



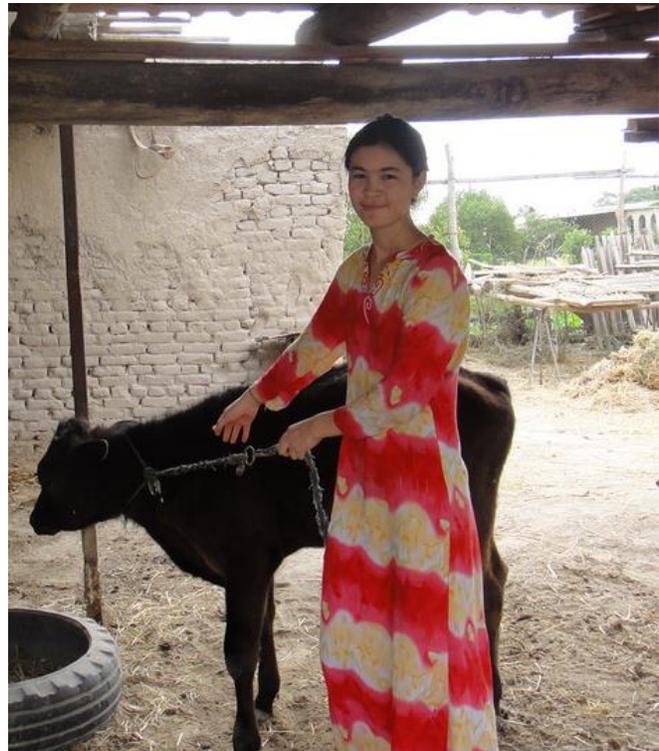
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TÜRKMENISTAN



YEAR 3
Quarterly Report III
(April 2013 – June 2013)

AGRICULTURE TECHNOLOGY PROGRAM IN TURKMENISTAN



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PROJECT OVERVIEW

This is the third quarterly (Q3) report for year three (Y3) of the USAID Agriculture Technology Program (AgTech) in Turkmenistan, covering activities from April through June 2013.



In the third quarter, despite significant delays in receiving approvals from the Ministry of Foreign Affairs (MFA), AgTech was able to successfully carry out a business-to-business (B2B) trip to Ukraine for AgTech project's horticulture partners and producers. Other project highlights from the third quarter include project participation in two government organized conferences, the organization of a greenhouse production competition, the publication of two field handbooks on greenhouse horticulture production and their dissemination among horticulture farmers in all five velayats.

The participation of AgTech in government sponsored conferences provided great outreach and highlighted the project's activities and accomplishments. In April, AgTech conducted two international STTAs for participation in the US-Turkmenistan Business Forum organized by the US Embassy in Turkmenistan. During the forum, AgTech's international livestock consultant, Mr. Thomas Graham, delivered a presentation on bovine genetics, livestock nutrition and best practices in livestock management for Turkmenistan. The project's agribusiness specialist, Mr. Murad Nobatov, presented on greenhouse management and the use of innovative irrigation technologies in greenhouse vegetable production. In June, in collaboration with USAID/Turkmenistan, the project also took part in the International scientific conference organized by the Turkmenistan Academy of Science. Both events provided an opportunity for AgTech and USAID/Turkmenistan to demonstrate and promote its activities to a large audience including government officials and participating international companies.

Meanwhile, approvals from the Ministry of Foreign Affairs for submitted project Y3 activities are still yet to be received, thus delaying planned project activities. In light of these circumstances, AgTech has revised and developed a new quarterly activity plan in another attempt to receive an official approval for project activities. The project anticipates receiving approvals for the final quarter of Y3, at which time it will be on schedule with the annual work plan.

Next Steps:

Expand follow-on project activities from business-to-business initiatives in livestock and horticulture sectors

Use soil tensiometers to adopt best practices in greenhouse irrigation among project partners

Begin collection of milk yields from next generation dairy cattle to capture results

PROJECT ACTIVITIES AND OBJECTIVES

As artificial insemination (AI) activities continue to increase in scale and more calves are born throughout the country, the delayed training programs had little effect on livestock component results in the third quarter. As of June 30, 2013, AgTech-trained AI specialists have inseminated over 3,000 cows and an estimated 601 calves have been born and are being surveyed through their stages of development.

AgTech has also procured 17 additional portable Dewar flasks and sheaths along with 6,000 more doses of bull semen from World Wide Sires. 2,000 of these doses were procured at cost by the manager of the Ahal AI Training Center. The supply will equip the second-generation AI specialists with supporting the increasing AI demand among the small household farmers.

Although there were varying results for every region, general results for the horticultural component in the third quarter were impressive. The overall produce figures of the spring and summer harvests were in line with expectations. Although farmers in Ahal and Dashoguz identified some diseased crops which slightly affected their yields, favorable weather conditions ensured successes during Q3 of Y3 project activities.

LIVESTOCK COMPONENT

BREEDING IMPROVEMENT

By the end of this quarter, the number of inseminated cows by project AI specialists has reached 3,029. For the same reporting period, the project has tracked a total of 601 newborn calves and estimates that 1446 premium stock calves have been born across the country. The tracked figure represents calves born in villages in close proximity to areas where AI specialists can easily record progress with minimum cost. Hundreds more are estimated to have been born in the more far reaching areas of the country based on the success/failure rate of the known births.

During the third quarter, AgTech continued to consult with international breeding specialists to identify new breeds to introduce to the market. In particular, the project recognizes the high local demand for beef and dual purpose breeds. Following the recommendation of breeding specialist Dr. Thomas Graham and with co-funding from Mr. Nepes Karayev, a project partner and Ahal AI Center Manager, AgTech procured 6,000 doses of bovine semen from World Wide Sires, including two new breeds: Limousin, a well-known beef breed; and Jersey, a dual purpose breed that is more adaptable to local conditions and preferences for high milk fat. AgTech is procuring 500 doses of sexed semen (250 of Brown Swiss and Holstein breeds each) to accelerate the birthing of female calves for dairy production purposes. The supplies are scheduled for arrival on July 29, 2013.

Challenge: Due to the remote and sparse location of many livestock households, documenting all newborn calves remains one of the main challenges. Another major challenge is poor records,

if any, by farmers to record increases in milk yields and income as a result of increased use of AI services and improved breeds.

ARTIFICIAL INSEMINATION CENTERS

AgTech has continued to extend its support to AI Centers in Ahal, Mary and Dashoguz, providing them with marketing and promotional materials including AI Center leaflets with contact numbers of all active AI specialists in their respective regions. These leaflets are distributed by the AI Centers to AI specialists, who then distribute them throughout households in the regions where they perform AI services. As the rural population obtains greater access to the Internet, AgTech has also placed a number of online advertisements and pictures of the new-born calves in the local advertisement portal “Vestnik” to reach out to a wider audience. The project is now designing a roadside advertisement for AI Centers in order to facilitate the funding on a cost-share basis. The proposal is for the project to cover the cost for the ad design, and the AI Centers are negotiating with local authorities on a location and monthly payment terms.

Challenge: With the creation of the National Livestock Union (known formerly as Tukmenmallary or the “State Livestock Association”) and a radical change in government policy on livestock sector development, all leaseholder agreements between the State and private livestock farmers have been revoked while government property, including cattle, farm buildings and the land have been returned to the State. This has had a direct impact on project activities, as one of the local project partners, Mr. Nepes Karayev, has to hand over his farm to the State. The project is in negotiations with Mr. Karayev and several other private farm owners to relocate the Ahal AI Center to another more suitable location within the region.

LIQUID NITROGEN PRODUCTION

Despite having a number of electric and high ambient temperature related challenges during the operation of the liquid nitrogen (LN) generator, project AI specialists from Ahal, Mary and Dashoguz regions are fully supplied with liquid nitrogen for AI activities. LN generation ensures that the semen is kept frozen as is necessary for safe storage. AI specialists from Lebap have also identified an additional local source for LN, the Turkmenabat Chemical Plant, which is easily accessible and eliminates health and safety related challenges with transporting LN 650 km away from Ashgabat.

Following consultations with our US LN generator supplier, Kelvin International, AgTech has followed a number of steps to prevent overheating of the chiller unit by making the following improvements to the infrastructure: installing a voltage stabilizer, using additional windows to improve air ventilation, and adding a duct to remove hot air from the chiller. However, the ambient temperature in the summer remains to be very hot, reaching over 40 degrees Celsius, thus preventing the chiller compressor from working properly at times. Per Kelvin’s recommendations, AgTech is now planning to enlarge the duct and install an additional electric fan to remove excess hot air, which should assuage the cooling system and prevent overheating.

HORTICULTURE COMPONENT

GREENHOUSE IMPROVEMENT

Four new greenhouses were constructed in the Mary region this quarter. The total number of built and reconstructed greenhouses is at 59 for Y3 and the cumulative number is at 250 since project inception. The Q3 reduction in constructed greenhouses is related to the reporting period coinciding with the busy growing season. Local producers use resources to focus on production rather than on renovation during this period. However, AgTech anticipates a significant increase in greenhouse reconstruction during the fourth quarter and plans to reach the target of 100 constructed greenhouses in Y3.



HORTICULTURE PRODUCTION AND IMPROVEMENT

Greenhouse Producer Competition

As part of its annual work plan activities, the project has conducted a competition among greenhouse producers. Project specialists formulated competition criteria in collaboration with project horticulture farmers. Criteria included such aspects of production as the yield per 100m², use of best practices in production, minimum disease levels, and minimum use of pesticides. Winners from each region have been chosen by the project specialists and regional partners based on regular monitoring of production results and

benchmarks set within the region. AgTech has provided each winner with personal protection equipment (PPE), including backpack sprayer, rubber overalls, respirators, gloves and non-slip shoe covers to encourage and promote best environmental practices. The project is confident that such an event highlights the importance of health and safety in effective management of greenhouse production for maximizing the value of best practices in pesticide utilization.

Study Tour to Ukraine

From June 9-15, AgTech sent a small group of Turkmen horticulture project partners and seedling producers on a weeklong study tour to a branch of Dutch seed company Rijk Zwaan in Ukraine. Utilizing a cost-share agreement, Rijk Zwaan covered all local expenses, including lodging, while the project covered airfare and daily per diem (i.e., M&IE). The visit included trips to seed trial sites, agricultural shops and laboratories, and horticulture farms and agriculture firms in Kiev, Crimea, and the trans-Carpathian and Kherson regions. The group was immersed in various informational meetings and



discussions on horticultural production as well as best practices in greenhouse construction, management, using effective techniques, and an informational session on commercial opportunities. The import of vegetable seeds, technical expertise and other company products to Turkmenistan were discussed between the participants and Rijk Zwaan regional representatives. Participants were exposed to best practices in greenhouse construction and management as well as effective production methods and growing techniques for different vegetables (e.g., cabbages, peppers, onions, tomatoes and cucumbers) as cash crops intended to maximize farmers' income levels. The trip established business linkages between local growers and foreign suppliers. AgTech envisions these relationships improving the underdeveloped input supply of the horticulture market in Turkmenistan.



Challenge: Delays in approval of planned activities by the MFA, which includes on-farm training sessions within the horticulture component, remain to be one of the main challenges to the project. A revised annual work plan has been prepared during the second half of May upon request from USAID/Turkmenistan

and submitted to the Ministry of Foreign Affairs for approval. The project awaits a response to the newly revised activity plan in order to implement more activities in quarter four of Y3.

EVENT PARTICIPATION AND MARKETING

The AgTech project participated in two government sponsored events. For the US-Turkmenistan Business Forum, organized by the Turkmen-American Business Council, AgTech requested Dr. Thomas Graham, CEO of Veterinarians Without Borders, to attend as a veterinary and animal feed expert, and Mr. Charles Yesolitis, the Home Office Project Manager as a moderator for the event. The project delivered two presentations highlighting project developments in the livestock and horticulture sectors of the country. Dr. Graham spoke on bovine genetics, livestock nutrition, and best practices in livestock management for Turkmenistan. Mr. Murad Nobatov, the project's Agribusiness Specialist, delivered a presentation on greenhouse management and innovative irrigation technologies.



Additionally, from June 12-14, AgTech participated in representing USAID in the International Scientific Conference “Science and Innovative Technologies” in Ashgabat. High profile government officials and members of the Cabinet of Ministers were among the attendees. AgTech disseminated project leaflets and brochures highlighting project results and achievements and presented short video clips of its AI and feed demonstration activities. Both events promoted AgTech’s activities to a large audience, including government officials and business entities.

Central Veterinary Laboratory

Upon the completion of the US-Turkmenistan Business Forum, the project made an introductory visit for Dr. Graham to see the Central Laboratory of the State Veterinary Service of Turkmenistan. A meeting was held with the upper management and lab specialists discussing current activities, challenges and prospective cooperation between the project and the State Veterinary Services. The lab has been assigned by the State to carry out tests for 12 animal diseases along with methodologies in compliance with the OIE requirements. However, the lab currently only has the capability to carry out four of these 12 tests, but requires assistance in completing the remaining eight. Pursuant to an inspection of the available lab equipment, Dr. Graham concluded that no additional lab equipment was necessary to complete the examinations, but certain reagents are needed as well as a translation of the OIE instructions for conducting the tests. The project will continue to examine and assess potential training opportunities for the lab specialists at one of the OIE compliant labs abroad.

PUBLICATIONS

In its third quarter, AgTech has printed over 200 copies of promotional leaflets highlighting AI Center activities, use of drip irrigation in greenhouse production, and project information dissemination among farmers and the rural population. AgTech has also completed printing of two booklets on greenhouse construction and on pest control of greenhouse tomatoes and cucumbers. Every regional project partner was provided with 25-30 copies of each booklet for further dissemination among participants of project trainings. The booklets are intended to help training participants and other greenhouse producers refresh their knowledge and skills gained throughout the project trainings and to serve as a reference guide for greenhouse production management.

PMP TARGETS AND DEVIATIONS

Performance Indicator	Performance Indicator Definition	Year 3 Proposed	Year 3 Actual (through third quarter)
50% increase in HH income	<i>Horticulture HHs and farms increasing income by 50%</i>	1000	471
	<i>Livestock HHs and farms increasing their income by 50%</i>	1000	N/A
Person hours of training completed in private sector productive capacity supported by USG assistance	<i>Number of hours of training completed by beneficiaries and training participants, disaggregated by gender</i>	3000	1668
Farmers, processors and others who have adopted new technologies or management practices	<i>Number of beneficiaries and training participants using new technologies or practices as introduced by the project, disaggregated by gender and region</i>	500	1058
Quantity of produce grown and/or sold	<i>Farmers, buyers or labs are using AI, improved feed, vet services, greenhouses, drip irrigation, grading, post-harvest packaging practices training</i>	Baseline + 150 %	151%
Value of produce sold to local and international markets	<i>USD value of goods in livestock and horticulture sector disaggregated by product and velayat</i>	Baseline + 40%	107%
Number of agriculture-related firms benefiting directly from USG supported interventions.	<i>Number of input providers and buyers strengthened to provide farmers with necessary inputs.</i>	150	16
Number of greenhouses constructed or improved	<i>Number greenhouses constructed and/or renovated in each velayat</i>	100	59
Land under improved technologies or management practices	<i>Indicates the number of ha under greenhouse or livestock project activities (existing and new land).</i>	500	20

**Total Calves Born from Artificial Insemination
(disaggregated by breed and gender)**

Calves	Known Heads	Est. Total*
Holstein male	87	209
Holstein female	91	219
Swiss male	241	580
Swiss female	182	438
Stillborn	17	41
Aborted	28	57
Other died or slaughtered	33	79
Total Calves Born	601	1446

*Extrapolated based on number of total inseminations.

**Greenhouse Horticulture Indicators
(disaggregated by velayat)**

Velayat	Farmers with >50% Increase in Income	Increase in Production	Increase in Value
Ahal	75	125%	33%
Mary	219	130%	117%
Lebap	149	202%	165%
Dashoguz	28	91%	18%
Total	471	151%	107%

**Number of Greenhouses Constructed and/or Renovated
(disaggregated by velayat)**

Velayat	Completed in Q3	Total Completed in Y3	Total Project to Date
Ahal	0	3	39
Mary	4	23	112
Lebap	0	28	90
Dashoguz	0	5	5
Balkan	0	0	4
Total	4	59	250

CHEVRON FUNDED ACTIVITIES

No new activities have taken place in Q3. Targets and results remain the same as the previous quarter. The project looks forward to collaborating on new co-funded initiatives through the end of the year and into the final year of the project.

M&E Targets and Results for Chevron Funding

Indicator		Year 2		Year 3		Year 4
Number of direct and indirect beneficiaries (disaggregated by women/men and adults/youth under 18);		55 total	54 male	688 total	407 male	
			1 female		281 female	
		55 adults			688 adults	
		0 youth			0 youth	
Number of partners leveraged		1		1		
Dollar amount of funds leveraged through partnership	Initial USAID Contribution	\$0		\$1,373.16		
	Chevron Contribution	\$114,296.17		\$35,703.83		
Amount of in-kind contribution leveraged through partnership		\$0		\$0		