



Uzbekistan: Innovations for Agriculture Modernization

Project Name	Innovations for Agriculture Modernization	
Project Number	47305-001	
Country	Uzbekistan	
Project Status	Active	
Project Type / Modality of Assistance	Technical Assistance	
Source of Funding / Amount	TA 8567-UZB: Innovations for Agriculture Modernization	
	Technical Assistance Special Fund	US\$ 1.00 million
Strategic Agendas	Inclusive economic growth	
Drivers of Change	Private sector development	
Sector / Subsector	Agriculture, natural resources and rural development - Agricultural production	
Gender Equity and Mainstreaming		
Description	<p>The TA will support the Welfare Improvement Strategy for 2012-_2015 and the government's commitment to enforce international labor standards by working on key aspects of the agriculture strategy: (i) promoting crop diversification through demonstration of an integrated cotton_ -wheat_ -high-value crops (HVCs) farming system; (ii) assisting mechanization by exploring financing options (including leasing arrangements) for agricultural machinery and other production tools; and (iii) finding more opportunities for private agribusiness investment. The TA impact will be greater profitability of farmers. The TA outcome will be the development of investment concepts for agricultural mechanization and crop diversification.</p> <p>The outputs of the TA will be: (i) suitable financing arrangements for agricultural mechanization and crop diversification developed, and (ii) diversified cropping systems developed.</p> <p>Output 1: Suitable financing arrangements for agricultural mechanization and crop diversification developed. The TA will first conduct a gap analysis of current financing and institutional arrangements (as well as leasing modalities) for provision of agricultural machinery, particularly cotton harvesting machines. The TA will also point out international good practices of financing, and private or public_ private investment mechanisms that are suitable for Uzbekistan's efforts to mechanize farming and diversify crops, including risk management instruments for value-chain financing_e.g., repurchase agreement, trade receivables finance, trader finance, warehouse receipts, and commodity finance. Farm-specific assessments will shed light on farmers' financial and technical capacity, and the farming system's suitability for the recommended agricultural machinery. Based on the analyses, the TA will (i) recommend financial and institutional mechanisms for provision of energy-efficient agricultural machinery, in particular (a) lease finance and alternative financing modalities for cotton harvesting machines and other farming tools, and (b) crop production, processing, and storage, with potential public_ private partnership or full private sector financing; (ii) prepare and implement a plan to increase the capacity of relevant agencies for new ways of financing agricultural machinery; and (iii) develop a concept for investing in agricultural mechanization.</p> <p>Output 2: Diversified cropping systems improved. Through analysis of constraints and opportunities in growing and supplying HVCs, the TA will recommend (i) potential HVCs that meet market demand and suit agro-ecological and logistics conditions and (ii) how to use certain HVCs, given the weather and soil conditions, in at least two provinces. In parallel, the TA will pilot-test two types of mechanized farming systems: (i) cotton_ -wheat_ -HVCs farming and (ii) HVC farming in cotton-free areas. Partnerships with private sector suppliers of agricultural machinery and input will be explored for the pilot-tests. The TA will study the socioeconomic and environmental impacts of the two types of farming systems, with a focus on the opportunity costs of land, water, energy, and labor; and on the social implications of replacing rural labor with machinery. A key aspect of the output is to demonstrate (i) how effective and efficient mechanization and agronomic practices will lead to an increase in cotton and wheat yields despite using less land, water, fuel, and labor; and (ii) that this will allow to reduce (a) the cotton areas in favor of growing HVCs and (b) child labor and/or forced labor. Based on the analytical results and pilot-tests, the TA will develop a package of policy measures, action plan, and institutional arrangements for crop diversification, including a concept for investing in crop diversification.</p>	

Project Rationale and Linkage to Country/Regional Strategy

Agriculture still plays a significant role in Uzbekistan's economy. In 2011, it employed about 27% of the country's total labor force. While the national level of low-income people has declined from 21.8% in 2008 to 17.7% in 2010, 18.15% of the rural population, who largely depends on agriculture, still has low incomes. They spend 53% of their income on food, compared with 33% spent by the urban residents

Uzbekistan's agriculture sector is largely dominated by cotton and wheat farming, which is the main water-consuming subsector. In 2012, the two crops counted for about 70% of the total cultivated area, producing 34% of gross output of agriculture and accounting for 30% of rural employment. The government largely supports wheat production to achieve food self-sufficiency. State-controlled procurement, pricing, processing, and marketing governs cotton, and to a lesser extent wheat, production. Export revenues from the cotton supply chain helped finance the government's import-substituting policies

Other important crops are fruit, nuts, vegetables, and fodder, and government involvement is minimal.

Uzbekistan is one of the major suppliers of fresh and processed fruits and vegetables in the region. In 2011, the agriculture sector grew by 6.6%, supported by fruit and vegetable production and livestock breeding. The sector covers 90% of domestic demand for agriculture products and 70% of domestic trade. Yet the country remains a net food importer, except for fruit and vegetable products. Though the prevailing climatic conditions are suitable for expanding the production of fruit, nuts, and vegetables, the area planted with these crops is limited by the structure of the cultivated area, which is dominated by cotton and wheat fields

The government's Welfare Improvement Strategy for 2012-2015 aims to reduce the national level of low-income people from 17.7% in 2010 to 13.7% by 2015. This will entail primarily greater rural productivity and more income-generating activities. Key measures to achieve these objectives are (i) further structural reforms to agriculture and the diversification of agricultural production; (ii) mechanization of the sector, infrastructure build-up, and agribusiness development; (iii) more productive use of land and water; and (iv) greater financial stability of farm entities and more market-oriented agricultural policies.

Rural labor is getting scarce as people migrate to urban centers for jobs in the more lucrative industrial and service sectors. In response, the government aims to expand mechanization by (i) exempting imported agricultural machinery that is intended for lease from customs and value-added tax; (ii) widening access to credit for suppliers of farm machinery and equipment that use locally produced parts; and (iii) establishing a special fund in the Ministry of Finance for Uzelhozmashlizing to provide low-interest lease financing for agricultural equipment to agricultural machinery tractor parks, other joint-stock companies that provide agricultural services, and farmers. However, these initiatives are driven more by the government and suppliers, and lack detailed analysis of market demand, farmers' financial and technical capacity, and the machinery's suitability to more profitable farming systems. There is also a need to improve institutional and financing mechanisms in procurement and leasing of agricultural machinery through possible involvement of the private sector.

To promote crop diversification, the government has been gradually reducing the cotton-growing areas, starting with low-production sites. By 2015, about 130,000 hectares (ha) of cotton areas are planned to be released for the production of HVCs such as vegetables and fruit. To date, about 12,000 ha have been released for HVC farming. But market demand and supply for a suite of HVCs in Uzbekistan's various provinces has to be analyzed to determine which HVCs are most suitable and can be integrated in the dominant cotton-wheat farming system. This entails (i) demonstration of cotton-wheat-HVC farming with appropriate technological and agronomic practices, and (ii) comparisons of the technical (yield impact) and socioeconomic (profitability; efficient use of labor, land, and water; and gender empowerment) performance of the demonstration farms with the traditional cotton-wheat farming system. It also means assessing the policy, institutional, and investment implications of crop diversification for potential government action.

ADB's Amu Bukhara Irrigation System Rehabilitation Project contributes in part to the goal of improving rural incomes through greater productivity. Specifically, the project will upgrade irrigation infrastructure, promote efficient water use, and pilot crop diversification in the Amu Bukhara irrigation system's command area of about 250,000 ha in the Bukhara and Navoi provinces. The ADB-financed Land Improvement Project, which covers 162,300 ha of irrigated land, also contributes to the desired development outcomes by mitigating land degradation due to soil salinization in these provinces and Kashkadarya Province.

While water- and land-enhancing interventions are important to improve farm incomes, they need to be complemented by better farming systems that use more effective technical and agronomic practices and improve labor use and crop yields. This TA proposes to fill two major gaps in Uzbekistan's farming systems: (i) broaden access to agricultural machinery such as cotton harvesting, cultivars, hermetic storage by exploring financing options (such as leasing) and potential engagement of the private sector; and (ii) promote crop diversification through market-driven HVCs that are suitable for integrated cotton-wheat-HVC farming.

Mechanized farming of cotton and wheat will reduce the need to employ forced labor during harvesting. International experience with mechanical harvesting is that it can produce the same quality cotton with less waste than hand picking, and is also hygienic. This would have an important bearing on international concerns over the use of forced labor during cotton harvesting in Uzbekistan. In response to such concerns raised by civil society and others, the government accepted for the first time the involvement of the International Labour Organization in joint monitoring of labor issues during the 2013 cotton harvest season. ADB is coordinating closely with the International Labour Organization, as well as other development partners, on this matter. The government's target to increase the number of cotton harvesting machines from 2012 to 2016 will significantly reduce labor requirements, including child or forced labor, during cotton harvesting.

Uzbekistan women will benefit from mechanization in particular, and from more efficient integrated farming systems in general. They perform multifarious roles aside from household chores. Specifically, they work in cotton and wheat fields from cultivation to harvesting. They also take care of the dekhan farms, which are the main source of cash income for farm households. Mechanization will help not only eliminate child or forced labor but also reduce the burden of women in cotton production and harvesting, and enhance households' cash incomes through increased HVC production.

The TA is consistent with the country partnership strategy, 2012-2016 for Uzbekistan, which supports the country's transformation into a modern industrial and service economy through sustained and inclusive growth, and poverty reduction, among others. To help improve the business environment in Uzbekistan, the country partnership strategy specifies that ADB provide demand-led TA in areas determined jointly with the government.

Impact

Greater profitability of farmers

Project Outcome

Description of Outcome	Development of investment concepts for agriculture mechanization and crop diversification identified
Progress Toward Outcome	Pilot demonstrations and documentation done on cotton and vegetable crops in Bukhara and Tashkent provinces as part of the TA scope. However, a detailed feasibility study (FS) at the national level has to be conducted to formulate sustainable mechanisms and options for cotton crop mechanization and crop diversification.
Implementation Progress	
Description of Project Outputs	1. Suitable financing arrangements for agricultural mechanization and crop diversification developed 2. Diversified cropping systems improved
Status of Implementation Progress (Outputs, Activities, and Issues)	Pilot demonstrations and documentation done on cotton and vegetable crops in Bukhara and Tashkent provinces as part of the TA scope. However, a detailed feasibility study (FS) at the national level has to be conducted to formulate sustainable mechanisms and options for cotton crop mechanization and crop diversification.
Geographical Location	National

Summary of Environmental and Social Aspects

Environmental Aspects	
Involuntary Resettlement	
Indigenous Peoples	
Stakeholder Communication, Participation, and Consultation	
During Project Design	The concept of the TA was shared with (i) other development partners, donors, United Nations agencies such as USAID, UNDP, JICA, WB; (ii) farmers' organization in Tashkent and Bukhara; (iii) water users' associations (WUAs); and (iv) a private sector agricultural machinery provider. They were supportive to the concept of TA.
During Project Implementation	Farmer's organization and WUAs are expected to participate in TA activities in various stages. TA findings are expected to be regularly shared with, or presented through workshops, with other agencies such as USAID, UNDP, JICA, WB as they initiated or will initiate their programs for crop diversifications.

Business Opportunities

Consulting Services	The TA requires 14 person-months of international consulting services and 39 person-months of national consulting services covering agricultural development, agricultural science, agricultural financing, agricultural engineering, agriculture and marketing economics, and capacity development. The consultants will be recruited through a firm using quality- and cost-based selection with a ratio of 80:20.
Procurement	All procurement will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time).

Responsible Staff

Responsible ADB Officer	Bui, Giap Minh
Responsible ADB Department	Central and West Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, CWRD
Executing Agencies	<i>Ministry of Agriculture and Water Resources Mr. Shavkat R. Khamraev, Deputy Minister, MAWR 4, Navoi Street Tashkent, 100004 Republic of Uzbekistan</i>

Timetable

Concept Clearance	11 Nov 2013
Fact Finding	05 Nov 2013 to 15 Nov 2013
MRM	-
Approval	13 Dec 2013
Last Review Mission	-

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Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
13 Dec 2013	06 Jan 2014	06 Jan 2014	31 Dec 2016	31 Mar 2018	-

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
1,000,000.00	0.00	200,000.00	0.00	0.00	0.00	1,200,000.00	13 Dec 2013	832,863.35

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