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Production and consumption of wheat in Uzbekistan: issues and possible solutions

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- Production of wheat
- Consumption of wheat
- Trade policies on wheat
- Policy options

- Wheat is an essential food product for Uzbekistan since it provides the largest share of calories and nutrition of Uzbek people
- Wheat, along with cotton, is considered as one of the two “strategic crops” and occupies large harvested areas
- Significant elements of the central planning system through state procurement system
- Controls on procurement prices, harvested area and quality of wheat produced
- Consistently underpaid farmers for wheat they produce

- Significant subsidies for wheat flour, bread and other related products
- Subsidies for the “social bread” to protect the vulnerable and provide food security to them
- We discuss the relationship between wheat production, consumption and trade policies for different stakeholders: the government, farmers, millers and consumers
- We also discuss the role of international food crisis of 2007-2008
- We provide policy options from the perspective of stakeholder analysis

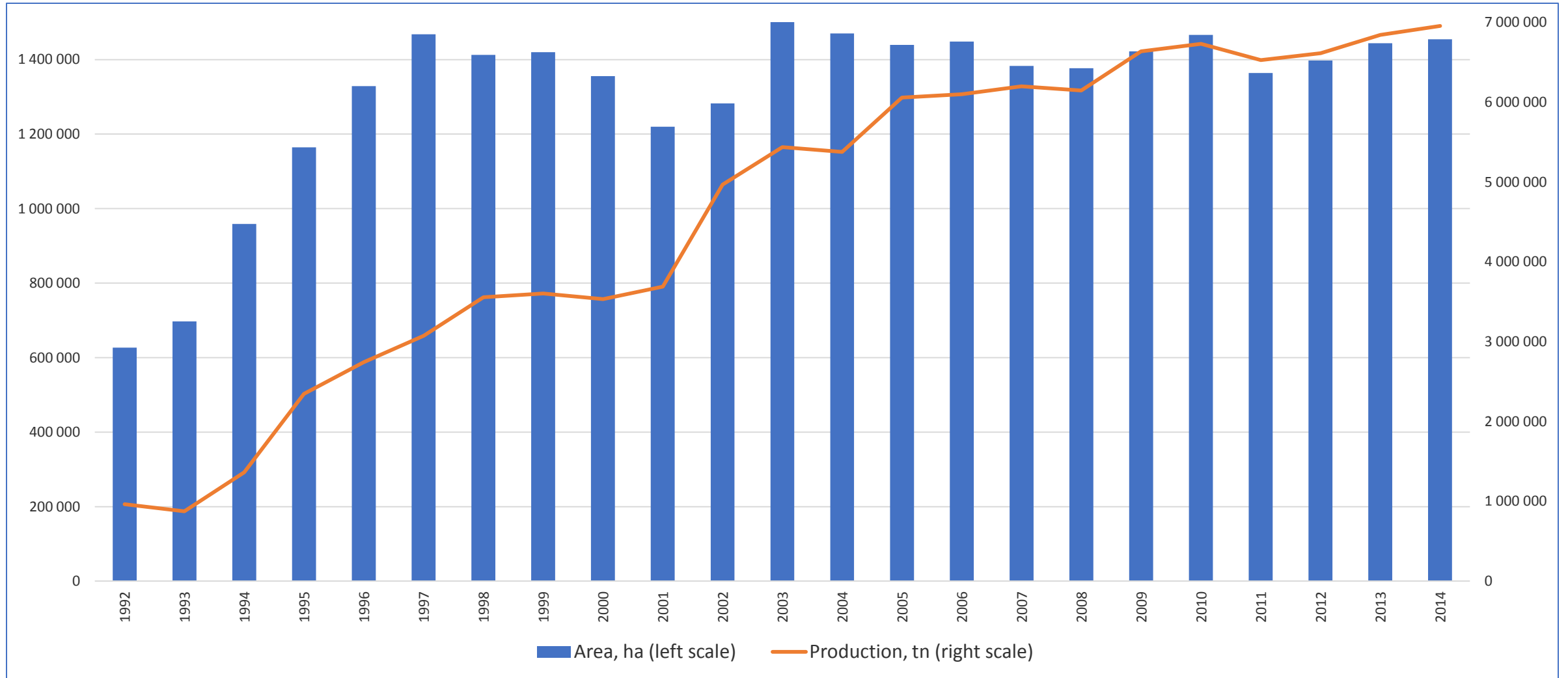
- Wheat (bread) is the major staple food in Uzbekistan. It represents 90% of total cereal production the rest being rice, rye and barley
- Agricultural policies on wheat of the Government of Uzbekistan are not consistent on the one hand, the Government is committed to wheat self-sufficiency, but on the other hand the state procurement system does not provide much incentives for farmers to increase yield
- It should be noted that due to chronic underinvestment into agriculture, its share in GDP has decreased from 30% in 2001 to 17% in 2015. Official statistics show that less than 5% of all investments is invested into agriculture
- The state procurement prices for wheat and cotton, along with quotas for harvest area and plan for yields and production for every region and district are determined by the central government – the Cabinet of Ministers of Uzbekistan

- The state procurement of wheat is supposed to buy only 50% of the harvest farmers grow. On paper, the farmers can sell the rest of the harvest to the market, making wheat one of the attractive crops to cultivate. This would work if the farmers sell half of the wheat they harvest by the end of vegetation period
- But in reality, a production plan set by the state procurement system exceeds actual harvest yield up to two times, leaving the farmers with little wheat to sell to the market
- This scheme works this way: suppose, particular land plot can have a yield of 4 metric tons per ha. The logical action would be to set the state procurement at 2 tons per ha so that the farmer sells 2 tons to the government and keeps 2 tons. But local *khokimiyat* often sets the yield from the particular land plot at 8 tons per ha, taking away 4 tons of the harvest in its entirety

- This practice not only leaves farmers with little wheat beyond the state procurement, but also greatly inflates official yield statistics for wheat. Indeed, if the farmer sold 4 tons of wheat to the government, he/she must be left with 4 tons of additional wheat. Except, there is no additional wheat, and the state procurement system takes away all harvested wheat at below market prices
- Wheat and cotton have been subject to the state procurement, while other crops have not been subjected to it
- However, the country remains one of the biggest wheat and flour importers in the region. In its Grain Market Report, the International Grains Council (IGC) puts total grains production in Uzbekistan at 7.1 million tonnes in 2015-16, compared with 7.6 million in 2014-15. Total wheat imports are put at 2.2 million tonnes in 2015-16, compared with 2.1 million in 2014-15

- Since 1991, Uzbekistan's population has increased from 22 mln to 32 mln, and over 43% of the population is under 25 years of age. Faced with a challenge to provide the population with sufficient food, the government of Uzbekistan has pursued self-sufficiency in production and consumption of wheat and wheat products such as bread and flour
- Wheat is necessary to be able to produce these food items, but produced wheat is not of high (baking) quality. Actually, only 55% of domestically produced wheat can be used for flour production due to its softness (Lyddon, 2015). Kienzler et al. (2011) show that the current land tenure policies that prioritize quantity over quality does not stimulate diversification of wheat varieties and production of better quality wheat
- Figure below shows that both harvested area and production of wheat have significantly increased. The wheat harvest area has increased from 610,000 ha in 1991 to 1,450,000 ha in 2014, while production of wheat has increased from around 1,000,000 metric tons to over 7,000,000 metric tons for the same period

WHEAT PRODUCTION AND HARVESTED AREA



Source: FAO STAT, 2017

- As a result of improved yields, food availability has improved
- Government also provides support to producers in the form of bank loans, seeds, fertilizers and pest control
- In 2014 there were 72.3 thousand large commercial farms, specializing in growing cotton and wheat
- **TO SUM UP:** the state buys almost all of the wheat produced by farmers at a fixed procurement price, which is much below the market price for domestic wheat and flour. Compared to the other strategic crop, cotton, wheat is harvested in June, allowing farmers to cultivate a second crop during the same year. In addition, wheat can be retained for own consumption of the farmers or sold in the domestic market, which is not the case for cotton. Hence wheat provides access to cash, a major production factor

- Uzbekistan is classified as a country of wheat-based diet
- Wheat and wheat products (flour, macaroni, and other products) constitute major part of Uzbek people's diet
- It is worth mentioning that the poorest 20% of households get 73% of their daily calorie intake from cereals, and primarily from wheat
- The excessive consumption of wheat might be in large part explained by state subsidies for domestic flour and bread
- Parpiev and Yusupov (2011) test an intriguing possibility that bread might be an inferior consumption good in Uzbekistan and find that that people, especially the poorest households, might be consuming too much bread than they really would like
- Instead of moving away from bread and other wheat products due to the improved well-being, we observe increased per capita consumption of wheat and wheat products by consumers

- The wheat consumption norm in Uzbekistan is 110 kg flour/person/year, or 147 kg wheat equivalent. However, data from household surveys indicate that actual consumption is much higher: some estimates put it between 167 and 180 kg bread (Cornia et al., 2003 and Christenson, 2003)
- If one believes more recent statistics for domestic production (around 7 mln metric ton) and imports (2,1 mln metric ton) is correct, and all domestically produced and imported wheat and flour are consumed, consumption per capita will be around 300 kg a year. Even if we assume that official production statistics overstates actual production, per capita consumption of wheat seems to be excessive
- Due to the low quality, significant proportion of the domestically produced wheat is used to feed animals. Livestock farmers are increasingly using the grey loaf bread to feed animals as the frozen bread prices makes it competitive compared to, say, mixed fodder

- Trade regime of Uzbekistan is one of the most overregulated among all transition countries
- According to some estimates, a significant portion of demand for wheat (up to 47%) is covered by importing wheat from Kazakhstan and Russia
- The Government regulates the trade in wheat by a combination of tariff and non-tariff barriers. The nature of such regulation has significantly changed after the global economic and financial crisis of 2008-09
- The government set higher tariff on the imports of flour, encouraging domestic milling industry to import wheat and process it in the country
- In addition to imports tariffs, in 2012 Uzbekistan introduced a 15% excise duties for flour, making imports of wheat flour from other countries expensive compared to the imports of wheat

- Uzbekistan does not make it public its trade statistics for commodities, therefore we rely on mirror statistics from other countries in estimating volume of wheat and flour being imported and exported. US Department of Agriculture (USDA, 2016) estimates that Uzbekistan annually imports 2.0-2.1 mln metric tons of wheat and flour from other countries, mainly from Kazakhstan and Uzbekistan. USDA also estimates that more than 90% of the wheat and flour is imported from Kazakhstan. Therefore, Kazakhstan firmly remains the main supplier of high quality wheat and wheat flour to Uzbekistan
- Uzbekistan wheat exports are estimated at 400,000-450,000 tons of lower grade wheat. The export destinations are reportedly Iran and Afghanistan. However, exports of wheat is prohibited unless there is special permission from the Cabinet of Ministers

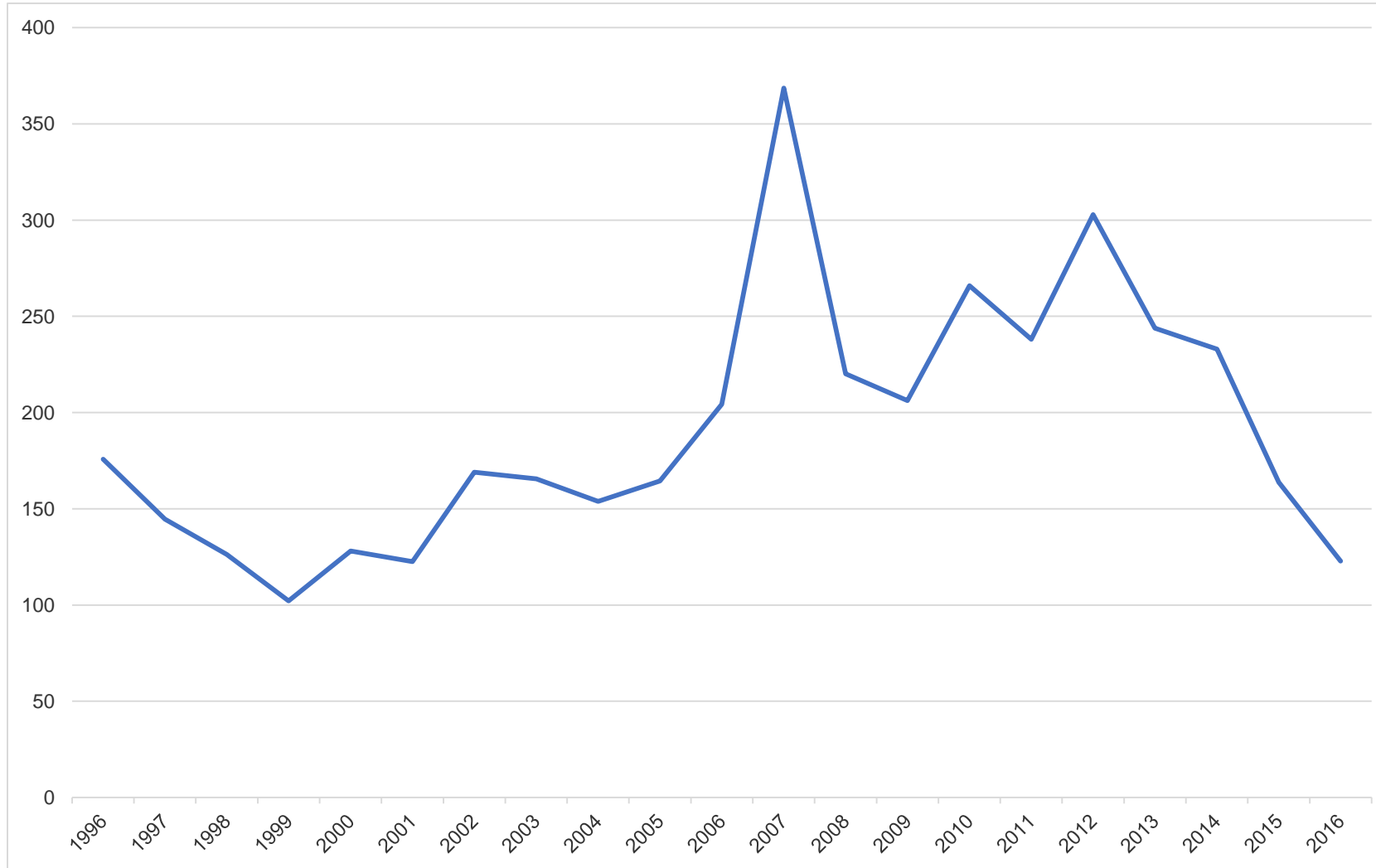
- Despite declaring self-sufficiency in wheat production and consumption, Uzbekistan has remained a big importer of wheat and flour from Kazakhstan and Russia. The overall assessment of the wheat self-sufficiency policy is not clear-cut and its success should be judged in connection with economic, political, social costs of the policy. For example, expanding wheat cultivation has greatly reduced the area devoted to other grains and fodder crops
- This raises an interesting question if Uzbekistan possesses a comparative advantage in producing wheat at all. And whether the wheat self-sufficiency has affected supply to market of other food and fodder crops, with significant negative consequences for the population's diet and nutrition

POLICY ISSUES FOR WHEAT

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Average domestic market price, thousand soums per ton	356	520	560	720	1050	1150	1200	1400	1900	2500
Average state procurement price, thousand soums per ton	171	187	224	262	336	378	420	462	504	551
Difference between market prices and procurement prices, times	2.08	2.78	2.50	2.75	3.12	3.04	2.86	3.03	3.77	4.54

Source: The Cabinet of Ministers' resolutions for state procurement prices and Potrebitel newspaper for domestic market wheat prices

International wheat prices, US Dollars per metric ton



Source: IMF, 2017

The price of hard red winter wheat per metric ton jumped from 204.31 USD in 2006 to 368.62 USD in 2007

Staple food price increase between 2005 and 2016, % (December to December)

	Bread	Flour (imp)	Flour (dom)	Wheat (dom)	Food price inflation (Paache index)	Imported flour prices jumped and increased by 52 percent
2005	0.0	5.8	5.5	6.5	22.7	
2006	11.8	11.7	11.0	11.2	15.9	
2007	17.0	52.4	25.9	24.0	26.0	This had an impact on domestic wheat and flour prices and they went up by 46 percent in 2008
2008	12.5	30.3	46.1	46.9	37.5	
2009	40.0	2.6	7.7	7.9	12.5	The domestic price for the grey loaf of bread, though heavily subsidized, also increased by 40 percent in 2009
2010	14.3	29.2	28.6	28.4	35.4	
2011	25.0	29.0	22.2	45.8	39.4	
2012	20.0	20.0	13.6	9.5	8.0	
2013	8.3	-10.4	0.0	4.3	6.9	
2014	0.0	11.6	20.0	16.7	26.3	
2015	0.0	45.8	33.3	35.7	20.8	
2016	0.0	14.3	30.0	31.6	18.7	

Source: Own estimates.

- The government is represented by the Cabinet of Ministers, Joint-stock company “Uzdonmahsulot”, regional and district khokimiyats (local entities of the executive power). “Uzdonmahsulot” deals with purchase, storage and processing of state procurement wheat. “Uzdonmahsulot” is comprised of 44 state-owned mills, their branches and bakeries
- The farmers are represented by 60,695 commercial farms specializing in production of cotton and wheat with an average farm size of 52.7 ha. Commercial farmers don’t own land - they rather lease it from the government and the lease contracts specify the exact areas that have to be sown to cotton and wheat
- Consumers are represented by entire population of 32 mln people
- Private millers are represented by about 60 mills processing up to 1.5 metric tons of wheat annually. As a rule, they are much smaller than the state-owned mills, but arguably much more efficient

- One radical policy option that policymakers should consider is to abolish state procurement system and privatize the state-owned mills and bakeries. The abolishment of the rigid state procurement system allows farmers to get fair price for their products and cultivate agricultural crops of their choice. But this policy option assumes that price of wheat products the state-owned mills and bakeries produce will have to be set according to the demand and supply in the market. It is also essential to maintain food reserves and create monetary reserves, in order to buffer sudden supply shocks
- Another (less radical) option that will not abolish the state procurement for wheat, but nevertheless introduces a number of changes that significantly improve efficiency of wheat production and consumption. This option can include abandoning the current rigid practice of setting the land areas that must be allocated to wheat. The state procurement contracts should specify only the quantities of wheat that farmers have to sell to the government, without specifying the area of land to be reserved for these crops

- Help farmers diversify their income sources from various crops and assist households to diversify their nutritional intake. Diversifying dietary intake from only bread to for example fruits and vegetables will make diets more healthy and put less pressure on high-demand wheat products. Farmers will also be incentivized to grow more fruits and vegetables (cash crops). Instead of universal subsidies, programs targeting poor and vulnerable households would have better protected the poor, less distorted incentives for farmers and cost-effective in the long run
- Invest in establishing wheat commercial associations to improve the quality of wheat grown in Uzbekistan. The introduction of intensive technologies and integration of specific agricultural knowledge to production will help farmers boost their output and help export to neighboring countries such as Afghanistan
- Invest in upgrading soil quality and salinization and help farmers better prepare for challenges brought about by climate change. Climate change will bring warmer temperatures and lower precipitation in summer - the most important vegetation period for many crops

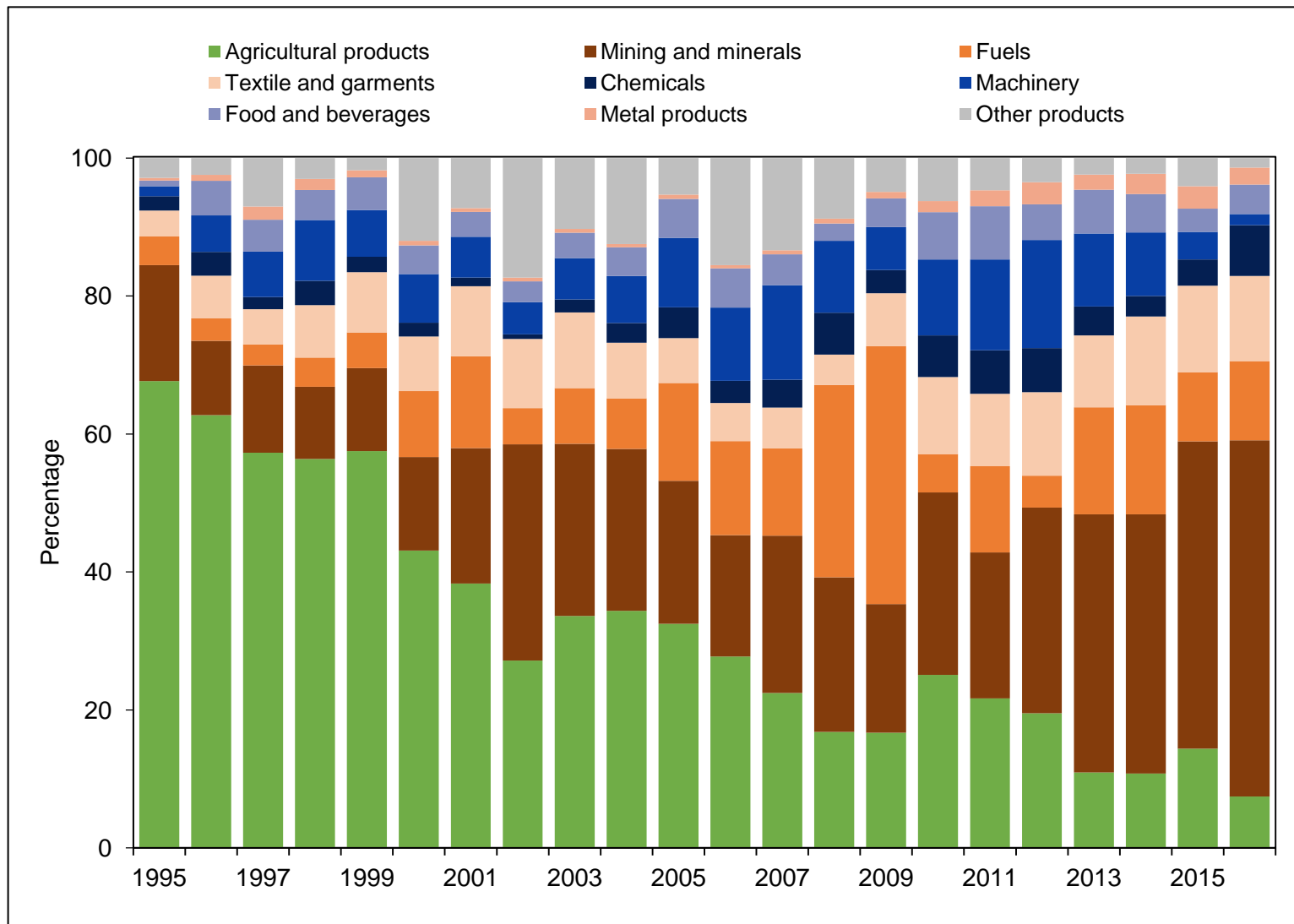
The year of 2017 was declared as the “*Year of Dialogue with People and Human Interests*”. The five priorities include:

1. Priority areas for the improvement of the system of state and public administration
2. Priority areas to ensure the rule of law and further reform of the judicial system
3. Priority areas of development and liberalization of the economy
 - the government reviewed (lowered rates) import duties and excise taxes for wheat and other food products from 1 October 2017
4. Priority directions of the social sphere development
5. Priority areas in the sphere of security, inter-ethnic harmony and religious tolerance

THANK YOU FOR YOUR TIME!

QUESTIONS OR COMMENTS?

EXPORT STRUCTURE, 1995-2016 (%)



Source: Estimates based on UN Commodity Trade Statistics database

The structure of exports has also shifted dramatically and confirms this structural transformation

The share of agricultural exports has fallen from about 68% to about 11% over the last two decades, while exports of fuels and chemicals have largely replaced the share of agriculture

The share of non-commodity exports (for example, cars, trucks, fertilizers, plastics, and foodstuffs) has also increased by 21% over this period

