 20% of share capital are considered to be foreign, as are companies that are controlled or managed by foreign persons or legal entities. <b>N.b.</b> In 1999, agricultural land was distributed amongst citizens. The size of the agricultural land distributed depended on the region. Today, 98% of agricultural land in Kyrgyzstan is private.			The granting (realisation) of the land plots for possession, use, rent and ownership is carried out in the order of allotment. The allotment of land plots is carried out by the Cabinet of Ministers of the Republic of Uzbekistan, regional hokims, the city of Tashkent, districts and cities in the order established by the legislation.
Compulsory delivery quotas of agricultural products (compulsory state orders - (plans) of fruits, vegetables, livestock, etc.; the share of land allocated to delivering compulsory delivery quotas; etc.)	Not applicable.	Not applicable. However, each year the government establishes a minimum volume of purchases of agricultural products for state needs.	Not applicable.	Not applicable. However, each year the government establishes a minimum volume of purchases of agricultural products for state needs.	Starting from 2016, the state order for the purchase of fresh fruit and vegetable products (potatoes, melons and grapes) was introduced. The purchase of fresh produce from farmers and dehkan farms is carried out at contractual market prices. The total volume of the state order for the purchase of fresh fruit and vegetable products for 2016 was 4,077,000 tonnes. According to forecasts, Uzbekistan will increase production of vegetables and fruits to 32 million tonnes until the end of 2020.

INDICATORS	KZ	KG	Тј	ТМ	UZ
					For the timely financing of cotton and grain crops for public procurement, the Cabinet of Ministers created a Targeted Fund for the Government Procurement of Agricultural Products and Technology in June 2017. One of the main objectives of the Fund is to coordinate the payments for products purchased by the relevant financing parties (the Ministry of Finance of the Republic of Uzbekistan, banks, procurement, servicing and leasing organisations, suppliers and agricultural producers).
					In addition, Uzbekistan intends to reduce the volume of the production and government procurement of raw cotton from 3.35 million to 3 million tonnes until 2020.

INDICATORS	KZ	KG	тј	ТМ	UZ
Government support in fulfilling compulsory delivery quotas (direct subsidies in the form of cash, payments, etc.; the provision of materials as fertilizers, fuels and lubricants, etc.;	The government provides direct subsidies that compensate for the credits and the lease of technological equipment and agricultural machinery; Governmental support in different spheres: animal husbandry, small cattle, horse breeding, etc. In addition, different governmental support programmes, for example the Agrobusiness 2020 program.	Not applicable.	Not applicable.	Not applicable.	<ul> <li>The purchase of fruits and vegetables within the state order is made through a contract based on market terms and is guaranteed by an advance payment of no less than 40% of the value of the contract.</li> <li>At the same time, Uzbekozikavkatholding Company, Uzbekozikavkazhira Association, Uzagroexport JSC jointly with the Council of Ministers of the Republic of Karakalpakstan and regional khokimiyats:</li> <li>create the necessary logistics infrastructure for the acceptance, primary processing, storage and transportation of fruit and vegetable products;</li> <li>organise the production of plastic and cardboard packaging materials for fruits and vegetables;</li> <li>receive, transport, sort, calibrate, pack, store, process and supply fruit and vegetable products to domestic and foreign markets.</li> </ul>

INDICATORS	KZ	KG	ТЈ	ТМ	UZ
					<ul> <li>The main objectives of the Targeted Fund include:</li> <li>Supply financing, on preferential leasing terms, of modern high-performance agricultural machinery to farmers and other agricultural organisations involved in growing agricultural products for public procurement;</li> </ul>
Pricing of compulsory delivery quotas (price ceilings or floors, futures or forward contracts, etc.)	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Delivery of fruit and vegetables within the state order is based on contracts with suppliers (farmer and dehkan farms). The contract includes the period covering preparations for the International Fruits and Vegetables Fair. Export contracts are made on market terms, taking into account the average prices established at the International Fruits and Vegetables Fair, a vegetable market proceeding from the convergence of prices in world markets. Uzagroexport JSC publishes weekly export prices for fruit and vegetables in the media and on its official website. In addition, in export contracts, prices should not be lower than the prices published by Uzagroexport JSC.

INDICATORS	KZ	KG	TJ	ТМ	UZ
					Each year, the Cabinet of Ministers sets the purchase prices for raw cotton, grain of spiked crops, etc.
					Thus, in 2016 the cost of long-fibre crops ranged from 330,000 soums to 2.1 million soums per tonne. In 2016, the minimum price for medium- fibre crops was between 317,000 soums and 1.3 million soums.
					In 2016, the price of one tonne of soft wheat of the 3rd grade with a gluten content of no less than 23% was 503,500 soums. In 2015, the price of one tonne of similar wheat was 460,000 soums.
Requirements for exporting agricultural producers (export taxes, export quotas, compulsory sale of foreign exchange from export revenues to the government, etc.)	In accordance with the Kazakh Tax Code # 99-IV dated 10 December 2008, turnover made on the realisation of exported goods will be subject to a zero percent tax rate. Kazakh legislation provides no direct limitations on exports. However, the government can introduce amendments regarding exports of agricultural products, if the situation should change for the worse.	There are currently no limitations on exports of agricultural products. However, customs clearance of agricultural products from Kyrgyzstan is subject to detailed inspection by customs authorities of other countries. There are currently no export taxes or export quotas for exports of agricultural products. However, in the event of significant increases in exports of agricultural products and increases in prices on the local market, the government of the Kyrgyz	There are no restrictions with respect to exporting agricultural producers (export taxes, export quotas).	There are no restrictions with respect to exporting agricultural producers (export taxes, export quotas), neither is there a need for the sale of export proceeds (this requirement extends solely to state-owned companies).	From 20 September 2016, exports of fresh dried and processed fruit and vegetables, grapes and melons may be carried out provided that a confirmed letter of credit is opened or a guarantee is issued by the first-class foreign bank for the remainder. Since 20 September 2016, all exporters, including micro- firms, small enterprises, farmers and dehkan farms, are obliged to sell 25% of proceeds in hard currency from exports of fresh fruit, vegetables, gourds and malana
		Republic may introduce temporary limitations or bans on exports of agricultural products.			melons.

INDICATORS	кz	KG	тј	ТМ	UZ
					Since 1 July 2017, business entities are allowed to export fresh produce, grapes and melons and gourds on the basis of direct contracts based on 100% prepayment. Uzpakhtaexport JSC shall sell cotton fibre for exports and domestic firms processing cotton fibre for hard currency by direct contracts and through the Uzbek Republican Commodity Exchange in accordance with the annually approved parameters of the balance of the production and supply of cotton fibre. The storage and delivery of cotton fibre for exports, including to domestic firms, are completed exclusively from cotton terminals. All export proceeds in hard currency are subject to compulsory sale to the Central Bank. In addition, 50% of hard currency revenue from wheat exports is subject to compulsory sale to the Central Bank.

INDICATORS	КZ	KG	тј	ТМ	UZ
Administrative issues (average number of days to open and close business, average number of documents to open and close business, staff quotas and forms of business entities, etc.)	On average, 4-6 documents are required to open and close a business. It takes 3 working days to open a business, and approximately 6 months to close one. Terms may differ. Legal entities have 4 different categories of employees, and there is a staff quota of 30% foreign employees in the first and second categories, and a 10% staff quota of foreign employees in the third and fourth categories. Forms of business entities: Joint stock company State enterprise Production cooperative Business partnership. Most legal entities are registered in the form of an LLP or JSC.	On average, 3-5 documents are required to open a company depending on the type of company. Under legislation, it takes 3 working days to open a business; however, in practice it actually takes 3 to 5 working days. It takes up to 7 calendar days following the submission of all the necessary documents to close a business. Legislation does not establish staff quotas for companies; however, at least 50% of staff must be Kyrgyz citizens. Forms of legal entities: Full partnership Limited Partnership Limited Liability Company Additional Liability Company Joint Stock Company. Most legal entities are registered in the form of an LLC or JSC.	On average, 7-8 documents are required to open a business. The registration procedure for legal entities usually takes up to 5 days. It takes 2-6 months to close a business following the submission of the required documents. There are no restrictions on the number of staffs in firms. Most legal entities are registered in the form of an LLC or JSC.	Under Turkmen law, in order to register a legal entity only three documents need to be provided to the registration authority. However, the registration procedure can take up to 2-3 months. Furthermore, the registration fee amounts to approximately USD 3000, and the requirements for the charter capital of an ordinary company are relatively high. Currently, charter capital can equal USD 100,000. Forms of business entities: State enterprise Individual enterprise Cooperative enterprise Joint Venture Company Limited Liability Company Joint Stock Company. Most legal entities are registered in the form of an LLC or JVC.	<ul> <li>On average, 3-5 documents are required to open a business. It takes 1-2 days to open a business, depending on the type of the firm.</li> <li>The average number of days required to close a business is up to 30-60 days, depending on the type of the business.</li> <li>Legislation does not establish staff quotas for business entities.</li> <li>Forms of business entities:</li> <li>Limited Liability Company</li> <li>Additional Liability Company</li> <li>Private Enterprises</li> <li>Family Business</li> <li>Joint Stock Company.</li> <li>Most legal entities are registered in the form of an LLC or JSC.</li> </ul>

INDICATORS	КZ	KG	ТЈ	ТМ	UZ
Corporate taxes (corporate income tax, VAT, land tax, etc.)	The corporate income tax rate is generally 20%, but there are specific tax provisions for agricultural legal entities. For example, the taxable income of legal entities that are producers of agricultural products is subject to a 10% taxation rate if the income was received through the agricultural production, the production of beekeeping products, as well as the processing and realisation of the company's own production. Additional tax rates are provided by Art. 147 of the Kazakh Tax Code. VAT: 12% and 0% The tax rate for land depends on both the type of land and the region.	Corporate income tax: 10% It should be noted that the income of agricultural producers is exempt from corporate income tax. VAT: 12% It should be noted that supplies of agricultural products and products produced through the industrial processing of local berries, fruit and vegetables are exempt from VAT. The tax rate for agricultural lands depends on the type of agricultural land and the region.	<ol> <li>Corporate Profit Tax:</li> <li>For goods production:</li> <li>13%, but no less than 1 percent of gross income.</li> <li>For other types of activity:</li> <li>23%, but no less than 1 percent of gross income.</li> <li>Dividends paid by resident enterprises shall be subject to taxation at the source of payment at the rate of 12%, with the exception of dividends paid to resident enterprises.</li> <li>Interest paid by a resident or by the permanent establishment of a non- resident, or on behalf of such an establishment, shall be subject to a 12% taxation rate of the amount to be paid at the source of payment.</li> <li>The VAT rate is 18% of taxable turnover, with the exception of exports and the use of the reduced tax rate and/or 18% of taxable imports.</li> <li>Land tax is payable by land users who are allocated the land for permanent use, use for a fixed term, or based on the lifetime inheritable right of use. The land tax rate is established by the government of the Republic of Tajikistan for a 5-year period.</li> </ol>	Corporate income tax: 25% (depending on the number of employees and the main activity, this can vary from 10% to 30%). VAT: 20% (not applicable to agricultural products sold by the manufacturer). Infrastructure tax: 0.5% of net income. Agricultural enterprises are generally exempt from paying property tax and corporate income tax.	<ul> <li>Agricultural enterprises involved into growing, harvesting, packaging, and sale of own agricultural products are subject to the following taxes:</li> <li>Unified Land Tax of 0.95% levied on the value of land plot that substitutes also income tax, VAT, land tax, water use tax, infrastructure development tax and contributions to off-budgetary funds.</li> <li>Payroll taxes (personal income tax - progressive up to 23%, employee pension fund contributions - 8% and employer unified social payment - 25% on the payroll).</li> <li>Dividend distribution tax of 10% (may be reduced under the relevant Double Tax Treaty).</li> </ul>

INDICATORS	KZ	KG	тј	ТМ	UZ
			There is a wide range of tax rates (calculated in Tajikistan Somoni for 1 hectare or 1 square metre) that vary depending on the type and class of land, its location and its designated use.		
			In addition, the Tax Code provides a simplified taxation regime for agricultural producers (unified tax), which is applied to dehkan (farmer) farms and other producers of agricultural products, for whom the land is the main means of entrepreneurial activity. Taxpayers of the unified regime are exempt from the payment of the following taxes:		
			<ul> <li>income tax (simplified tax for small businesses), except for income taxable at the source of payment</li> </ul>		
			• VAT, with the exception of VAT that is payable when goods are imported into the customs territory of the Republic of Tajikistan, and/or in the case of transactions taxed at the source of payment		
			• tax for users of highways		
			• land tax.		
			A dehkhan farm established without forming a legal entity that is paying unified tax is exempt from paying income tax.		

INDICATORS	KZ	KG	ТЈ	ТМ	UZ
Infrastructure (access to water, utilities, communications, etc.)	Access to utilities and communications is granted on the basis of a contract with the owner of the engineering infrastructure. Depending on the region, some utilities and communications may not be available. Access to water also depends on the territory. Some types of territories, such as those located in the northern region, are not irrigated at all, but in the south many types of agricultural land are irrigated, which also depends on the climatic conditions. Irrigation is mainly done by the state.	Access to utilities and communications is granted on the basis of a contract with the owner of the engineering infrastructure. Depending on the region, some utilities and communications may not be available. One of the areas of the agricultural sector being improved is the development of the services providing irrigation water. The maintenance of irrigation systems funded through the state budget and fees paid for water supply services.	Access to utilities and communications is carried out on the basis of an agreement with the relevant governmental body.	Access to utilities and communications is carried out on the basis of an agreement with the relevant governmental body.	Water use for farming and dehkan farms is carried out on the basis of water withdrawal limits from water bodies established by their respective water users' service associations. Executive authorities in the creation of farming and dehkan farms carry out the initial development of the territory (the construction of roads, power lines and communications, water supply, gas supply, telephone, radio, land management, land reclamation). They also assist in connecting farms' production facilities to engineering and communication networks.
Operations (regulations on sales, prices, exports and imports, etc.)	In Kazakhstan, all trading operations (exports and imports) are generally regulated by the Kazakh Ministry of the National Economy. There are no direct regulations on sales and prices of agricultural products; however, they should comply with antitrust legislation.	Kyrgyz legislation does not establish prices for agricultural exports and imports. However, sales and prices of agricultural products in the Kyrgyz Republic must comply with Kyrgyz antitrust legislation.	The setting of the prices of exports and imports is not regulated by the law. However, sales and prices must be in accordance with antitrust legislation of the Republic of Tajikistan.	Turkmen legislation does not impose or regulate the prices of agricultural exports and imports. Nevertheless, sales and prices of agricultural products should comply with Turkmen antitrust legislation.	Purchases of fresh produce, potatoes, melons and grapes from farmers and dehkan farms are carried out at contractual market prices. As part of the state order, exports of fresh and processed fruit and vegetables are made by Uzagroexport Company through direct export contracts with foreign partners, as well as under commission agreements made with farmers and dehkan farms, agrofirms and processing enterprises.

INDICATORS	КZ	KG	ТЈ	ТМ	UZ
Government support (direct subsidies in the form of cash, payments, etc.; the provision of materials such as fertilizers, fuels and lubricants, etc.; easy access to credits; favourable tax and customs regimes; privileged access to utilities, etc.)	Subsidies are provided according to the Agrobusiness-2020 Development of the Agro- industrial Complex and 2013-2020 Governmental Programme. The following support is offered: 1) Subsiding remuneration rates on credits 2) Subsiding leasing of technological equipment and agricultural machinery 3) Creation and expansion of dairy farms 4) JSC operation "Fund for financial support of agriculture" 5) "Kulan" lending programme for the development of horse breeding 6) "Altyn Asy¶" lending programme for the purchase of small cattle 7) Agricultural sector development programme 2013-2020 8) State support for animal husbandry.	<ul> <li>The government provides the following support for the development of agriculture:</li> <li>1) Development of crediting in the agro-industrial complex</li> <li>2) Carrying out procurement operations and commodity interventions</li> <li>3) Regulation of exports and imports of agro-food goods within the Kyrgyz economy</li> <li>4) Technical equipment of the agro-industrial complex</li> <li>5) Attracting investments to the Kyrgyz agro-food sector</li> <li>6) Providing veterinary- sanitary and phytosanitary security</li> <li>7) Applying tax, budgetary, customs-tariff, technical regulations and other measures in accordance with Kyrgyz legislation</li> <li>8) Organising information and marketing support for the agro-industrial complex</li> <li>9) Scientific, normative and methodological support and training of personnel for the agro-industry.</li> </ul>	<ul> <li>State support of the agricultural sector is provided as follows:</li> <li>Allocating subsidies (financial support) from the state budget</li> <li>Attracting foreign investments and grants for the development of the agricultural sector.</li> <li>The following sectors are granted subsidies by the government:</li> <li>Elite and primary seed-growing, production of seeds of the first and second reproductions, creation of a revolving fund of seeds of agricultural crops</li> <li>Increasing the fertility of agricultural lands</li> <li>Improving the melioration conditions of irrigated arable land</li> <li>Developing new lands and introducing agricultural land deposits</li> <li>Increasing the yield and production of cotton, potatoes, vegetables, melons, grains, legumes and tobacco and the fight against their diseases</li> <li>laying gardens and vineyards, constructing greenhouses for seedlings of fruit crops</li> <li>Purchasing and cultivating pedigree animals, birds and fish</li> </ul>	<ul> <li>The government provides a range of benefits for the development of agriculture:</li> <li>1) Carrying out procurement operations and commodity interventions</li> <li>2) Developing crediting within the agro-industrial complex</li> <li>3) Attracting investments to the Kyrgyz agro-food sector</li> <li>4) Easing of tax, budgetary and customs burden</li> <li>5) Payment of 50% of costs related to mechanical works, seeds, fertilizers and pesticides, amongst other things.</li> </ul>	Executive bodies provide farms and dehkan farms with services for the supply of varietal seeds and planting stock of agricultural crops, organic and mineral fertilizers, the means of protecting agricultural plants from pests, diseases and weeds, and maintenance. They assist in the acquisition of agricultural machinery, equipment and equipment on a leasing basis. They assist in the acquisition of livestock and poultry. After-tax profits are at the farm head's disposal and are not subject to taxation. Privately owned enterprises that process fruit and vegetables, potatoes, melon and grapes are exempted until 1 January 2019 from customs payments (with the exception of customs duties) when importing modern equipment and technologies. Processing enterprises that are members of Uzbekkozikovkatholding HC until 1 January 2019 are exempt from income tax, corporate property tax, single tax payments for micro firms and small businesses, and mandatory contributions to state trust funds, with the exception of the Unified Social Payment.

INDICATORS	KZ	KG	ТЈ	ТМ	UZ
	In 2016, Kazakhstan doubled the volume of its loans provided to the agricultural sector by providing microloans, whilst also increasing its support for agriculture by 48%. Between January and August 2016, banks provided the agricultural sector with credits totalling 188 billion tenge. The main source of funding was provided through KazAgro National management holding JSC.	There are currently five commercial banks issuing preferential and unsecured credits to agricultural producers in accordance with the state programme for the development of agriculture. The annual interest rate for preferential credits is 10%, and the repayment period is up to 3 years.	<ul> <li>Developing the veterinary industry and carrying out epizootic activities</li> <li>Developing the beekeeping industry;</li> <li>Buying grenades (cocoons) and fighting harmful mulberry diseases</li> <li>Developing and introducing achievements in science and technology, creating and strengthening the national gene pool of agricultural crops, animals, birds and fish, as well as purchasing modern equipment and tools, chemical and biological products for scientific research institutes within the agro-industrial complex</li> <li>Organising new production, purchasing and creating a fund for pesticides and mineral fertilizers.</li> </ul>		
Top agricultural producers	<ul> <li>Alibi Holding LLP</li> <li>Kazexportastyk Holding JSC</li> <li>Medet-Holding LLP</li> <li>Alel-Agro JSC</li> <li>Ust-Kamenogorskaya pticephabrica JSC</li> <li>Source: National Business Ranking, 2015</li> </ul>	<ul> <li>AKUN CJSC</li> <li>Abdysh-Ata LLC</li> <li>Yashar LLC</li> <li>Kayndy-Kant JSC</li> <li>Arpa-Brewery JSC</li> </ul>	<ul> <li>Dekhkan Farm A Kayumv</li> <li>Stansiyan navsangi Production Cooperative</li> <li>Gaibullo Dekhkan Farm</li> <li>Ehsoni Kamol Dehkan Farm</li> <li>Mahmudov N Individual entrepreneur</li> </ul>		<ul> <li>Uzagroexport JSC</li> <li>Eximagro Eco Products LLC</li> <li>Green Oriental Products LLC</li> <li>Gold Dried Fruits Export LLC</li> <li>Gold Fresh Fruits LLC</li> </ul>



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