

# POLICY BRIEF



## The Development of Organic Agriculture in the Kyrgyz Republic: Economic and Ecological Sustainability

Maral Sagynalieva

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**Maral Sagynalieva**

Policy Brief #50, 2018

**Maral Sagynalieva** is an independent researcher and lecturer at the Academy of Public Administration under the President of the Kyrgyz Republic. Prior to this she was a Civic Society Organizations Liaison and Banking Assistant at EBRD Bishkek Resident Office by working on implementation, monitoring and evaluation of projects in private sector and jointly by local NGOs on public projects. In 2006-2009, she worked at the Ishenaly Arabaev Kyrgyz State University as a lecturer of social sciences. In 2006-2007, at International Institute for Strategic Studies under the President of Kyrgyz Republic, acting as a Lead Expert, she worked for an expert and research project on water resources of the country, including social and economic aspects of water issues with further policy recommendations.

Maral has BA in International Relations and MA in Public Policy from National Graduate Institute for Policy Studies (GRIPS), Tokyo, Japan. Additionally, she obtained the International Business Certificate of Arnhem Business College of the Netherland.

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Central Asia Policy Briefs became possible with financial support of the Norwegian Institute of International Affairs (NUPI)

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## Executive Summary

Agriculture was a priority economic sector during Soviet times in the Kyrgyz Republic and has been since the country's independence in 1991. Moreover, both under a planned economy and market economy the agricultural sector has been employing more 60% of the country's population. However, for over 25 years the agrarian sector has been steadily lagging behind other sectors, and advanced methods of crop cultivation have proved ineffective. Therefore, the Kyrgyz government should pursue to apply the best practices and policies of agricultural development, one of which is organic agriculture as organic products are currently in high demand in the world.

The Kyrgyz government's involvement in developing organic agricultural policies and practices is of high importance, especially when elaborating and implementing the legislative framework and public administration. Additionally, the proposed area of focus is soundly aligned with the goals of the Kyrgyz Republic's national sustainable development strategy for the period of 2018-2020. In order to elaborate a legitimate document on organic agriculture there is need to increase interests of the stakeholders and civil society. Comprehensive government protection and fiscal policies on organic agriculture will be among the constructive tools to attract foreign direct investment into sustainable organic development of agriculture in the future.

## Introduction

According to the Kyrgyz National Statistical Committee, since 1991 about 66 % of the population have permanently lived in rural areas and are referred to the poor in the country. From 2000 to 2015, the average monthly income of those that are employed in agriculture, forestry and fishing has increased from KGS 3 347 to 9 010 what shows at first glance a positive trend during that period. However, if compared with the minimum wage of that period, there is correlation between minimum wage and the costs of living. More than 60% of the wage is used to cover costs of living only. This says that most farmers have significant obstacles stemming an increase of their well-being.

Furthermore, the liberal agricultural policy has had controversial effects on the farmers' situation. On the one hand, in 1996, based on the land reforms, land slots in rural areas were allocated among farmers what led most farmers to get out of poverty. On the other hand, however, farmers left themselves without long-term perspectives what kind of crops to plant, for whom and how to attract investment. Consequently, for that time there have been many changes, including the intense shift of rural labor from agriculture to trade, the heavy working migration from rural to urban areas with further travelling abroad, a critical decrease of agricultural production inside the country that led to the dependency from imported crops, fruits and vegetables and others. Mostly, the agricultural products planted by small and medium farms have been the main sources of sustenance for families and some money sent by migrants.

When preparing and then taking decisions on accession to the Eurasian Economic Union (EAEU), the Kyrgyz government primarily took into consideration the remittances from migrants working in Kazakhstan and Russia. Kyrgyz migrants in those countries come from ru-

ral areas of the Kyrgyz Republic. In 2015 after entering into the Union, the number of Kyrgyz migrants doubled forcing more than 30% of the employed farmers to migrate to Russia and thus making the agricultural sector abating.

Hence, the demand and supply of goods has been rapidly and unpredictably changing over time by invoking new transformations in all sectors of the economy, particularly in agriculture. Nowadays, under intense use of technologies and chemical components in food planting and production, the developed societies have acquired robust interest in consuming organic products what brings organic agriculture in high demand all over the world and bring benefits to the agricultural producing countries, especially to their rural populations.

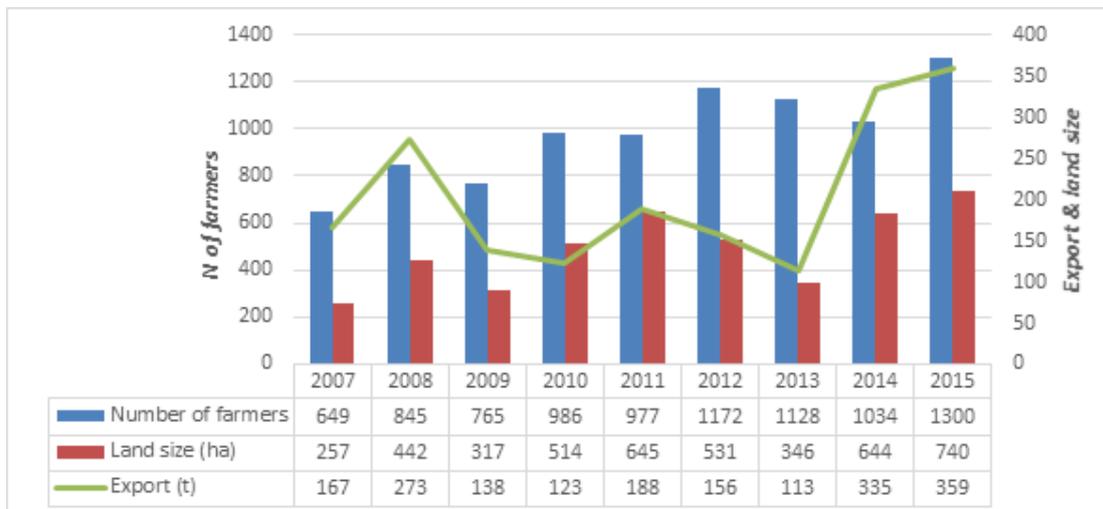
## Background

Among the Central Asian countries, Kazakhstan possesses the largest certified organic land of 196'000 ha. The next is Kyrgyzstan with 15'000 ha of land. Additionally, the territory of Kyrgyzstan is divided into oblasts that have distinct geographic and climate conditions that offers comparative advantages. For example, in Chuy oblast the dominant agricultural product is sugar beet; Issyk-Kul oblast is famous with apples and pears; in Batken oblast farmers grow apricot (dried); Osh and Jalal-Abad oblasts are the largest producers of cotton and walnut, Naryn oblast is famous for cattle farming; and Talas oblast is the biggest exporter of kidney and soya beans.

Within the economic context, the Kyrgyz Republic can meet all requirements of being a producer of organic agricultural products. Because most agricultural products produced by the Kyrgyz farmers such as apple, melon, cotton, rice, potato, honey and other fruits and vegetables are mainly exported to neighboring countries and also to developed countries. From 2000 to 2016, approximately 35-160 centner/ha of major agricultural crops were yielded by the farmers annually in the country. It is a pretty good indicator of agrarian perspectives. The Kyrgyz farmers, particularly in Naryn oblast, plant their land with potatoes in high demand in the Republic Kazakhstan. In addition to this, in the country approximately 1'000 farmers grow organic products mainly to export as part of such international programmes like USAID, GIZ or donor countries such as Germany, Switzerland and some others.

The Agricultural Commodity and Service Cooperative “Bio Farmer” has officially produced organic cotton in Kyrgyzstan since 2007 with the support of Helvetas Swiss Intercooperation. Graphic 1 illustrates that from 2007 to 2015 the number of farmers involved in organic production doubled from 649 to 1'300, respectively. Along with an increase of the number of farmers, land territory used for organic cotton cultivation has also steadily expanded in that period from 257 to 740 ha. It is the most important point that the export of cotton has almost doubled from 167 to 359 tons despite some fluctuation over the period. Consequently, a general upward trend is observed in Graphic 1 in each case that illustrates an increased interest and demand for organic cotton in some developed countries.

Figure 1. Export of organic cotton in 2007-2015 (in tons)



Source: [www.biofarmer.kg](http://www.biofarmer.kg)

This demonstrates, additionally, that the country has the potential to adapt to organic agriculture under rapidly changing economic conditions worldwide. Moreover, the farmers employed in this sector will have robust opportunities to generate sustainable income by producing of high quality organic agricultural crops. The Kyrgyz Republic further would position itself as an organic country internationally.

During the last three decades, environmental concerns have attracted much attention in the world and have been often on the agenda of high level meetings. Such ecological problems as climate change, greenhouse gases, deforestation, soil degradation and others have become threats to humankind as a whole. The Kyrgyz Republic at present has faced environmental concerns linked to the agricultural sector. Because of overuse of chemical fertilizers by farmers, the soil quality is getting worse. Nowadays, more than 50% of arable land of the country has lost its production potential during the last twenty years. As a consequence, farmers recently have started using genetically modified seeds that are able to grow even under harsh climatic conditions. With regard to this, a successive transition to organic agriculture would be the optimal solution to address some ecological issues in the country. However, the Kyrgyz consumers would also benefit from the availability and consumption of organic food, because nowadays there are an increasing number of people suffering from food allergy.

The introduction of organic agriculture in the Kyrgyz Republic will face major obstacles, especially as far as legislation. This is due to that since Kyrgyzstan's accession to the Eurasian Economic Union, the country should align and discuss most laws of economic relevance with other members of the Union. Moreover, to prohibit import of seeds, mostly genetically modified, and chemical fertilizers, having toxic elements for plants, the soil and even human health, will be economically unprofitable for the farmers and irrational to the consumers. Therefore, the members of the Union will not elaborate laws on organic agriculture in the near future. However, the Kyrgyz Republic will be able to approach organic agriculture through an educational framework. Specifically, the country will enable to start preparing future agro-technicians and agro-scientists by creating a new specialization at agrarian universities.

There are many successful cases of organic farming that exists both in the developing countries of South-east Asia and Africa and in the developed countries of Western and Northern Europe. One of the most inspiring and unique cases is Hansalim,<sup>1</sup> a nonprofit organization of the Republic of Korea established in 1986. It is based on a voluntary agreement and mutual support between farmers and consumers on practicing organic agriculture in spite of rapidly enhancing agrarian technologies and increasing use of chemical fertilizers. There are a number of important factors like climatic conditions, high demand in the internal market and the culture and traditions of farming that the Kyrgyz farmers could find unacceptable and complicated during economic transition.

Nowadays, organic farming is steadily increasing and demonstrates a robust trend of increasing family households' welfare in the Republic of Korea. As illustrated in Graphic 2 for 2013-2015 the number of farmhouses increased from 2,048 to 2,159, accordingly; land for organic farming shows an increase up to 42,346 million sq.m, a 10% increase since 2013. Total sales were increasing from 69,642 to 78,888 thousand USD in 2013 and 2015, accordingly.

**Figure 2. Development of organic agriculture in the Republic of Korea in 2013-2015**



Source: 2016 Hansalim History Report

Moreover, in 2015 the Republic of Korea and the European Union signed an agreement on trade of organic agricultural products. In addition to this, based on data of Eurostat, the United Kingdom is one of biggest importer from and exporter of goods to the Republic of Korea.<sup>2</sup> This presents that the organic agriculture is of high demand among developed countries.

The Republic of Korea produces organic packaged foods and beverages amounting approximately 225.8 million USD annually, which is 0.6% of global category sales. However, according to Global Organic Trade, "South Korea will experience slow forecast growth of sales of organic packaged food and beverages, at a 2.6% CAGR from 2017–2022".

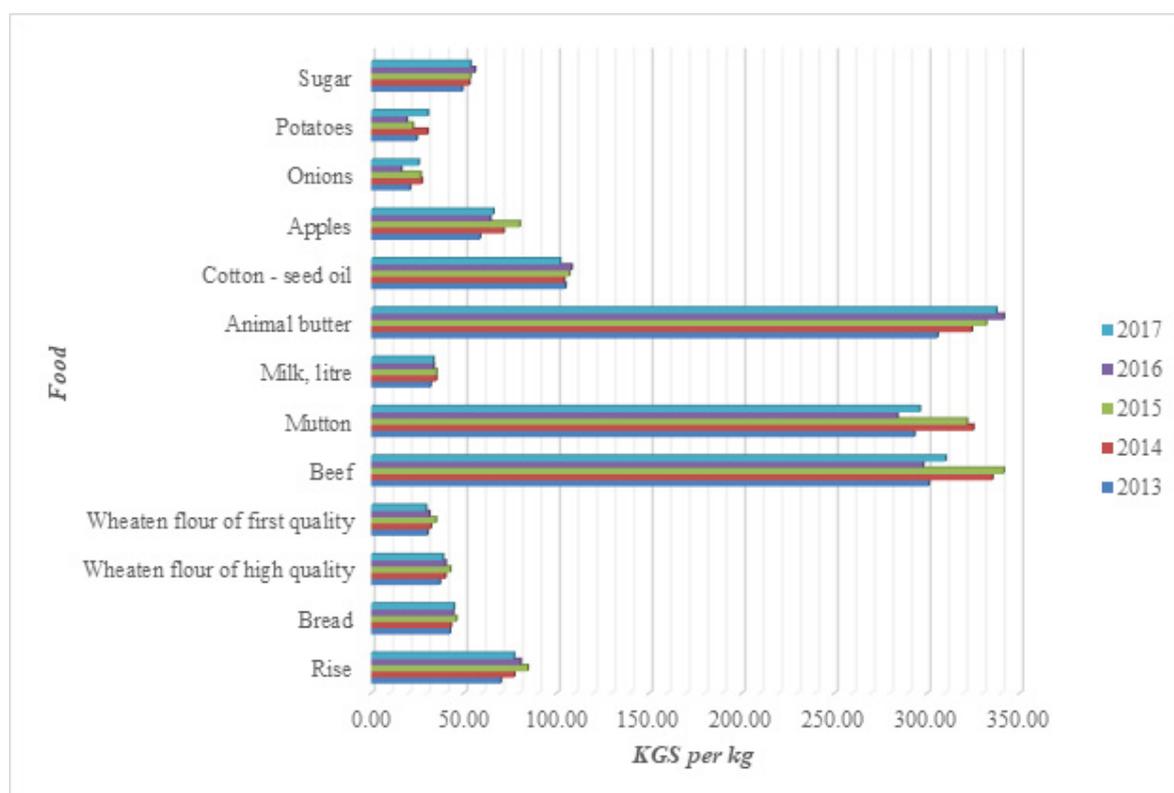
<sup>1</sup> <http://eng.hansalim.or.kr/>

<sup>2</sup> [http://ec.europa.eu/eurostat/statistics-explained/index.php/South\\_Korea-EU\\_-\\_trade\\_in\\_goods#EU\\_and\\_South\\_Korea\\_in\\_world\\_trade\\_in\\_goods](http://ec.europa.eu/eurostat/statistics-explained/index.php/South_Korea-EU_-_trade_in_goods#EU_and_South_Korea_in_world_trade_in_goods)

As mentioned above, the Kyrgyz Republic are disparate from the Republic of Korea in many respects, for example, the size of internal market or customers' price sensitivity. However, the Korean organic farming techniques and methods would be practical and applicable for the Kyrgyz farmers. There are a number of practical cases of organic agricultural development in Kyrgyzstan. In 2013 more than 1,279 farmers passed the organic certification and managed about 15,000 ha of organic lands. The main organic products the Kyrgyz farmers produce are, in general, cotton, chick-pea, kidney bean, apricot and medicinal herbs.

The Kyrgyz Republic belongs to a group of countries highly vulnerable to international price shocks, because it is dependent on import of fuel and food products with the exception of dairy and meat products. According to the annual review prepared by the Food and Agriculture Organization (FAO) of the United Nations in the Kyrgyz Republic, the prices of the main food products were stable generally in the markets of the country, excluding some types of seasonal vegetables. Graphic 3 shows the average prices for food products on consumer markets. Despite reliance on the import of wheat and wheat flour from Kazakhstan, prices were stable in 2013-2017. Additionally, prices of milk and cotton-seed oil remained steady over the period. However, prices of meat and meat products were high in 2014 and 2015 due to the export of significant amount of meat to China. Prices of other food products were steadily increasing or remained stable over the period.

*Figure 3. Average prices of the main food products in 2013-2017*

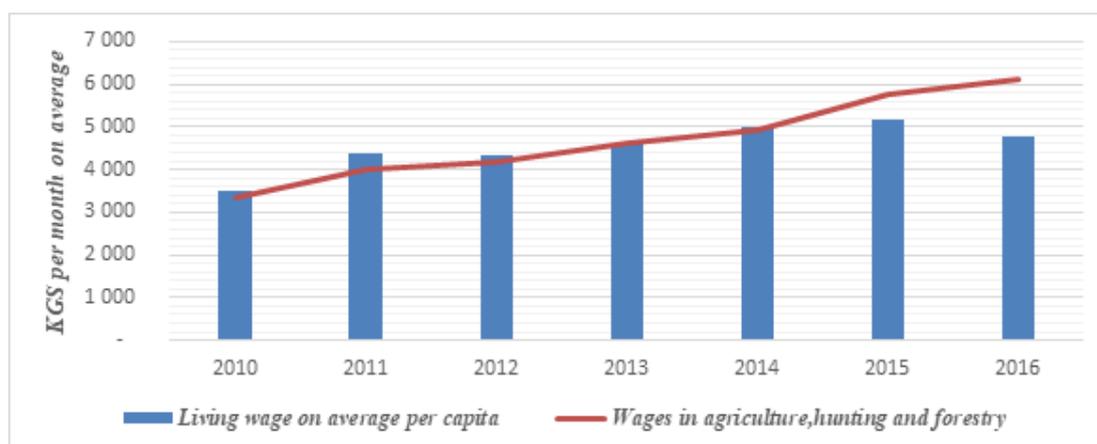


Source: [www.stat.kg](http://www.stat.kg)

As mentioned above, prices for food products influenced costs of living by 5-7%, in particular in 2014 and 2015 as shown in Graphic 4 due to increased food prices internationally. However, in 2016 living wage dropped slightly. Additionally, from 2010 to 2016 wages

were also increasing significantly. Overall, we could observe an increase in average prices of food products, costs of living per capita on average and wages in the agricultural sector. Consequently, price sensitivity in food consumption is high in Kyrgyzstan because of various factors. However, the government has elaborated on to stabilize food prices by making them less volatile.

*Figure 4. Living costs and wages (in KGS)*



Source: [www.stat.kg](http://www.stat.kg)

To sum up, the Kyrgyz Republic has well supported and reasoned long-term perspectives to be a representative of organic agriculture both nationally and in international markets. The organic agriculture could bring many benefits to all stakeholders and solutions to such urgent issues as poverty alleviation, an increase of welfare of the rural population and sustainable development in the country as a whole. Additionally, due to negative effects of economic processes on the environment, ecological issues have become of high priority and the main objective of a country's national strategic programmes. With respect to this, the development of organic agriculture and practices have the potential to solve most ecology-related problems without the decline in economic growth in the country.

## Regional Competition in Organic Agriculture

Kyrgyzstan is the neighbor of two large countries as far as territory, China and Kazakhstan, and also a third one as far as population, Uzbekistan. The former two are also interested and actively involved in exporting organic agriculture on a global scale. China is the fourth country in the world that produces organic agricultural products. Kyrgyzstan and Kazakhstan have just started working in the same direction.

Table 1 illustrates that in spite of small land area and population in Kyrgyzstan there is a significant number of farmers dealing with organic agricultural production. This is due to international projects to further develop organic agriculture that have been implemented by FAO, USAID, Swiss Cooperation Office and others. Moreover, Kyrgyzstan has reached a

0,1% share of organic agricultural production in the country's total area. It mainly focuses on growing organic cotton.

*Table 1. Organic agriculture by country, by share and number of producers, 2015*

	Organic share, %	Producers, №
<b>China</b>	0,3	9 990
<b>Kazakhstan</b>	0,1	29
<b>Kyrgyzstan</b>	0,1	1 035

Source: FiBL survey 2017

Based on the survey prepared by the Research Institute of Organic Agriculture (FiBL) in 2017, China is one of the largest exporters of organic agricultural products worldwide, and Kazakhstan is among the top ten countries with the largest areas of organic land. So Kyrgyzstan with a small market will face difficulties to compete with China and Kazakhstan. This situation is demonstrated in Table 2, where Kyrgyzstan has the smallest organic share by land for growing cereals and oilseeds. There is no information about vegetables from Kazakhstan, probably information requested was not prepared.

*Table 2. Organic agriculture by country, by product and by land, 2015*

	Organic products	Organic area, ha
<b>China</b>	<b>Cereals</b>	688 404
<b>Kazakhstan</b>		130 882
<b>Kyrgyzstan</b>		1 166
<b>China</b>	<b>Oilseeds</b>	421 704
<b>Kazakhstan</b>		82 493
<b>Kyrgyzstan</b>		40
<b>China</b>	<b>Vegetables</b>	45 324
<b>Kazakhstan</b>		n/a
<b>Kyrgyzstan</b>		66

Source: FiBL survey 2017

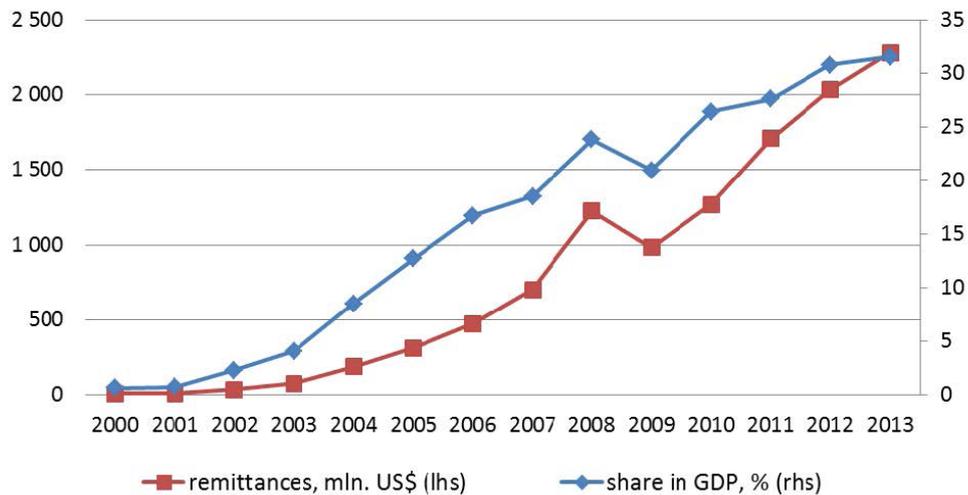
To summarize, we can observe an overall slow and gradual, but steady development of organic agriculture in Kyrgyzstan. If the Kyrgyz Government elaborates on the legislation and other related issues on organic development, it will greatly support farmers to grow organic products and attract the population to use and consume them.

## The Eurasian Economic Union: Outcomes for Kyrgyzstan

When taking decisions on joining the Eurasian Economic Union, it was the most important goal to facilitate and ease employment for the Kyrgyz people working in Russia and Kazakhstan. This has been essential to achieve because the Kyrgyz economy mostly has been developing thanks to migrant remittances. Graphic 5 shows that the inflow of remittances

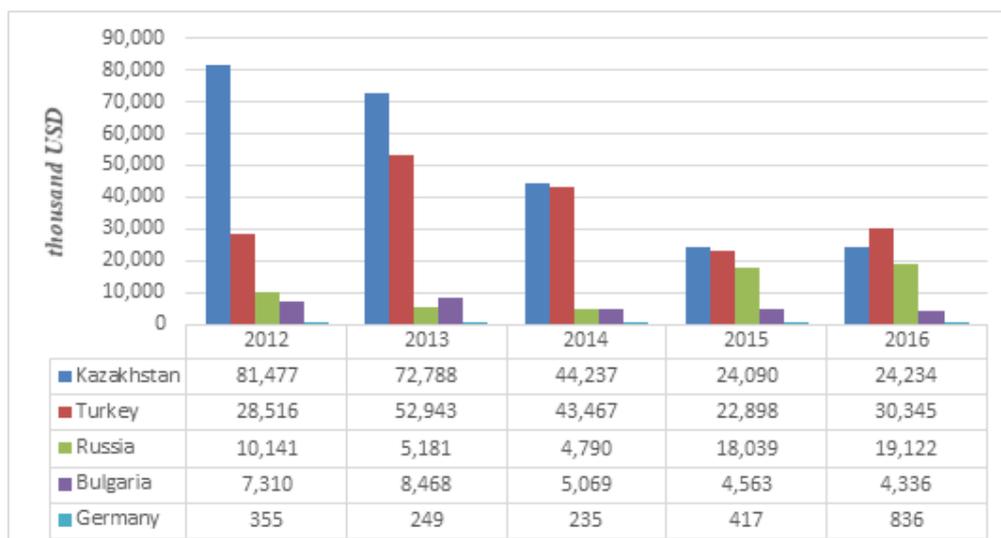
greatly increased from 2000 to 2013 reaching 2 billion USD that equalled about 32 % of the share in GDP.

Figure 5. Inflow of immigrant remittances to Kyrgyzstan.



However, in Graphic 6 export of fruits and vegetables started to decline noticeably between 2012 and 2015, mainly to Kazakhstan. There are many factors to explain this decline. One of them is the devaluation of the Kazakh tenge in that period. However, in 2016 a slight increase of export of fruits and vegetables has been observed. The main reason might be that such agricultural products do not require to meet phytosanitary measures, certification and standardization.

Figure 6. Export of fruits and vegetables from the Kyrgyz Republic



Source: [www.stat.kg](http://www.stat.kg)

Kyrgyzstan faces many destabilizing factors to market economy, although it has also gained a number of other economic and educational perspectives to stabilize and strengthen its economic position internationally. One of the perspectives is implementation and development of organic agriculture.

## Policy options

There are many best practices and lessons learnt on how to develop the organic agriculture both in developing and developed countries. However, each country has its own peculiar characteristics in terms of climate conditions, geographic position, availability of natural resources, as well as culture, traditions, practising of democratic values, etc. All this together can shape a definite mechanism workable for such a country only. Therefore, the Kyrgyz Republic has three main options listed below how effectively to introduce and then sustainably develop the organic agriculture in the long run:

1. Working in close collaboration with international organizations (WHO, FAO and other that implement agricultural projects) – attraction of more investments and resources – funds, knowledge, skills, technologies, etc. This will take about 3-5 years to implement.
2. Sequential implementation of organic agricultural development: educational and institutional reforms and others taking approximately 5-10 years.
3. Large-scale complex implementation process of organic agricultural development at all level of governance (cost-intensive project with immediate benefits) that will require more than ten years to complete.

## Conclusions and Recommendations

As noted above, the Kyrgyz rural population that generates income mostly by working in the agricultural sector can substantially benefit from practising organic agricultural techniques. Furthermore, policies and practices of organic agricultural development and its implementation could be framed within the national sustainable development strategy of the country for 2018-2020. As a result, organic agriculture could improve the investment climate of various regions and attract additional investment and financial flows in the country. The following recommendations are optimal for the Kyrgyz Republic because these steps will not require drastic changes in all fields, they will be only complements and improvements to achieve sustainable development of the economy through the enhancements of education and training.

1. Raise public awareness about benefits and costs of organic agriculture through mass media. (*Ministry of Agriculture and mass media*);
2. Learning and training opportunities for current and potential farmers. (*Ministry of Agriculture, APAPKR and Ministry of Education*);
3. Re-orientate relevant universities towards organic agricultural education to increase the number of qualified specialists. (*Agrarian universities and Ministry of Agriculture*);
4. Increase public and private funding to development and research activities on organic agriculture in order to get more substantiated information and data. (*Kyrgyz Government, National and International Research Institutes – Academy of Sciences, etc.*).

## Biography

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OSCE Academy in Bishkek  
1A, Botanichesky pereulok  
Bishkek, Kyrgyz Republic 720044  
Tel: +996 (312) 54-32-00, 54-12-00  
Fax: +996 (312) 54-23-13  
E-mails: [info@osce-academy.net](mailto:info@osce-academy.net)  
Website: [www.osce-academy.net](http://www.osce-academy.net)