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AGRICULTURAL LINKAGES PROJECT (AGLINKS UZBEKISTAN)

ANNUAL REPORT (FY 2009)

OCT 2008 – SEP 2009

OCTOBER 2009

This publication was produced for review by the United States Agency for International Development. It was prepared by DAI.

AGRICULTURAL LINKAGES PROJECT

(AGLINKS)

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U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

RAISE Plus IQC

Contract No. EDH-I-05-00004-00

Task Order No. EDH-I-07-05-00004-0

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

The purpose of this Annual Report is to “summarize key developments” during the 2009 Fiscal Year reporting period (01 October 2008 through 30 September 2009) as per the requirements of Section F.4.(b) of the AgLinks Project Task Order (T.O. # EDH-I-07-05-00004-00). FY 2009 was the first full agricultural season for the AgLinks Project in Uzbekistan. The project gained experience throughout the year with a variety of actors in the agricultural sector in Uzbekistan, particularly fruits and vegetables. These actors included farmers, market agents, processors, sales agents and public food safety and agricultural support officials. The structure of Uzbek agriculture also experienced significant change in FY 2009 as the calendar year 2009 (CY 2009) was declared the “Year of Rural Improvement and Welfare” within which agriculture certainly had a role.

As per the contract mandate to summarize key developments in the reporting period, this report presents a number of themes that project staff have identified throughout the last twelve months. Each theme is presented within one of three thematic areas (production, processing and marketing) and are subsequently developed with the impacts and opportunities identified from the project perspective. Preliminary results from the 2009 agricultural season are included with final performance monitoring data to be provided once the complete data is received in Tashkent from the field collection agents. Monitoring data are not complete at this writing due to the continuation of agricultural activities at the end of October. Annexes are also provided with a summary of the proposed environmental assessment information for FY 2009 activities and gender information resulting from project activities in FY 2009. Two proposed Success Stories are also included in Annex.

The major developments discussed below draw on the AgLinks team member experiences in implementing the project over the last 12 months. Observations draw upon the material presented in the regular monthly and quarterly reporting previously submitted. The present report focuses more on broader general developments that have and will continue to impact the project. The objective in this report is to step back from the regular reporting to identify more macro trends and opportunities that confront AgLinks in Uzbekistan.

I. BACKGROUND

The AgLinks Project in Uzbekistan is the sole remaining country program of the five-country regional AgLinks Project begun in July 2007. Four of the five country programs in Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan were closed at USAID’s convenience in July 2008. The Uzbek program held its official launch ceremony in June 2008 due to expatriate staff turn-over and country registration issues. In late August 2008 a new expatriate project director was in Tashkent and the FY 2009 work plan submitted in September 2008 with programmatic activities commencing in cycle with the fiscal year. Hence, FY 2009 was the first full agricultural year of AgLinks operations in Uzbekistan.

A. Project Focus.

The project is focused on horticultural value chain support particularly within the fruit and vegetable sectors. Special emphasis is given to stone fruits (ex., peaches, plums, cherries, apricots, etc.) and grapes. These crop commodities were chosen principally because they had the least amount of state control and were more closely market-linked. Cotton and wheat are subject to production orders (i.e., quotas) and are state dominated. The project targeted eight specific districts within the geographic provinces of Ferghana, Namangan, Samarkand and Tashkent for support activities. Stone fruits predominate within the Ferghana Valley (Ferghana and Namangan provinces) and grapes outside the valley (Samarkand and Tashkent provinces).

B. Project Partners.

Project beneficiaries are organized within partners that include producers, processors and public entities. Among producers, the project opted to work through AgriFirms and Water User Associations (WUAs), both of which serve as organizational rally points to provide outreach to the targeted beneficiaries, farmers. WUAs also have a previous history of working with USAID via the Water Users Association Support Project (WUASP). AgriFirms are the restructured fruit and vegetables cooperatives of the Soviet era that were essentially privatized in early 2006 and are still adjusting to a market-oriented approach to agriculture. The project chose to work with 5 AgriFirms (3 in the valley and 2 out) and 5 WUAs (2 in the valley and 3 out) in FY 2009. WUAs were chosen based upon the reported fruit and vegetable acreage of member farmers with preference given to those WUAs with the most area in these crops compared to cotton and wheat.

The project initiated collaboration with 2 agro-processors but added an additional 2 as interest increased from the private sector to participate in AgLinks supported activities. Processors were selected based upon their geographic proximity to project targeted producers and demand for local produce. Agro-processors provide a source of demand, access to farmers (selling on contract to the processor or directly employed) and insights into the constantly evolving world standards, quality requirements and competition for food and agricultural produce. AgLinks works with BERAD, AgroMir, Green World and Siyob Sahovat (Tony Green brand) agroprocessors.

In the public sector AgLinks targeted collaboration with 3 entities, the Tashkent City Center for Testing and Certification (TCCTC), the Shreder Research Institute and the Plant Protection Service. AgLinks cost-share procured of a High Performance Liquid Chromatograph (HPLC) with the TCCTC to augment their food laboratory's capability to test and measure organic contaminants in food and food products. The team used Shreder research and extension staff as trainers for farm and orchard best practices trainings. The Plant Protection Service provided assistance in the development of the Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP), as well as personnel for the subsequent (i.e., post-PERSUAP approval) on-farm pest identification and control training.

C. Project Activities.

AgLinks activities in FY 2009 can be classified into one of four categories that include equipment, training, assessment and market reconnaissance. In FY 2009 the bulk of project programmatic expenditures were in equipment procurement (48% of total). This category included the HPLC procured for the TCCTC plus the tools and testers used with agrifirms, water users associations and

II. KEY DEVELOPMENTS

The major FY 2009 developments identified by the AgLinks Project team can be organized around three major categories involving production, processing and marketing of agricultural produce.

A. Production

A.1. Optimization or Consolidation.

The Uzbek rural and agricultural sectors were systemically changed in CY 2009 with the announcement in January of optimization or consolidation of farms. The net result of this exercise was to reduce the number of farm-owners and increase the size of the average farm holding. The purpose of this consolidation appears to be capturing of economies of scale in agriculture by mandating larger farms, while rewarding productive farmers and causing unproductive managers to seek new career paths.

AgLinks AgriFirm and WUA partners were subject to the consolidation but none of the 10 partners were closed. In fact, anecdotal evidence from partner agrifirms implied that presence among AgLinks partners may have been a factor in deciding whether some partners were consolidated or the beneficiary of consolidation. In theory farmers with consolidated holdings essentially became farm laborers or left the profession. In practice, the 2009 agricultural year became a transitional year as owner-worker relationships were tested due to previous land holdings, prior investment in plantings or improvements and personal relationships.

Following the privatization of the fruit and vegetable cooperatives in January 2006 and the 2009 consolidation program, farmers face significant uncertainty regarding their future land tenure status. This uncertainty will inhibit farm level investment in land improvements and likely emphasize more short-term planning horizons.

AgLinks will face much larger farm holdings and a smaller number of owner-farmers in 2010 as the ramifications of the 2009 consolidation program are fully realized in a new agricultural season. Another highlight of the consolidation policy is the macro-level reduction in the land devoted to cotton production and subsequent increase in fruit and vegetable acreage. This implicit recognition of the growing importance of more high-value fruit and vegetable production over cotton is further confirmation of the project's choice to focus on the former.

Consolidation

Partner Impact

Partner institutions face increased uncertainty about land tenure status of member farmers and the entities themselves. Increased uncertainty has an adverse impact on individual and group investment when mandated policy can overturn existing economic and productive relationships.

Challenge

AgLinks farmers now have larger land holdings and are less geographically dispersed which will likely result in long-term efficiency gains at the expense of short-term social costs. If perceived to be implemented on a productivity basis the consolidation could provide an additional stimulus to proper farm management. Consolidation also emphasized expansion of fruit and vegetable acreage at the expense of cotton, reinforcing the AgLinks crop choices.

A.2. Water-Agriculture Hierarchy.

Water management and agriculture are inexorably linked in Uzbekistan with as much as 98% of all agriculture under some form of irrigation system. Agriculture is the largest consumer of water in Uzbekistan, as is the case in most developed countries, including the United States. In light of this important link, USAID Uzbekistan’s rural and agricultural development experience over the first decade of the 2000’s focused on bringing water management from the largest level down to individual farmer’s fields. Beginning in the early part of the decade USAID funded the Natural Resources Management Project (NRMP, 2000-2005) whose largest component rehabilitated the main water irrigation canals both within and outside the Ferghana Valley. These “macro” level improvements allowed water to flow and promoted management along the main canals to the level of groups of farmers (ex., water user associations and cooperatives). NRMP had smaller components targeted to energy, water user associations and farm-level water management.

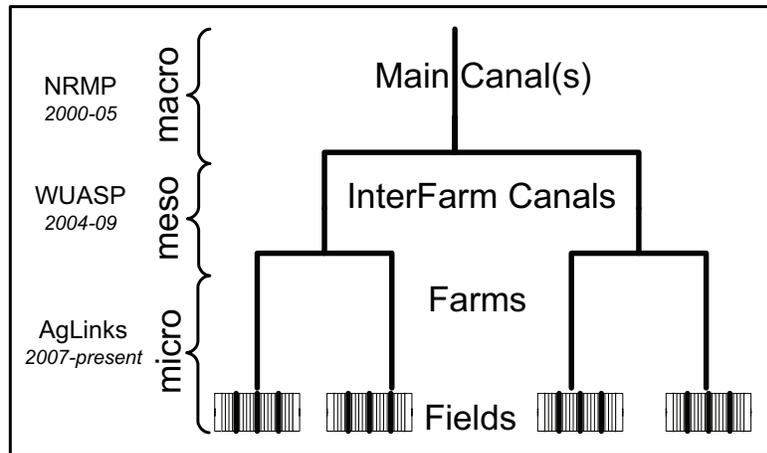


Figure 1 : Water Resource Management for Agriculture

The logical next step within a water resource management for agriculture strategy is the distribution and management of water resources among groups of farmers. The Water Users Association Support Project (WUASP, 2004-09), which followed and built upon the NRMP experience, created, strengthened and trained groups of farmers to equitably and efficiently manage the water they received from the main canals. At this inter-farm level the WUASP project successfully supported 30 water user associations across four provinces (Namangan, Ferghana, Bukhara and Jizzak). The project focused on rehabilitation of the irrigation infrastructure at the inter-farm level and organizational and institutional strengthening of the nascent WUAs.

AgLinks continues the broader logic of this water resource management for agriculture strategy by working with WUAs and others to reach farmers and provide agricultural technologies and techniques to increase productivity at the farm and field (i.e., individual crop type) level.

Water-Agriculture Hierarchy

Partner Impact
 AgLinks partners and targeted farmers are all concerned with water management at the farm level. Bilateral and multilateral donors are providing assistance at the macro and meso levels with less attention paid to the farm and field levels.

Challenge
 AgLinks is one of the few projects in Uzbekistan working directly with farmers and building experiential information and insights into how to positively impact farm level management to increase incomes and growth. AgLinks will continue to be drawn into water management issues, particularly at the micro and meso levels, because of the unavoidable connection between agriculture and irrigation in Uzbekistan.

AgLinks targeted WUAs and agrifirms have significant fruit and vegetable acreage both within and outside the Ferghana Valley. In FY 2009 AgLinks began a program of integrating on-farm water management structures (ex., sluice gates, canal rehabilitation, etc.) and training linked to crop specific demonstration plots. There has been both temporal and content overlap among the levels and projects presented in the stylized schematic of Figure 1 but with all sharing the overall goal of improving water resource management for agriculture down to the field level. For example, WUASP was involved in working directly with farmers but it was not a focus. Similarly, AgLinks is working through WUAs and AgriFirms to reach groups of farmers but is not focused on direct institutional strengthening of these organizations.

AgLinks optimizes the investment, insights and lessons learned over the past decade of USAID funded activities by taking the water management for agriculture to the lowest level of the hierarchy by impacting individual farms and even specific fields (i.e., crops) within the household farm. In so doing, the project has learned of upstream bottle-necks that require alleviation to improve the overall efficiency and effectiveness of the water management system and is increasingly requested by farmers and their representatives (WUAs and Agrifirms) to address targeted meso level constraints.

A.3. Demonstration Plots

The demonstration plots tested in FY 2009 for both stone fruit orchards and grape vineyards were very successful in terms of the increased yield, output and income that participating farmers obtained. This success resulted in increased demand for AgLinks demonstration plots via requests for more plots and additional crops covered. AgLinks demonstration plots in FY 2009 included two for stone fruits (one each for peach and plum) and three for grapes.

The stone fruit demonstration plots are more cost effective because relatively low cost pruning techniques can have significant impact. However, pruning is labor intensive. Grape demonstration plots require the installation of a trellising system to raise the produce off the ground and expose them to greater air and sun. Trellising not only increases the productive yield but also reduces pest and disease infestations. The initial investment cost is important but can have a long life span if construction materials and methods are properly controlled.

The one hectare demonstration plots used in the grape vineyards in FY 2009 were larger than necessary and considerably larger than the areas used in the stone fruit demonstration orchards. The project can, therefore, expand the number of plots in FY 2010 by reducing the overall size of each individual plot without significantly increasing costs. In addition to more plots, farmers requested the project incorporate pome fruit demonstration orchards to provide venues for introducing new techniques and technologies for apples, pears and quince. Demonstration plots receiving more regular monitoring and follow-up were found, unsurprisingly, to be most

Demonstration Plots

Partner Impact

AgLinks demonstration plots were highly successful because they provided both a tangible proving ground for new techniques and technologies as well as a venue for hosting hands-on trainings for area farmers.

Challenge

AgLinks will expand the demonstration plot program in FY 2010 to include pome fruits (apple, pear and quince) to extend the farmer outreach of project impact. The number and geographic spread of demonstration plots will increase from 5 to a total of 26 within the targeted districts and significantly increase implementation and oversight responsibility for the project.

productive. To expand this experience beyond the time available to project staff, AgLinks will seek to outsource regular demonstration plot support to Shreder technical personnel and district level agricultural college staff and students.

A.4. District Agricultural Colleges.

During the course of FY 2009 AgLinks staff reconfirmed the potential of the system of district level agricultural colleges to positively impact the rural economy. There are agricultural colleges in each of the administrative districts within Uzbekistan. Given the roughly 173 districts, excluding those areas designated cities, the coverage of rural areas with this source of agriculturally trained labor and expertise should be more fully explored and utilized.

The district level agricultural colleges could potentially offer a source of managerial oversight for the AgLinks demonstration plots in rural areas. Both instructors and students could be employed as monitoring agents to assure best practices are promoted and implemented throughout the growing, harvest and post-harvest periods. Instructors and students could also be invited to attend and participate in AgLinks sponsored trainings. Demonstration plots could be installed at the agricultural colleges to give students hands-on expertise and the opportunity for more practical, field relevant research. The district level agricultural colleges could potentially be linked with the three national level agricultural universities and various crop specific research institutes, such as Shreder for fruits and grapes. Engaging the district agricultural colleges will provide broader information dissemination of the techniques and technologies promoted by AgLinks with more long-term sustainability and impact on potential extension specialists.

<u>District Agricultural Colleges</u>	
Partner Impact	The district level agricultural colleges are an underutilized and relatively unknown resource at the farm level. The geographic spread, fixed infrastructure, student clientele and staff expertise could potentially be mobilized to positively impact their respective areas.
Challenge	AgLinks must explore potential partnership agreements on specific topics and activities with the agricultural colleges in the targeted districts. Pilot programs of joint interest should be established to test the feasibility of realizing the potential of this resource. Agricultural college staff and students can both be a resource for more regular monitoring of and assistance to AgLinks demonstration plots.

B. Processing

B.1. Partner Differentiation.

Neither AgriFirms nor WUAs are monolithic with each specializing in the same or similar areas. Significant differences exist among and between each of these partners that regroup farmers in rural Uzbekistan. While each partner shares a standard mandate they have evolved differently based upon local agricultural and environmental conditions, previous experience and support, exposure to outside ideas, and regional particularities. During FY 2009 AgLinks found that AgriFirms may be differentiated by their respective tendencies to focus activities more upstream (production systems) or downstream (processing, post-harvest and marketing) along the value chain.

For example, AgLinks staff have deduced a tendency among the Ferghana Valley agrifirms to be more upstream focused on production related aspects within agriculture. Valley agrifirms are very interested in production best practices, water management, pest identification and control along

with other production side activities. This tendency to gravitate to more production related presentations was also noted from the partner agrifirms' revealed preferences during their time spent at agricultural and food trade shows.

Samarkand based agrifirms appear more interested in marketing activities as revealed by their questions about potential AgLinks support and follow-up to attendance at trade shows. The Samarkand agrifirms have been more active in pursuing marketing contracts than providing production information to member farmers. Whereas Samarkand agrifirms have been more active seeking external trade contracts (ex., Istiqlol Meva Sabzavot and Agroimport LLC, Orenberg, Russia) the Ferghana agrifirms have been receptive to providing raw material to local processing companies (Muyan and Bekhizor agrifirms providing produce to Kinder Fruit, Uzbekistan).

AgLinks partners can be classified by their crop mix, physical assets, human assets, and preference for a farmer versus trade-oriented focus. Continued exploration of this and other sources of differentiation among partners could be used to inform any scaling-up of assistance to farmers through these partners. For example, given the 260 agrifirms reported nationwide by the Ministry of Agriculture and Water Resources (MAWR) and the 5 sample pilot programs initiated by AgLinks, there is certainly scope for finding ways and means of expanding more targeted assistance by partner type. Note also that 84% of the MAWR agrifirms are located in 6 of the 13 provinces of Uzbekistan, including the 4 AgLinks targeted provinces plus Khorezm and Kashkadarya.

B.2. Cold Store.

During FY 2009 the AgLinks team worked with the Quvasoy Bekhizor AgriFirm in Ferghana Province to test the financial and organizational feasibility of cold storage of fresh fruits and vegetables. The AgriFirm had installed a small (20 mt capacity) cold storage room but did not have the technical expertise or managerial capacity to optimize this asset. Aglinks provided technical assistance and some minor physical goods (stackable packing crates) to this AgriFirm to use the 2009 growing season as a test case of cold storage by agrifirms. The project had originally planned to procure and install a cold storage facility in FY 2009 but financial restrictions and a request from USAID to slow expenditures obliged the test case approach.

The results were encouraging. Storing 12 metric tons (mt) of peaches for just two weeks provided a price increase per kilogram from 650 to 1000 soum (54%). The 650 soum purchase price includes packing and labor costs incurred by the AgriFirm management in storing the peaches. A higher final purchase price could be achieved by buying even earlier in the harvest season combined with improved sorting and grading of the stored fruit. By addressing these issues in Year 2 of the cold store program a final sales price of 1200 soum is within reach.

Partner Differentiation

Partner Impact

AgriFirms and WUAs exhibit significant differences both among and within these two entities which regroup farmers. Specifically, agrifirms have been found to have either a more farming or more trading perspective based upon their location, history and resource base. Similar distinctions are found among WUAs.

Challenge

AgLinks must continue to identify the particularities of each partner to better tailor assistance to meet their respective needs. These revealed preferences can also be used to inform other donor efforts to expand assistance to farmers through agrifirms more efficiently and effectively.

AgLinks staff have worked with the agrifirm personnel, particularly the accountant and the agronomist, to appreciate that the cold store can be used to cycle different fruits throughout the season as they are harvested. Harvesting, sorting, grading, storing, and selling before the next specific fruit type is harvested allows for optimal use and resultant increased profitability of the cold store. This cycle can begin with cherries in May and proceed through apricots, peaches, pears, apples, persimmons and, finally, quince in November. An additional benefit to the agrifirm is that all sales from the cold store are in cash which allows the firm to create a cash flow to provide immediate payment to farmers who supply the agrifirm rather than having to depend on the wire transfer system. The later impedes payment and farmer access to funds from their produce sales thereby inhibiting farmers' willingness to sell to agrifirms.

Cold storage allows the agrifirms to extend the selling season for each of these crops. By buying the crops at harvest when prices are lowest, adding value by sorting and grading, then storing the fruit until prices increase provides sufficient revenue to cover costs and provide profits. When practiced regularly this buying, adding value, storing and selling will also serve to lower price variability of fresh produce.

<u>Cold Store</u>	
Partner Impact	Cold storage has proven to be an income earning possibility for the agrifirms. They also provide a possible way to address the agrifirms' need for cash to pay farmers for produce.
Challenge	Financing, technical installation, maintenance and care for the cold store system remain obstacles to adoption of this technology and affiliated techniques. The major challenge is the understanding and management of the harvest cycle system to optimize sales throughout the season. The resultant cash management from the multiple purchases and sales must also be addressed at the firm level.

B.3. Drying.

AgLinks also had a positive experience with post-harvest handling of fruits and vegetables at the household level through FY 2009 pilot trainings focused on drying techniques. These trainings were predominantly targeted towards rural women and several lessons were learned. First, trainings for rural women are best organized in the mornings to allow for free afternoons for household chores, including preparation of the evening family meal. Second, drying trainings targeted to rural women are more readily accepted if held at individual homes rather than third party sites (ex., agrifirms or WUAs). Homes not only provide familiarity for the attendees and their families but they are also equipped with the household instruments required for processing produce. Finally, water access is again an extremely important resource in food processing, even when engaged in a "drying" training.

<u>Drying</u>	
Partner Impact	The drying trainings were very well received as evidenced by two separate requests from neighboring local councils (Mahalla Committees) to hold similar trainings for their households.
Challenge	AgLinks must begin the drying training earlier in the harvest season as many other crops have the potential for similar household level processing. Provision of simple tools to facilitate the drying process should be found and provided. An accompanying training manual should be developed that is produce specific. Ways and means of expanding this successful pilot program to other localities must be developed.

C. Marketing

C.1. Uzbek Brand.

A major lesson learned from visiting food and agricultural trade shows during the FY 2009 reporting year was the continued high quality and tastiness attributed to “Uzbek” fresh produce, particularly in the former Soviet Republics. Uzbek produce was highly favored in the Soviet period and this consumer preference continues to exist with buyers willing to pay premiums for higher quality “Uzbek” produce. However, Uzbek fresh produce is not commonly exported (see Section C.3., below) and other producers are taking this market share, even marketing their products as “Uzbek” in order to capture premium pricing.

Failure to develop and utilize the “Uzbek” brand in fresh fruits and vegetables has allowed usurpers to enter the market niche for quality produce in the former Soviet Republics. This represents a significant lost opportunity for Uzbek producers and exporters who will only continue to lose market share in their traditional markets. The Russian market is clearly the most important market in which to defend this “Uzbek” brand. There is scope for developing a national identity for all fresh produce exiting Uzbekistan to be branded as “Uzbek”.

C.2. Quality Standards.

Project efforts at encouraging and promoting quality standards were focused in FY 2009 on the provision of the High Performance Liquid Chromatograph (HPLC) to the Tashkent City Center for Testing and Certification (TCCTC). The HPLC allows the TCCTC to detect and measure organic contaminants in foodstuffs and produce. In FY 2009 the TCCTC procured an Atomic Absorption Spectrophotometer, as part of the cost-share arrangement, thereby increasing their ability to test for inorganic contaminants as well. FY 2009 represented a major step forward in the food safety testing capability of the TCCTC.

This laboratory’s testing equipment is a significant step forward to obtain ISO 17025 standard (main standard used by testing and calibration labs) and, eventually, ISO 17020 (main standard for inspection bodies to perform accreditations). ISO 17025 has both Management Requirements and Technical Requirements with the former primarily related to the operation and effectiveness of the quality management system within the laboratory. Technical Requirements address the competence

<u>Uzbek Brand</u>	
Partner Impact	Uzbek fresh produce is continually losing market share on its traditional markets and not exploring new markets. Other suppliers and countries have seized upon the Uzbek brand as a premium to label and market their substitute products for the real thing. The premium that is available to “Uzbek” branded produce is not being captured by the Uzbek producers and exporters.
Challenge	AgLinks should continue to make Uzbek presence known during agricultural and trade shows on the most traditional market for Uzbek produce (i.e., Russia) while continuing to explore one new market each year to learn new techniques, technologies and competitor products.

<u>Quality Standards</u>	
Partner Impact	The PERSUAP for Uzbekistan was developed and approved in time for use during the 2009 growing season. Farmer trainings on pest identification and control recommendations from the PERSUAP were provided on the targeted crops.
Challenge	AgLinks needs to amend the Uzbekistan PERSUAP in collaboration with the national plant protection service to add pome fruits (apples, pears and quince). Many other donor programs and publications, as well as some publications of the national agricultural research institutes, highlight agricultural chemicals that are either not approved by the PERSUAP or the national plant protection service list or both. The TCCTC laboratory technicians must receive additional, practical, hand-on training in the multiple uses of their new equipment.

of staff, methodology and test/calibration equipment. FY 2009 represents a major step forward for the TCCTC in terms of the testing equipment and the food safety testing capability of the TCCTC. Laboratories use ISO 17025 to implement a quality system aimed at improving their ability to consistently produce valid results and is the basis for accreditation from an Accreditation Body.

Another component of quality standards involves development and implementation of requirements for safe agricultural chemical use. During FY 2009 the project successfully completed the PERSUAP for Uzbekistan in collaboration with the national plant protection service and an international plant pathologist. The national pesticide standards list was compared and contrasted with the US Environmental Protection Agency recommendations to yield a list of approved agricultural chemicals to treat identified pests and diseases for nine specific crops (stone fruits, grapes, tomatoes, onions, melons, pomegranate, wheat, rice and cotton) in Uzbekistan. AgLinks began the 2009 agricultural season with the approved PERSUAP and integrated pest identification and control training sessions based on the recommendations of this report.

C.3. Fresh F&V Export.

Although the problems confronting fresh fruit and vegetable exports from Uzbekistan are not a new development, the project experienced first hand these constraints during FY 2009, with an additional twist. Fresh fruit and vegetable produce exports are controlled and monitored through one of two organizations, essentially a duopoly. Since mid-2008 the export of fresh fruits and vegetables from Uzbekistan has been tightly controlled due to a resolution of the Council of Ministers (#93, 08 May 2008) entitled “On Measures for Rational Use of Resources of Fruit and Vegetable Products, Melons and Grapes in 2008.” This decree created the duopoly which holds the rights for approved export of fresh fruits and vegetables. These two entities are an association, “Uzulgurzhisavdoinvest”, and a stakeholder company, “Matlubomsavdo”.

Previously, it was thought that only “fresh” produce was subject to this decree but FY 2009 experience indicates that processed produce, including dried vegetables, is also subject to duopolistic oversight. In addition, 2009 saw the outright ban, for a period of several months (June through August) of fresh fruit and vegetable exports. Of course, the policy intention is to assure sufficient foodstuffs at low prices for domestic consumers. However, this ban acts as a significant disincentive to farmers and investors while establishing a major barrier to trade.

During FY 2009 AgLinks partners with signed contracts to export to Russia negotiated during trade show visits were denied permission, in this case by separate petition to the Council of Ministers, to export during the ban. Contracts worth up to \$8 million were thus honored at less than \$1 million. Of course, some exports continue but they are neither sanctioned nor branded as “Uzbek” so both the duopoly and ban serve to continue to erode the market share of Uzbek produce in their traditional markets.

Fresh F&V Export

Partner Impact

Significant potential revenue losses were incurred from the summer 2009 ban on fruit and vegetable exports. Export policy initiatives such as the duopoly and ban serve to further erode the position of the “Uzbek” brand in traditional markets and allow competitors to usurp market share.

Challenge

AgLinks should continue its major focus on increasing domestic production and storage to alleviate official concerns about the instability of supply and variable food prices. The project should continue to work on developing external markets but with a minimum of overall resources (approximately 5% of disbursed funds annually). While the duopoly is not an ideal policy response they could possibly provide a vehicle for the promotion of the idea of an “Uzbek” brand.

III. PRELIMINARY PERFORMANCE DATA

Performance management data for the AgLinks project was mostly completed by the end of October 2009 allowing for a preliminary analysis to be included in this annual report. Final performance management data awaits the full completion of the 2009 agricultural season but initial trends can be discerned from the already available data. The major goal of the AgLinks project is to have a positive impact on agricultural productivity in the targeted crop commodity sectors. The overall indicator used by the project to measure agricultural productivity is crop yield in the grape and stone fruit sectors. The macro level data collected from project partners during the latter part of the 2009 agricultural season point to the desired impact of increased yields.

A sample of 241 farmers from among the 989 farms that comprise the 10 farm-level partners of the AgLinks project was taken and interviews performed to provide input data for project management purposes. The total number of farmers in each province differs with Namangan (44%) having the largest number followed by Samarkand (31%) and, finally, Ferghana (31%). The farmer sample sought to collect data from a 25% random sample within each of the three targeted provinces. With a total of 241 farmers interviewed completed out of a potential total of 989 the achieved sampling rate was roughly 24%.

#	Province	Partner Type	Partner Name	Total Area	Irrigated Area	Total Farms
1	Ferghana	Agrifirm	Muyan	356	356	87
2		Agrifirm	Bekhizor	756	756	158
3		Agrifirm	Torqoragon	421	421	57
4	Namangan	WUA	Pungon	1,540	1,248	242
5		WUA	Shirin Suv Yangier	17,000	3,459	137
6	Samarkand	Agrifirm	Istiqlol Meva Sabzavot	1,817	1,639	126
7		Agrifirm	Dilkusho Sifat	398	398	80
8		WUA	Hujabuston	4,087	3,613	52
9		WUA	Qarshiboy Mirob	3,900	3,177	29
10		WUA	Damkhasa Arigi	1,944	1,794	21
				32,219	16,860	989

Table 2 : AgLinks Producer Partners and Farm Number

Preliminary analysis of the data collected from this sample point to the desired impact of increased productivity in stone fruit and grapes for the farmers in the targeted areas. Table 3 below presents the initial results by crop category across the entire sample of 241 farmers. These data indicate that the farmers sampled had significant yield increases in the crops with techniques and technologies promoted by AgLinks (i.e., grapes and stone fruits). Of course, other factors always impact on agricultural productivity (ex., weather) but it is notable that the same sample of farmers did not register an increase in the crop category not promoted by AgLinks in FY 2009 (i.e., pome fruits). In fact, farmers noted a significant decrease in their pome fruit productivity in the 2009 cropping season (-18%) and one can assume that the same weather conditions prevailed for all three categories of crops. The range of the yields (20 mt/ha for grapes and 4 to 5 mt/ha for stone fruits) are within the normally expected values for these crops and is reassuring that the data are reasonably accurate.

Crop Category	Area (ha)		Output (mt)		Yield (mt/ha)		% Chang
	2008	2009	2008	2009	2008	2009	
Grapes	1,619	1,695	31,063	36,444	19.18	21.50	12%
Stone Fruit	260	304	1,044	1,462	4.02	4.80	20%
Pome Fruit	199	203	2,165	1,818	10.87	8.95	-18%

Table 3 : Preliminary Aggregate Productivity Response by Crop Category in 2009

Follow-up analysis will be provided by mid-November 2009 once the complement of data are received in Tashkent and a more disaggregated examination of these data provided. For example, the data will be examined for specific increases by crop, region and client to discern patterns of interest to the project to better program assistance in FY 2010.

ANNEX

AgLinks Gender Reporting – FY 2009

USAID AgLinks Project trained a total of 747 people in FY 2009 with 30% of that number (227) being women. Four categories of training were provided; organizational, pruning orchards, drying produce and grapes. The organizational training provided dynamic participatory strategic planning for project client agrifirms and their constituent members. Orchard pruning introduced on-farm practical experience in pruning peach and plum trees to increase fruit yields. Drying of produce in the post-harvest season focused on fruits, vegetables and candied fruit treats, including fruit roll-ups.

The most extensive training was in the grape sector with four thematic training areas. First, farmer round tables were organized to elicit direct feedback on issues and challenges faced by grape producers that informed subsequent training sessions.

Pest identification and control were major issues for all farmers which was complimented by post-harvest training that included processing and end-of-season pruning. A grape best practices training was also held that covered improved agronomic techniques in grape production.

PROVINCE	DISRICT	MALE	FEMALE	% Female
Ferghana	Quvasoy	45	1	2%
Namangan	Pop	103	130	56%
	Toraqorgon	32	44	58%
Samarkand	Samarkand	56	7	11%
	Tayloq	103	34	25%
	Payariq	153	11	7%
Tashkent	Parkent	30	0	0%
TOTAL		522	227	30%

Women Comprise 30% of AgLinks Training Participants in FY 2009

Women's participation represented roughly one-third of all trainees in FY 2009 but their attendance was not equally dispersed across all the areas of project activities. Women's participation was most pronounced in Namangan Province where AgLinks chose to test the post-harvest trainings and produce drying. These trainings attracted a larger share of female participants. The project learned from initial experience that it is best to organize trainings in the mornings to enhance women's participation. It was also important to make the trainings more social events to attract and retain female trainees.

SECTOR	#	%	CAREER
Household	77	34%	homemaker
Agriculture	67	30%	farm owners and workers
Education	39	17%	teacher, student, cook, worker
Public Administration	18	8%	Mahalla head, consultant, secretary, worker
Health	13	6%	clinic head or nurse
Business	8	4%	business owner (ex., restaurant, silkworm firm), accountant, IT specialist
Retired	5	2%	retired
TOTAL	227	100%	

Two-thirds of Female Trainees are Involved in Agricultural at the Household or Farm Level

Among the female trainees roughly two-thirds reported being involved in household agricultural (dekhan or backyard farms) or private farms. The remaining one-third were from a variety of occupations including education, health, public administration and private businesses. Participation in the various trainings was also non-uniform with the drying trainings attracting the most women (177) followed by the grape trainings (46) and finally, the strategic planning sessions (4). AgLinks supports the Uzbek Social Initiatives Support Fund (SISF) by joint trainings for participants of their Women Farmers Support Project. AgLinks provided the food safety laboratory at the TCTC with new analytical equipment. Private sector agroprocessors cost-share attendance at food and agricultural trade shows to broaden knowledge and establish trade contacts. USAID's Farmer-to-Farmer program collaborates on international expertise.

Summary of Proposed Environmental Determinations for AgLinks Project FY 2009 Technical Activities

#	Type	Activity	Client Group	Categorical exclusion	Negative Determination		List Condition if "Negative Determination with Conditions"
					Without conditions	With conditions	
1	Training	Simplified Accounting System	1,2,3,4,5	X			N/A
2		Dynamic Participatory Planning	1,2,3,4,5	X			N/A
3		Winter Pruning	2,3		X		N/A
4		Summer pruning	2,3		X		N/A
5		Grape Vineyard Best Practices	4, 5, A, D, E		X		N/A
6		Cold Store use and management	2		X		N/A
7		Fruit Roll up and drying	2,3			X	Sulfur, Caustic soda to be properly applied
8		Harvest	1,2,3,4,5, A, B, C, D		X		N/A
9		Fruit and Vegetable drying	3			X	Sulfur, Caustic soda to be properly applied
10		Advanced Method of Raisin Drying	4, 5, D			X	Sulfur, Caustic soda to be properly applied
11		Intro to Pest and Disease ID and control	1, 4, 5, A, D			X	Pesticide applied per PERSUAP recommendations
12		On field pesticide application	4, 5, A, D			X	Pesticide applied per PERSUAP recommendations
13		Fruit and Vegetable drying	1, A, B			X	Sulfur, Caustic soda to be properly applied
14		Fruit and Vegetable drying for household level	1, A, B		X		N/A
15		Candied Fruit and Vegetable Drying for household level	1, A, B		X		N/A
16		Post Harvest	A, D, 4, 5			X	Timely implementation of training
17		Pest Sprayer Training	1, A, 2, 3, 4, D		X		N/A
18	Cons-n	Water structure	A, D			X	Adjacent land user, water, earth work monitored
19		Grape Demo Plot	A, D, 4			X	Canal & land fertility monitored
20	Procurement	Procurement of orchard tools	ALL WUAs and AF	X			N/A
21		Procurment of computers	1, 2, 3, 4, 5			X	Obsolete product to be properly recycled
22		Procurment of plastic crates	1, 2, 3, 4, 5	X			N/A
23		Procurement of fruit quality testers	ALL WUAs and AF			X	Obsolete product to be properly recycled
24		Procurment of backpack sprayer	1, 4,			X	All PERSUAP safety and health measures followed
25		Procurment of safety clothes	ALL WUAs and AF	X			N/A
26		Procurement of fruit drying trays	1, A, B	X			N/A
27	Procurment of fruit and Vegie drying tools	3	X			N/A	

Key to AgLinks Client Codes

PROVINCE	DISTRICT	#		AgriFirm, WUA or Processor
NAMANGAN	Toraqorgon	1	AF	Turakurgan Sokhibkorlari
	Pop	A	WU	Pungon
		B	WU	Shirin Suv Yangier
FERGHANA	Quvasoy	2	AF	Quvasoy Bekhizor
		3	AF	Muyan Sokhibkor
		I	PR	Green World
SAMARKAND	Samarkand	4	AF	Isqiqlol Meva Sabzavot
	Payarik	C	WU	Damkhasa Arigi
		D	WU	Hujabuston Suv Tarmogi
		E	WU	Qarshiboy Mirob
	Toyloq	5	AF	Dilkusho Sifat
		II	PR	Siyob Sahovat
	Samarkand	III	PR	Agromir
TASHKENT	Parkent	IV	PR	BERAD-AGRO



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UZBEKISTAN

SUCCESS STORY

Income Increase from Trellised Grapes

New Techniques and Technologies Increase Grape Vineyard Productivity



Photo - Sunnat Djalalov

Tursunali Jorayev and Family with Grape Harvest

"I want to thank USAID's AgLinks project for introducing the trellising and conducting trainings. I also send my sincere greetings to the US Ambassador in Uzbekistan, Richard Norland, and thank him for his visit to my field this past summer. I have become well known in our village because of my fields and my conversation with the US Ambassador and chance to shake his hand." Tursunali Jorayev

Tursunali Jorayev grew up on a grape vineyard but, like many Central Asian young men, sought his fortune working construction in Russia. Tursunali, who returned to Uzbekistan in late 2007, is now 27 years old and works a three-hectare vineyard to support his wife and three young daughters. In 2008 he volunteered to participate in a demonstration plot program with USAID's AgLinks project that highlighted new techniques and technologies to local farmers. Knowing improvements could be made on traditional approaches, Tursunali was open to new ideas.

Tursunali's vineyard is located in Pop District, Namangan Province within the Fergana Valley of Uzbekistan. His initial contact with USAID's AgLinks project came through his participation in the local Water User's Association (WUA), which previously received organizational support from USAID. AgLinks offered a 25-percent cost-share arrangement to farmers who established trellises on one hectare of their land, which Tursunali accepted. He then proceeded to pay for the labor, food, and installation during construction of the trellises while AgLinks funded the cement, wire and transport.

AgLinks promoted Tursunali's and two other demonstration plots as successful examples of providing grape farmers with new techniques and training. Trellised grapes have many benefits over "bush" grapes grown on the ground. Their leaves receive more sunlight and air, resulting in greater clusters and fewer rotten grapes and diseases, all of which increase yield. Tursunali's output from 2008 to 2009 increased from 3.5 to 8.0 tons and his income more than tripled from 600,000 to 2.1 million Uzbek soums (an increase of about US\$1,381.58). His grapes attracted Russian buyers, and through local dealers he exported 350 kilograms of the "Toyfi" variety to Russia for the first time.

Tursunali plans to improve his family's living standards with this increased income but also invest in his vineyard and procure new grape varieties. "AgLinks has helped me understand that I can increase my income by planting more table grape varieties to meet local demand," Tursunali said. "So I am planning to replace my vine varieties with table grapes by both grafting and new planting."

Inspired by his excellent results, Tursunali plans to install trellises on his remaining two hectares. He emphasized the importance of the training programs because there has been no single entity providing such information on grape production since the collective farm period.

With each farmer now responsible for his own field, "it is important to have training like the grape best practices, which was very interesting and useful for everybody here," Tursunali said. "We learned a lot of useful things like proper watering, fertilizer application, pruning techniques and canopy management."



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UZBEKISTAN

SUCCESS STORY

New Method Prunes Plums

New Technology and Techniques Introduced to Increase Fruit Orchard Productivity



Photo : Shuhrat Abrorov

Workers, Trainers (with shears) and Odil (far right)

USAID Uzbekistan cost-shared training on improved fruit tree pruning techniques encourages local plum and peach growers to adopt a new method in the Ferghana Valley. This new approach focuses on identifying fruit bearing branches over the traditional system of random thinning and is now known locally as the "American Method".

Odiljon Rakhimberdiev farms 70 hectares with his four brothers in the Quvasoy District of Ferghana Province in Uzbekistan. They are members of the Quvasoy Bekhizor agrifirm that unites approximately 150 similar farmers in the area. Odiljon and his younger brother, Emin, had a competition during the 2009 growing season to see who could produce the most fruit. Emin, a fruit tree producer, was certain he would win because Odiljon was a producer of wheat and cotton. However, Odiljon had a strategy to prove his younger brother wrong.

Odiljon had volunteered 0.8 of the 3.5 hectares of fruit trees (given to him by his brother for the competition) for the USAID AgLinks demonstration plot program, mostly for plum and peach trees. AgLinks offered interested farmers the opportunity to host trainings in their orchards in return for technical assistance and equipment. The pruning and training in February 2009 was based on the University of California-Davis pruning techniques for plum and peach trees. These were identified, procured and adapted to the Uzbek language by USAID, including manuals and demonstration films. A total of 23 people, including Odiljon, attended the two-day practical, hands-on training that covered orchard establishment, pruning, thinning and frost control.

The impact of these techniques was realized during the summer harvest – Odiljon sold three tons of peaches from his 0.8 hectare orchard versus the 0.6 tons sold by his younger brother from his four-hectare orchard. Russian buyers came to Odiljon's orchard to purchase his three-ton crop for 1.65 million Uzbek soum (\$1,085.53), so he didn't even have to bear the cost of taking his crop to market. Odiljon stated that because of the pruning *"the crop is very attractive when it is ready to pick and customers like it because they can see the quality of the fruit immediately."*

Luckily for other area farmers, Odiljon has replicated the new pruning system with five neighbors on a total of six hectares with similarly impressive results. *"I regret I didn't prune more trees last year but I will certainly do more this next year,"* Odiljon said. He has since trained all his orchard workers on the new approach and intends to implement this pruning on his entire orchard of three-year-old trees. Orchard workers, managers, trainees, and neighboring communities now refer to this approach as the "American Method." According to Odiljon, *"the American Method allows trees to bear fruit two years earlier than the traditional method. The method also assures tree leaves receive sunlight with fruit produced throughout the tree and not just on the top branches."* Obtaining five times the output from one-quarter the land area has even convinced Odiljon's younger brother, Emin, of the usefulness of the "American Method" of pruning.