UNIVERSITY OF CENTRAL ASIA

GRADUATE SCHOOL OF DEVELOPMENT

Institute of Public Policy and Administration

Kidney Beans Value Chain and Export Capacity in the Kyrgyz Republic

K.Tilekeyev, R.Mogilevskii, N.Abdrazakova, S.Dzhumaeva

Institute of Public Policy and Administration, UCA

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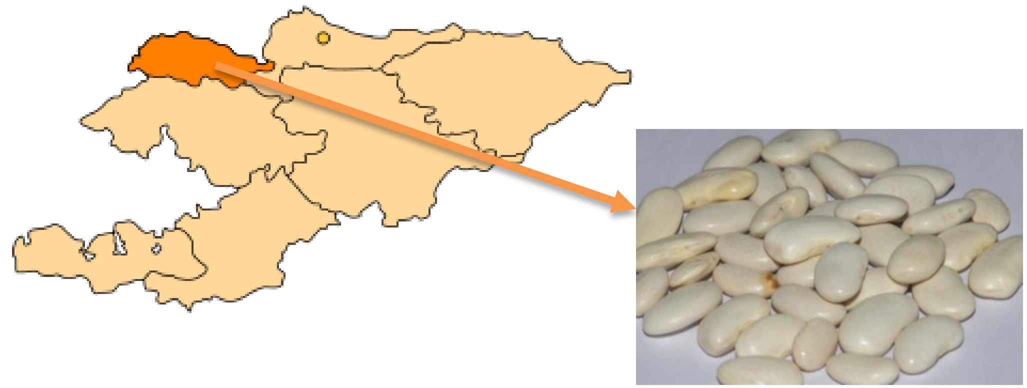
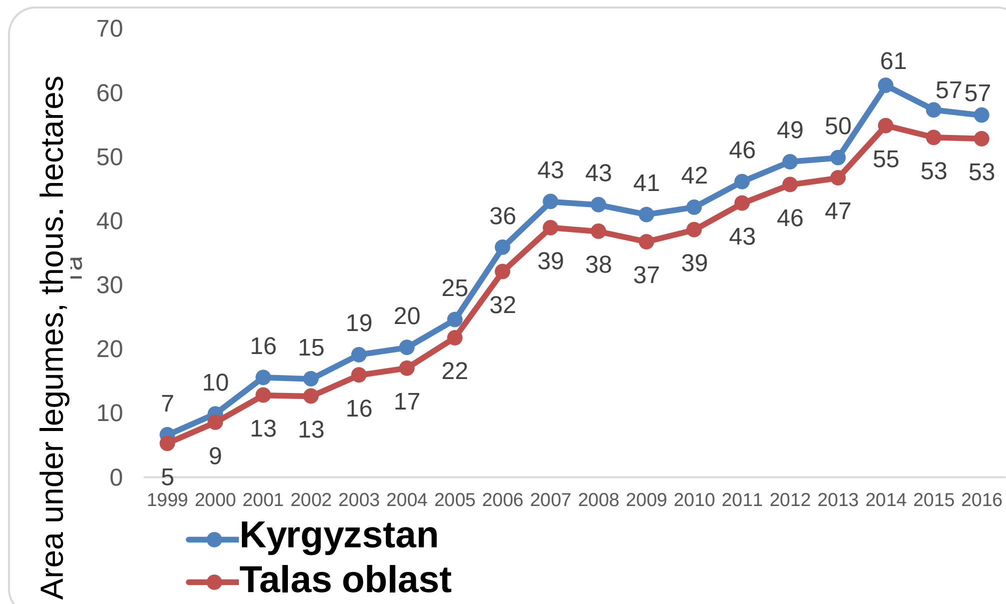
Outline

- FAO-supported study
- Kidney beans in Kyrgyzstan
- Kidney beans value chain – analysis by type of stakeholder
- Why Talas is a success story
- Issues in beans production and exports
- Conclusions and recommendations

Beans in Kyrgyzstan

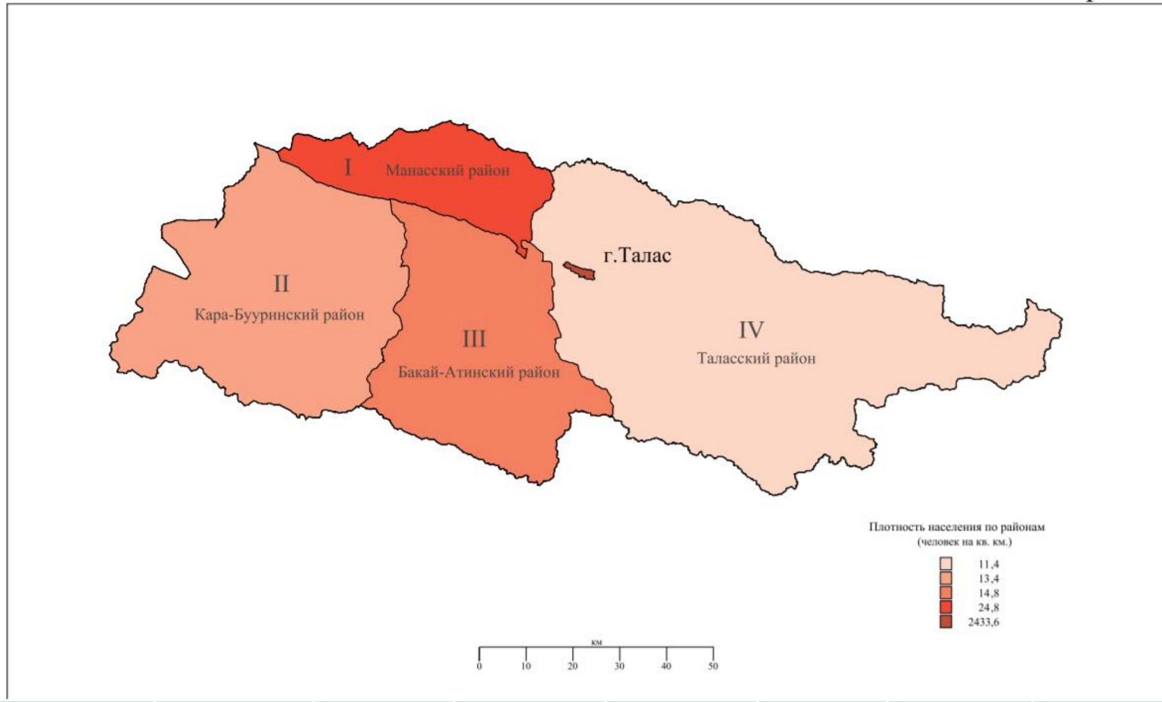
- Kidney beans – from a minor crop to the main agricultural export product
- Talas Oblast is the center of beans production and exports (93-95%)
- Kidney beans cultivated area increased 8 times (1999-2016)





Beans in Talas Oblast

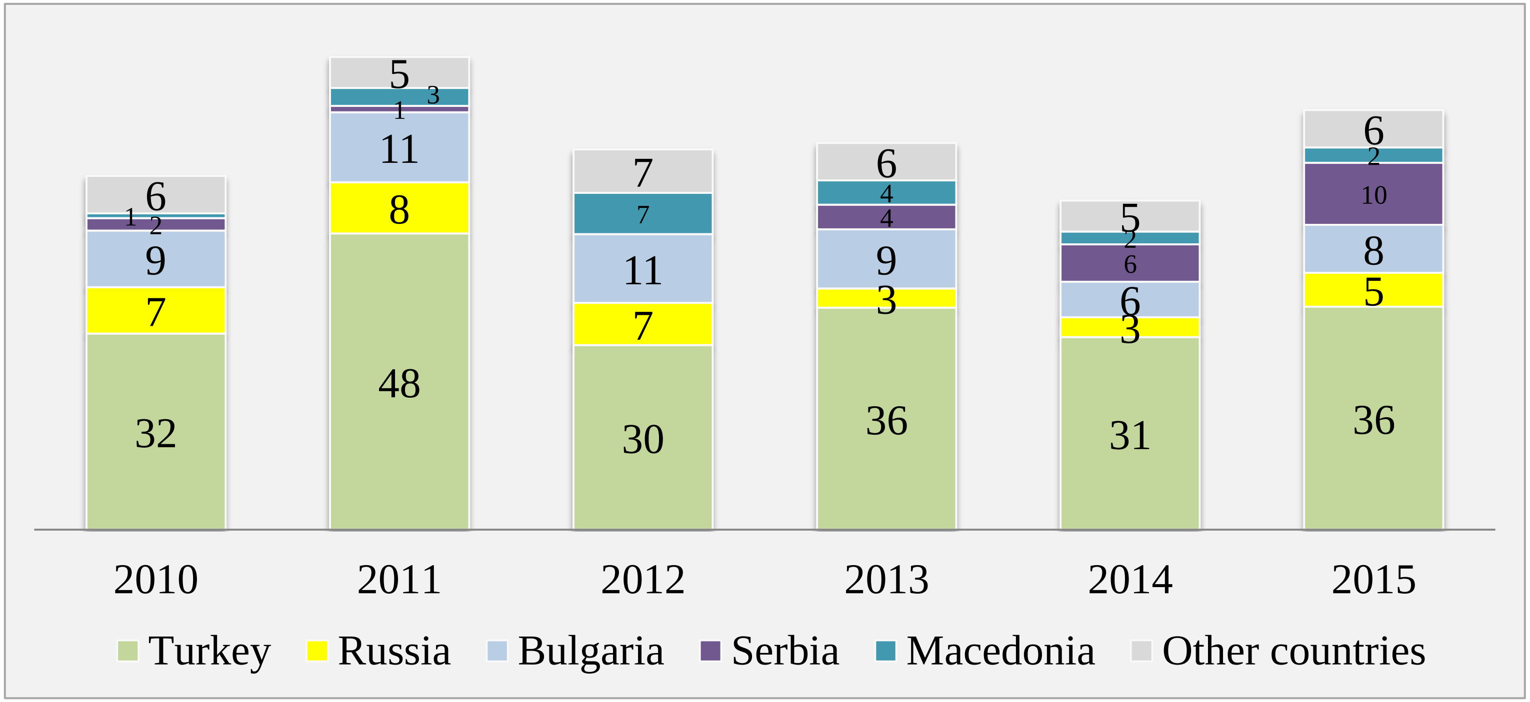
- Population – 244.1 thousand
- Rural population – 85%
- Poverty and unemployment decline



		Meas. unit	2008	2009	2010	2011	2012	2013	2014	2015
Poverty rate	Kyrgyz Republic	%	31.7	31.7	33.7	36.8	38.0	37.0	30.6	32.1
	Talas Region	%	43.0	33.0	42.3	50.2	39.6	23.1	19.0	21.5
Unempl. rate	Kyrgyz Republic	%	8.2	8.4	8.6	8.5	8.4	8.3	8	7.6
	Talas Region	%	5.4	4.9	5.1	5.0	4.1	3.7	3.9	3.3

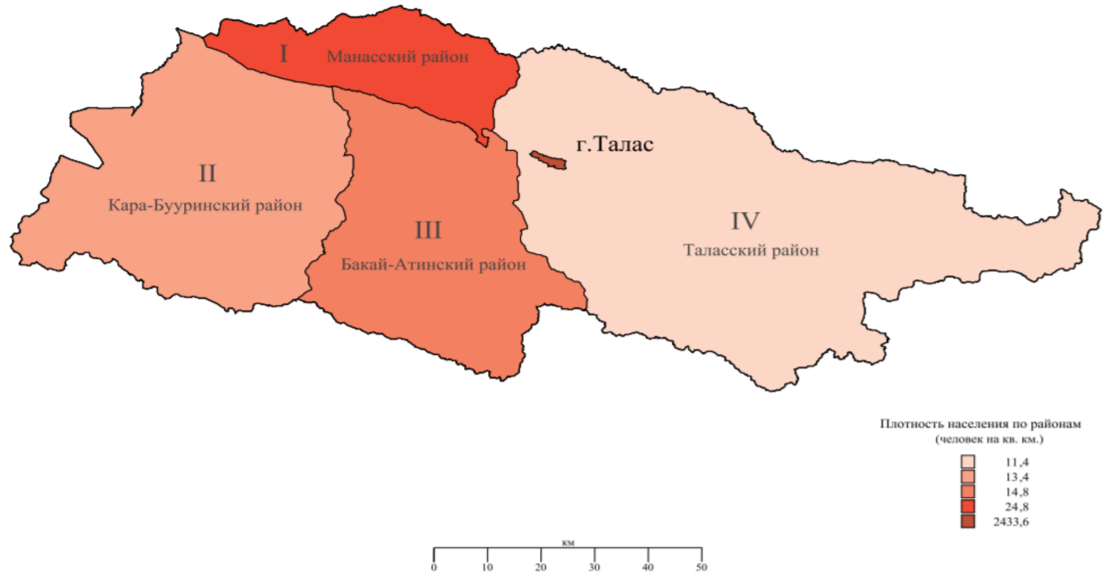
Exports of Kidney Beans

	2009	2010	2011	2012	2013	2014	2015
Export of beans, million USD	29.6	35.1	51.8	48.2	73.0	62.0	43.7
Export of beans, thousand tons	53.3	57	76.4	61.4	61.7	53.1	66.7
Share of beans in total exports of agricultural products, %	16%	16%	20%	18%	27%	26%	26%



Kidney Beans Value Chain

- Qualitative study with elements of quantitative methods
- Field part: November 2016 - January 2017
- Research area – Bakai-Ata and Kara-Buura rayons
- The sample covers all links in the kidney beans value chain



Farmers	40
Bean collectors	10
Resellers	10
Exporters	5
Transport companies	2
Bean cleaning workshop	3
Total	70

Bean Farmers

- Majority of farmers cultivate only beans
- Sources of seeds – own, neighbors, and local market
- Main kidney bean variety – white kidney bean (over 60% of all beans) for exports to Turkey and Bulgaria
- Own and hired manual labor and mechanized works
- Factors of productivity – agricultural machinery, irrigation, use of fertilizers and agrochemicals, (lack of) crop rotation
- Beans could be stored up to 2 years in dry place
- Beans are usually sold within 3-4 months after harvesting
- Post-harvest processing of beans – manual cleaning and sorting; uncleaned beans are sold 2-6% cheaper
- Price volatility (price drop in 2015 and hike in 2016)

Farmers-Purveyors

- Some bean farmers also work as collectors/purveyors – purchase beans from neighbors for further reselling
- Average turnover per season: 200-250 tons
- Sell to wholesale buyers (3 to 5)
- Average consignment: 20-80 tons
- Margin of a bean collector – 2-2.5% of purchase price
- Competition among purveyors is high – 5-6 of them per village
- Many collectors look for investors to increase working capital

Commercial Dealers

- Commercial dealers buy beans from farmers-producers and farmers-purveyors
- Specialization and experience of 10-15 years
- 3-10 permanent workers
- Gross margin is KGS2-6 million/year; turnover of 3,000-3,500 tons of beans per season
- One dealer covers ca. 1,000 farmers in 20 villages in 2-3 rayons

Bean Cleaning Services

- Bean cleaning workshops as a separate value chain link
- Manual cleaning services (1 ton/day/worker) and mechanized workshops (30 ton/day)
- Permanent staff ranges from 5 to 30 people depending on a season
- Workshop has a warehouse (100 to 8,000 m^2), own transport and equipment for cleaning and sorting beans

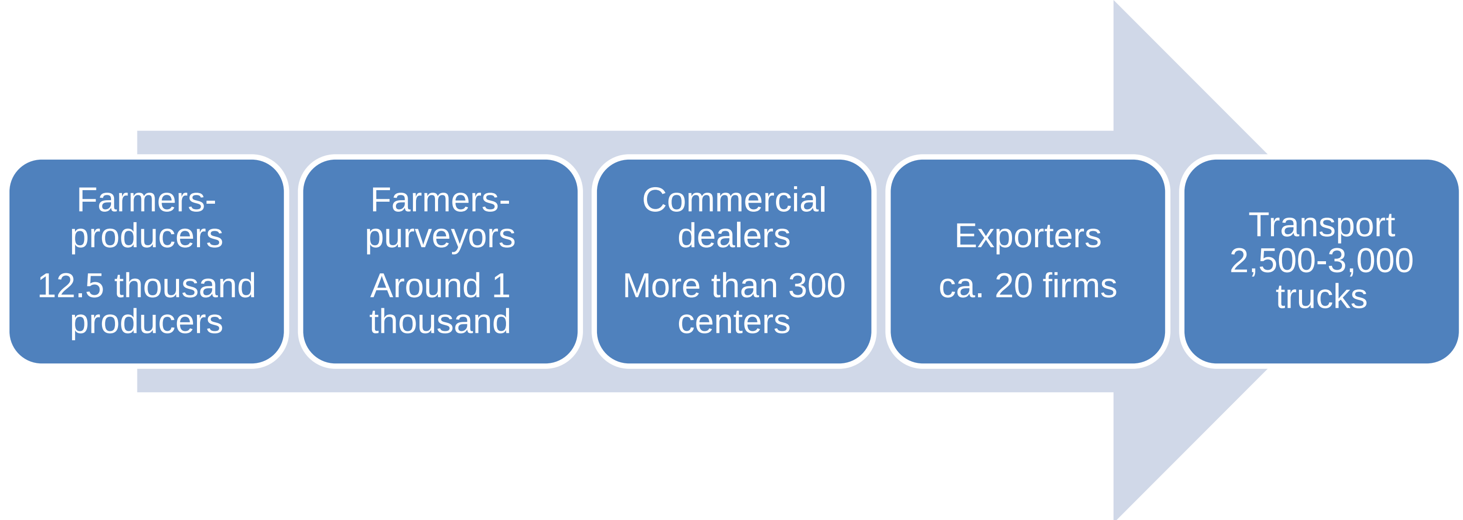
Exporters

- Virtually all beans go for exports
- 60 companies registered, some 20 are the most active
- Most firms have been founded by Turkish citizens/companies
- Few employees to control process and quality of beans
- Average turnover of 8-9 thousand tons of beans
- Beans are collected through dealers (10-20 agents per firm)
- Exporter’s margin is 10-15% of purchase price
- Exporters positively assess the impact of Kyrgyzstan’s accession to the EAEU

Transport Companies

- Foreign transport companies
- Exports to Russia
  - Kazakh companies
  - Transportation costs of USD2,000-2,400/truck
  - 3-4 days
- Exports to Turkey/Europe
  - Turkish companies
  - Transportation costs of USD4,000-5,000/truck
  - 7-8 days to Turkey and 10 days to Bulgaria
  - Route via Kazakhstan, Russia and Georgia; sometimes via Caspian Sea and Azerbaijan to Georgia and Turkey

Beans Value Chain Structure



Exports of kidney beans, tons	65000					
	Farmers - bean producers	Farmers-purveyors	Commercial dealers	Bean cleaning	Exporters	Transport companies
Gross margin	62%	3%	4%	3%	14%	13%
Gross margin of intermediaries - value chain participants		38%				

Stylized Facts on Bean Value Chain

- Fierce competition
- Informality, low level of trust and the role of family relations
- Relatively high share of final price for farmers (above 60%)
- Capital shortages
- Low, but increasing level of mechanization
- Very basic technologies, growing demand for and almost complete lack of supply of extension services
- Substantial productivity reserves

Why Talas and Why Talas Only?

- Availability of farmer group (Kurds) with historical experience of beans cultivation
- Low opportunity costs at the moment of new crop introduction
- Political support to the sector in early years of development
- Good external markets connection due to foreign participation
- Relatively low capital intensity of the crop
- Convenient geography for exports
- Suitable climate and soils
- Replication of Talas experience in other locations is not going to be easy

Issues in Kidney Beans Sector

- No more available arable land in the region – natural limits to extensive growth
- Smallholder producer trap – no economies of scale, access to capital and technologies
- Mostly manual labor
- No national seed breeding system for kidney beans
- Plant diseases and pest/insect invasions
- Limited knowledge of farmers (fertilizers, plant protection etc.) on the background of high farmers’ demand
- Bean prices on the world market are volatile
- No long term planning for farmers (including climate change scenarios)

Recommendations

Government

- Support service cooperatives and private sector to supply improved seeds and fertilizers
- Analyze and prepare program to expand beans production to other suitable regions
- Improve knowledge base in agronomy, post-harvesting, plant protection systems accessible to bean producers
- Improve plant protection system – control and monitoring of the quality of fertilizers, herbicides and pesticides
- R&D program for kidney beans
- Support promotion of the Kyrgyz beans to new markets
- Pay attention to child labor and gender issues in the sector

Recommendations (2)

Farmers and farmer associations

- Develop service cooperatives and other cooperation arrangements
- Invest into knowledge systems for farmers

Development Organizations

- Focus on extension services and R&D to support the government and farmers
- Support campaigning for eradication of child labor and women rights protection

Thank you!