

Kyrgyz Agro-Input Enterprise Development Project

Cooperative Agreement 116-G-00-01-00034

Project Completion Report

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by



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Acronyms and Abbreviations

AAK	Association of Agribusinessmen of Kyrgyzstan
AAT	Agribusiness Association of Tajikistan
ABMC	Association and Business Management Center
ACTED	Agency for Technical Cooperation and Development
BSAIDD	Batken and Sughd Agri-Input Dairy Development Project
CABS	Central Asian Breeding Services
CAP	Certified Agribusiness Professional
CAR	Central Asian Republics
CPPs	Crop Protection Products (includes both chemical and biological)
GTZ	German Agency for Technical Cooperation
IFDC	An International Center for Soil Fertility and Agricultural Development
JICA	Japan International Cooperation Agency
KAED	Kyrgyz Agro-Input Enterprise Development
KAFC	Kyrgyz Agricultural Finance Corporation
LSPs	Local Service Providers
MASHAV	Israel's Center for International Cooperation
MOU	Memorandum of Understanding
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PSES	Private Sector Extension Services
SAK	Seed Association of Kyrgyzstan
SIDA	Swedish International Development Agency
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VAT	Value-Added Tax

KAED Project Completion Report

Executive Summary

In 2001, 10 years after the fall of the Soviet Union and Kyrgyzstan's independence, the agriculture sector remained mired in the transition from socialist to modern systems. Productivity was low because the hundreds of thousands of farmers newly awarded small plots of land could not obtain the agricultural inputs and technical advice they needed. Private sector markets were not functioning effectively. IFDC proposed an approach for developing a private sector agri-input supply network that would serve farmers' needs and help them increase yields and profits. Concerned over the stagnating rural economy and potential instability of the isolated Ferghana Valley region of southern Kyrgyzstan, the United States Agency for International Development (USAID) Mission to the Central Asian Republic (CAR) provided an initial grant to IFDC to develop legal and functioning private sector agricultural input markets where none existed.

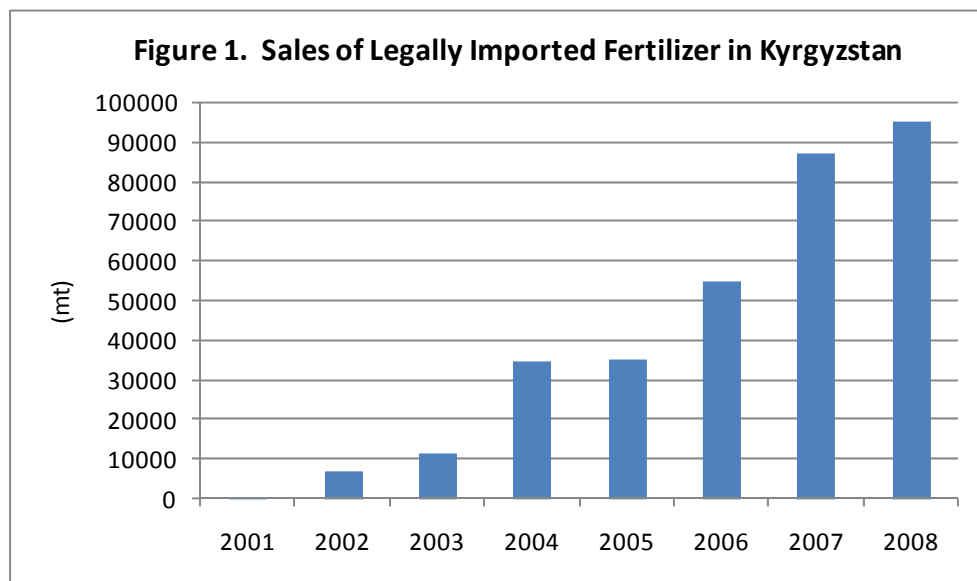
The pilot activities of the Kyrgyz Agro-Input Enterprise Development (KAED) project produced impressive results, including a dramatic increase in the use of improved seed and fertilizer and the formation of an effective trade association of agri-input dealers. USAID therefore extended the project life so that IFDC could scale up activities in southern Kyrgyzstan and strengthen the network of dealers and technology transfer. In 2006, USAID agreed to another project extension that would enable the lessons and successes in the south to be replicated and extended in the north.

The USAID KAED project lasted 7 years (the focus was on the south for 5 years—FY 02 to FY 06—and on the north for 2 years—from FY 07 to FY 08). USAID invested a total of \$4 million, which the project matched with another 30%. The return on the investment, in terms of increased crop production as a result of the project activities, is estimated at \$100 million. The keys to this success included:

- Capacity Building—KAED conducted 30 training programs a year that helped 9,100 dealers, farmers, and others improve their operations; 28% were women. The project nurtured a

strong, democratic, and sustainable trade association of 170 dues-paying members and \$120,000 in working capital. The members provide extension services and credit to farmers.

- Agri-Input Market Development—From a base of \$2 million, the project-supported dealers increased their turnover to \$45 million in 2008, opened 35 retail farm stores, and supplied modern inputs to more than 300,000 farmers. The growth in sales of legally imported fertilizer is depicted in Figure 1. The project fostered comparable increases in certified seed.



- Policy Reform—The agribusiness trade association fostered by the project has an important and unique private sector influence on agricultural policy. Through a historic partnership with the legislature, the association helped remove the 20% value-added tax on fertilizer imports, shape the new Kyrgyz agricultural strategy, amend the land laws to improve access to credit, and expedite the process for approving new varieties of seeds.

The KAED project served as a beacon for a private sector role in agriculture at a critical time in the transition of Kyrgyzstan. Despite the many challenges, particularly for the agri-input dealers and smallholder farmers in the south, the project was able to make a significant and lasting difference by supporting incentive- and market-based development; effectively transferring technology to farmers; working collaboratively with USAID and other donor partners to leverage resources, reach, and impact; and building foundation for food security.

KAED Project Completion Report

Introduction

Kyrgyzstan is one of the poorest of the former Soviet Union republics. When it became independent in 1991, Kyrgyzstan faced a host of interrelated and unprecedented development challenges after nearly 70 years under a centralized system. Agriculture has long been at the center of economic life in Kyrgyzstan, and more than two-thirds of the country's 5 million people live in rural areas. Kyrgyzstan is a small mountainous country in which only 7% of the land is arable. Southern Kyrgyzstan includes the oblasts of Jalal-Abad, Osh, and Batken, which are part of the Ferghana Valley, a highly populated area characterized by small farms (averaging less than half a hectare) under intensive agriculture. The area has good climatic conditions for agriculture but is isolated from major export markets due to a poorly developed transport infrastructure, the lack of an effective agro-processing sector, and the effective closure of the border for trade with Uzbekistan, in which 85% of the Ferghana Valley lies. Poverty and population density in the south were exacerbating social, ethnic, and political tensions.

Ten years after the breakup of the Soviet Union, Kyrgyz farmers still had no adequate, reliable, or legal supply of fertilizer, crop protection products (CPPs), and other inputs. Agricultural production had barely recovered to pre-1991 levels. Productivity remained low due to little use of modern inputs and technology. Fertilizer nutrient use fell from 130 kg per hectare in 1990 to 10 kg in 1995 and remained below 30 kg at the end of the decade. Farmers were applying some contraband nitrogen fertilizers from Uzbekistan but had not been using phosphorous or potash since Soviet times. The government and smugglers sporadically supplied fertilizer, all of which had to be imported. The Kyrgyz seed industry was mired in pre-transition patterns that were poorly adapted to the new farming structure. CPPs and farm equipment were scarce, expensive, unreliable, and inappropriate. Private fertilizer marketers had not emerged to provide the new private farmers ready access to agri-inputs and much-needed advisory services.

Along with marketing challenges (from both the government and illegal traders) and the difficulty of obtaining credit, the agri-input industry and emerging private agribusinesses faced a

host of tax, regulatory, and licensing problems. Without specific support, a formal private sector and efficient agri-input competitive markets were unlikely to emerge to fill the critical vacuums in agribusiness and spur vital increased productivity and rural incomes.

IFDC proposed a pilot project that would attempt to develop a private sector network of agri-input dealers to supply farmers in the southern Ferghana Valley of Kyrgyzstan with quality inputs and technology transfer. The project would demonstrate to farmers the profitable return from investing in improved inputs and farming techniques. The approach was based on the successful model developed by IFDC with support from the United States Agency for International Development (USAID) in Albania, which faced a similar situation in 1991. The proposed project would follow a proven set and sequence of activities:

- Assess the needs of farmers and the agri-input demand and supply situation.
- Identify potential agri-input dealers and train them.
- Organize field demonstrations with improved technologies.
- Produce technical brochures and conduct public outreach to increase production and stimulate farmer demand for inputs.
- Help dealers find supplies and credit, expand business, and provide extension services.
- Encourage the dealers to establish a democratic and sustainable trade association.
- Identify key issues for policy reform and conduct advocacy campaigns.

In response, the USAID Mission to the Central Asian Republics (USAID/CAR) awarded a grant to IFDC in October 2001. The 2-year pilot project, called USAID Kyrgyz Agro-Input Enterprise Development (KAED), was aimed at developing reliable private sector agri-input markets and enterprises that would serve the mainly smallholder farmers in the Ferghana Valley of Kyrgyzstan. The \$500,000-per-year pilot project was able to launch an effective private sector distribution network and technology transfer system where virtually nothing existed. The achievements and lessons of the pilot phase, or Phase 1, of KAED were described in the completion report submitted to USAID in October 2003. They included:

- 52 fertilizer, seed, and CPP-related training workshops and seminars in the south for 2,200 dealers, farmers, and agricultural experts.
- Yield increases in project areas of 30% for wheat, 25% for maize, and 35% for potatoes.

- Introduction of new products such as NPK 10-26-26 and significant increases in legal imports of fertilizer and sales of certified seed.
- A crop diversification program by introducing soybeans and vegetable crops suitable for labor-intensive farming systems.
- A prospering trade association of agri-input dealers with democratically elected leaders, members trained in providing extension services to farmers, and an effective advocacy proponent for policy reform, such as the removal of the value-added (VAT) tax on inputs.
- A policy analysis matrix study that assessed the comparative advantage of the main field and vegetable crops in southern Kyrgyzstan.
- A comprehensive training program for dealers and progressive farmers in vegetable cultivation, orchard management, and the safe use of CPPs.

The pilot project achieved better-than-expected success under difficult circumstances. Given the critical need for progress in the agricultural sector in the heavily populated and restive Ferghana Valley region, USAID awarded a 3-year extension of KAED, or Phase 2, beginning in October 2003. The purpose of the extension was to build on the previous achievements in the south and, in particular, help build the capacity of the nascent Association of Agribusinessmen of Kyrgyzstan (AAK) to become financially sustainable and equipped to serve its members and their farmer customers. The project also increased efforts to convince farmers to adopt improved inputs and farming techniques through field demonstrations, brochures, and public outreach.

IFDC requested and was granted another extension in October 2006. The purpose was to replicate activities in northern Kyrgyzstan that had worked so well in the south. The capable AAK became independent from the project, but remained the major local service provider (LSP) for the project. The KAED office moved from Osh to Bishkek, with an agronomist remaining in the south to continue providing services for farmers and dealers. The focus was on training agri-input dealers in the north, opening farm stores proven to be popular with farmers in the south, and conducting technology transfer work and demonstrations on key food and feed crops in northern oblasts. This extension, or Phase 3, added an additional 23 months to the project cycle.

With Kyrgyzstan facing a severe food crisis in 2008, IFDC proposed and USAID agreed to a new cooperative agreement (116G-08-18) beginning September 2008 to build on the platform and relationships of the KAED project. The new 2-year project, KAED II (or Phase 4), focuses directly on food security by increasing the productivity of the main staple crop, wheat, and of livestock feed and dairy cows.

This completion report covers the 5-year period of Phases 2 and 3 of the KAED cooperative agreement 116G-01-34 (from October 2003 through August 2008). USAID provided an additional \$3 million to fund implementation for the two phases, for a total of \$4 million for KAED. The project was able to match that with \$1.15 million, or nearly 30% of the grant, in cost contributions and leveraging of other programs.

IFDC submitted regular quarterly reports and workplans throughout the implementation period that describe activities and accomplishments. The reports also provide details on the results against the targets agreed upon with USAID in the annual workplans and performance monitoring plans. The project also provided data for the annual USAID reporting requirements at the end of each fiscal year.

This end-of-project report highlights the objectives and achievements of each of the two phases in Section A. In Section B, the report provides an overview of the impact, lessons, best practices, and problems during the 5-year period that could serve other USAID projects. The performance monitoring plan with cumulative results and a list of project reports and international short-term technical assistance providers are attached.

A. Objectives and Achievements

The goal of KAED was to stimulate Kyrgyzstan's growth in agricultural output by promoting private sector investment in agricultural input technologies and marketing. The purpose was to establish open and competitive markets and dealer networks as the primary mechanisms to improve farmers' access to appropriate agricultural technologies for accelerated growth in agricultural production.

A.1. Objectives and Achievements of KAED Phase 2—2003–2006

Phase 2 of KAED built on the foundation and momentum of the pilot work in the three oblasts of southern Kyrgyzstan that share the fertile Ferghana Valley with Uzbekistan and Tajikistan. The objective was to expand the quality, quantity, and delivery network of agricultural inputs in the south, and thereby help farmers improve the productivity and profitability of agriculture, which in turn would reduce rural poverty and increase social stability in the region. The project strengthened AAK, a grassroots trade association of private agribusinesses that KAED helped nurture from the bottom up to imbue it with the capability to deliver appropriate and high-quality inputs and information to farmer customers.

The main objectives of KAED Phase 2 were to position and enable AAK to provide communication, education, advocacy, and other useful services to dealer members. The dealers, in turn, were trained, better equipped, and motivated to improve the availability of quality inputs, technology, and value-added services for farmers. The objective was to increase agricultural productivity, rural incomes, and food security. The activities of the project contributed to achieving USAID Mission Strategic Objective 1.3 by promoting the expansion of a private sector-led economy and the growth of successful small and medium enterprises.

Phase 2 had four program components:

1. Trade association development, including policy reform advocacy.
2. Agribusiness development, including support for commodity value chains.
3. Agronomic and animal husbandry technology transfer.
4. Public outreach through the media and publications.

AAK served as the vehicle and vector for strengthening agri-input market development and distribution. The aim was to improve the productivity and profitability of the entire

agricultural base with special emphasis on high-value crops and commodity chains. The idea was also to promote commercial agriculture of competitive crops, which could serve as a stimulus for farmers to adopt improved technologies that would increase incomes and reverse the low-input, low-output spiral. With project support, legal imports and sale of fertilizer increased from 749 mt in 2001 to 35,000 mt in 2005 and 55,000 mt in 2006. The use of high-quality vegetable and potato seeds increased comparably. As a result of better access to improved quality agri-inputs and technologies, farmer beneficiaries of the project were able to increase productivity by 50%. The value of the additional production to the economy exceeded \$80 million.

Training programs for dealers included a range of relevant subjects—technical, business, marketing, organizational, and extension methodology. Once convinced of the economic benefits of providing reliable and valuable services to farmers, the AAK members engaged sub-dealers, opened retail farm stores, formed an effective private sector extension cadre, and expanded their investments. AAK grew to 128 dues-paying members, held annual elections and general assemblies, and set the stage for continued technology transfer in the south. Organizationally and financially sustainable (with \$100,000 in reserves and a revolving credit fund of \$110,000), AAK became independent from the project in 2006.

KAED achieved breakthroughs in policy reform. Through the advocacy efforts of AAK with project support, the Government of Kyrgyzstan removed the 20% VAT on fertilizer and CPPs in 2005 and seeds in 2007. KAED also guided AAK in obtaining a memorandum of understanding (MOU) and cooperation with the Kyrgyz Parliament, which granted the association the right to review and help draft laws and regulations concerning the agriculture sector. This was the first such MOU ever signed by the Kyrgyz legislative body with a private sector organization, and its existence helped AAK deter the government from direct fertilizer imports from Russia that would undermine the private sector.

“The Association of Agribusinessmen of Kyrgyzstan established with support of KAED is bringing changes to Kyrgyz agriculture. Farmers trust AAK and the project because of their professional attitude and right actions. AAK’s request to remove the VAT on agriculture has full support of the Agricultural Committee of Kyrgyz Parliament.”

Juraev Jurubay Jurajevitch, former Head of Agricultural Committee of Kyrgyz Parliament, current Kyrgyzstan Ambassador to Uzbekistan, at the AAK General Assembly Meeting, August 2004, Osh, Kyrgyzstan

The project achieved good visibility and concurrent appreciation for USAID support through popular agro-expos, annual AAK General Assemblies, widespread distribution of technical brochures, field demonstrations, training for thousands of technology multipliers, monthly newsletters directly reaching 2,000 people, and use of the media for public outreach activities. KAED also helped train the Seed Association of Kyrgyzstan (SAK) and connected the AAK members with counterparts in northern Tajikistan, which contributed to increased farmer access to agri-inputs and encouraged the formation of a counterpart dealer network there.

A.2. Objectives and Achievements of KAED Phase 3—2006–2008

“KAED is the only project in Kyrgyz agriculture that has helped farmers directly through supplying high-quality inputs at affordable prices. What KAED has done in southern Kyrgyzstan is very much appreciated by the Government of Kyrgyzstan. The Ministry of Agriculture of Kyrgyzstan endorses your efforts and would like to see KAED in northern Kyrgyzstan soon.”

Abdumalik Anarbayev, former Minister of Agriculture of Kyrgyzstan, at a meeting with partner projects and donors, May 2005, Bishkek, Kyrgyzstan

Phase 3 of KAED began in October 2006 following a request by IFDC for additional funding to enable the project to extend and replicate its work in northern Kyrgyzstan. This phase, which ended in August 2008, had six program components:

1. Strengthening input supply systems and markets.
2. Technology transfer and private sector extension services (PSES).
3. Linking farmers to output markets and value chain development.
4. Improving business skills, services, and access to credit for Kyrgyz agro-entrepreneurs.
5. Promoting policy changes that benefit the agricultural sector and encourage public-private partnerships.
6. Building capacity of LSPs.

The project succeeded in transplanting in the north the proven techniques from the south. Though the focus shifted north, the project maintained an agronomist and worked with AAK, the Agency for Technical Cooperation and Development (ACTED), and other partners in the south to continue progress in supply and use of agri-inputs, adoption of better farming techniques, public outreach, and human capacity building. In the fall of 2007, the project commissioned an independent team of trained students to conduct surveys of agri-input dealers and their farmer customers and to evaluate their productivity compared with a control group of other farmers. Reports on the results of those surveys were submitted to USAID. They describe the tangible benefits directly and indirectly attributable to project activities and help measure the project's performance against the results indicators and the economic impact. Examples of significant measurable progress included:

- Total sales of mineral fertilizers in Kyrgyzstan increased by 58% during FY 07 (87,000 mt sold in 2007 compared with 55,000 mt in 2006, despite higher world prices). AAK members imported for the first time 6,000 mt of compound fertilizer for commercial sale, indicating increased demand for quality inputs.
- Sales for both hybrid and improved varieties of imported certified seed increased by 48% in 2007. Certified seed produced domestically increased by 24% in 2007.
- The AAK customer base increased to 230,000 farmers in 2007 compared with 140,000 in 2006, due mainly to the new KAED work in the north.
- Average incomes for AAK farmer customers increased in 2007 by 48% (which meant an additional \$100); for non-customers, the increase was 23%.
- Between 2006 and 2007, the gross revenue per hectare from the sale of irrigated crops increased from US \$50 to US \$97 or 95% for customers. Revenue increased from US \$46 to US \$56, or 23% among non-customers.
- Aggregate fertilizer use among customers and non-customers increased by 40% and 14%, respectively, between 2006 and 2007.
- Ten new retail farm stores opened during 2007 with KAED's assistance. The stores serve 22,000 additional farmers. As a result, the distance traveled by farmers to buy quality inputs in 2007 was reduced to 3.2 miles for AAK customers. Other farmers had to travel 9 miles to obtain inputs.
- Dealers supported by the project invested \$11 million in new warehousing in 2007.

The project and AAK dealers served an additional 100,000 farmers in 2008 for a total of 330,000. Fertilizer imports in 2008 totaled 95,000 mt, or 8,000 mt more than in 2007, despite record high world market prices. The two major CPP companies in the country increased sales by 65% in 2008 compared with 2007, and certified seed sales grew by 25% in 2008.

During FY 08, the project helped establish 7 more farm stores, bringing the total to 35 (21 in the south and 14 in the north) by August 2008; another 10 stores are in the planning stage to open during FY 09. The project provides technical assistance but no monetary support to the farm stores, which are completely financed by the dealers. The project does assist in marketing the stores, link them with the field demonstrations, and organize the opening ceremonies, which give prominence to USAID.

During 2007 and 2008, KAED also:

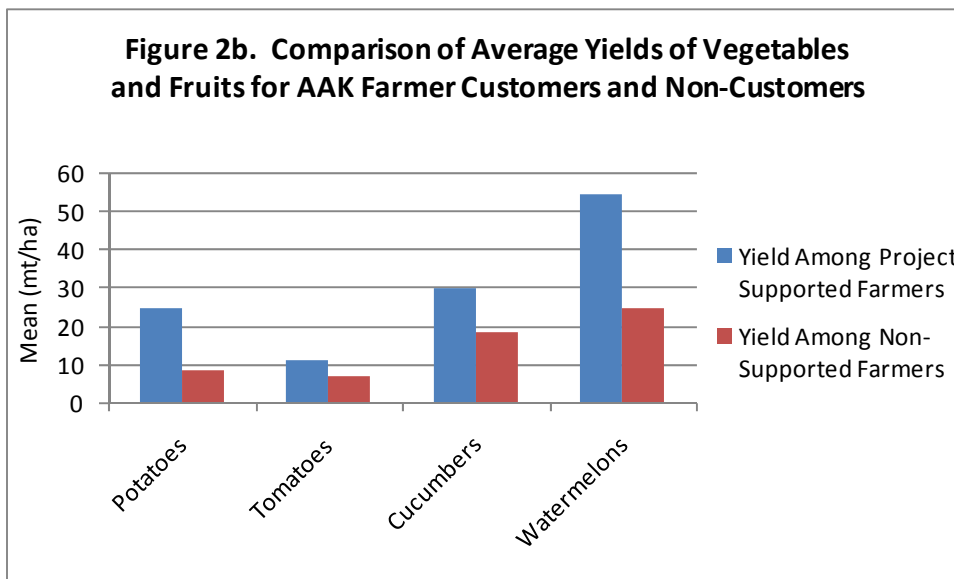
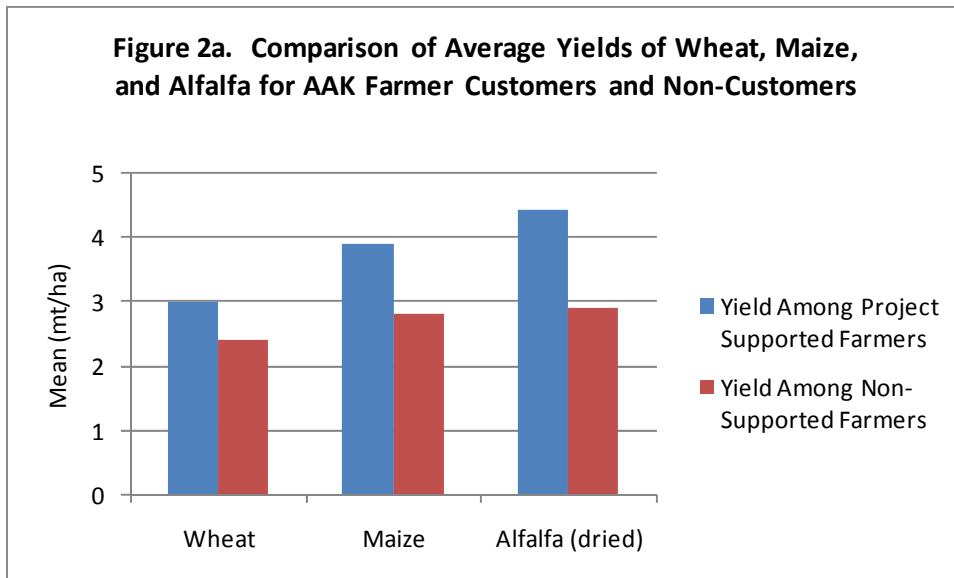
- Initiated and conducted two Certified Agribusiness Professional (CAP) programs for 50 participants from the private sector (e.g., trade association executives, consultants, farm managers). The innovative programs, which help fill a critical human resource gap, provided advanced training over a 7-month period in leadership, planning, financial management, personnel management, advocacy, marketing, and technical issues (including safe use of CPPs).
- Achieved success in the struggle against contraband and low-quality CPPs from neighboring countries and convinced Chinese suppliers to translate the instructions on safety and use into Russian so dealers and farmers could read them. The project prepared a Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP) that was lauded by USAID in Almaty and Washington, D.C. It can serve as a model and be adapted for other countries in Central Asia.
- Conducted effective work on input distribution systems and food security-related technology transfer for wheat, feed crops, and dairy cows that enabled the project to respond quickly to the food crisis needs and opportunities.

B. Impact, Lessons, and Problems

B.1. Impact

KAED produced important measurable, sustainable, and intangible benefits for agricultural development in Kyrgyzstan. Through persistent efforts and demonstrable results, the project helped transform old Soviet thinking into a market-oriented approach to agribusiness. For example, a viable agro-dealer network encouraged the government to let the private sector handle the supply of fertilizers, CPPs, and to some extent, seeds, and to refrain from intervening in the markets for agricultural produce. The project work and related public outreach efforts helped convince farmers and agro-entrepreneurs that despite the many obstacles, they could earn a profit by investing in agriculture.

- The project has reached more than 330,000 farmers who were receptive to new technologies and willing and able to become commercial farmers. The increases in productivity and incomes, as documented in the independent surveys, motivated others and contributed to the overall well-being of rural areas and the country as a whole by an estimated \$100 million in increased agricultural production.
 - The AAK dealer network offers quality inputs to the 330,000-farmer customer base. Each of the 35 farm stores established by the major dealers serve an average customer base of 2,700 farmers (or about 95,000 farmers).
 - KAED organized an average of 28 training programs for 1,300 dealers, farmers, and other stakeholders annually, for a total of 9,100 participants. Many of the trainees were trainers who serve as multipliers of technology transfer.
 - More than 28% (or 2,500) of those trained were women. The project made special efforts to identify women dealers, and 76% of the dealers and farm store owners in the 2007 survey were women. The Executive Director of AAK is a prominent woman who has been active and influential in national agricultural policy and gender fora.
 - The dozen or more field demonstrations each year convinced farmers that they too could increase their crop yields—and profit from doing so, as depicted in Figures 2a and 2b.



- KAED met its primary objective of developing private sector input markets and establishing effective dealer networks to serve farmers, which is evident by the increases in legal importation of quality fertilizer and CPPs and in the sales of local and imported certified seeds. For example, fertilizer imports increased steadily each year, from 11,600 mt in 2003 to 95,000 in 2008. The input sales by the farm stores quadrupled over the past 2 years. From a base of \$2 million, AAK dealers increased turnover to \$45 million in 2008.

- The project linked the relatively small and isolated Kyrgyz input market with reputable international suppliers, resulting in more than 40 new business relationships valued in the initial stages at more than \$4 million. Activities that opened doors for new businesses and products included 10 targeted trade missions to Europe, Russia, China, India, Turkey, and Kazakhstan, four annual agro-expos in Osh hosting an average of 35 international suppliers, and invitations to leading companies to demonstrate their products.
- The establishment of an effective and financially independent AAK helps ensure sustainability of the input supply system, technology transfer to farmers, and a voice for advocacy of policy reform. AAK became the primary LSP for the project and successfully lobbied for policy reform on inputs and land tenure and for a voice in agricultural strategy.
- KAED generated widespread recognition and appreciation in Kyrgyzstan of the USAID contribution to national development through use of media, publications, success stories, and highly visible events. These events include the four agro-expos in the south, which thousands of people visited, annual AAK General Assemblies, farm store openings, and visits by senior U.S. Government officials (as described in the branding strategy and marking plan).

The fourth annual “Silk Road AgroExpo” agricultural exhibition was held in Kyrgyzstan’s Osh Province, February 27–29, 2008. Hosts were the USAID-funded KAED project and the AAK. Silk Road fostered linkages between the international agricultural sector and regional agro-dealers to improve commercial relations in the Ferghana Valley of Kyrgyzstan, Uzbekistan, and Tajikistan.

“Dealers were able to buy inputs at better prices before the planting season started, which allowed them to have better margins,” says Hiqmet Demiri, IFDC Agribusiness Specialist and KAED Chief of Party. “This was also beneficial to the farmers, because inputs were available on time.”

“Silk Road was a unique opportunity to distribute information about my store and establish new business contacts with suppliers of seeds and crop protection products,” says private entrepreneur Habbibula Halikov, AAK member and owner of the farm store “Orunbai” in Osh.

Participants also learned successful business management practices. More than 200 people attended training sessions on establishing cooperatives, organizing exhibitions, and veterinary laws. Entrepreneurs established \$100,000 in business contracts during the exhibition. More than 2,000 people visited the exhibition, and 43 companies were represented from Germany, Ukraine, Iran, Kazakhstan, Netherlands, Russia, India, Uzbekistan, and Kyrgyzstan.

B.2. Best Practices and Lessons

A variety of factors affect the success of any agricultural project. Many factors are outside the control of those implementing the project, such as geography, history and culture, infrastructure, weather, business environment, and government policies. Any assessment is complicated by trying to measure the incremental attributable results and impact and by judging the effectiveness of one project with another. Compared with the objectives and the Performance Monitoring Plan (Annex 1), the KAED project exceeded expectations in almost all respects and may offer some lessons and best practices that will be useful for other USAID projects. Among these are:

Dedicated Focus on the Private Sector, Market Forces and Sustainability—From the beginning, KAED sought to identify, train, and build the capacity of private individuals who could serve as reliable and effective dealers of agricultural inputs. The activities to develop the virtually non-existent supply of legal and quality inputs in the south were based on open and competitive markets and business incentives. The dealer network, established in AAK, serves as the channel to increase farmers' access to inputs and related farm system improvements. The project helped establish and train the SAK and worked with Central Asian Breeding Services (CABS) and other private entities.

- KAED used every opportunity to expose dealers to modern business practices and to provide continuous training and special programs such as the innovative CAP. The dealers responded as expected to economic incentives and opportunities. The training equipped them to expand business despite the many hurdles and to serve thousands of poor, smallholder farmers.
- The project maximized the use of Kyrgyz private sector expertise in livestock, agronomy, and other fields for short-term technical assistance in order to develop their capacity and sustainability of services to farmers.
- KAED initiated cost-sharing and user fees at the early stages to wean dealers and others from expecting free services. In addition to the requirement for dues, AAK members had to contribute to the cost of events such as trade missions. That enabled AAK to accumulate working capital of \$120,000 and become independent in 2006.

Continuity—USAID/CAR understood that it would take time to transform the old Soviet system and thinking into a market-oriented approach to input distribution and commercial production of crops. USAID enabled IFDC to scale up the pilot project in the south and then extend work into the north. IFDC, in turn, ensured continuity by engaging the same staff; for example, prior to assuming resident project responsibilities in early 2007, the current Chief of Party served as a frequent short-term consultant and project manager at Headquarters. Similarly, project direction has been guided at IFDC by the same staff members since the initial design phase. Some key national staff members have also been with the project or employees of AAK since the inception of the project.

Collaboration and Leveraging of Resources—The KAED project was able to generate the equivalent of an additional 30% of the USAID grant in cost contributions from project beneficiaries and partners. From the beginning, KAED worked closely and effectively with USAID national and regional projects in order to complement agricultural development objectives, extend project reach and impact, and leverage resources. The quarterly reports describe the mutually beneficial joint activities that contributed to the progress. For example, the project tapped the USAID Farmer-to-Farmer program and Israel’s Center for International Cooperation (MASHAV) program for international experts, engaged the services of a Peace Corps Volunteer for 2 years, and took advantage of USAID, United States Department of Agriculture (USDA), and U.S. Department of Commerce exchange programs. AAK dealers won new business and reached more farmers through collaboration with other donor projects, including ACTED, Swedish International Development Agency (SIDA), German Agency for Technical Cooperation (GTZ), and Japan International Cooperation Agency (JICA). Collaboration also led to the establishment of the SAK and progress toward harmonized CAR regional seed regulations. The project also encouraged dozens of international private companies to conduct workshops at their own expense to introduce new products.

The KAED project organized an outdoor agricultural equipment show in June 2007 in Chuy, Kyrgyzstan. The field day was funded by USAID in collaboration with the German company, Amazone Ltd.

Such forums help develop agro-industrial companies, cooperatives, and farms in Kyrgyzstan. The field days link dealers and farmers to agricultural machinery manufacturers, demonstrate quality agricultural equipment, and help reduce input and operating costs. Participants visited demonstration fields and observed improved cropping and harvesting machinery and new technologies.

“A shortage of agricultural machinery and lack of up-to-date technology are the main problems of Kyrgyz agriculture,” said Kambaraly Kasymov, First Deputy Minister of Agriculture, Water Management, and Reprocessing Industry, in his opening remarks.

Ken McNamara, a USAID representative for the Central Asian Republics, and Dr. Hiqmet Demiri, KAED Chief of Party, also addressed the farmers and representatives of agricultural cooperatives, financial institutions, international organizations, and technical service companies. “The field day encouraged establishment of an association of agro-technical service companies that will lobby for the interests of agricultural machinery and technical service companies in Kyrgyzstan,” Demiri said.

As a result of the 1-day outdoor show, the Amazone representative in Kyrgyzstan sold a seeding machine for €22,000 (\$30,323) and agreed to supply two seeding machines and one fertilizer spreader. “The total amount of deals concluded at the field day came to €80,700, or \$111,232,” said Manas Samatov of Amazone. “Farm shows like this are an excellent way to promote products to customers,” Manas said. “It’s better for farmers to see a product in person than in a magazine.”

Technical Credibility—Over the years, KAED built confidence and trust among dealers, farmers, local and foreign private agribusiness firms, public agencies, LSPs, and donor agencies. They respected the technical knowledge of project staff and consultants and the ability of the project to deliver real benefits. These benefits were demonstrated in the increased access to inputs, quality of the extensive training programs and brochures, credibility of demonstration fields, and the tangible results of transferring technology and scientific recommendations. This appreciation, along with the participatory approach and emphasis on AAK as a local organization, made the project an attractive partner and gained it influence in policy circles.

Shared Experiences—To help train and inspire the nascent AAK, counterparts from the successful USAID project in Albania implemented by IFDC were invited to discuss their experiences with AAK members. The Albanian agri-input dealer trade association and apex advocacy coalition of agricultural trade associations continue to function well nearly 5 years after the USAID project and support ended. AAK, in turn, became the trainer for dealers in the Batken Oblast and for the emerging Agribusiness Association of Tajikistan (AAT), which IFDC helped establish under the Batken and Sughd Agri-Input Dairy Development (BSAIDD) project (a component of the USAID AgFin+ project). Business relationships blossomed and continue to

benefit both countries. AAK also helped establish the SAK, supported by SIDA, some of whose members also belong to AAK. (An IFDC project in West Africa sent a delegation of dealers to Kyrgyzstan to learn from AAK.)

B.3. Problems

The challenges to agricultural development in Kyrgyzstan are well known and described in many documents. In most cases, the project was able to adapt to the difficult environment for agribusiness and work around the many natural and human obstacles, including corruption, government interference in the seed sector, and the policies of neighbor Uzbekistan that restrict logical trade flow, especially in the Ferghana Valley.

Perhaps the major limitation to even better results and impact for KAED is the scarcity of credit, which is essential to any progressive agricultural system. The KAED team worked energetically to assist client dealers in obtaining credit from the few providers of agricultural finance such as the Kyrgyz Agricultural Finance Corporation (KAFC), Bai Tushum, Mercy Corps, and other microlending programs. The project initiated a credit guarantee scheme with KAFC to help reduce the onerous interest charges and collateral requirements. That was not sufficiently useful, so a revolving credit line was launched that is now managed by AAK.

The project was able to help nine agri-input dealers obtain a total of \$540,000 in commercial credit and encouraged all dealers to extend credit to farmer customers. According to the 2007 survey, project-supported dealers were providing an average of 49 loans to farmer customers, an increase of 36% from 2006.

The continued difficulty in gaining access to credit, especially with the past year's exceptionally high input prices, has limited the extent to which modern agricultural inputs are used. For example, Kyrgyz farmers, mainly smallholder and subsistence, apply less than one-fourth of the fertilizer and quality seed needed to achieve potential crop yields, because the cost makes them out of reach. Without credit, they cannot afford even simple machinery that would increase efficiency. As a corollary, farmers are not willing to pay for extension services.

Because of its reputation and knowledge of the agricultural sector, the KAED team was subject to many non-project demands. The team was asked to provide advice and presentations to other projects and to the many visiting missions of the World Bank, Asian Development Bank, and other organizations; help coordinate the Ferghana Valley Agricultural Initiative; and respond to new opportunities (e.g., in the tomato industry). At times, the transaction costs were high, and the relatively small staff and resources were spread too thinly. The new phase of KAED that began in September 2008 is more focused in two key food security areas—wheat and livestock feed and the agri-input and technology transfer systems that support them.

Conclusion

The KAED project served as a beacon for private agribusiness development in Kyrgyzstan at a time when there were few incentives and opportunities. Input markets were dysfunctional and informal; most government officials were socialist-oriented; and donors tended to provide free services and conduct activities that, inadvertently or otherwise, undermined private sector initiative and competition. The environment was often more conducive to “ghost projects,” misguided loans and grants, bureaucratic entanglements, and ineffectual activity than to measurable success and enduring impact. Thanks to the durable support and confidence of USAID in the project approach, KAED was able to make a real difference in the lives of thousands of farmers and to influence some aspects of the evolution of Kyrgyz agriculture. There is still a long road ahead before food security is reached and modern practices become the norm, but KAED was instrumental in laying some of the foundation for future success.

Annex 1. KAED Results Framework as of August 31, 2008

Program Activity Areas Indicators	Unit of Measure	2001/02 Original Baseline	Results as of 9/2006	FY 07	FY 08	End of Project Total	% Change Relative to Results in FY 06
1. Program Area I: Strengthening Input Supply Systems and Markets							
IR 1.1 Sales of agri-inputs nationwide increased	\$ million	2.11	27	37	45	45	+60
IR 1.2 Legally imported agri-inputs (mainly fertilizer) by project partners	mt	40	57,000	90,000	97,000	244,000	+330
IR 1.3 Additional retail stores opened.	#	0	21	4	10	35	+67
IR 1.4 AAK and other businesses that generate revenue more than \$10,000/year increased.	#	9	19	2	2	23	+21
IR 1.5 Average of compound fertilizer sales by AAK members and other entrepreneurs increased.	mt	116	228	20	30	278	+22
IR 1.6 New agri-inputs introduced to Kyrgyz market.	#	0	22	3	3	28	+27
IR 1.7 Certified seed sales increased.	mt	3,000	4,700	1,000	1,000	6,700	+42
IR 1.8 Elite seed transaction cost reduced.	\$	0.17	0.25	0.0125	0.0125	0.23	10% reduction
IR 1.9 AAK customers' base increased.	#	13,847	140,000	90,000	100,000	330,000	+136
IR 1.10 Farmers exposed to advanced livestock management practices.	#	N/A	N/A	100	200	300	N/A
2. Program Activity Area II: Technology Transfer and PSES							
IR 2.1 Productivity of maize increased.	mt/ha (grain)	4.0	5.4	0.5	0.7	6.6	+22
IR 2.2 Productivity of potatoes increased in project areas.	mt/ha	9	14	3	4	21	+50
IR 2.5 Potato varieties for chips production identified, submitted to National Seed Committee for registration, and certified.	#	N/A	4	1	1	6	+50
IR 2.6 Technology packages for three major commodities (e.g., wheat, maize, triticale, potato, and tomato) developed by KAED and introduced to farmers in project areas.	# of participants	100	3,000	1,000	1,000	5,000	+66
3. Program Activity Area III: Linking Farmers to Output Markets and Value Chain Development							
IR 3.1 New business linkages with international and regional input suppliers established.	#	0	8	3	4	15	+90
IR 3.2 Foreign companies assess the Kyrgyz market and express interest in long-term investment in input supply.	#	0	3	1	2	6	+100

Program Activity Areas Indicators	Unit of Measure	2001/02 Original Baseline	Results as of 9/2006	FY 07	FY 08	End of Project Total	% Change Relative to Results in FY 06
IR 3.3 Smallholders linked to processors as a result of application of advanced technologies and inputs.	#	0	500	200	300	1,000	+100
IR 3.4 With other USAID and donor projects, work with processing facilities to develop niche market commodities (e.g., tomatoes for sauce, potatoes for chips, baby red beets, peanuts) to link processors with small producers.	# of processing companies	0	3	1	2	6	+100
IR 3.5 Assets of AAK members increased (dealer average)	\$	23,000	26,000	12,000	14,000	52,000	+100
4. Program Activity Area IV: Strengthening Business Skills and Services for Kyrgyz Entrepreneurs and Improve Access to Credit							
IR 4.1 AAK member domestic investment in upgrading input infrastructure increased (dealer average)	\$	13,000	17,000	18,000	20,000	55,000	+223
IR 4.2 Input dealers upgrade business skills through trainings nationwide.	#	0	150	130	120	400	+100
IR 4.3 Nine AAK members receive loans from commercial banking sector. (dealer average)	\$	4,000	30,000	13,000	17,000	60,000	+100
IR 4.4 AAK members extend loans to farmers customers.	% of members	30	33	5	5	43	+30
5. Program Activity Area V: Promoting Policy Changes That Benefit the Agricultural Sector and Build Public-Private Partnership							
IR 5.1 Input regulatory policy changes advocated.	#	0	1	1	1	3	+200
IR 5.2 New seed varieties from international companies submitted to National Seed Registration Committee.	#	0	8	3	3	14	+75
IR5.3 Input companies adopting internationally accepted labeling standards in the project areas increased.	#	N/A	2	2	2	6	+100
6. Program Activity Area VI: Strengthening Local Service Providers							
IR 6.1 Local Service Providers (LSPs) supported by KAED expand their business.	#	N/A	1	3	3	7	+600
IR 6.2 Facilitated linkage discussions between LSPs and business enterprises.	#	0	0	8	6	14	N/A
IR 6.3 International companies that contract services from LSPs.	#	N/A	1	5	3	9	+800

Annex 2. Examples of Reports and International Short-Term Technical Assistance

A. Reports

KAED Phase 1 Project Completion Report—October 2003

Quarterly Reports (20) during FY 04–08

Policy Analysis Matrix—Comparative Advantage of Agricultural Production in Southern Kyrgyzstan—October 2003 by IFDC staff Dilshod Abdulhamidov and Carlos Baanante

Position Paper on Alternative Designs to Compulsory Seed Variety Registration by consultant Jim Stanelle—2005

Report on the Animal Feed Sector by Ylli Bicoku, IFDC staff consultant, October 2007

A Baseline and Impact Survey of Customers and Non-Customers of KAED Agro-Input Dealers—November 2007

A Survey of KAED Agro-Input Dealers: An Impact Survey of the KAED Northern Extension Project in FY 07—November 2007

Presentations to USAID and other donors and partners by Chief of Party Hiqmet Demiri, such as:

- Roundtable of USAID Project Partners on Livestock Issues—June 2007
- Roundtable of Donors Organized by the World Bank on KAED—July 2007
- Overview of the Fertilizer Situation for Donors—April 2008

B. International Short-Term Technical Assistance Experts

Gil Nir—farm store expert

Ed Beaman—agricultural trade association expert (cost shared with the USAID Enterprise Development Project)

Yosi Galon—3 months consulting on greenhouses and drip irrigation in the Ferghana Valley (cost shared with MASHAV)

Stavros Androlidakis—extension specialist and collaboration with agricultural colleges (cost shared with European Union Tempus)

Hiqmet Demiri—IFDC crop and extension specialist (multiple visits)

Zydi Teqja—trade association coalition building for advocacy of policy reform (executive director of the apex trade association organization called KASH in Albania)

Jim Stanelle—seed production, marketing, and registration specialist

Tom Thompson—IFDC monitoring and evaluation, baseline, and MIS survey specialist

Multiple Farmer-to-Farmer Volunteers provided under the USAID program implemented by Winrock

Triton Cako—executive director of the Association and Business Management Center (ABMC), Albania

Upendra Singh—IFDC soil scientist—soil sampling and fertilizer recommendations

Ylli Bicoku—IFDC livestock specialist—livestock feed and dairy care cow (multiple visits)

Erin Raizman—livestock epidemiology and dairy farm management (Purdue University)

Dan Waterman—IFDC specialist on report preparation, performance monitoring plans, and training