



OFFICE OF INSPECTOR GENERAL

AUDIT OF USAID/AFGHANISTAN'S AGRICULTURE, WATER, AND TECHNOLOGY TRANSFER PROGRAM

AUDIT REPORT NO. F-306-11-001-P
FEBRUARY 13, 2011

KABUL, AFGHANISTAN



Office of Inspector General

February 13, 2011

MEMORANDUM

TO: USAID/Afghanistan Mission Director, Earl W. Gast

FROM: OIG/Afghanistan Acting Director, Steven K. Ramonas /s/

SUBJECT: Audit of USAID/Afghanistan's Agriculture, Water, and Technology Transfer Program (Report No. F-306-11-001-P)

This memorandum transmits our final report on the subject review. In finalizing the report, we considered your comments on the draft report and included them (without attachments) in Appendix II.

The report contains six recommendations to assist the mission in managing the Agriculture, Water, and Technology Transfer program. The mission concurred with all six recommendations in its response to the draft report.

On the basis of the information provided by the mission in its response to the draft report, we determined that final action has been taken on Recommendation 3, and management decisions have been reached for Recommendations 1, 2, 4, and 5. Management decision for Recommendation 6 can be reached when we agree with USAID/Afghanistan on a firm plan of actions, with time frames, for implementing the recommendations.

A determination of final action for Recommendations 1, 2, 4, and 5 will be made by the Audit Performance and Compliance Division on completion of the proposed corrective actions. Please advise our office within 30 days of the actions planned or taken to implement Recommendation 6.

I want to thank you and your staff for the cooperation and courtesies extended to us during this audit.

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Abbreviations

The following abbreviations appear in this report:

ADS	Automated Directives System
AOTR	agreement officer’s technical representative
CFR	Code of Federal Regulations
IEE	initial environmental examination
MAIL	Ministry of Agriculture, Irrigation and Livestock
NMSU	New Mexico State University
OIG	Office of Inspector General
PMP	performance management plan

SUMMARY OF RESULTS

According to USAID/Afghanistan, nearly 80 percent of Afghans earn their living from agriculture. USAID/Afghanistan's active agriculture and alternative livelihoods programs, with reported obligations of \$701 million and disbursements of \$494 million as of September 30, 2010, are intended to create jobs and increase incomes in the agricultural sector and increase Afghans' confidence in their government, particularly in the Ministry of Agriculture, Irrigation and Livestock (MAIL).

One such program, the Afghanistan Agriculture, Water, and Technology Transfer Program, is implemented through a \$20 million cooperative agreement with New Mexico State University (NMSU). The agreement was awarded in March 2008 and is scheduled to end in March 2011. NMSU, in turn, subcontracted portions of the program to Colorado State University, Southern Illinois University Carbondale, and the University of Illinois at Urbana-Champaign. As of September 2010, according to USAID/Afghanistan, it had obligated \$16 million and disbursed \$9 million under the cooperative agreement.

Although the original scope of the program was more ambitious, the revised program description, dated July 2010, states that the main program objective is to improve community and farm-level management of irrigation water resources for increased agricultural productivity and food security. The program has three components: integrated water management, new agricultural technology, and technical assistance to MAIL.

The objective of this audit was to determine whether the program was achieving its main goals, which dealt with irrigation water management, agricultural technology transfer, and institution building.¹ Two and one-half years into the 3-year program, NMSU had achieved a number of successes in introducing new agricultural and water technologies, and many farmers were participating in on-farm demonstrations of these technologies. Auditors found some evidence of demand for these new technologies—laser land leveling being the clearest example—but adoption of the technologies lies in the future. However, the audit noted the following implementation issues:

- *Water Component Focused on Technology Transfer Instead of Governance.* NMSU demonstrated a number of water-conserving technologies—furrow irrigation, raised beds for irrigated crops, seed drills, laser land leveling, water gauges, and concrete farm turnouts for irrigation canals. To date, however, there is no evidence of adoption of these technologies apart from the demonstrations specifically supported by NMSU, and there has been relatively little emphasis on improving governance of irrigation water resources (page 4).
- *Adoption of New Agricultural Technologies Fell Short.* In addition to irrigation technologies, NMSU introduced high-yielding wheat varieties, a system of rice intensification, and improved forage crops. NMSU promoted these technologies to MAIL extension agents and farmers through demonstration plots and field days. However, as with the water-saving

¹ We based our conclusions on the information available to us during the audit. NMSU was not able to provide a complete list of program sites in time for us to select a representative sample of program sites to visit, and the program results reported by NMSU were not verifiable because NMSU did not keep records showing how the results were compiled or providing references to supporting records. In addition, program goals and performance indicators evolved during implementation, making it difficult to decide which goals and performance indicators should be used to measure progress. Appendix I provides details on the scope of the audit, including details on these significant scope impairments.

technologies discussed above, apart from the demonstrations specifically supported by NMSU, farmers have not adopted the technologies for use on their own land (page 5).

- *NMSU Did Not Assess the Effectiveness of Technical Assistance and Training.* NMSU was responsive to MAIL requests for technical assistance and training. For the Irrigation Department, NMSU provided technical assistance to strengthen information technology infrastructure, and in September 2010, NMSU hired a water engineer to train and mentor department staff. NMSU reportedly trained 516 people, including MAIL employees and faculty and students at educational institutions whose graduates often go on to work for MAIL. However, the program did not follow up to see whether the technical assistance and training activities improved the knowledge, skills, and abilities of MAIL employees; whether employees applied these attributes successfully in the workplace; or whether MAIL's institutional performance improved as a result (page 6).
- *Monitoring and Evaluation Shortcomings Reduced the Value of Performance Information.* NMSU did not submit its first of two performance management plan on time, omitted some required information from both performance management plans, did not keep records to substantiate reported results, reported some incorrect information, and omitted mention of performance challenges from its quarterly reports (page 7).
- *NMSU Lacked an Approved Branding and Marking Plan.* NMSU did not submit a branding and marking plan for mission approval until after the auditors requested it. Further, NMSU did not consistently mark project deliverables or pursue a formal branding strategy (page 10).
- *USAID/Afghanistan Did Not Follow USAID's Environmental Procedures.* The mission did not prepare a mandatory environmental assessment or an environmental impact statement (page 9).

Moreover, financial records for the program showed that about 61 percent of spending was in Afghanistan, while the other 39 percent was in the United States. Officials connected with the program raised concerns that the high proportion of expenditures in the United States left fewer resources available for activities in Afghanistan and raised other questions about the financial management of the program. To address these issues, the Office of Inspector General (OIG) contracted with an audit firm to conduct financial audits of NMSU and its partner universities in the United States. OIG will issue a separate report on the results of that audit (page 5).

To address the issues outlined above, the audit makes six recommendations to the mission:

1. Instruct NMSU to conduct appropriate follow-up activities to determine the effectiveness of its technical assistance and training activities with MAIL (page 7).
2. Periodically verify the results reported by NMSU for the program (page 9).
3. Provide NMSU with written definitions of performance indicators and ensure that NMSU staff members understand the definitions (page 9).
4. Require NMSU to document challenges and implementation shortfalls in its quarterly reports (page 9).
5. Determine the acceptability of NMSU's branding and marking plan, and after approving some version of the plan, verify its implementation by NMSU (page 10).

6. Perform an environmental assessment for the program and implement any corrective actions that may be required (page 11).

Detailed audit findings appear in the next report section. A discussion of the audit scope and methodology appears in Appendix I. Our evaluation of management comments is on page 12, and the full text of the comments is in Appendix II.

AUDIT FINDINGS

Water Component Focused on Technology Transfer Instead of Governance

The March 2008 cooperative agreement with NMSU established the following as a program objective: “To develop an institutional framework for effective supply and demand management of the country’s limited water resources—from local watershed management to trans-boundary basins.” The revised program description, dated July 2010, reduced the scope of the work that NMSU was to undertake in water resource governance, but still required NMSU to “develop an efficient and equitable community-based irrigation water distribution and management system to improve agricultural productivity.”

NMSU demonstrated a number of water-conserving technologies² and successfully stimulated demand for some of them. However, farmers have not adopted these technologies for wider use, and NMSU placed relatively little emphasis on improving distribution of irrigation water resources. NMSU sponsored two conferences for *mirabs* (traditional irrigation canal operators who are compensated by farmers who use the canals) in February and August 2010 and reportedly helped organize three water associations during the quarter ending June 2010. However, the *mirabs* and members of water associations were still beginning to learn the concept of measurement-based water management. It will be some time before they can begin to help address the basic issue in distribution of irrigation water resources in Afghanistan: farmers at the head of irrigation canals take as much water as they like, while farmers at the tail take whatever water is left.

NMSU focused on technology transfer instead of on water distribution for several reasons. First, according to MAIL’s Director of Irrigation, the ministry had a verbal agreement with NMSU to deemphasize governance issues during the first part of the program because he believed that these issues were an Afghan issue and needed to be handled by MAIL instead of by an American institution. Secondly, MAIL’s Deputy Minister for Irrigation asked NMSU to focus on the practical application of irrigation technologies rather than on water allocation issues because these would be divisive. Third, governance issues involve reconciling competing interests and therefore typically require longer-term efforts to resolve, and NMSU had only 3 years to complete the program.

Consequently, NMSU’s efforts have not yet resulted in a more equitable, community-based system for managing irrigation water. NMSU officials noted that the water-conserving technologies they introduced could make more water available for farmers at the tail of irrigation canals. For this to occur, however, the technologies must be widely adopted, and as indicated in the next finding, evidence of adoption of these technologies was lacking.

We are not making a recommendation to improve performance under the integrated water management component because (1) the program is scheduled to end in March 2011 and (2) NMSU’s work plan for the final year of the program specifies that NMSU will work with *mirabs* and water associations to help them recognize and rectify inequities in water distribution.

² Namely, furrow irrigation, raised beds for irrigated crops, seed drills, laser land leveling, water flow gauges, concrete farm turnouts for irrigation canals, and a plan (not yet implemented) to produce precast concrete segments for irrigation canal lining.

Adoption of New Agricultural Technologies Fell Short

Program documentation makes it clear that the program was intended not only to introduce or demonstrate new technologies, but also to support farmers in adopting them. The original program description, dated March 2008, stated that one objective of the agricultural technology transfer component was “to determine *and apply* appropriate technologies that would increase the agricultural potential for areas subject to seasonal droughts and high risk of land degradation, deforestation, and loss of biodiversity” (emphasis added). A letter from the Director of USAID/Afghanistan’s Office of Agriculture, sent in October 2009, stated that USAID expected NMSU “to move forward from a pilot phase to on-farm application of technologies.” Finally, the revised program description, dated July 2010, anticipated that, by the end of the program in March 2011, up to 720 farmers would have adopted improved varieties of food and forage crops after observing increased yields and incomes of the farmers participating in on-farm demonstrations.

NMSU demonstrated high-yielding wheat varieties (which reportedly yield 72 percent more than traditional varieties), a system of rice intensification (which in other settings has increased yields 50 percent or more, while reducing seed costs and water usage), and improved forage crops (notably, pearl millet, which reportedly can be harvested five or six times per season versus one or two times for alfalfa, while increasing milk production). As discussed in the preceding section, NMSU also demonstrated furrow irrigation, raised beds for irrigated crops, seed drills, laser land leveling, and concrete farm turnouts for irrigation canals. However, there is no evidence confirmed adoption of these improved varieties or improved farming practices by farmers who were not participating in the on-farm demonstrations sponsored by NMSU.

The program got off to a slow start as NMSU spent its first year mobilizing operations in Afghanistan, hiring staff, performing diagnostic studies, identifying promising technologies for introduction in Afghanistan, and developing relationships with counterparts. According to the program’s first annual report, language and cultural barriers, difficulties in finding and employing staff, and security issues impeded progress in the first year. In addition, according to USAID/Afghanistan and NMSU officials, too large a portion of the program’s resources supported home-office efforts in the United States, at the expense of field activities in Afghanistan.³ Program documentation and interviews with USAID/Afghanistan and NMSU officials indicated that recurrent shortages of funds available to the NMSU office in Afghanistan impeded field activities. Finally, weaknesses in MAIL reportedly constrained the effectiveness of extension agents in promoting new technologies to farmers. Specifically, an NMSU official indicated that the extension service was poorly led, with poorly educated staff; extension agents told us they could not visit farmers because the extension service lacked transportation.

As a result, activities under the agricultural technology transfer component have not yet contributed to achievement of higher-level outcomes in the U.S. Government’s Agriculture Assistance Strategy for Afghanistan, such as increased agricultural sector jobs and incomes and increased confidence of Afghans in their government, particularly in MAIL.

We are not making a recommendation concerning the performance of the agricultural technology transfer component because the program is scheduled to end in March 2011, and because NMSU prepared a work plan for the last 9 months of the program centered on persuading up to 720 farmers to adopt agricultural technologies introduced by the program.

³ OIG contracted with an audit firm for a separate financial audit of costs incurred in the United States by NMSU and its subcontractors. OIG will issue a separate report on the results of that audit.

NMSU Did Not Assess the Effectiveness of Technical Assistance and Training

The program was designed to provide technical assistance in formulating appropriate policies focusing on (1) security in land ownership and access to available arable land and (2) tenure for use of rangeland, forests, and wetlands for individual or communal use. In July 2010, USAID revised the program description to focus on improving MAIL's outreach capabilities and decision-making strategies for irrigation and watershed management through training and the transfer of technical skills to the staff of MAIL and the faculty of agriculture departments at Afghan universities and agricultural vocational schools. NMSU spent over \$950,000 on technical assistance and training between March 2008 and September 30, 2010. Ultimately, the technical assistance and training delivered by NMSU through the program should increase the confidence of Afghans in their government.

However, Afghans will have more confidence in their government only if the performance of individual MAIL employees and MAIL's performance as an institution improve because of NMSU's assistance. According to USAID's Automated Directives System (ADS) Chapter 253, "Participant Training for Capacity Development," training providers are encouraged to consider the broader operational context in which participants' newly acquired knowledge, skills, and abilities will be applied. Donald Kirkpatrick's widely used training evaluation model suggests that training evaluations should focus on four types of training effects: (1) how participants thought or felt about the training (i.e., their reaction to the training); (2) changes in knowledge, skills, and abilities; (3) application of training on the job (i.e., behavioral changes); and (4) results (i.e., changes in organizational performance that are caused by employee training).⁴

Of course, monitoring and evaluation systems must be cost-effective. It might be appropriate to use participant questionnaires or some other participant feedback mechanism, as well as pretests and posttests to measure changes in knowledge, skills, or attitudes, for almost all training programs. For longer-term training and technical assistance programs, it would be advisable to determine the extent to which participants have been able to apply what they have learned and determine whether organizational performance changed as a result.

NMSU provided technical assistance to MAIL's Department of Irrigation and Department of Agriculture and Extension, but could not demonstrate that the assistance and training achieved expected results.

Among the assistance NMSU provided was the following:

- NMSU provided technical assistance to strengthen the IT infrastructure of the MAIL Department of Irrigation. Also, during the quarter ending June 2009, NMSU reported that it had installed three AutoCAD workstations to assist the department in designing irrigation system improvements.
- In September, NMSU assigned a staff member to the Irrigation Department to provide full-time assistance to department staff. NMSU also arranged training on irrigation water management. NMSU reportedly conducted 2 weeks of training in Jalalabad on watercourse lining for 20 Afghan irrigation engineers, including four from MAIL's Kabul and Nangarhar offices.

⁴ Donald L. Kirkpatrick, *Evaluating Training Programs: The Four Levels*, Berrett-Koehler Publishers, Inc., San Francisco, 1998.

- NMSU provided technical experts who facilitated training for MAIL extension workers. NMSU conducted workshops and classroom training for MAIL extension workers and held field days that provided on-the-job-training opportunities and allowed agricultural extension workers to interact with local farmers. Through the program, NMSU mentored MAIL staff in Nangarhar, Nuristan, Laghman, and Kunar to deliver training directly to farmers.
- In collaboration with the USAID-funded Advancing Afghan Agriculture Alliance Program, NMSU facilitated information technology training for a technician at Kabul University and provided part of the design for the university's information technology laboratory. The program invited four vocational schools to participate in training activities. NMSU worked with the agriculture departments of higher education institutions as part of its support to MAIL because graduates from these institutions go to work for MAIL as well as for other public and private organizations.

Although it invested considerable time in facilitating training for and assistance to MAIL, NMSU did not follow up to determine whether these activities strengthened the skills of individual staff members or MAIL's institutional performance. According to NMSU, it did not follow up because the MAIL Department of Irrigation had been operational for only a year and a half, and the new, inexperienced staff members had only recently begun to apply any new knowledge and skills in performing their jobs. NMSU officials noted that they were investigating ways to solicit feedback from training participants—such as questionnaires, follow-up interviews, and pretests and posttests—but officials also noted that because the use of these types of instruments is not customary in Afghanistan, their introduction will require careful planning.

As a result, USAID/Afghanistan and NMSU did not have evidence of the degree to which NMSU's assistance activities increased Afghans' confidence in MAIL.

***Recommendation 1.** We recommend that USAID/Afghanistan (1) instruct New Mexico State University to conduct appropriate follow-up activities to determine the effectiveness of its technical assistance and training activities with the Ministry of Agriculture, Irrigation and Livestock and (2) verify that appropriate follow-up has been performed.*

Monitoring and Evaluation

Shortcomings Reduced the Value of Performance Information

Developing meaningful performance indicators, systematically gathering performance information, and communicating information on results achieved or not achieved are all important elements of USAID's system of managing for results. However, under the program, these matters did not receive the attention they deserve, as noted below.

Late Submission of Performance Management Plan. A performance management plan (PMP), as described in ADS 203.3, is a mandatory monitoring and evaluation tool used to track and monitor program progress toward achieving results. USAID/Afghanistan's cooperative agreement with NMSU required the university to submit a PMP 1 month after approval of the program work plan or within 60 days of the agreement award date. However, NMSU submitted its first PMP to USAID/Afghanistan for review in October 2009, about 4 months after the required submission date. NMSU staff members indicated that they had a steep learning curve to overcome in developing the first PMP. In our opinion, NMSU's agriculture faculty's lack of experience working in Afghanistan on USAID-funded programs also contributed to difficulties in preparing the first PMP. The second PMP was submitted to the mission in August 2010.

Incomplete PMPs. Both PMPs for the program did not include performance indicator definitions, information sources, methods of collection, or procedures for assessing data quality, as required by ADS 203.3.3.1.

Lack of Performance Targets. ADS 203.3.3.1 explains that PMPs should include baseline values and target values for each performance indicator. However, the August 2010 PMP does not include performance targets for two of seven performance indicators: *number of hectares of upper watershed rehabilitated* and *increase in water-use efficiency at selected farms*. As in the preceding cases, NMSU's inexperience and weak guidance from USAID/Afghanistan contributed to the lack of baseline data and performance targets.

Unverifiable Reported Results. ADS 203.5.1 requires that performance data meet the five data quality standards of validity, integrity, precision, reliability, and timeliness. Data should accurately reflect the program's performance and enable management to make appropriate decisions. However, NMSU could not substantiate the results reported in NMSU's August 2010 PMP. (See Appendix III for details.) NMSU did not maintain records showing the source of reported information, and NMSU staff could not explain how overall reported results were computed. As a result, USAID has insufficient assurance that results reported by NMSU and by the mission to USAID/Washington accurately reflected program accomplishments. The mission could have prevented this problem by periodically verifying a sample of the results reported by NMSU.

Other PMP Anomalies. Simple inspection of the August 2010 PMP reveals other anomalies. For example, the 2010 PMP lists one performance indicator, *number of hectares of upper watershed rehabilitated*, twice. In one instance, no results are reported, but in the other instance, the PMP states that 135 hectares were rehabilitated. As another example, the PMP indicated that 5 women were trained during all of FY 2010 but also indicated that 105 women were trained in the third quarter and 100 in the fourth quarter of FY 2010. We were unable to verify the higher figures from training data that NMSU provided. These anomalies reflect a lack of care in preparing and reviewing the PMP.

Incorrect Reporting. In USAID/Afghanistan's "Afghan Info" database, intended to be a central source of information on results achieved by USAID/Afghanistan programs, NMSU reported incorrect information for 4 of 14 indicators because it misunderstood or was completely unaware of the indicator definition:

- NMSU reported that its activities created 654 jobs, but some of the jobs that NMSU reported were for NMSU staff members who were not beneficiaries of NMSU activities but rather helped implement them. Additionally, the reported figure included widows who were paid \$25 per month by NMSU to care for pistachio seedlings but who were not working full-time. Only the number of full-time-equivalent jobs should have been counted.
- NMSU reported that 25,602 families benefitted from alternative development or activities promoting alternative livelihoods. This total represents the estimated number of families living in two areas of two provinces assisted by the program—that is, it represents the target population that *could* benefit from program activities. However, since the program was still demonstrating new technologies, a more realistic estimate would be that hundreds, not tens of thousands, of families benefitted from program activities.
- NMSU reported that 18,137 hectares of alternative crops were under cultivation. This figure is an estimate of the cultivated area where the program was operating. Again, however,

since the program was still introducing new technologies, a realistic estimate of the number of hectares of crops grown using improved varieties or new technologies introduced by the program would be in the tens or hundreds of hectares, not tens of thousands. Of course, potential exists for wider application of the new technologies in the future.

- NMSU reported that it had assisted 114 women’s organizations or associations. However, this figure represented the number of individual women reached by program activities. The program did not work with any women’s associations or organizations.

Quarterly Report Omitted Shortfalls and Challenges. The cooperative agreement with NMSU requires NMSU to submit quarterly reports that include explanations for shortfalls in accomplishing established goals in the PMP. While NMSU consistently documented success and accomplishments in its quarterly reports, it did not document performance challenges and shortfalls. This omission made it harder to focus on and correct shortfalls in performance.

These reporting and performance management anomalies occurred because of insufficient management attention by NMSU and USAID. In our opinion, the inexperience of NMSU’s agriculture faculty as a recipient of USAID assistance also contributed to these reporting problems.

As a result, USAID did not have accurate information for reaching valid conclusions about the program’s accomplishments. The mission did not pay close attention to and therefore did not make full use of the quantitative performance indicators to manage the program effectively. It was evident that quantitative performance indicators did not play a very significant role in management of the program. In addition, USAID/Afghanistan shared inaccurate information with USAID/Washington, overstating the program’s accomplishments.

Recommendation 2. We recommend that USAID/Afghanistan periodically verify the results reported by New Mexico State University for the Agriculture, Water, and Technology Transfer Program.

Recommendation 3. We recommend that USAID/Afghanistan provide New Mexico State University with written definitions of the performance indicators and discuss them with staff members periodically to ensure that the definitions are understood.

Recommendation 4. We recommend that USAID/Afghanistan require New Mexico State University to document challenges and implementation shortfalls in its quarterly reports.

NMSU Lacked an Approved Branding and Marking Plan

ADS 320 implements the requirement in Section 641 of the Foreign Assistance Act of 1961, as amended, that “[p]rograms under this Act shall be identified appropriately overseas as ‘American Aid.’” Branding and marking requirements for assistance are also established by 22 CFR 226.91 and ADS 320 and incorporated into the cooperative agreement with NMSU (Attachment C, and standard provisions Section 14). A branding and marking plan permits implementing partners to propose a strategy emphasizing the Government of Afghanistan’s participation in or leadership of program activities, consistent with the U.S. Government’s “Afghan First” strategy aimed at increasing confidence in the Afghan Government.

However, NMSU did not submit a proposed branding and marking plan to USAID until September 18, 2010, about 2.5 years after the program began and after the auditors asked for it. After visiting demonstration activities and reviewing program materials, we concluded that NMSU did not consistently mark project deliverables or pursue a formal branding strategy. When NMSU did mark signage and banners with the USAID logo, it did not follow the placement guidelines in the USAID Graphics Standards Manual. For example, on the program Web site, the USAID logo is placed incorrectly and is smaller than the program logo.

The lack of an approved branding and marking plan was, in our opinion, the result of NMSU's inexperience in working with USAID as a lead institution and of weak monitoring and oversight by USAID/Afghanistan's agreement officer's technical representatives (AOTRs).⁵ According to ADS 203, it is the responsibility of the AOTR to monitor implementing partner compliance with the branding and marking policy. However, we found only one documented reminder to NMSU that it must submit a branding and marking plan.

Because NMSU did not comply with USAID branding and marking requirements, stakeholders, beneficiaries, and members of the general public visiting NMSU offices or participating in program events and training classes were not likely to know that USAID funded the program. Additionally, NMSU missed opportunities to consistently cobrand its activities with MAIL, which would have helped build confidence in MAIL and thus contributed to the U.S. Government's "Afghan First" strategy.

***Recommendation 5.** We recommend that USAID/Afghanistan determine the acceptability of the branding and marking plan submitted by New Mexico State University, and after approving some version of the plan, verify its implementation.*

Mission Did Not Follow USAID's Environmental Procedures

Title 22 of the Code of Federal Regulations, Part 216, "Environmental Procedures," requires USAID to ensure that the environmental consequences of USAID-financed activities be identified and considered prior to a final decision to proceed, and that appropriate environmental safeguards be adopted. Title 22 of the Code of Federal Regulations, Section 216.2(d), identifies several classes of actions that normally have a significant effect on the environment and therefore require an environmental assessment or environmental impact statement. Among the classes of actions are irrigation and water management projects and leveling of agricultural land—activities included in the Agriculture, Water, and Technology Transfer Program.

Contrary to the requirements of 22 CFR 216.2(d), the mission did not prepare an environmental assessment or an environmental impact statement.

This violation of USAID's environmental procedures occurred when USAID/Afghanistan did not have a dedicated full-time environmental officer, and the officials responsible for compliance with USAID's environmental procedures might not have understood the procedures fully. For example, program documentation cited activities such as training, data gathering, and policy analysis that were eligible for a categorical exclusion under USAID's environmental procedures. However, the documentation did not mention that the program involves irrigation and water

⁵ NMSU has not been the lead on a USAID-funded program since 1992 and has never led the implementation of a USAID-funded program in Afghanistan.

management or that it included land leveling—activities that made preparation of an environmental assessment or environmental impact statement mandatory.

Without proper environmental reviews, USAID/Afghanistan cannot ensure that proper environmental safeguards are adopted and incorporated into development projects.

Recommendation 6. *We recommend that USAID/Afghanistan perform an environmental assessment for the program and implement any corrective actions that may be required.*

EVALUATION OF MANAGEMENT COMMENTS

USAID/Afghanistan agreed with all six recommendations. On the basis of the information provided by the mission in its response to the draft report, we determined that final action has been taken on Recommendation 3, and management decisions have been reached for Recommendations 1, 2, 4, and 5. Management decision for Recommendation 6 can be reached when we agree with USAID/Afghanistan on a firm plan of actions, with time frames, for implementing the recommendations.

Recommendation 1. The draft report recommended that USAID/Afghanistan (1) instruct New Mexico State University to conduct appropriate follow-up activities to determine the effectiveness of its technical assistance and training activities with the Ministry of Agriculture, Irrigation and Livestock and (2) verify that appropriate follow-up has been performed.

On January 10, 2011, the mission instructed NMSU to conduct follow-up activities to determine the effectiveness of the technical assistance and training it provided to MAIL and instructed NMSU to include the progress of these activities in all future quarterly reports for the program. Final action is expected by April 30, 2011, pending review of the March 2011 quarterly report.

A management decision has been reached on this recommendation.

Recommendation 2. The draft report recommended that USAID/Afghanistan periodically verify the results reported by New Mexico State University for the Agriculture, Water, and Technology Transfer Program.

We acknowledge the mission's response that the Office of Agriculture is in regular contact with USAID field program officers, who are the "eyes and ears" of the office and report regularly on program activities and accomplishments. The Office of Agriculture confirmed that it periodically sends Kabul staff members to verify reported results and that these visits are documented in trip reports. In addition, the Office of Agriculture officials stated they would ensure that site visits occur at least twice a year, taking into consideration security issues. Final action is expected to be completed by March 31, 2011 upon performance of the next site visit.

A management decision has been reached on this recommendation.

Recommendation 3. The draft report recommended that USAID/Afghanistan provide New Mexico State University with written definitions of the performance indicators and discuss them with staff members periodically to ensure that the definitions are understood.

The mission provided written definitions of the performance indicators to Office of Agriculture staff on November 9, 2010. The mission also delivered a PowerPoint presentation on the performance management plan and provided performance indicator reference sheets with written indicator definitions to Office of Agriculture staff members to ensure that they understood the definitions. In addition, these indicators were reviewed with the chief of party.

Final action has been taken on this recommendation.

Recommendation 4. The draft report recommended that USAID/Afghanistan require New Mexico State University to document challenges and implementation shortfalls in its quarterly reports.

The mission instructed NMSU to document the challenges and implementation shortfalls in its quarterly reports. In addition, the mission returned the latest draft of the annual report for October 1, 2009, to September 30, 2010, to NMSU with specific instructions to include its challenges and implementation shortfalls. The mission will verify that all future quarterly reports reflect the program's challenges and implementation shortfalls. Final action is expected when USAID confirms that the annual report for the year ending September 2010 includes the requisite information.

A management decision has been reached on this recommendation.

Recommendation 5. The draft report recommended that USAID/Afghanistan determine the acceptability of the branding and marking plan submitted by New Mexico State University, and after approving some version of the plan, verify its implementation.

The mission's Development, Outreach, and Communications Office approved the NMSU branding and marking plan on January 4, 2011. The implementation of the branding and marking plan will be verified through field visits during the remainder of the program. Final action is forthcoming, pending performance of the next field visit on or about March 30, 2011.

A management decision has been reached on this recommendation.

Recommendation 6. The draft report recommended that USAID/Afghanistan perform an environmental assessment for the program and implement any corrective actions that may be required.

The mission drafted an initial environmental examination (IEE) and final approval was expected by March 30, 2011. The mission stated that the regional environmental adviser and the Bureau environmental officer will take the necessary corrective actions once the IEE is approved.

We acknowledge the mission's actions to draft an IEE. However, Title 22 of the Code of Federal Regulations, Section 216.2(d), identifies several classes of actions that normally have a significant effect on the environment and therefore require an environmental assessment or environmental impact statement. Specifically, irrigation and water management projects and leveling of agricultural land activities automatically require an environmental assessment because they could have a significant impact on the environment. An understanding of USAID's environmental procedures and proper environmental review would ensure that proper safeguards are in place for this and future USAID/Afghanistan development projects.

No management decision has been reached on Recommendation 6 because the mission needs to conduct an environmental assessment or environmental impact statement on program activities covered under 22 CFR 216.2(d).

USAID/Afghanistan's written comments on the draft report are included in their entirety (without attachments) as Appendix II to this report.

SCOPE AND METHODOLOGY

Scope

OIG/Afghanistan conducted this performance audit in accordance with generally accepted government auditing standards, except for three impairments to the scope of the audit:

- NMSU was not able to provide a complete list of program sites so that we could select a representative sample of sites to visit. Therefore, we visited program sites in Kabul and Balkh Province that were proposed by NMSU as being representative of the activities supported by NMSU.
- The program results reported by NMSU could not be verified because NMSU did not keep records showing how the results were compiled or providing references to supporting records.
- It was difficult to determine whether the program was achieving its main goals because the program goals and performance indicators have evolved throughout implementation, and it was not obvious which goals and performance indicators should be used to measure progress to date.

Because of these scope impairments, we based our conclusions on the items we tested and on other sources of information available to us during the audit—namely field visits to observe NMSU-supported activities at sites suggested by NMSU, interviews with program participants and beneficiaries, and program documentation such as progress reports, site visit reports, program correspondence, and a monitoring report prepared by a USAID/Afghanistan contractor. In assessing the evidentiary value of these sources and materials, we considered the scope limitations above and obtained corroborating information whenever possible.

The objective of this audit was to determine whether the Afghanistan Agriculture, Water, and Technology Transfer Program was achieving its main goals. We conducted audit fieldwork from September 12 to October 25, 2010. The audit covered the period from the program's inception on March 3, 2008, to the end of our fieldwork on October 25, 2010.

In planning and performing the audit, we assessed USAID/Afghanistan's internal controls related to the audit objective. Specifically, we obtained an understanding of and evaluated (1) the cooperative agreement; (2) program documents, such as work plans, quarterly reports, correspondence, and site visit reports; and (3) management of the program by agreement officer technical representatives. We interviewed key USAID/Afghanistan staff, NMSU staff, MAIL officials, and program beneficiaries. We performed the audit in Kabul and at project sites in Balkh Province.

As of September 30, 2010, according to USAID/Afghanistan, it had obligated \$16 million and disbursed \$9 million under the cooperative agreement with NMSU.

Methodology

Our audit included a review of the cooperative agreement to obtain an understanding of the program's objectives and related compliance requirements. We interviewed USAID/Afghanistan and NMSU officials to obtain an understanding of the program and how it was managed. We interviewed MAIL officials, the Dean of Agriculture at Kabul University, *mirabs*, and farmers to obtain their views of the program's strengths and weaknesses. Finally, we observed:

- Demonstration plots at Kabul University and at MAIL's Badam Bagh demonstration farm in Kabul.
- In Balkh Province:
 - Two farm turnouts.
 - Two water gauges.
 - A terracing project.
 - A small-scale nursery.

Because we could not obtain a complete list of programs sites, and because reported results were not verifiable, we cannot compare the sites we visited with the population of all sites included in the program. However, it is evident that the sites we visited represented only a small fraction of the program sites, and the results of our site visits cannot be taken as being representative of all program sites. Therefore, our conclusions related to site visits were limited to the specific sites and activities visited.

To determine the reliability of computer-processed data received from the mission in support of its obligated and disbursed amounts, we reviewed prior audits of the mission's financial statements and internal controls. In addition, to verify the data used by NMSU in its performance reports, we obtained an understanding of the NMSU internal controls over the monitoring and verification of results and tested these controls by verifying documentation for a judgmental sample of reported results.

MANAGEMENT COMMENTS



MEMORANDUM

TO: Tim Cox, OIG/Afghanistan Director

From: Earl Gast, Mission Director /s/

DATE: January 14, 2011

SUBJECT: Audit of USAID/Afghanistan's Agriculture, Water, and Technology Transfer Program (Audit Report No. F-306-11-XXX-P)

REFERENCE: Tim Cox/Earl Gast memo dated December 15, 2010

Thank you for providing the Mission the opportunity to review the subject draft audit report. We would like to express our gratitude for the professionalism and flexibility exhibited by the audit team while travelling to several insecure areas throughout Afghanistan to conduct field work.

We would also like to thank you for responding to USAID concerns that a large percentage of program funds appear to have been spent in the United States instead of Afghanistan. We appreciate that you have contracted a separate financial audit of costs incurred in the United States by New Mexico State University (NMSU) and its subcontractors and look forward to the results of that separate financial audit. Below is a summary of actions taken to address the recommendations in the audit report.

MISSION RESPONSES TO AUDIT RECOMMENDATIONS

Recommendation No. 1: We recommend that USAID/Afghanistan (1) instruct New Mexico State University to conduct appropriate follow-up activities to determine the effectiveness of its technical assistance and training activities with the Ministry of Agriculture, Irrigation and Livestock and (2) verify that appropriate follow-up has been performed.

The Mission concurs with this recommendation.

Actions Taken:

On January 10, 2011, USAID/Afghanistan instructed NMSU (Attachment #1) to conduct follow-up activities to determine the effectiveness of its technical assistance and training activities with the Ministry of Agriculture, Irrigation and Livestock (MAIL). USAID/Afghanistan has also instructed NMSU to include the progress of these follow-up activities in all future AWATT Quarterly Reports.

Target Completion Date:

Final action is expected to be completed by April 30, 2011 upon review of the March 2011 Quarterly Report.

Based on the above, the Mission deems that a management decision has been reached on Recommendation No.1 under the subject audit report.

Recommendation No. 2: We recommend that USAID/Afghanistan periodically verify the results reported by New Mexico State University for the Agriculture, Water, and Technology Transfer Program.

The Mission concurs with this recommendation.

Actions Taken:

USAID/Afghanistan's Office of Agriculture (OAG) is in regular contact with USAID Field Program Officers (FPOs) in Nangarhar, Herat and other areas. These FPOs are the 'eyes and ears' of OAG and report regularly on AWATT activities and accomplishments. OAG also periodically sends its Kabul staff members for site visits to verify the results reported by NMSU through inspection of its records and field visits to program activities. These site visits are documented in trip reports. OAG will ensure that these site visits occur at least two times a year and that the verification of reported results is documented in the trip reports in the future, while taking into consideration security issues.

In addition, the Assistance Officer's Technical Representative (AOTR) meets weekly with the Chief of Party (COP) and other staff to review progress and determine programs of action. Finally, OAG conducted a program-wide review of the AWATT program on January 9, 2011 and intends to conduct program reviews of all the OAG programs on an annual basis.

Target Completion Date:

Final action is expected to be completed by March 31, 2011 upon performance of the next site visit.

Based on the above, the Mission deems that a management decision has been reached on Recommendation No. 2 under the subject audit report.

Recommendation No. 3: We recommend that USAID/Afghanistan provide New Mexico State University with written definitions of the performance indicators and discuss them with staff members periodically to ensure that the definitions are understood.

The Mission concurs with this recommendation.

Actions Taken:

USAID/Afghanistan provided NMSU with written definitions of all the OAG performance indicators on November 9, 2010 (Attachment #2). This included a Powerpoint presentation of the Performance Management Plan Training that was conducted, a Performance Indicator Reference Sheet which has all the written indicator definitions and the OAG metrics table for Assistance Objective 5, including all of the AWATT indicators. The AOTR reviewed this with the

COP at their weekly meeting on January 8, 2011 and OAG will review these definitions with NMSU on an annual basis.

Target Completion Date:

Based on the above, the Mission deems that a management decision has been reached and that final action has been taken on Recommendation No. 3 under the subject audit report. The Mission, therefore, requests closure of this recommendation.

Recommendation No. 4: We recommend that USAID/Afghanistan require New Mexico State University to document challenges and implementation shortfalls in its quarterly reports.

The Mission concurs with this recommendation.

Actions Taken:

USAID/Afghanistan has instructed NMSU (Attachment # 3) to document challenges and implementation shortfalls in its quarterly and annual reports. In addition, the latest draft Annual Report for October 1, 2009 to September 30, 2010 was returned to NMSU with specific instructions to include challenges and implementation shortfalls. USAID/Afghanistan will verify that all future quarterly reports reflect the documentation of challenges and implementation shortfalls.

Target Completion Date:

Final action is expected to be completed by January 31, 2011 upon USAID's confirmation that the September, 2010 Annual Report includes the requisite information.

Based on the above, the Mission deems that a management decision has been reached on Recommendation No. 4 under the subject audit report.

Recommendation No. 5: We recommend that USAID/Afghanistan determine the acceptability of the branding and marking plan submitted by New Mexico State University and after approving some version of the plan, verify its implementation.

The Mission concurs with this recommendation.

Actions Taken:

USAID/Afghanistan's Development, Outreach and Communications (DOC) Office approved the NMSU Branding and Marking Plan on January 4, 2011 (Attachment #4). USAID/Afghanistan will verify implementation of the branding and marking plan through field visits during the remainder of the activity.

Target Completion Date:

Final action is expected to be completed upon performance of the next field visit on/about March 30, 2011.

Based on the above, the Mission deems that a management decision has been reached on Recommendation No. 5 under the subject audit report.

Recommendation No. 6: We recommend that USAID/Afghanistan perform an environmental assessment for the program and implement any corrective actions that may be required.

The Mission concurs with this recommendation.

Actions Taken:

OAG drafted an Initial Environmental Examination (IEE) on January 10, 2010 (Attachment #5) and it is currently in the clearance and approval process. Once cleared and approved within the Mission, the Regional Environmental Advisor as well as the Bureau Environmental Officer will approve and any corrective action necessary will then be taken by the Mission.

Target Completion Date:

Final action is expected to be completed by March 30, 2011 upon approval of the IEE and implementation of any corrective actions.

Based on the above, the Mission deems that a management decision has been reached on Recommendation No. 6 under the subject audit report.

Attachments:

1. AOTR Follow-up Instructions, email dated 1/10/2011
2. OAG Instructions on PMP definitions, email dated 11/9/2010
3. AOTR Instructions re Documentation of challenges, email dated 01/07/2011
4. AWATT Branding/marketing approval, email dated 01/4/2011
5. AWATT Draft IEE dated 12/13/2010

Auditor Verification of Results Reported in the August 2010 Performance Management Plan

Performance Indicator	Target	Reported Result	Verified Result
FY 2009			
Percentage increase in water-use efficiency at selected farms	None established	None reported	NA
Increase in selected crops' yield due to new technologies at selected farms	20%	72%	Unverifiable
Number of hectares of upper watershed rehabilitated	None established	None reported	NA
Number of male staff members of MAIL, Ministry of Energy and Water, and universities trained in water and agricultural technologies	242	242	Unverifiable
Number of women trained in agricultural activities	103	103	Unverifiable
Number of farmers benefitting from modern technologies	171	171	Unverifiable
Number of jobs created through skill enhancement	171	171	NA
FY 2010			
Percentage increase in water-use efficiency at selected farms	5%	None reported	NA
Increase in selected crops' yield due to new technologies at selected farms	20%	50%	Unverifiable
Number of hectares of upper watershed rehabilitated	135	None reported	NA
Number of male staff members of MAIL, Ministry of Energy and Water, and universities trained in water and agricultural technologies	300	274	Unverifiable
Number of women trained in agricultural activities	205	5	Unverifiable
Number of farmers benefitting from modern technologies	349	348	Unverifiable
Number of jobs created through skill enhancement	529	529	NA

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