Agricultural reform in Uzbekistan

National team:
Dildora Tadjibaeva
Igor Pugach
Yuliy Yusupov
Zafar Berdinazarov

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany – April 2015  www.iamo.de/agriwanet
Total area - 448,978 square kilometer
- Population – 30 million people
- 80% of the territory is occupied by plains and 20% mountains and foothills, including 4.3 million hectares of irrigated land
- Share of agriculture in GDP – 17.2%
- Population engaged in agriculture – more than 25%

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany - 2015
Agricultural output in GDP (%) in the dynamics of the 1991-2014

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Employment in agriculture in the dynamics of the 1991-2013

- Number of people employed in agriculture, thous. people
- Share of agricultural employment in total employment in the economy, %

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany - 2015
Share of agricultural products in total exports (% on total)

- Other products
- Fruits and vegetables
- Cotton (raw, yarn)

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany - 2015
Main agricultural producers in Uzbekistan

- **Farmers** - an independent business entity which carry out commercial agriculture using land leased;

- **Dekhkans farmers** - small-scale family farming, producing and sale of agricultural products based on personal labor of family members on the household plots, the land is granted to the head of the family in lifetime inheritable possession;

- **Agricultural enterprise** - an legal entity established based on private or joint ownership for the production of agricultural goods (agricultural firm, an agricultural cooperative (shirkat), and others).
Structure of agricultural land use according to the types of enterprises

- Farms: 84.8%
- Dekhkans: 12.8%
- Agricultural enterprises: 2.3%

73,5 thousand farms, 4,3 million dekhkans, more than 100 agricultural enterprises

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany - 2015
Structure of agriculture output produced by types of agricultural enterprises, %

Agricultural enterprises
Farmers
Dekhkans farms

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Crops area in the dynamics of 1991-2013 (thousand hectares)

- 1991
- 1996
- 2001
- 2006
- 2013

- cereals
- technical crops
- feed crops
- fruit
- vegetables
- grapes
- melons and gourds
- potato

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Total yield of main crops by regions of Uzbekistan in 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Wheat (thous. ton)</th>
<th>Vegetables (thous. ton)</th>
<th>Potatoes (thous. ton)</th>
<th>Fruits (thous. ton)</th>
<th>Melons (thous. ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andijan</td>
<td>916,4</td>
<td>1226,8</td>
<td>239,1</td>
<td>498,3</td>
<td>86,9</td>
</tr>
<tr>
<td>Bukhara</td>
<td>768,4</td>
<td>506,2</td>
<td>164,9</td>
<td>221,3</td>
<td>105,7</td>
</tr>
<tr>
<td>Fergana</td>
<td>1038,2</td>
<td>667,7</td>
<td>233,2</td>
<td>366,1</td>
<td>61,6</td>
</tr>
<tr>
<td>Djizzak</td>
<td>827</td>
<td>337,8</td>
<td>58,3</td>
<td>95,1</td>
<td>211,2</td>
</tr>
<tr>
<td>Khorezm</td>
<td>516,2</td>
<td>500,9</td>
<td>109,5</td>
<td>169,5</td>
<td>119,2</td>
</tr>
<tr>
<td>Namangan</td>
<td>783,9</td>
<td>603,8</td>
<td>214,7</td>
<td>201,1</td>
<td>64,7</td>
</tr>
<tr>
<td>Navoii</td>
<td>588,3</td>
<td>226,6</td>
<td>65,6</td>
<td>108,4</td>
<td>56,9</td>
</tr>
<tr>
<td>Kashkadarya</td>
<td>1216,6</td>
<td>463,2</td>
<td>147,6</td>
<td>118,9</td>
<td>122,2</td>
</tr>
<tr>
<td>Samarkand</td>
<td>1054,1</td>
<td>1377,1</td>
<td>488,1</td>
<td>320,9</td>
<td>91</td>
</tr>
<tr>
<td>Sirdarya</td>
<td>834,3</td>
<td>274,7</td>
<td>43</td>
<td>49,1</td>
<td>252</td>
</tr>
<tr>
<td>Surkhandarya</td>
<td>880,6</td>
<td>714,8</td>
<td>181,8</td>
<td>141,4</td>
<td>150,1</td>
</tr>
<tr>
<td>Tashkent</td>
<td>999,9</td>
<td>1716,6</td>
<td>339</td>
<td>194,4</td>
<td>131,6</td>
</tr>
<tr>
<td>Karakalpakstan</td>
<td>510,2</td>
<td>229,8</td>
<td>46,8</td>
<td>52,8</td>
<td>98,9</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>8144,4</td>
<td>8483,6</td>
<td>2240,4</td>
<td>2255,3</td>
<td>1534</td>
</tr>
</tbody>
</table>
Livestock sector development in the dynamics of 1992-2013 (thousand heads)
Gross production of meat and milk (thousand tons)

- **Meat (slaughter weight)**
  - 2000: 501.8
  - 2001: 507.6
  - 2002: 513.1
  - 2003: 598.2
  - 2004: 632.6
  - 2005: 679.4
  - 2006: 723.8
  - 2007: 768
  - 2008: 816.9
  - 2009: 855

- **Milk**
  - 2000: 3632.5
  - 2001: 3665.2
  - 2002: 3721.3
  - 2003: 4031.1
  - 2004: 4280.5
  - 2005: 4554.5
  - 2006: 4855.6
  - 2007: 5097.5
  - 2008: 5426.3
  - 2009: 5802.5
  - 2010: 6169

**Leibniz Institute of Agricultural Development in Transition Economies (IAMO)**

Halle, Germany - 2015
Gross production of eggs and karakul

- Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
- Halle, Germany - 2015
## Total production of livestock production by regions in 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Meat (thous. ton)</th>
<th>Milk (thous. ton)</th>
<th>Eggs (mln.items)</th>
<th>Wool (in physical mass, ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andijan</td>
<td>55,1</td>
<td>598,4</td>
<td>242,9</td>
<td>1955</td>
</tr>
<tr>
<td>Bukhara</td>
<td>86,9</td>
<td>580</td>
<td>195,8</td>
<td>2852</td>
</tr>
<tr>
<td>Fergana</td>
<td>62,3</td>
<td>650,1</td>
<td>196,1</td>
<td>953</td>
</tr>
<tr>
<td>Djizzak</td>
<td>77,5</td>
<td>367</td>
<td>118</td>
<td>2717</td>
</tr>
<tr>
<td>Khorezm</td>
<td>60,6</td>
<td>673,8</td>
<td>249,3</td>
<td>996</td>
</tr>
<tr>
<td>Namangan</td>
<td>48,1</td>
<td>422,3</td>
<td>121,8</td>
<td>1244</td>
</tr>
<tr>
<td>Navoiy</td>
<td>60,9</td>
<td>294,1</td>
<td>165,2</td>
<td>2965</td>
</tr>
<tr>
<td>Kashkadarya</td>
<td>105,3</td>
<td>720,6</td>
<td>220</td>
<td>5692</td>
</tr>
<tr>
<td>Samarkand</td>
<td>120,2</td>
<td>862,5</td>
<td>683,7</td>
<td>4153</td>
</tr>
<tr>
<td>Sirdarya</td>
<td>24,8</td>
<td>219,8</td>
<td>60,6</td>
<td>452</td>
</tr>
<tr>
<td>Surkhandarya</td>
<td>71,2</td>
<td>567,6</td>
<td>171,7</td>
<td>2063</td>
</tr>
<tr>
<td>Tashkent</td>
<td>106,6</td>
<td>608,1</td>
<td>958,3</td>
<td>1722</td>
</tr>
<tr>
<td>Karakalpakstan</td>
<td>36,7</td>
<td>201,9</td>
<td>58,3</td>
<td>923</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>916,2</td>
<td>6766,2</td>
<td>3441,7</td>
<td>28687</td>
</tr>
</tbody>
</table>
Land relations in Uzbekistan

- All agricultural land in Uzbekistan is owned by the state.

- Land for the dekhkans farms are in lifetime inheritable possession of the head of household. Dekhkans farms are not restricted in their choice of crops and the disposal of its activities.

- Land for the farms are in a long-term lease. Government sets their mandatory state procurement order for cotton and wheat and defines areas of land for its

- Farmers' rights on dispose of land is poorly protected: the land might be take off due to failure to achieve the plan, or used for unpredictable purposes and for other reasons, which is not related to the farmer activities.

- Land purchase, sale, sublease, unauthorized exchange and use as security is prohibited.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)  
Halle, Germany -2015
Water users are divided into two categories: general and special. General water use does not involve application of technical equipment or structures that may affect the conditions of water, and most of the agricultural users fall into the special water use category. This status applies to all users regardless of their legal form, type of ownership, citizenship, or residency. The special use is on a fee-paid basis, and the fee is collected from all special water users.

Water Users Association (WUA)- membership-based, nongovernmental and noncommercial organizations aimed at maintaining irrigation systems in the public interest; ensuring fair, effective, and timely distribution of water between farms; collecting payments for the water supply; and settling minor disputes related to the distribution and use of water;

Government Authorities in Charge of Water Control - the Ministry of Agriculture and Water Resources (surface water), the State Committee on Geology and Mineral Resources (groundwater).
Gaining access to water resources for agricultural producers

**Step 1.** Get the right to possession or use of the land, confirmed by the State Act.

**Step 2.** Get WUA permission for special water use for land area used;

**Step 3.** Prepare a plan for water consumption and to submit it to the WUA for approval in order to get the water consumption limits

**Step 4.** Signing the contract with WUA on water consumption consumption;

**Step 5.** Farmer submit the application for water limits not later than 10 days to WUA indicating the volume of water, time, place, date of beginning and end of water intake.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Tax on the use of water resources calculated under articles 257–264 of the Tax Code of Uzbekistan. Farmers, individual entrepreneurs who use water for business purposes, and all legal entities are subject to this tax. The tax applies to water used from surface and groundwater sources, and is calculated on the basis of the actual volume of water used. The tax rate on the use of water resources for agricultural producers in 2015 was 61.9 UZS (about $0.025 at the official exchange rate) per water cubic meter.

Water and other water services delivery – Tariffs are established by WUA;

WUA is responsible for setting up the equipment for recording and water regulation. The members of WUA shall pay the fee for using water meter based on tariffs approved by WUA.
Government Support

- The Government program on further modernization, technical and technological re-equipment of agricultural production in 2012-2016;
- The Government program on improvement of irrigated land for the period 2013-2017;
- The Government program on introduction of drip irrigation system and other water-saving technologies for the period 2013-2017;
- The Government program on the development and strengthening of material and technical base for storage of fruits and vegetables for 2011-2015.
Government agricultural policy has the following objectives:

1. Preservation of raw cotton production, sufficient to foreign exchange balance of the country;
2. Ensure food security in order to achieve the economic security of the country;
3. Income redistribution from agriculture to industrial development and other sectors of economy;
4. Land improvement and rehabilitation of irrigation infrastructure;
5. Introduction of water-saving technologies
Current agricultural policy tools

- State order on cotton and wheat with the establishment of mandatory volume sales and fixed established prices;
- Hidden subsidies in the form of selling the resources at a lower cost to grow the cotton and wheat;
- State funding aimed to seed production, breeding, new varieties and hybrids testing, tribal development;
- Rural infrastructure development (e.g. point of sale of fertilizers and animal feed, veterinary services etc.);
- Within land lease contracts is established of the type of farmers specialization (cotton and wheat, livestock, vegetable-growing, etc.) Depend on type of specialization is defined the land area and limit water consumption;
- Operational expenses of water management complex are fully covered by the State;
- Measures on land reclamation and irrigation are covered by the Special State Fund;

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)  
Halle, Germany -2015
Government Support for Land Improvement

Fund for Land Reclamation

- Rehabilitation works at collector drainage network throughout 84,000 km completed;
- More than 1,600 units of ameliorative equipment purchased to water management enterprises;
- The Fund invested 563.5 million USD for these purposes.
- As a result: Improved 1.5 million ha of irrigated land.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Current agricultural policy tools

- Government provides preferential financial support 3% concessional loans through specialized state owned bank - Agrobank to agricultural enterprises for the purchase of fuel, fertilizer, farm equipment and other resources needed to grow cotton and wheat;

- Farms purchasing agricultural equipment for leasing pay the initial price of 15% of the cost of equipment, remaining amount of 85% shall be paid within 7 years;

- Preferential loans for farmers through microfinance facility under commercial banks, the loan rate is 50% of CBU refinancing rate;

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Current agricultural policy tools

- Agricultural enterprises pay single land tax instead of generally established taxation (6% of normative land cost);
- Agriculture Enterprises are exempted from fees to Road Fund, Pension Fund, Medical and Educational Fund;
- Newly established farms are exempted from single land tax for two years;
- Agribusiness micro firms pay single tax instead of the generally established taxation.
- Agricultural Enterprises in the implementation of drip irrigation systems are exempted from the single land tax for five years.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Policy of diversification of agricultural production includes:

- Transfer low fertile land with low water availability to the vineyards;

- Encourage the horticulture development, intensive gardening on Japanese technology (dwarf trees), vegetable production and breeding;

- The use of reseeding (after wheat harvest planting sown corn, vegetables and fodder crops);

- Encourage the livestock and poultry development including transfer of irrigated land for growing forage crops.
Current agricultural policies: Problems with irrigated agriculture in Uzbekistan

- 90% fresh water is used for irrigation;
- 51% of irrigated areas in Uzbekistan salinized, of which much - 4% and averaged 17%;
- Derive up to 20 thousand ha. irrigated land annually from the agricultural turnover due to salinity;
- According to FAO, wind erosion is threatened 50% of irrigated and non-irrigated land and resulted desertification. 6% of irrigated and about 20% non-irrigated land is touched wind erosion;
- Inefficient pump technology furrow irrigation lead to large losses of energy and irrigation water;
- The ground water disappearance for irrigation leads to water erosion and calls for irrigated land reclamation (watered, then to drain);
- Many elements of irrigation system are outdated and required modernization and reconstruction. There is a need for a significant renovation of irrigation facilities.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Measures taken by the Government of Uzbekistan to adapt to climate change

- Program land reclamation aimed at the rehabilitation of degraded land and water conservation;
- Water conservation measures, the gradual introduction of drip irrigation systems (while in horticulture);
- Creation of new highly productive and competitive crop varieties, appropriate soil and climatic conditions of the regions, including selection of resistant to drought and salinity plant varieties;
- Combating desertification, agro forestry development;
- Accumulation of irrigation water by creating a reservoirs system, the number of reservoirs increased from 47 in the early 90s to 70;
- The modern technologies application such as laser leveling technologies and others;
- Improvement of crop rotation, alternating "water-intensive" crops with less water consumption.
Agriculture Investment Projects

- Implemented Investment projects for the amount of **160 million USD** in cooperation with International Financial Institutes.

- Presently, Investment Projects with total **349.7 million USD** are being implemented with following Partners
  - International Development Association – **131.6 million USD**,  
  - International fund for Agricultural Development – **28.3 million USD**,  
  - Asian Development Bank – **USD 166.4 million**,  
  - Grants of Global Environment Facility – **15.7 million USD**,  
  - Swiss Development Cooperation – **7.7 million USD**.

- **Newly** projects in collaboration with
  - International Bank for Reconstruction and Development - **150.0 million USD**,  
  - International Fund for Agricultural Development - **24.0 million USD**.

- A Project proposal submitted to Government of Japan for amount of **250 million USD** on horticultural sector development.
Looking Forward

Recommended agriculture policy agenda

- Improving the system of land tenure in order to protect and enhance property rights of farmers and creating incentives for effective land use.
- Improving water management system by providing the incentives for water conservation and use the efficient irrigation techniques.
- Introduction of modern agricultural technologies, such as tillage technologies, new varieties, breeds, etc.
- Further agriculture diversification and more flexible use of land resources in the context of climate change mitigation.

Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
Halle, Germany -2015
Looking forward

Open Research Questions

- Farmers issues assessment: property rights protection, doing business cost, access to finance in order to ensure sustainability
- Creation incentives for effective land utilization and water conservation
- WUA assessment and ensure sustainability
- Perspective ways of agriculture diversification
- Agrarian policy assessment including food security policy: issues and recommendations
Thank you!

- Leibniz Institute of Agricultural Development in Transition Economies (IAMO)
- Halle, Germany -2015