

# SIGAR

**Special Inspector General for  
Afghanistan Reconstruction**

**SIGAR 14-52 Audit Report**

## Afghanistan's Water Sector: USAID's Strategy Needs to Be Updated to Ensure Appropriate Oversight and Accountability



APRIL  
2014

# SIGAR

## Special Inspector General for Afghanistan Reconstruction

### WHAT SIGAR REVIEWED

Since March 2006, the U.S. Agency for International Development (USAID) has invested approximately \$580 million in Afghanistan's water sector to support, among other things, urban and rural water supply and sanitation and agricultural productivity.

The 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan* lays out efforts across U.S. agencies to achieve a consolidated approach to water sector development. USAID plays a central role in guiding U.S. government efforts and has funded nine water projects since fiscal year 2010. SIGAR's report focuses on four of these projects.

Knowing whether USAID's efforts are properly targeted, measured, and achieving their goals and objectives is vital to supporting Afghanistan's water sector. The objectives of this audit were to determine the extent to which (1) USAID met key objectives of the 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan* and (2) four USAID water projects implemented since 2010 have met their project goals and objectives. To meet these objectives, SIGAR reviewed USAID policies and USAID-provided project data, including contracts and progress reports. SIGAR also interviewed officials at USAID's Offices of Economic Growth and Infrastructure, Agriculture, and Acquisition and Assistance, among others. A more detailed discussion of SIGAR's scope and methodology is in appendix I.

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APRIL 2014

## Afghanistan's Water Sector: USAID's Strategy Needs to Be Updated to Ensure Appropriate Oversight and Accountability

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SIGAR AUDIT 14-52-AR

### WHAT SIGAR FOUND

The U.S. Agency for International Development (USAID) did not meet three key objectives in the 2010 *U.S. Government Inter-Agency Water Strategy*, which was developed by USAID, the Department of State, U.S. Forces—Afghanistan, the U.S. Army Corps of Engineers (USACE), and others. For example, it did not meet the strategy's objective to implement an agency work plan that would, among other things, link projects and activities to the goals cited in the strategy. The strategy stated that each U.S. agency, including USAID, should develop and implement an annual work plan detailing its activities for meeting the strategy's goals. However, rather than developing an agency work plan, USAID intended to use the work plan for a proposed water program—the \$653 million Water Resources Development Program—as the “agency work plan.” However, this program was never implemented because USAID did not have the funds to do so. As a result, no work plan was developed to meet the water strategy's provision. Without a work plan that links projects and activities to goals, it is unclear the extent to which individual USAID water projects contribute to the broader U.S. government's efforts to develop Afghanistan's water sector, and USAID may have additional difficulty planning and implementing ongoing water sector development efforts.

USAID also did not meet the strategy's objective to use key performance indicators to measure and evaluate its performance toward meeting the strategy's goals. The strategy itself identified potential outputs and outcomes, such as increasing agricultural productivity and improving soil and water conservation, but USAID has not evaluated its projects' performance against these indicators. As a result, USAID cannot determine how its work achieves the strategy's goals. Another objective of the strategy called for USAID to update the strategy to reflect changing needs in Afghanistan's water sector and make it a “living document.” However, this did not occur. For example, since the strategy was completed in 2010, USAID has changed its priorities away from large infrastructure projects—such as dams and commercial water and sewer systems—toward building capacity at Afghan ministries to manage these projects themselves. Despite these changes in priorities, the strategy has not been updated, nor does it take into account the political and security transition when most military forces are expected to withdraw from Afghanistan. By failing to update the strategy to reflect current priorities, USAID risks planning and implementing water projects that are not aligned with its goals for the development of Afghanistan's water sector.

USAID officials stated that even though the agency did not meet the strategy's objectives, some of the strategy's goals have been realized through implementation of individual projects. However, the four key projects implemented since fiscal year 2010 that SIGAR reviewed showed mixed performance results, making it difficult to affirm USAID's assertion.

For example, USAID spent approximately \$43.3 million on its Sustainable Water Supply and Sanitation (SWSS) project to increase access to sustainable sources of clean water for domestic use among Afghanistan's rural population. However, the project did not meet some performance goals and could not measure other performance goals because of budget cuts, unrealistic performance targets, and higher-than-estimated costs. As a result, USAID's investment in and SWSS's overall impact on Afghanistan's water supply and sanitation service is unclear. In another project, USAID spent about \$3.5 million for 27 watershed assessments to identify potential sites for small irrigation dams and micro-hydropower projects across Afghanistan. However, USAID did not use the assessments as intended and did not share them in a timely manner with other U.S. and Afghan agencies. As a result, the assessments could already be outdated and of limited value for developing water projects.

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### Cement Irrigation Canal Installed through USAID'S AWATT Project



Source: USAID

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### WHAT SIGAR RECOMMENDS

SIGAR recommends that USAID (1) develop a new water sector strategy for Afghanistan with updated short-, medium-, and long-term goals and objectives that reflect USAID's current water sector priorities; (2) develop and implement a performance measurement plan upon completion of the new strategy that can be used to evaluate USAID's performance in meeting the new strategy's goals and objectives; and (3) ensure this strategy includes clear lines of responsibility and accountability within USAID for implementing the strategy.

In commenting on a draft of this report, USAID agreed with all three recommendations and discussed the steps being taken to implement them. USAID's comments and SIGAR's response are reproduced in appendix II.



**SIGAR** | Office of the Special Inspector General  
for Afghanistan Reconstruction

April 24, 2014

Dr. Rajiv Shah  
Administrator, U.S. Agency for International Development

Mr. William Hammink  
Mission Director for Afghanistan, U.S. Agency for International Development

This report discusses the results of SIGAR's audit of the U.S. Agency for International Development's (USAID) water sector projects in Afghanistan since fiscal year 2010. Specifically, we assessed the extent to which (1) USAID met key objectives of the *2010 U.S. Government Inter-Agency Water Strategy for Afghanistan* and (2) four USAID water projects implemented since 2010 have met their goals and objectives. In general, we found that USAID did not implement three key objectives of the *2010 U.S. Government Inter-Agency Water Strategy* and that the four USAID water sector projects had mixed results.

We recommend that the USAID Administrator (1) develop a new water sector strategy for Afghanistan with updated short-, medium-, and long-term goals and objectives that reflect USAID's current water sector priorities; (2) develop and implement a performance measurement plan upon completion of the new strategy that can be used to evaluate USAID's performance in meeting the new strategy's goals and objectives; and (3) ensure this strategy includes clear lines of responsibility and accountability of who within USAID will implement the strategy.

We received written comments on a draft of this report from USAID, which we incorporated, as appropriate. USAID agreed with all three recommendations. USAID's comments and our responses are presented in appendix II.

SIGAR conducted this audit under the authority of Public Law No. 110-181, as amended; the Inspector General Act of 1978, as amended; and in accordance with generally accepted government auditing standards.

John F. Sopko  
Special Inspector General  
for Afghanistan Reconstruction

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## ABBREVIATIONS

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AWATT	Afghanistan Water, Agriculture Technology Transfer
CAWSA	Commercialization of Afghanistan Water and Sanitation Activity
GAO	Government Accountability Office
ICMA	International City/County Management Association
NMSU	New Mexico State University
SWSS	Sustainable Water Supply and Sanitation
USACE	U.S. Army Corps of Engineers
USAID	U.S. Agency for International Development
USAID/OIG	U.S. Agency for International Development/Office of Inspector General

Access to water is critical to stability in Afghanistan and is an essential part of U.S. development efforts. Decades of conflict and persistent drought have resulted in damaged irrigation systems and other water infrastructure, insufficient water monitoring and storage, and a lack of access to safe and adequate drinking water. In addition, Afghanistan suffers from a lack of reliable data concerning its water resources, and a lack of skilled human resource capacity in water management. Water is a cross-cutting issue that will continue to affect Afghanistan's food production, economic growth, and human health after the 2014 drawdown of coalition forces.

Since March 2006, the U.S. Agency for International Development (USAID) has awarded contracts valued at a total of approximately \$580 million in Afghanistan's water sector, in areas such as urban and rural water supply and sanitation; agricultural productivity and human knowledge transfer; and human resources, engineering, and logistics. In order to assist the Afghan government in its efforts to develop Afghanistan's water sector, the U.S. Embassy's Infrastructure Working Group,<sup>1</sup> made up of representatives from USAID, the Department of State, U.S. Forces—Afghanistan, the U.S. Army Corps of Engineers (USACE), and Provincial Reconstruction Teams, among others, developed *the U.S. Government Inter-Agency Water Strategy for Afghanistan (2009-2014)* ("2010 Water Strategy").<sup>2</sup> This key document lays out current and planned efforts across U.S. government agencies for a consolidated approach to water sector development. Knowing whether these efforts are properly targeted and measured and have achieved their goals and objectives is vital to supporting Afghanistan's water sector. The objectives of this audit were to determine the extent to which (1) USAID met key provisions of the 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan*, and (2) four USAID water projects implemented since 2010 have met their project goals and objectives.

To accomplish our objectives, we reviewed U.S. regulations and guidance; reports from the Government Accountability Office (GAO), USAID, and USAID Office of Inspector General (USAID/OIG); USAID policies and procedures; and USAID-provided project data, including contracts, cooperative agreements, progress reports, and related documentation. We also interviewed officials at USAID's Offices of Economic Growth and Infrastructure, Agriculture, and Acquisition and Assistance; the U.S. Department of Agriculture; GAO; USACE; and the U.S. Embassy in Kabul. Our initial audit scope entailed examining nine completed, ongoing, or planned projects since fiscal year 2010. However, because five of the projects were either recently initiated or had relatively small water-related components, we narrowed our focus to four projects. A more detailed discussion of our scope and methodology is in appendix I. We conducted our work in Arlington, VA, and Kabul, Afghanistan, from February 2013 to December 2013, in accordance with generally accepted government auditing standards.

## BACKGROUND

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The 2010 Water Strategy addresses several technical areas, including agriculture, soil and water conservation, water supply and sanitation, governance and management, hydropower, and transnational boundary (transboundary) issues. The strategy includes short-, medium-, and long-term goals pertaining to each of these areas and provides for the measurement of progress toward achieving these goals through specific performance outputs and outcomes. These goals are summarized in table 1.

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<sup>1</sup> U.S. Embassy Kabul created the Infrastructure Working Group to coordinate, review, and oversee U.S. government-funded national, regional, and district-level activities in water, transportation, and energy. The group is responsible for guiding U.S. efforts to reconstruct critical infrastructure in Afghanistan.

<sup>2</sup> *U.S. Government Inter-Agency Water Strategy for Afghanistan 2009-2014: A Strategic Approach to Support a Secure and Self-Reliant Afghanistan, To Foster Afghan Solutions, and To Build Afghan Capacity*. February 2010.



**Table 1 - U.S. Government Inter-Agency Water Strategy Goals**

Agency Short-term Goals (August 2010)	Program Medium-term Goals (August 2012)	Goals Long-term Goals (July 2014)
Complete all watershed assessments within the south and east of Afghanistan and identify watersheds for focused investment	Increase agricultural productivity through better irrigation	Improve the economic, social, and environmental benefits from use of water resources
Establish a planning process for an annual conference of the U.S. water strategy in Afghanistan	Enhance soil and water conservation to sustain the natural resource base upon which production depends	Strengthen the institutions governing and managing water resources
Develop individual work plans for respective agency activities	Increase access to water supply of adequate quality and proper sanitation and associated hygiene behaviors	
Develop one aggregate work plan comprised of all agency work plans	Enhance overall governance and management of the sector to sustain progress over time	
Establish a regular mechanism for information sharing and coordination among U.S. government agencies with particular emphasis on enhancing civilian and military cooperation through the Provincial Reconstruction Teams	Generate additional hydropower with allied improvement to irrigation facilities	
Award a new contract for community-based water system improvements and mobilize contractor	Strengthen understanding and capacity to effectively address boundary water issues	
Initiate a new urban water and sanitation initiative		

Source: U.S. Government Inter-Agency Water Strategy for Afghanistan, pp. 11–12.

While the 2010 Water Strategy seeks to document and inform efforts across multiple U.S. government agencies, USAID plays a central role in guiding U.S. government efforts to assist Afghanistan’s water sector.<sup>3</sup> For example, USAID’s Office of Economic Growth and Infrastructure and Office of Agriculture have recently taken the lead from the World Bank in coordinating meetings of international donors involved in developing Afghanistan’s water sector. In addition, USAID plays a key role in the Water Stakeholders Group, a group of

<sup>3</sup> A November 2010 audit conducted by GAO recognized USAID’s central role in the implementation of the 2010 Water Strategy and recommended that USAID, in conjunction with other relevant agencies, develop an interagency implementation plan for the strategy that establishes an agreement on the roles and responsibilities of the various U.S. agencies to meet the strategy’s goals. U.S. Government Accountability Office, *Afghanistan Development: U.S. Efforts to Support Afghan Water Sector Increasing, but Improvements Needed in Planning and Coordination*, GAO-11-138. Washington, DC: Government Accountability Office, November 2010.



representatives from USAID and the Departments of State, Agriculture, and Defense that was established by the Embassy's Economic Section to coordinate water projects.

USAID has funded nine water sector projects since fiscal year 2010. Because five of these projects have either recently begun or do not primarily focus on the water sector,<sup>4</sup> our report discusses the following four: Afghanistan Water, Agriculture and Technology Transfer (AWATT); Commercialization of Afghanistan Water and Sanitation Activity (CAWSA); Sustainable Water Supply and Sanitation (SWSS); and a USAID-USACE Participating Agency Service Agreement. See table 2.

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<sup>4</sup> The Kabul Urban Water Supply project began in April 2013; the Irrigation and Watershed Management project began in January 2013 and, according to USAID's implementing partner, was conducting start-up activities during February–April 2013; and the Ministry of Energy and Water Capacity-Building project has not been awarded. According to USAID, the water sector-specific component of the Human Resource and Logistical Support project totals approximately \$3 million of the over \$81 million project; similarly, the water sector-specific component of the Engineering Quality Assurance and Logistical Support project totals approximately \$3 million of the more than \$61 million project.

**Table 2 - Four USAID Water Projects Included in This Report**

Project	Description and Purpose	Cost*	Period of Performance
Afghanistan Water, Agriculture and Technology Transfer (AWATT)	Improve community- and farm-level management of the supply and demand of irrigation water resources for increased agricultural productivity and food security.	\$16,056,296	3/3/2008 to 6/30/2011
Commercialization of Afghanistan Water and Sanitation Activity (CAWSA)	Establish a viable business model for water service delivery in Afghanistan by enhancing both technical and commercial operations at each of the Afghan Urban Water Supply and Sewerage Corporation's water supply and sanitation utilities in Gardez, Ghazni, Jalalabad, and Mazar-e-Sharif.	\$14,191,364	11/5/2008 to 5/11/2014
Sustainable Water Supply and Sanitation (SWSS)	Increase access to sustainable sources of clean water for domestic use among Afghanistan's rural population; improve hygiene behaviors for poor and vulnerable populations in Afghanistan; and improve the long-term technical, financial, and environmental sustainability of potable water supply and sanitation services.	\$43,314,113	9/28/2009 to 12/29/2012
USAID-USACE Participating Agency Service Agreement	Identify, plan, design, and implement USAID infrastructure projects and related engineering, construction, and capacity-building activities. The agreement required USACE to conduct watershed assessments to identify potential sites for small irrigation dams and micro-hydropower projects across Afghanistan.	\$12,000,000 <sup>a</sup>	12/21/2008 to 1/15/2012

Source: Contract Documentation and USAID Data Call Responses

Notes:

\* USAID-reported expenditures, as of February 2013.

<sup>a</sup> According to USAID, approximately \$3.5 million of this total was spent on the watershed assessments.

## USAID DID NOT MEET THREE KEY OBJECTIVES IN THE 2010 WATER STRATEGY

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We found that USAID did not meet three key objectives of the 2010 Water Strategy. That strategy states that each U.S. agency strategy stakeholder, including USAID, should

- develop and implement individual work plans detailing its activities for meeting the strategy's goals, and use these individual work plans to develop one aggregate 2010 Water Strategy work plan;
- include in the individual work plans key performance indicators, described through outputs and outcomes,<sup>5</sup> that each agency uses to measure and evaluate its performance and gauge progress toward achieving the strategy's goals; and
- keep the strategy a "living document" to reflect relevant water sector needs in Afghanistan.<sup>6</sup>

### USAID's Lack of a Work Plan Makes It Difficult to Determine How Individual Projects Contribute to the U.S. Government's Water Sector Development Efforts

The 2010 Water Strategy states that each U.S. agency, including USAID, should develop and implement individual annual work plans detailing its activities for meeting the strategy's goals. These individual work plans should then be used to develop one aggregate water strategy work plan. However, USAID did not develop an agency work plan. Rather, USAID officials stated that the work plan for a proposed water program—the \$653 million Water Resources Development Program<sup>7</sup>—was to serve as the "agency work plan" called for under the water strategy. However, USAID officials stated that the Water Resources Development Program was not implemented because of a lack of funds.<sup>8</sup> As a result, no work plan was ever developed for the program or, more importantly, for the 2010 Water Strategy.

USAID officials stated that, even had the program been implemented, the agency deemed it unnecessary to develop a USAID-specific water sector work plan because each individual project had its own work plan.<sup>9</sup> Moreover, USAID officials noted that individual components of the 2010 Water Strategy have been addressed through ongoing projects and programs. For example, USAID noted that its CAWSA project funded advisors to support Afghan government efforts to address the strategy's goals of strengthening trans-boundary water management and supporting water and sanitation sector reforms.

Although USAID asserts that individual components of the 2010 Water Strategy have been carried out through USAID projects, the fact remains that USAID did not meet the water strategy's objective that it establish an agency work plan detailing its activities for meeting the strategy's goals. Without a work plan that links projects and activities to the short-, medium-, and long-term goals cited in the 2010 Water Strategy, it is unclear the extent to which individual USAID water projects contribute to the broader U.S. government's efforts to develop

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<sup>5</sup> The 2010 Water Strategy defines outputs as quantifiable performance results, such as megawatts for power produced and number of people trained. Outcomes are more long-term development impacts that result from implementation of the strategy.

<sup>6</sup> *U.S. Government Inter-Agency Water Strategy for Afghanistan 2009-2014: A Strategic Approach to Support a Secure and Self-Reliant Afghanistan, To Foster Afghan Solutions, and To Build Afghan Capacity*. February 2010.

<sup>7</sup> The Water Resources Development Program was intended to, among other things, conduct dam feasibility studies and designs and provide technical assistance to build the capacity of the Afghan Ministry of Energy and Water on river basin planning and trans-boundary issues. The project was also intended to develop a nationwide network to collect and analyze water resources data for use in local and transnational decision making.

<sup>8</sup> USAID officials said that the program was canceled during the design phase. The officials did not provide any specific explanation as to why there was a lack of funds.

<sup>9</sup> One of the water projects we reviewed—the USAID–USACE Participating Agency Service Agreement—did not have an individual work plan.

Afghanistan's water sector, and may make it more difficult for USAID to plan and implement ongoing water sector development efforts.

## **USAID Did Not Evaluate Its Performance against the 2010 Water Strategy's Key Performance Indicators**

The 2010 Water Strategy also states that individual agency work plans should include key performance indicators, described through outputs and outcomes. The agencies were supposed to use these indicators to measure and evaluate their performance and gauge progress toward achieving the water strategy's goals. The strategy states that outputs were to be evaluated annually and outcomes were to be evaluated midway through the water strategy's implementation in August 2012, and at completion in December 2014. Information on progress was to be gathered primarily through USAID implementing partners and complemented by data gathered under the U.S. military's Commander's Emergency Response Program.<sup>10</sup> Table 3 below lists outputs and outcomes described in the water strategy.

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<sup>10</sup> The Commander's Emergency Response Program is intended to enable local commanders in Afghanistan to respond to urgent, small-scale, humanitarian relief, and reconstruction projects and services that immediately assist the indigenous population and that the local population or government can sustain.

**Table 3 - U.S. Government Inter-Agency Water Strategy Outputs and Outcomes**

<b>Outputs (Annual monitoring)</b>	<b>Outcomes (Monitoring mid-way through and at end of strategy implementation)</b>
<ul style="list-style-type: none"> <li>• Watershed assessments completed within 18 provinces</li> <li>• Five water conferences held</li> <li>• Information-sharing system implemented among U.S. government agencies</li> <li>• Rural water and sanitation improvements implemented in 1,000 communities</li> <li>• Urban household water connections for 400,000 people and urban sanitation improvements for 200,000 people</li> <li>• Watershed management improvements implemented in 50 communities</li> <li>• Trans-boundary water management strategy developed</li> <li>• Approximately 4 water advisors annually provide strategic advice to Afghan government institutions</li> <li>• Approximately 1,000 people receiving training in improved water resources management (technical and administrative)</li> <li>• Approximately 200 megawatts of additional hydropower installed</li> <li>• Approximately 10,000 additional hectares of land irrigated</li> <li>• Approximately 2,500 additional hectares of land treated to improved watershed management</li> <li>• 4 new business models for commercial water management plan implemented</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural productivity increased through better irrigation</li> <li>• Soil and water conservation improved</li> <li>• Greater economic productivity achieved through improved access to water supply and sanitation and associated hygiene behaviors</li> <li>• Overall governance and management of the sector enhanced to sustain progress over time</li> <li>• Understanding and capacity to effectively address trans-boundary water issues strengthened</li> </ul>

Source: U.S. Inter-Agency Water Strategy for Afghanistan, pp. 20–21.

However, USAID did not evaluate its performance against these indicators. USAID officials stated that because the Water Resources Development Program was canceled and no work plan was developed, the annual monitoring of the 2010 Water Strategy’s outputs and the mid-term evaluation of outcomes were also not conducted.<sup>11</sup> In its comments on our draft report, USAID acknowledged that it did not conduct the mid-term evaluation, as recommended, opting instead to monitor progress every 2 months through meetings with U.S. government stakeholders.

USAID officials stated they are able to measure outputs and outcomes of the agency’s individual water-related projects by using the projects’ performance monitoring plans, which contain performance indicators. In addition, USAID officials told us that the USAID/Afghanistan Mission’s broader Performance Management Plan

<sup>11</sup> State Department officials from the Embassy’s Economic Section told us that while water-related projects have been discussed during Water Stakeholder Group meetings (a group of representatives from USAID and the Departments of State, Agriculture, and Defense that was established by the Embassy’s Economic Section to coordinate water projects), they were also not aware of any evaluations of the 2010 Water Strategy’s outputs and outcomes.

(2011–2015)<sup>12</sup> provides guidance on tracking progress of all sector-level strategies, including the water sector. This plan covers the entire U.S. government foreign assistance portfolio in Afghanistan, describes outputs and outcomes, and sets a timeline for conducting evaluations and impact assessments. The Performance Management Plan also includes indicators for measuring outputs and outcomes in water sector projects, such as “more efficient use of expanded water resources,” “improved access to water supply and sanitation,” and the “number of people in target areas with access to improved sanitation facilities as a result of U.S. government assistance.” However, these indicators do not measure the same outputs and outcomes called for in the 2010 Water Strategy. For example, they lack specific targets, such as the strategy’s “rural water and sanitation improvements implemented in 1,000 communities,” and “urban household water connections for 400,000 people and urban sanitation improvements for 200,000 people.” Therefore, the Performance Management Plan indicators do not measure the outputs and outcomes called for in the 2010 Water Strategy.

Because USAID did not measure the performance of its individual water sector projects in meeting the 2010 Water Strategy’s goals, it does not have an accurate account of USAID’s water sector development work as a whole, and it may be difficult to adequately plan for any future USAID investments in Afghanistan’s water sector.

## **USAID Has Not Updated the 2010 Water Strategy to Reflect Its Priorities for Addressing Afghanistan’s Water Sector Needs**

The 2010 Water Strategy also called upon U.S. agencies, including USAID, to keep the strategy a “living document,” and up-to-date to reflect relevant water sector needs in Afghanistan. USAID officials told us that USAID priorities have changed since 2010, when the water strategy was approved. For example, USAID water sector activities implemented around the time the water strategy was approved included support for water supply and sanitation, improved irrigation and agricultural usage, commercial operation of water and sewer systems, the renovation of hydropower dams, and technical advice related to trans-boundary water management. However, current USAID water activities focus less on large infrastructure and more on irrigation and watershed management, water and sewer system operations, and capacity building at the Ministries of Energy and Water, and Agriculture, Irrigation and Livestock. Although these new activities reflect a change in priorities, the strategy was not updated accordingly.

In addition, USAID updated its global water sector priorities in May 2013, as part of its Water and Development Strategy for 2013–2018 (“global water strategy”)—intended to provide a clear understanding of the agency’s approach to water program activities around the world.<sup>13</sup> The global water strategy states that USAID water sector priorities should now focus on global improvements in (1) water supply, sanitation, and hygiene programs, and (2) sound management and use of water for food security<sup>14</sup> and that, beginning in fiscal year

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<sup>12</sup> The Performance Management Plan is the U.S. Mission in Afghanistan’s tool to plan and manage the process of assessing and reporting progress towards assistance/foreign policy objectives identified by the President of the United States, the Secretary of State, the U.S. Ambassador to Afghanistan, and the Afghan government. The plan establishes a process to: monitor and evaluate the achievements of assistance programs, collect and analyze performance information to track progress toward planned results, use performance information and evaluations to influence decision-making and resource allocation, and communicate results achieved or not attained.

<sup>13</sup> The purpose of the USAID Water and Development Strategy is to guide USAID’s worldwide investments in water programming, to inform the development of country strategies, guide decision-making on budgeting and resource allocation, and to highlight priority regions and program areas for water programs. The Water and Development Strategy states that there will be greater focus and selectivity among USAID water programs leading to greater development impact.

<sup>14</sup> More specifically, the global water strategy establishes two strategic objectives: (1) improve health outcomes through the provision of sustainable water supply, sanitation, and hygiene, to be achieved through a continued focus on providing safe water; an increased emphasis on sanitation; and support for programs that can be brought to scale and be sustained, and (2) manage water for agriculture sustainably and more productively to enhance food security; this will be achieved through

2014, all new USAID water programs should fully align with these two strategic objectives. The 2010 Water Strategy does not reflect these narrowed global USAID water sector priorities. For example, the 2010 Water Strategy includes priorities covering governance and trans-boundary issues, which are not part of the 2013 global water strategy.

USAID and other U.S. government agency stakeholders acknowledged that USAID's water sector priorities have changed, and they described the 2010 Water Strategy as having become outdated. Meeting notes from the U.S. Embassy's Water Stakeholders Group held in February 2013 showed stakeholders believed that only some sections of the 2010 Water Strategy remained relevant,<sup>15</sup> while other sections had become outdated and need to be updated. For example, the meeting notes explained that priorities outlined in the water strategy under "Current U.S. Government Water Activities" and goals expressed under "The Way Forward" have not been updated to reflect considerations regarding the political and security transition, such as group stakeholders' concerns over a lack of funding for water projects after the military withdrawal from Afghanistan. USAID added that the hydropower section of the water strategy, particularly USAID-led large-scale hydropower development, has also become outdated. By failing to update the strategy to reflect current priorities, USAID risks planning and implementing water projects that are not aligned with its current goals for the development of Afghanistan's water sector.

## The 2010 Water Strategy Did Not Clearly Identify Roles and Responsibilities for Implementing, Coordinating, and Updating the Strategy

One reason the 2010 Water Strategy has not been updated to reflect current U.S. government water sector priorities for Afghanistan is the failure of the strategy to establish clear lines of responsibility or accountability for the agencies involved. This lack of accountability impedes the strategy's implementation and prevents it from functioning as a "living document." For example, our analysis shows, and USAID officials from the Office of Agriculture confirmed, that the strategy lacks specifics on which person or agency was responsible for leading, implementing, and coordinating the activities listed in the strategy. A November 2010 GAO report identified these challenges and recommended that USAID, in conjunction with the other relevant agencies, develop an interagency implementation plan for the water strategy that establishes agreement on the roles and responsibilities of the various U.S. agencies to meet the strategy's goals.<sup>16</sup> In response to the GAO report, USAID stated that it was developing an implementation plan for the strategy in consultation with the Infrastructure Working Group, and that the plan would be issued by March 31, 2011. However, based on our discussions with USAID officials and analysis of project documentation, we found that the implementation plan was never completed. As a result, it was not clear which agency should take the lead in implementing the 2010 Water Strategy.

According to USAID, the Water Stakeholders Group is now in the process of revising the strategy. USAID officials told us that other U.S. agencies, including the Departments of Defense, Agriculture, and State, do not plan to play a significant role in water sector development in Afghanistan in the future and that USAID will now be the lead agency for water sector development. They added that USAID began in September 2013 to create a new water strategy for Afghanistan.<sup>17</sup> The new strategy will reflect narrowed global USAID water priorities

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increased emphasis on more efficient use of rainfall and improved efficiency and management of existing irrigation systems, including private and farmer-owned micro-irrigation systems.

<sup>15</sup> Officials stated that the "Background," "U.S. Government Vision," "Development Challenges," "Cross-Cutting Themes," and "Conclusions" remain relevant.

<sup>16</sup> U.S. Government Accountability Office, *Afghanistan Development: U.S. Efforts to Support Afghan Water Sector Increasing, but Improvements Needed in Planning and Coordination*, GAO-11-138. Washington, D.C.; Government Accountability Office, November 2010.

<sup>17</sup> USAID officials told us they are including input from USAID's infrastructure, health, education, and agriculture sectors and program offices.



aligned with the Afghan government's water sector priorities and will replace the 2010 Water Strategy. In commenting on a draft of this report, USAID stated that this new strategy will be finalized within the coming months.

## FOUR USAID WATER SECTOR PROJECTS IMPLEMENTED SINCE FISCAL YEAR 2010 SHOW MIXED RESULTS IN MEETING THEIR GOALS AND OBJECTIVES

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USAID officials stated that even though the agency did not meet all of the 2010 Water Strategy's objectives, some of the strategy's goals have been realized through implementation of individual projects. However, four USAID water sector projects implemented since fiscal year 2010 that we reviewed show mixed performance results—some projects' goals and objectives were met, while others were not. Therefore, USAID's assertion that the 2010 Water Strategy's goals were realized through the implementation of individual projects is questionable.

### The Extent to Which AWATT Achieved its Objectives Is Unknown because of Persistent Performance and Financial Management Problems

On March 3, 2008, USAID awarded a 3-year, \$19.8 million cooperative agreement for the Afghanistan Water, Agriculture Technology Transfer (AWATT) project to New Mexico State University (NMSU), in partnership with a consortium of three other universities.<sup>18</sup> The initial project's stated objectives were to increase Afghans' access to information about water and agriculture technology, provide tools for policy and institutional changes that enhance the management of the supply and demand of water resources, and develop a legislative framework for land rights in rural areas. NMSU intended to address these objectives through three programmatic components: integrated water management, technology transfer, and policy.

USAID changed the purpose and scope of AWATT midway through implementation in fiscal year 2009, as a result of USAID and the implementer's shared recognition that water management problems were rooted at the farm level. As a result, project activities shifted to the farm level, rather than the policy and institutional level, where they had been. USAID modified the cooperative agreement on July 21, 2010, to, among other things, formalize a new objective for AWATT to improve community and farm level management of irrigation water resources for increased agricultural productivity and food security.

Three prior oversight reports highlight a number of issues with the AWATT project. In December 2009, a third-party monitoring report prepared by Checchi and Company Consulting, Inc. for USAID<sup>19</sup> identified problems with NMSU's implementation of AWATT, including start-up delays and inadequate performance monitoring.<sup>20</sup> Checchi wrote in its third-party monitoring report that NMSU did not establish performance baselines and

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<sup>18</sup> The three other universities involved with the AWATT cooperative agreement were Colorado State University, Southern Illinois University Carbondale, and University of Illinois at Urbana-Champaign. These three universities and NMSU are collectively referred to as the "implementer."

<sup>19</sup> Third-party monitoring consists of an external entity or firm monitoring USAID projects or programs and reporting the results to USAID.

<sup>20</sup> This third-party monitoring exercise is a result of USAID/Afghanistan's long-standing desire to overcome travel restrictions and staffing limitations that have constrained its ability to go on-site to observe and check up on project activities. In response to this perceived need, a team of expatriates and Afghan nationals was organized under the auspices of the Checchi Services Under Program and Project Offices for Results Tracking project to carry out such monitoring for the Office of Agriculture's AWATT project. See Checchi and Company Consulting, Inc., *Third Party Monitoring Report for Afghanistan Water, and Agriculture Technology Transfer (AWATT) by USAID in the Islamic Republic of Afghanistan*, November 29-December 23, 2009.

targets<sup>21</sup> that would allow it to assess progress toward meeting objectives. In February 2011, a USAID/OIG report found that performance management issues remained and concluded that NMSU was not able to assess the effectiveness of its technical assistance and training activities for the Afghan government.<sup>22</sup> The report further stated that NMSU faced shortcomings in its monitoring and evaluation of AWATT that reduced the value of the project's performance information. For example, NMSU submitted its first two performance management plans late, omitted required information from the two performance management plans, did not keep records to substantiate reported results, reported incorrect information, and did not explain performance challenges in quarterly reports. The USAID/OIG report also raised concerns about the financial management of the project, including questioning why a high proportion of AWATT funds were spent in the United States, leaving fewer resources available for activities conducted on the ground in Afghanistan. To address these concerns, USAID/OIG then contracted with an audit firm to conduct a financial audit of NMSU and its partner universities. USAID/OIG subsequently issued an incurred cost audit report in April 2011, which found unsupported travel costs of approximately \$617,000, purchases totaling \$111,216 that lacked approval documentation, and missing or overdue programmatic reports.<sup>23</sup>

In reviewing the March 2008 AWATT cooperative agreement, we noted that performance problems and deficiencies raised in prior oversight reports were not addressed by USAID and continued to persist. For example, the March 2008 AWATT cooperative agreement required that NMSU develop, within 60 days after award, a work plan with performance baselines and targets that would serve as the basis for measuring progress toward meeting the project's objectives. However, these requirements had not been met at the time of Checchi's third party monitoring report in December 2009, or even by the time of USAID/OIG's performance audit in February 2011, 14 months after Checchi's report, and were still not addressed in subsequent AWATT performance management documentation we reviewed. Despite the initial cooperative agreement requirements and Checchi's further recommendations that NMSU develop performance indicators, baselines, and targets, we noted that NMSU's final February 2011 performance management plan—developed 33 months after the original agreement—failed to include some of these items. For example, the final performance management plan's indicators for “net increase in private sector employment for farms and agribusiness,” “percentage change in annual production of key crops,” and “percentage increase in water use efficiency at selected farms” lacked baseline figures.

The NMSU performance management plan also required it to track and report on the performance indicators in quarterly and annual reports and to provide those reports to the USAID Agreement Officer's Technical Representative. The February 2011 USAID/OIG report recommended that NMSU improve, and USAID verify, the quality of information reported. However, our review of NMSU's quarterly and final reports to USAID found that NMSU did not address problems with reporting. For example, the indicators for “net increase in private sector employment for farms and agribusiness,” “percentage increase in water use efficiency at selected farms,” and “percentage change in annual production of key crops” were not reported on in fiscal year 2011.

USAID performance monitoring and evaluation guidance<sup>24</sup> states that a lack of baseline data not only presents challenges for management decision-making purposes, but also hinders evaluation efforts. Moreover, the same guidance states that performance targets justify a project by describing in concrete terms what USAID's

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<sup>21</sup> A baseline is a value of a performance indicator before the implementation of projects or activities. A target is the specific, planned level of result to be achieved within an explicit timeframe. See *Performance Monitoring & Evaluation TIPS: Baselines and Targets*, 2<sup>nd</sup> Edition, 2010, USAID.

<sup>22</sup> USAID 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.

<sup>23</sup> USAID Office of Inspector General, *Report on Audit of Incurred Costs of New Mexico State University USAID's Afghanistan Water, Agriculture and Technology Transfer Program for the Period March 31, 2008 to September 30, 2010*, Report No. O-000-11-001-N (AWATT), April 12, 2011.

<sup>24</sup> *Performance Monitoring & Evaluation TIPS: Baselines and Targets*, 2<sup>nd</sup> Edition, 2010, USAID.

investment will produce and establish clear expectations for USAID staff, implementing partners, and key stakeholders. Once a project is underway, targets serve as guideposts for monitoring whether progress is being made on schedule and at the levels originally envisioned. By AWATT continuing not to have baselines and targets or complete performance reporting, USAID and NMSU cannot fully assess the extent to which AWATT results have been achieved.

### **NMSU Financial Management and Performance Problems Resulted in AWATT Ending Prematurely**

In December 2010, NMSU and USAID discussed options for extending the AWATT project beyond its original completion date of March 2011. NMSU subsequently submitted a 3-month no-cost extension proposal to USAID to extend the project to June 2011. At the time, NMSU reported that it had spent approximately \$12.7 million on the project through December 2010. NMSU also provided USAID with projected expenditures for the remaining months of the agreement and told USAID that it would likely spend approximately \$3.4 million more to implement AWATT from January 2011 through the end of June 2011. USAID subsequently approved the no-cost modification; as a result of NMSU's projected expenditures, the new total estimated cost of AWATT was now adjusted down to \$16.1 million.

NMSU officials stated that shortly after the modification to the cooperative agreement was finalized, they realized that the project was incurring a deficit and that the previously reported budget figures for 2010 end-of-year expenditures were incorrect. NMSU had spent significantly more money than previously thought and was now projecting a \$1 million deficit in AWATT expenditures through the end of March 2011, and, in fact, it had already spent about \$17.1 million by the end of March 2011. As a result of this funding shortfall, NMSU did not have enough funding to fully implement project activities already in progress. In April 2011, NMSU requested that USAID provide an additional \$2.4 million to complete AWATT.

USAID denied this request for additional funding, citing problems with NMSU's financial management system, which USAID determined did not comply with regulatory requirements to provide (1) accurate, current, and complete disclosure of a project's financial results; (2) records adequately identifying the source and application of funds; and (3) effective control over and accountability for all funds.<sup>25</sup> In a response letter to USAID, NMSU argued that its financial management system was in compliance, explaining that it was unable to accurately track costs because, in Afghanistan's largely cash-based economy, NMSU's financial management system could not account for cash obligations to be spent in the future, but could only account for cash that had been spent.

Despite USAID's denial of additional funding, NMSU continued to undertake project activities without approval, ultimately incurring a deficit of approximately \$3 million that USAID did not reimburse. NMSU explained in an August 2011 letter to USAID that it undertook these activities with the belief that adequate funding would become available.<sup>26</sup> When it became apparent to NMSU that USAID would not cover these expenses, NMSU abruptly ended AWATT activities.

The 2010 U.S. Inter-Agency Water Strategy emphasizes that improved agricultural productivity and soil and water conservation are key outcomes of U.S. government investment in Afghanistan's water sector. However, persistent problems throughout the implementation of AWATT, including poor implementer performance and financial management, raise questions about the overall impact of project activities and the effectiveness of the U.S. government's \$16.1 million investment to develop Afghanistan's water sector. Most importantly, because progress toward achieving these water strategy outcomes related to agricultural productivity was not measured, AWATT's impact on Afghanistan's water sector as a whole is unclear.

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<sup>25</sup> 22 C.F.R. § 226.21, *Standards for Financial Management Systems*.

<sup>26</sup> New Mexico State University, Letter to USAID, Re: Afghanistan Water, Agriculture and Technology Transfer (AWATT) Program Cooperative Agreement No. 306-A-00-08-00506-00, New Mexico State University, August 4, 2011.

## CAWSA's Performance, as Measured against Indicators, Cannot be Completely Determined, and USAID Delays in Managing the Cooperative Agreement Resulted in Inefficiencies and Wasted Resources

On November 5, 2008, to assist in the commercialization of the urban water sector and increase cost recovery and improve management, USAID awarded a 3-year, \$8.5 million cooperative agreement to the International City/County Management Association (ICMA)<sup>27</sup> for the Commercialization of Afghanistan Water and Sanitation Activity (CAWSA) project. The primary purpose of the project was to establish a viable business model for water service delivery in Afghanistan by enhancing both technical and commercial operations at the corporation's water supply and sanitation utilities<sup>28</sup> in Mazar-e-Sharif, Jalalabad, Gardez, and Ghazni. The business model sought to establish a cost recovery<sup>29</sup> system for operations that support long-term supply and sanitation infrastructure, and to identify incentives to motivate water utility staff and improve overall Afghan water utility performance.

The cooperative agreement was scheduled to end in November 2011. USAID modified the agreement three times between 2011 and 2012, to increase project scope and funding, including extending CAWSA from May 2012 to May 2014, and raising the agreement's total estimated cost to \$14.2 million.

USAID performance monitoring and evaluation guidance<sup>30</sup> states that performance indicators are central in the development of an effective performance management system—they define the data to be collected, provide objective evidence enabling results achieved to be compared with planned results over time, and are designed to assist managers in achieving development impact. In addition, performance targets orient stakeholders to the tasks to be accomplished and serve as guideposts for monitoring whether progress is being made on schedule and at the levels originally envisioned.

Descriptions for how CAWSA performance is measured—to include establishment of performance indicators—are included in the project's Monitoring and Evaluation Plan and the memoranda of understanding between ICMA and each of the water and sanitation utilities. The memoranda established specific performance indicators, baselines, and targets for CAWSA to help measure both technical and management performance goals.<sup>31</sup> ICMA used five indicators to measure its technical performance.<sup>32</sup> Table 4 lists those indicators and corresponding targets and results.

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<sup>27</sup> ICMA provides technical and management assistance, training, and information resources in the areas of performance measurement, ethics education and training, community and economic development, environmental management, technology, and other topics to its members and the broader local government community.

<sup>28</sup> The water supply and sanitation utilities within the Afghan Urban Water Supply and Sewerage Corporation national network are referred to as Strategic Business Units. The Afghan Urban Water Supply and Sewerage Corporation oversees six Strategic Business Units, and provincial water supply departments report to the nearest Strategic Business Unit. There are 11 provincial water supply departments. The purpose of these water and sanitation utilities is to improve service delivery and efficiently provide clean, potable water for their customers, and thereby, also improve access to water for the communities they serve.

<sup>29</sup> The "cost recovery ratio" as measured through the CAWSA project is the total value of revenues collected divided by operating and maintenance expenses.

<sup>30</sup> USAID, *Performance Monitoring & Evaluation TIPS: Selecting Performance Indicators*, 2<sup>nd</sup> Edition, 2010.

<sup>31</sup> The indicators are the same for each of the utility's memorandum of understanding with ICMA.

<sup>32</sup> ICMA originally developed seven technical indicators. However, ICMA representatives told us that two technical performance indicators were removed after ICMA and the utilities were not able to gather data to establish baseline figures for "percentage reduction in water losses" and "quality of water" indicators.

**Table 4 - CAWSA Technical Performance Indicator Results**

Technical Performance Indicators	Mazar-e-Sharif			Jalalabad			Gardez			Ghazni		
	Baseline	Target	Result	Baseline	Target	Result	Baseline	Target	Result	Baseline	Target	Result
Cost recovery ratio	39%	85%	100%	32%	85%	94%	32%	85%	100%	42%	85%	93%
Percentage increase in on-time collection payment for service	11%	18%	23%	8%	15%	32%	18%	16%	33%	30%	24%	44%
Percentage increase in service area coverage	77%	83%	91%	16%	22%	19.6%	18%	21%	18%	22%	21%	26%
Percentage increase in population coverage	31%	37%	34.4%	27%	33%	30%	28%	32%	30.8%	52%	44%	64%
Percentage increase in water supply continuity	13%	19%	24%	9%	15%	19%	59%	37%	63%	14%	13%	23%

Source: SIGAR analysis of CAWSA program documentation.

Note: Red type added for performance targets missed.

Our analysis of data from CAWSA’s progress reports and a monitoring and evaluation report<sup>33</sup> conducted by an ICMA advisor shows that CAWSA generally met its technical performance targets. All four utilities met or exceeded their performance targets for three of the five technical performance indicators, including cost recovery ratios and percentage increase in on-time collection payment for service. ICMA and the utilities missed the performance targets for two of the indicators by approximately 2–3 percentage points.<sup>34</sup> CAWSA’s achievements in increasing cost recovery ratios and on-time collection appear to show improved efficiency in the four utilities’ commercial operations. In addition, achievements in water supply continuity illustrate more efficient technical operations in providing Afghans with reliable water access in the cities of Mazar-e-Sharif, Jalalabad, Gardez, and Ghazni. These improvements reflect CAWSA’s goal of transforming the utilities into viable, efficient, and self-sustaining commercial enterprises.

In addition to technical performance indicators, ICMA and the utilities developed 15 management performance indicators.<sup>35</sup> Each management performance indicator within the memoranda of understanding includes the indicator itself, a scale with assigned numerical values (scores) to assess different levels of performance,

<sup>33</sup> Monitoring and Evaluation Report (Mazar-e-Sharif, Jalalabad, Gardez, Ghazni), April 2003 conducted by Dr. Admal Ayobi, ICMA Commercial Advisor. The report was conducted by an ICMA consultant 7–10 months after CAWSA support to the four original water and sanitation utilities ended.

<sup>34</sup> We did not evaluate project achievements in Kandahar and the four additional provincial water supply and sanitation utilities as CAWSA activities there are still ongoing.

<sup>35</sup> These original 15 indicators were consolidated to 12 indicators in the second quarter of 2011.

criteria for assigning a score, baseline and target values, and additional indicator-specific "remarks." Table 5 presents three management performance indicators as provided in the memoranda of understanding.

**Table 5 - Examples of Utility Management Performance Indicators with Baselines and Targets**

Management Performance Indicator [SIGAR description]	Implementer-Provided Information for Indicator <sup>a</sup> [SIGAR description]	Scale for Measuring Indicator <sup>b</sup> [SIGAR description]			
General Management	Remarks		Baseline	Total Possible	Target Score
Human Resources	Water Supply Department must have complete job descriptions and specify minimum qualifications and <b>training requirements</b> . An employee evaluation, compliance, and <b>discipline records</b> must be designed by February 2010, for implementation by July 2010.	<ul style="list-style-type: none"> <li>Staff responsibilities unclear and unrelated to goals = 0</li> <li>Job descriptions exist but are not related to skills or evaluations = 1</li> <li><b>Job descriptions related to skills or evaluations = 2-3</b></li> <li>Job descriptions related to skills, evaluations, and compensation, and <b>conflict resolution in place</b> = 4</li> </ul>	0.5	4	3
Information Systems	Current systems are minimally adequate for financial and inventory reporting but have not been maintained with the accuracy required. Water Supply Department must implement all the proposed MIS reports and submit them on schedule to achieve the target score.	<ul style="list-style-type: none"> <li>No system for collecting, analyzing, disseminating data = 0</li> <li>Rudimentary system in place, not accessible to everyone = 1-2</li> <li>System in place and accessible, information not used in planning and not disseminated = 3</li> <li>System in place; data collected, analyzed, and reported; and feedback used = 4</li> </ul>	1	4	3.5
Customer Access to Water	Billing records are minimal. Must prepare <b>monthly report</b> that classifies all customers.	<b>Accurate customer tracking:</b> No = 0 Yes = 1	0.5	1	1
	No target for 1388.	New customers	TBD	TBD	TBD



	(planned growth)			
Computerized <b>procedure</b> must be in place.	Customer increases tracked for planning:  No = 0 Yes = 1	0	1	1

Source: Excerpt from CAWSA MOU program documentation for Mazar, Jalalabad, Gardez, and Ghazni

Notes: SIGAR emphasis added

<sup>a</sup> The MOUs list “remarks” made by ICMA and the utilities on what to consider for measuring each indicator.

<sup>b</sup> The MOUs did not have a title for this column of information. We created this column title based on the information provided in the MOUs’ tables. This column describes the scale for measuring and scoring the performance of each management indicator.

USAID performance monitoring and evaluation guidance states that “it is particularly important to make sure that indicator definitions are clearly defined. Indicators must be unambiguous about (1) what is being measured and (2) what data are being collected.”<sup>36</sup> However, we found that each indicator was not clearly defined. The scope and definition of the indicators were often not clearly stated. In addition, indicator-specific information and requirements provided in the “Remarks” section were not defined or captured in the scale, with no additional guidance as to how to carry out these requirements. For example, as shown in table 5, the human resources indicator “remarks” section mentioned the need for “training requirements,” “an employee evaluation system,” and “discipline records,” but did not explain whether those aspects were also required to be monitored and, if so, how they would be measured. Moreover, the scale for the “human resources” indicator listed the same definition for scores of 2 and 3. Given this lack of clarity, we could not determine whether indicator goals were being achieved, nor were we able to determine whether activities being performed were adequately measured by the performance management indicators.

Based on our analysis of CAWSA’s performance against its established indicators, we determined that the extent to which the project improved the water and sanitation utilities’ managerial capacity is unclear.

### USAID’s Delays in Modifying the CAWSA Cooperative Agreement Resulted in Inefficiencies and Wasted Resources

According to USAID guidance, the agency relies on Procurement Action Lead Times<sup>37</sup> as metrics for managing all procurement actions. USAID allocates 90 days to issue a modification to a cooperative agreement. While these timeframes are an internal planning tool, according to USAID, they provide an important accounting of the individual milestone actions needing to occur to ensure timely awards. USAID’s management of two CAWSA modifications does not demonstrate adherence to this guidance.

For example, USAID’s management of CAWSA’s 2-year cost extension—extending CAWSA from May 2012 to May 2014, and raising the agreement’s total estimated cost from \$10.6 million to \$14.2 million—for Kandahar and the four provincial water supply departments resulted in significant delays that affected overall implementation of the CAWSA. ICMA officials told us they began discussions with USAID on the 2-year cost extension about 6 months prior to the projected end of the CAWSA,<sup>38</sup> and followed up with a formal proposal letter to USAID’s Office of Acquisition and Assistance in January 2012. USAID then requested that ICMA submit a final proposal for a 2-year extension (May 2012 to May 2014) less than 1 month before the agreement’s

<sup>36</sup> USAID, *Performance Monitoring & Evaluation TIPS: Selecting Performance Indicators*, 2<sup>nd</sup> Edition, 2010.

<sup>37</sup> Procurement Action Lead Times are estimated typical timeframes for contracting officers and agreement officers to process acquisition and assistance actions.

<sup>38</sup> Prior to the discussion of a 2-year cost extension, USAID modified CAWSA with a 6-month no-cost extension from September 2011 through May 2012.



performance period ended.<sup>39</sup> While USAID ultimately approved the extension on May 10, 2012, USAID officials familiar with the project could not provide an explanation for this delay.

During the delay between ICMA's submittal and USAID's approval of the extension request, another USAID office, the Office of Acquisition and Assistance, directed ICMA to submit a closeout plan for the existing CAWSA period of performance. ICMA submitted the closeout plan in December 2011, and initiated project closeout activities, such as notifying beneficiaries of the project's conclusion, dismissing employees, disposing of furniture and equipment and terminating contracts with vendors. By April 2012, CAWSA offices were closed, and ICMA had dismissed project staff and disposed of property. Once USAID formally approved the 2-year extension to CAWSA in May 2012, ICMA then had to remobilize activities, which entailed finding and leasing new office buildings, acquiring office supplies, and locating and rehiring staff. According to ICMA officials, the remobilization process took approximately 2 months.

In conclusion, while CAWSA generally met its technical performance goals for improving commercial operations in Afghanistan's water supply and sanitation utilities for the four original cities, the lack of clear management performance indicators and a system for measuring against these indicators makes it difficult to determine overall CAWSA performance for the original four utilities. The 2010 U.S. Inter-Agency Water Strategy emphasizes that improved access to water supply and enhanced governance and management of the sector are key outcomes of U.S. government investments. While CAWSA met a majority of its technical performance goals, it is difficult to determine and analyze CAWSA's performance in improving the water and sanitation utilities' managerial capacity, thereby preventing a complete determination of CAWSA's success in achieving project objectives. In addition, because progress toward achieving the broader water strategy outcomes related to commercial water management was not measured, CAWSA's overall impact on Afghanistan's water sector is unclear.

## **SWSS Did Not Meet Some Performance Goals, and Could Not Measure Other Performance Goals Because Of Budget Cuts, Unrealistic Performance Targets, and Higher-than-Estimated Costs**

As part of the U.S. government's effort to improve water supply and sanitation in Afghanistan's rural areas, on September 30, 2009, USAID<sup>40</sup> awarded a 3-year, \$51.9 million contract to Tetra Tech/Association for Rural Development (ARD), Inc. ("Tetra Tech") for the Sustainable Water Supply and Sanitation (SWSS) project. The SWSS project had three components:

- *Component 1*—increase access to sustainable sources of clean water for domestic use among Afghanistan's rural population;
- *Component 2*— improve hygiene behaviors for poor and vulnerable populations in Afghanistan; and
- *Component 3*— improve the long-term technical, financial, and environmental sustainability of potable water supply and sanitation services.

SWSS contract documents, as well as the project's performance management plan, established performance indicators for each of the project's three main components in order to measure progress.

With regard to Component 1, the SWSS performance management plan and first contract modification established five specific performance indicators and targets to measure water supply and sanitation

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<sup>39</sup> ICMA's proposal entailed a continuation of support for the Afghan Urban Water Supply and Sewerage Corporation's commercialization strategy with a greater focus on technical, managerial and administrative support, as well as support of Kandahar and four provincial water supply departments, as their implementation period in the current agreement had been very short.

<sup>40</sup> USAID's Office of Economic Growth and Infrastructure is the technical office responsible for project oversight of SWSS. USAID's Office of Acquisition and Assistance is responsible for contracting actions.

infrastructure built and rehabilitated, as well as Afghans' access to improved water supply and sanitation services. The performance indicators, targets, and results are listed in table 6 below.

**Table 6 - Component 1: Water Supply and Sanitation Service Access**

Task Order Performance Indicators	Targets	Cumulative Achievements	Results
Number of water systems installed or rehabilitated (well, spring boxes, catchment, etc.) from Community-Led Total Sanitation <sup>a</sup> and response to requests from other stakeholders <sup>b</sup>	10,000	3,011	30%
Number of piped water systems built or rehabilitated	50	37	74%
Number of sanitation facilities installed (in communities, schools, and health centers)	50,000	42,129	84%
Number of people with access to improved water supply as a result of SWSS programming	717,500	615,725	85%
Number of people with access to improved sanitation services as a result of SWSS programming	500,000	294,903	59%

Source: SWSS Final Report (“Task Order Performance Indicators,” “Cumulative Achievements,” and “Results”) and SWSS Contract, Modification 1 (“Targets”)

Notes:

<sup>a</sup> Community-Led Total Sanitation is a sanitation approach that works by engaging whole communities in examining and acknowledging the “extent and shamefulness” of open defecation, its importance in the transmission of diarrheal diseases, and the costs of such disease to well-being and household finances. In turn, this educational engagement motivates the community to achieve open-defecation-free status through ensuring that all households have access to a safe latrine and that everyone uses it.

<sup>b</sup> Stakeholders included USAID’s Provincial Reconstruction Team/Field Program Officers, who would provide SWSS with project site nominations.

Our analysis shows that SWSS failed to meet performance targets for all five indicators under Component 1. This occurred for multiple reasons. First, Tetra Tech officials told us that the USAID performance target of 10,000 water systems installed or rehabilitated was unrealistic because of time and security constraints. According to Tetra Tech officials, they told USAID that installing 10,000 water systems in the 3-year timeframe was virtually impossible anywhere in the world, let alone in Afghanistan. Second, Tetra Tech officials stated that project cost estimates for water system<sup>41</sup> installation and rehabilitation—specifically, the cost for well construction—were higher than USAID cost estimates as a result of the security constraints, and, therefore, also affected their ability to meet the target of 10,000 water systems.<sup>42</sup> Third, according to Tetra Tech officials, USAID enacted an \$8.5 million budget cut in the final year of implementation that negatively affected the installation and rehabilitation of water and sanitation systems “at a time when demand for project services

<sup>41</sup> According to USAID’s Request for Task Order Proposal for the SWSS project, wells are considered “water systems” as measured by the “number of water systems installed or rehabilitated” performance indicator.

<sup>42</sup> In follow up discussions with USAID in December 2013, USAID officials told us they disagree with Tetra Tech’s assessment that the original 10,000 target was unrealistic. However, they do agree that water system installation and rehabilitation costs were higher than USAID had estimated.

was at a peak.”<sup>43</sup> As a result of the budget cut, Tetra Tech stopped construction of new or rehabilitated water and sanitation systems for a period of 6 months in 2011, causing it to miss the performance targets. USAID officials later agreed during implementation that the target for 10,000 water systems installed or rehabilitated was unrealistic and, as early as April 2010, began discussing with Tetra Tech the need to submit a revised performance target number. However, the target number was never addressed or updated.<sup>44</sup>

For Component 2, the SWSS contract established seven performance indicators to measure changes in hygiene behavior, focusing on three key behaviors shown to improve health: (1) hand washing with soap at critical times, (2) proper use of sanitation, and (3) household water treatment and safe storage. SWSS met or exceeded the performance targets for five out of the seven indicators. For instance, the percentage of mothers aware of “critical times for hand-washing” and mothers living in households with “soap at the place of hand-washing” indicators exceeded targets by 35–44 percentage points. Significantly raising awareness of the benefits of hand-washing and access to soap can reduce health risks associated with poor hygiene. For example, the SWSS final report states that this behavior-change work was implemented in 36 districts and assisted 611 communities in reaching open defecation-free certification.<sup>45</sup> The full list of indicators, targets, and results are in table 7.

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<sup>43</sup> USAID officials told us that the project budget reduction took place as a result of a mission-wide review of projects and a decision to cut the budget of those projects whose funds had not been fully obligated.

<sup>44</sup> Tetra Tech submitted a formal request in July 2012 for a 3 month, no-cost extension to SWSS. The extension request included a modification to the target number. While USAID approved the no-cost extension, it did not address the request to modify the target for “number of water systems installed or rehabilitated.”

<sup>45</sup> Follow-up inspections by other NGOs of open defecation-free villages 6–9 months after certification indicated that less than one percent of communities had any evidence of open defecation. UNICEF defines “open defecation free” as when “no feces are openly exposed to the environment.”

**Table 7 - Hygiene Education and Promotion (Component 2): Performance Indicators, Targets, and Results for Community-Led Total Sanitation Areas**

Task Order Performance Indicators	Performance Indicator Targets <sup>a</sup>	Final Report Results
Percentage of households having children aged 0–59 months are practicing effective household water treatment	18.5%	64.9%
Percentage of households having children aged 0–59 months correctly store drinking water treated at the household	73.9%	80.4%
Percentage of mothers of children aged 0–59 months know all critical times for hand washing	37.5%	72.5%
Percentage of mothers of children aged 0–59 months live in households with a specific place for hand washing	90.0%	59.2%
Percentage of mothers of children aged 0–59 months live in households with soap at the place of hand washing	34.8%	78.0%
Percentage of households having children aged 0–59 months have access to an improved sanitation facility	85.0%	39.4%
Percentage of households with children aged 0–59 months using an improved sanitation facility <sup>b</sup>	36.9%	100.0%

Source: SWSS targets derived from contract modification one, and results derived from the SWSS Final Report.

Notes:

<sup>a</sup> Targets established in Performance Management Plan and Modification 1 to SWSS contract.

<sup>b</sup> The indicator listed in the Final Report states: “Percentage of households that have an improved sanitation facility and use it.” This is different from the original indicator.

With regard to Component 3, which focused on improving local community capacity for managing water resources, Tetra Tech officials told us that the \$8.5 million budget cut USAID implemented in 2012 also affected their activities. The SWSS performance management plan and contract established two performance indicators<sup>46</sup> and targets to measure improvements under this component. According to Tetra Tech officials, they planned to conduct a customer satisfaction survey and a sustainable financial evaluation in the 3<sup>rd</sup> year to determine progress achieved under both indicators. However, neither activity could be conducted due to the budget cut. Without the results from the survey and evaluation, Tetra Tech and USAID did not have the necessary performance data to measure whether all of the necessary activities were carried out under Component 3. As a result, USAID could not determine whether the activities in Component 3 related to local management capacity building—and the approximate \$882,549 dollars budgeted to these efforts—met the intended goals.

The 2010 Water Strategy emphasizes that improved access to water supply and sanitation and associated hygiene behaviors are key outcomes of U.S. government investments. While SWSS demonstrated

<sup>46</sup> These performance indicators are (1) percent of consumer satisfaction score, and (2) number of community water systems with functioning management committees and sustaining long-term financing.

achievements pertaining to hygiene promotion and health benefits, shortfalls pertaining to water supply and sanitation service access exemplify a project with mixed results overall. In addition, because progress toward achieving the broader water strategy outcomes related to sustainable water supply and sanitation was not measured, SWSS's overall impact on Afghanistan's water sector is unclear.

## **USAID Spent about \$3.5 Million for 27 Watershed Assessments That It Did Not Use as Originally Intended**

On January 1, 2009, USAID's Office of Economic Growth and Infrastructure entered into a Participating Agency Service Agreement with USACE to identify, plan, design, and implement infrastructure projects and related engineering, construction, and capacity building activities. The agreement allowed for "special projects," in which USACE would provide services such as reports, studies, surveys, and other technical staff support services. As one of these special projects, the Office of Economic Growth and Infrastructure funded a series of watershed assessments to be conducted by USACE. According to the water strategy, the assessments would provide an important foundation to "identify high priority areas for investment" and to "prioritize watersheds for activity implementation and coordination."<sup>47</sup>

USACE conducted watershed assessments for 27 of 28<sup>48</sup> Afghan provinces at a cost to USAID of approximately \$3.5 million. According to the USAID-USACE agreement, the purpose of these assessments was to identify potential sites for small irrigation dams and micro-hydropower projects across Afghanistan. USAID intended to use the assessments to guide future water sector development. In addition, the watershed assessments were to provide assistance to military units, provincial reconstruction teams, and agribusiness development teams conducting water resource improvement projects in Afghanistan. Recommendations and other information in the watershed assessments were meant to be shared with and used by Afghan ministries such as the Ministry of Energy and Water; Ministry of Agriculture, Irrigation, and Livestock; and the Ministry of Rural Rehabilitation and Development for watershed management and to make long-term improvements.

Although USACE completed these assessments in 2011, there is little evidence that they were used as originally intended or shared in a timely manner. In one example, USAID officials stated that the assessments were to have supported a new \$653 million USAID water sector project—the Water Resources Development Program—that would survey, design, and construct small dams for irrigation, hydropower, and water supply, among other things. However, USAID officials told us the project was canceled because of insufficient funding. In addition, as of May 2013—almost 1 ½ years after completion of the final watershed assessment—USAID officials told us they were still deliberating how best to use the assessments. USAID and USACE officials added they were not aware of the assessments having informed any specific water projects during this time, as originally intended. Some watershed experts<sup>49</sup> believe that a watershed's physical characteristics change over time as a result of environmental or man-made conditions, and USAID officials acknowledged that determining whether an assessment's information is still applicable to use would require understanding current conditions on the ground. As a result, the assessments could already be, or could readily become, outdated, thereby diminishing their value for developing water resource improvement projects.

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<sup>47</sup> U.S. Government Inter-Agency Water Strategy for Afghanistan 2009-2014: A Strategic Approach to Support a Secure and Self-Reliant Afghanistan, To Foster Afghan Solutions, and To Build Afghan Capacity, February 2010.

<sup>48</sup> Although a watershed assessment of the Kabul province was required under a January 2010 modification to the USAID-USACE agreement, no assessment was conducted. USAID officials told us that a watershed assessment for Kabul province had been conducted by USACE in 2009, prior to USACE's agreement with USAID. Our review of the 2009 watershed assessment, however, indicates that the assessment only covered certain locations within Kabul province rather than the Kabul province as a whole.

<sup>49</sup> Thomas C. O'Keefe, James M. Helfeld, and Robert J. Naiman, University of Washington, *Agents of Watershed Change*. Retrieved from U.S. Environmental Protection Agency, Watershed Academy Web, Distance Learning Modules on Watershed Management, <http://www.epa.gov/watertrain>.

It is also unclear to what extent USAID shared these assessments with other agencies and stakeholders. For example, minutes from meetings of the U.S. Water Stakeholders Group<sup>50</sup> show that the assessments were not discussed until the February and March 2013 meetings, 2 years after the first assessments were completed in February 2011. Afghan government ministries have also received little benefit from the watershed assessments until recently. USAID officials told us that assessments were not shared with the Afghan Ministry of Energy and Water until July 2013, after our initial interviews with USAID and over 1 year after a request by the Deputy Minister of Energy and Water to receive copies of the assessments in order to plan for the design and construction of dams. According to USAID officials, sharing the assessments was difficult because, after transmitting the assessments and their underlying data to USAID, USACE determined that the assessments' raw data was classified.<sup>51</sup> As a result, USAID did not have easy access to the detailed raw data collected and did not share the information from the 27 watershed assessments in a timely manner.

USAID officials stated that the root cause of the delay was USACE's use of classified data for analysis and proprietary software, of which USAID was unaware. As a result, USAID was required to review each report and provide assurance that no classified information was disclosed. After USAID's review and consultation with USAID's Regional Legal Office and Office of Financial Management, USAID shared the assessments with Afghan Ministries—such as the Ministry of Energy and Water—and the broader donor community, including the World Bank and the Asian Development Bank. USAID officials also stated that USAID is now using the assessments as background information in preparing for the development of two watershed Master Plans, as well as USAID's Irrigation and Watershed Management Program.

## CONCLUSION

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Since March 2006, USAID has invested approximately \$580 million to develop Afghanistan's water sector. The 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan* was intended to be an up-to-date document outlining a coordinated U.S. government effort for development of Afghanistan's water sector. However, USAID—the key U.S. government agency implementing water projects in Afghanistan—did not meet three key provisions of the water strategy. Namely, it did not develop a work plan, measure progress toward the strategy's goals, or update the strategy.

Without a work plan that links projects and activities to short-, medium-, and long-term goals cited in the strategy, it is unclear the extent to which individual USAID projects contribute to the broader U.S. government efforts to develop Afghanistan's water sector, and may make it more difficult for the agency to plan and implement ongoing water sector development efforts. Although USAID officials asserted that some of the strategy's goals have been realized through implementation of individual projects, the four projects we reviewed showed mixed results. Consequently, USAID's assertion that some of the water strategy's goals were indeed realized is questionable. By not measuring progress toward achieving project goals, USAID cannot determine how its work achieves the water strategy's goals. Lastly, by failing to update the strategy to reflect current priorities, USAID risks planning and implementing water projects that are not aligned with its goals for developing Afghanistan's water sector.

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<sup>50</sup> The U.S. Water Stakeholders Group is a group of representatives from USAID and the Departments of State, Agriculture, and Defense that was established by the U.S. Embassy in Kabul's Economic Section to coordinate water projects.

<sup>51</sup> USACE officials stated that the raw data was deemed classified because it included specific geo-coordinates for site locations.

## RECOMMENDATIONS

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As the only U.S. government agency with an enduring role in future water sector activities in Afghanistan and because of the critical role that access to water plays in the country's reconstruction, we recommend that the USAID Administrator:

1. **Develop a new water sector strategy for Afghanistan with updated short-, medium-, and long-term goals and objectives that reflect USAID's current water sector priorities;**
2. **Develop and implement a performance measurement plan upon completion of the new strategy that can be used to evaluate USAID's performance in meeting the new strategy's goals and objectives; and**
3. **Ensure this strategy includes clear lines of responsibility and accountability within USAID for implementing the strategy.**

## AGENCY COMMENTS

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We received written comments on a draft of this report from USAID, which are reproduced, along with our detailed responses, in appendix II.

USAID agreed with our three recommendations and stated that it approaches the water sector comprehensively with activities that target agriculture, water conservation, sanitation, governance, management, hydropower, and trans-boundary policy. USAID commented that, over the past 5 years, U.S. government efforts, in which USAID has played a major part, have made substantial progress in Afghanistan's water sector and provided several examples of its achievements.

With regard to our first recommendation, USAID commented that it has drafted a new water strategy for 2014-2018 that is expected to be approved within the coming months. According to USAID, the new water strategy will provide the framework for its \$350 million, multi-sector approach to implementing water programs in Afghanistan.

USAID also agreed with our second recommendation that it develop and implement a performance measurement plan upon completion of the new strategy, which could then be used to evaluate USAID's performance in meeting the new strategy's goals and objectives. USAID commented that its new "Mission Performance Management Plan" includes indicators to measure the effectiveness of programs benefitting the water sector.

In addition, USAID agreed with our third recommendation that it ensure the new water strategy include clear lines of responsibility and accountability of who within USAID will implement the strategy. USAID commented that the new water strategy will be implemented and updated by a "Mission Water Working Group." However, USAID's comments do not describe what entities will be included within this working group.

USAID requested that we close all three recommendations because of the actions it has already taken to date. We commend USAID for its actions to develop a new water strategy. Nevertheless, in our view, it is premature to close the three recommendations because the new water strategy is still in draft form, as USAID acknowledges in its comments. We will review the new strategy when it is finalized and will make a determination at that time whether it is appropriate to close the recommendations.

USAID also provided technical comments that we incorporated into the report, as appropriate.



## APPENDIX I - SCOPE AND METHODOLOGY

In February 2013, the Special Inspector General for Afghanistan Reconstruction (SIGAR) initiated an audit of the U.S. Agency for International Development's (USAID) water sector projects in Afghanistan since fiscal year 2010. Specifically, SIGAR evaluated the extent to which: (1) USAID met key requirements of the 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan*, and (2) four USAID water projects implemented since 2010 have met their project goals and objectives.

Our initial audit scope consisted of nine USAID water sector projects completed, ongoing, or planned since fiscal year 2010. We narrowed our focus to four projects that were complete or ongoing: Afghanistan Water, Agriculture and Technology Transfer (AWATT); Commercialization of Afghanistan Water and Sanitation Activity (CAWSA); Sustainable Water Supply and Sanitation (SWSS); and watershed assessments conducted under a USAID–U.S. Army Corps of Engineers (USACE) Participating Agency Service Agreement. The remaining five projects were either recently initiated or had relatively small water-related components that focused on capacity building and training for the Ministry of Energy and Water. See table 8.

**Table 8 - Five USAID Water Sector Projects Funded since Fiscal Year 2010 Not Included in the Audit**

Project	Description and Purpose	Cost*	Period of Performance	Reason for Scope Omission
Human Resource and Logistical Support II	Provide a broad range of human resources and logistical support to help USAID design, monitor, guide, and support the activities of other contractors; and consulting services to the USAID/Afghanistan and Government of Afghanistan. A portion of work is related to the water sector, mainly the Ministry of Energy and Water.	\$81,406,830	3/1/2006 to 4/30/2011	According to USAID, the water sector-specific component of the Human Resource and Logistical Support II totals approximately \$3 million of the over \$81 million program.
Engineering Quality Assurance and Logistical Support (EQUALS)	Provide professional architect, engineering, quality assurance services, and other logistical and technical support across all USAID/Afghanistan's transport, energy, and water and sanitation sectors. The program also provides capacity building and on-the-job training to the key Afghan ministries involved in the energy, roads, and water sectors.	\$61,345,492**a	4/18/2011 to 4/17/2014	According to USAID, the water sector-specific component of the Engineering Quality Assurance and Logistical Support program totals approximately \$3 million of the more than \$61 million spent on the program.
Kabul Urban Water Supply	A multi-donor effort, led by the German Development Bank, to improve water management and to expand the potable water supply in Kabul.	\$20,000,000**	4/26/2013 to 12/31/2016	Kabul Urban Water Supply: implemented by the German government through KfW, began in April 2013.

Irrigation and Watershed Management Program	Address the Afghan government's capacity to: (1) better manage water resources to improve agricultural production, (2) improve coordination within Ministry of Agriculture, Irrigation and Livestock and other ministries, (3) implement irrigation and watershed management activities in a "learning by doing" approach for later replication, (4) implement the 2009 Water Law, including participatory approaches to water management, and (5) strengthen institutional capacity to design and execute irrigation and watershed management activities.	Off-budget: \$129,963,114  On-budget: \$100,000,000** <sup>b</sup>	12/21/2012 to 12/20/2017	Irrigation and Watershed Management began in January 2013 and, according to the implementing partner, was conducting start-up activities during February–April 2013.
Ministry of Energy and Water Capacity Building	Increase the capability of the Ministry of Energy and Water Capacity Building, Da Afghanistan Breshna Sherka (the Afghan electric utility), and other higher education institutions to carry out their core responsibilities in the energy and water sectors.	\$37,000,000**	TBD <sup>c</sup>	According to USAID, the Ministry of Energy and Water Capacity-Building program has not been awarded.

Source: Contract Documentation and USAID Data Call Responses

Notes:

\* USAID-reported expenditures as of February 2013.

\*\* This USAID project is ongoing, recently begun, or planned, and thus, the costs refer to the total estimated cost of award.

<sup>a</sup> Of the obligated amount for EQUALS, approximately \$3 million is budgeted for water activities covering April 2011 to April 2013. Of the obligated amount for EQUALS, approximately \$3 million is budgeted for water activities covering April 2011 to April 2013.

<sup>b</sup> Off-budget funds are funds provided by the U.S. government directly to a contractor for work performed on a contract. On-budget funds are funds provided directly to the Afghan government.

<sup>c</sup> USAID reported that as of February 2013, dates for the project were still to be determined.

To evaluate the extent to which USAID implemented the 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan*, we reviewed relevant guidance, including the 2010 *U.S. Government Inter-Agency Water Strategy for Afghanistan* and the 2013–2018 USAID Water and Development Strategy. We also reviewed a November 2010 Government Accountability Office audit report and documentation related to the USAID Water Resources Development Program. We interviewed officials at USAID's Offices of Economic Growth and Infrastructure, Acquisition and Assistance, and Agriculture. We also interviewed officials at the U.S. Embassy Kabul Economic Section; Embassy Infrastructure Working Group; and Embassy Water Stakeholders Group. In addition, we interviewed representatives from the World Bank, Asian Development Bank, and KfW. We interviewed representatives from the Government Accountability Office and the U.S. Department of Agriculture.

To evaluate the extent to which the four projects have met USAID's project goals and objectives, we (1) assessed USAID's performance monitoring/management, and (2) analyzed information on project performance. To evaluate USAID's performance monitoring/management of each project, we reviewed relevant USAID monitoring and evaluation guidance; identified project performance indicators as indicated by

contract/cooperative agreement documentation; identified baselines and proposed targets for the indicators, if available; identified results reported by the implementing partner on the indicators and compared results against the target set; and reviewed USAID monitoring/evaluation activities for any identified gaps in results and targets. To evaluate overall project performance, we identified project goals and objectives and associated project activities as defined by the contract/cooperative agreement's statement of work and subsequent modifications; analyzed gaps between required project activities and actual reported activities; compared reported results to project goals and objectives; determined reasons for gaps between required activities and reported activities, as well as project goals and objectives and reported results; and evaluated overall project success in achieving intended project goals and objectives.

To evaluate the extent to which AWATT met project goals and objectives, we reviewed the AWATT cooperative agreement and subsequent modifications, two previous oversight reports by the USAID Office of Inspector General, and a third-party monitoring report by Checchi and Company Consulting, Inc. We reviewed AWATT annual work plans and performance management plans; a final report, as well as quarterly and annual progress reports submitted by New Mexico State University (NMSU); and written communication between USAID and NMSU regarding changes in project scope. We interviewed NMSU representatives and the former NMSU Chief of Party; officials from USAID's Office of Acquisition and Assistance and Office of Agriculture; and representatives from the Afghan Ministry of Agriculture, Irrigation and Livestock.

To evaluate the extent to which CAWSA met project goals and objectives, we reviewed the CAWSA cooperative agreement and subsequent modifications; quarterly and annual progress reports submitted by the International City/County Management Association (ICMA); CAWSA annual work plans; and Memoranda of Understanding signed by Afghan water and sanitation utilities. We reviewed USAID guidance pertaining to procurement action lead times. We interviewed ICMA representatives, including the Chief of Party for the CAWSA project, and officials from USAID's Office of Economic Growth and Infrastructure and Office of Acquisition and Assistance. The technical and management performance indicators were reported in annual reports as a percentage achieved toward meeting the targets established in the Memoranda of Understanding. To determine what these percentages meant we reviewed the Memoranda of Understanding for the established technical and management performance indicators and the system of measurement used by the water and sanitation utilities. These agreements provide the guiding documentation for measuring the performance of the sanitation and water utilities progress toward meeting the indicator goals. We requested all project documentation from USAID; the Memoranda of Understanding were the only documents that contained definitions for the indicators. The technical performance indicators and the system of measurement used were clearly defined. However, the management performance indicators and the system of measurement were not. The memoranda of understanding documents provide the 15 management performance indicators, criteria for their measurement, baseline and target values, and additional indicator specific information; for our analysis, we first reviewed all 15 indicators in each of the four memoranda for weaknesses, and identified several categories. These categories were: terminology without definitions; unclear descriptions and definitions for the indicators and scales; non-unique "scores;" and undefined "scores" for baselines and targets. We then compiled all 15 indicators for each of the 4 utilities into a single spreadsheet for analysis and evaluated the indicators to determine whether the categories identified above were present.

To evaluate the extent to which the SWSS project met project goals and objectives, we reviewed the SWSS contract and subsequent modifications, SWSS annual work plans and performance management plans, and quarterly and annual progress reports submitted by Tetra Tech/Association for Rural Development, Inc. We reviewed written communication between USAID's Office of Economic Growth and Infrastructure and Office of Acquisition and Assistance and Tetra Tech representatives. We interviewed Tetra Tech representatives and officials from USAID's Office of Economic Growth and Infrastructure and Office of Acquisition and Assistance.

To evaluate the extent to which the watershed assessments under the USAID-USACE Participating Agency Service Agreement met goals and objectives, we reviewed the USAID-USACE agreement and subsequent amendments; USAID directives pertaining to interagency agreements; and watershed assessment reports for

27 provinces. We interviewed a USACE official, officials from USAID's Office of Economic Growth and Infrastructure and Office of Acquisition and Assistance, the U.S. Embassy Infrastructure Working Group, the U.S. Embassy Water Stakeholders Group, and the Afghan Ministry of Energy and Water. We also reviewed minutes from Water Stakeholders Group meetings.

The documents we reviewed covered the period from March 1, 2006, to May 21, 2013. We conducted our audit work in Kabul, Afghanistan, and Washington, D.C., from February 2013 to March 2014, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. This audit was performed by SIGAR under the authority of Public Law No. 110-181, as amended, and the Inspector General Act of 1978, as amended.

## APPENDIX II - COMMENTS FROM THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT


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### MEMORANDUM

**DATE:** April 16, 2014

**TO:** John F. Sopko  
Special Inspector General for  
Afghanistan Reconstruction (SIGAR)

**FROM:** William Hammink, Mission Director 

**SUBJECT:** Mission Response to Draft SIGAR Report titled  
"Afghanistan's Water Sector: USAID's Strategy  
Needs to Be Updated to Ensure Appropriate Oversight  
and Accountability" (SIGAR Report 14-XX under  
Code 077A)

**REF:** SIGAR Transmittal email dated 03/14/2013

USAID thanks SIGAR for the opportunity to comment on this report.

Water is critical to Afghan development. USAID approaches the water sector comprehensively with activities that target agriculture, water conservation, sanitation, governance, management, hydropower, and trans-boundary policy. Water is one of several critical areas in need of substantial investment after decades of neglect and ongoing civil conflict in Afghanistan. Over the past five years, U.S. government efforts, in which USAID has played a major part, have made substantial progress in Afghanistan's water sector.

USAID achievements consistent with the goals and objectives of the inter-agency water strategy reviewed by SIGAR include:

- Providing more than 1,000 rural communities with improved water and sanitation through 3,011 wells, 37 piped water systems and 42,129 hygienic latrines.
- Doubling (and in some cases tripled) the urban water authority cost recovery in all the provinces targeted by USAID assistance. Revenue-collection improvements continue moving toward financial sustainability after USAID assistance has stopped.

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- Creating more than 400,000 urban-household water connections.
- Providing irrigation and improved watershed management on more than 47,142 hectares, which is 377% of the target of 12,500 hectares set out in the water strategy.
- Giving the Afghan Ministry of Energy and Water technical capacity to design and construct five multipurpose dams, valued at \$350 million, through government budget and management systems.

USAID is one of five USG agencies responsible for developing and implementing the 2009 – 2014 Inter-Agency Water Strategy for Afghanistan that supports water sector needs from the Afghanistan National Development Strategy and the National Priority Programs. USAID implemented the lion's share of the USG strategy activities in support of these Afghan priorities, and targeted 16 out of 18 short-, mid-, and long-term strategic goals.<sup>1</sup>

USAID uses multiple implementation mechanisms and partners to achieve these sector-level strategic goals. For each of these mechanisms, USAID executes individual work plans, typically for programs running for three to five years. By requirement and design, these work plans feed into the mission-wide USAID results framework that measures progress toward all development goals, including water. The lack of an additional agency work plan has had no impact on USAID ability to achieve results in the water sector, and the cancellation of the multi-activity Water Resources Development Program had no impact on USAID ability to monitor and link these achievements to the inter-agency water strategy goals, as SIGAR suggests in the report.

see SIGAR  
comment 1

A new USAID water strategy is being finalized and will guide mission water sector activities from 2014 to 2018. The new strategy will update the previous inter-agency strategy ahead of its December 2014 conclusion to reflect changes in the operational environment. While the inter-agency strategy was not updated previously, USAID is operationalizing a water strategy as a "living document" that can be reviewed on a rolling basis and respond to changing needs in Afghanistan's water sector, contrary to SIGAR's statement otherwise.

see SIGAR  
comment 2

<sup>1</sup> The two goals left uncompleted are 1) to construct 200 MW in large-scale hydropower dams, and 2) development of an inter-agency aggregate work plan, which the strategy was later, deemed to have fulfilled.

SIGAR suggests USAID should have evaluated its projects' performance against the inter-agency strategy goals. As the inter-agency water strategy still has seven months remaining in 2014, a full and final evaluation of USAID performance against the strategy would not be appropriate until the timeframe of the inter-agency strategy has concluded. While the inter-agency water strategy recommends a mid-term and final evaluation, USG stakeholders decided instead to hold meetings every two months as a way to evaluate performance more frequently, rather than executing a formal mid-term evaluation. During these meetings, the strategic objectives for the water sector were also appraised and monitored. Contrary to SIGAR's assertion that certain objectives should have been removed, commercial water and sewer systems continue to be stated priority areas for Afghanistan in both the previous and in the new water strategies.

see SIGAR  
comment 3

see SIGAR  
comment 4

USAID also evaluates its performance against the inter-agency strategy by measuring the achievements of individual programs as they are completed and linking them to strategy goals. In particular, the Sustainable Water Supply and Sanitation (SWSS) project met or exceeded the performance targets for five out of seven indicators for hygiene education and promotion. For instance, the percentage of mothers aware of "critical times for hand-washing" and mothers living in households with "soap at the place of hand-washing" indicators exceeded targets by 35 and 44 percentage points, respectively. Significantly raising awareness of hand-washing and access to soap has been demonstrated to reduce health risks associated with poor hygiene. The SWSS final report states this behavior-change work was successfully implemented in 36 districts and assisted 611 communities in reaching open defecation-free certification.

see SIGAR  
comment 5

Finally, the SIGAR report repeats concerns raised in October 2013 about the low use and dissemination of 27 watershed assessments. Attached is the letter USAID sent to SIGAR on this issue (Attachment 1). In fact, the watershed assessments USAID commissioned have been widely shared and used with numerous partners and entities, including the Ministry of Energy and Water, Ministry of Agriculture, Irrigation, and Livestock, World Bank, Asian Development Bank, UK Department for International Development, Japanese International Cooperation Agency, German Development Bank, and the UN Food and Agriculture Organization, among others. As demonstrated by the number of organizations that have accessed and are using these assessments, the benefit provided by these assessments is not "outdated and of limited value" as SIGAR states, but is in fact accelerating as donor and governmental programs receive new

see SIGAR  
comment 6



water development funding and use the USAID assessments to help design programs.

### **RESPONSE TO SIGAR'S RECOMMENDATIONS**

*As the only U.S. government agency with an enduring role in future water sector activities in Afghanistan and because of the critical role that access to water plays in the country's reconstruction, we recommend that the USAID Administrator:*

- (1) Develop a new water sector strategy for Afghanistan with updated short-, medium-, and long-term goals and objectives that reflect USAID's current water sector priorities*

**USAID Comments:** The Mission concurs with Recommendation 1 and will develop goals and objectives for the water sector appropriate to mission programming and timelines.

#### **Actions Taken/Planned:**

USAID has drafted a "Mission Strategy for Water (2014-2018)" for Afghanistan. The strategy is expected to be approved within the coming months and will follow the U.S. Government Inter-Agency Water Strategy for Afghanistan, 2009-2014.

The new water strategy is no longer focused on counter-insurgency and follows USAID development processes with identified indicators for measuring success which will be reported to the USAID Water Office in Washington, DC, and tracked in the Agency Water and Development Strategy Goals. The strategy will provide the framework for the USAID \$350 million, multi-sector approach to implementing water programs in Afghanistan. It builds on lessons learned from past projects and provides a sector-wide approach to water programming by increasing access to and strengthening effective management of Afghan potable and productive water sources.

The new water strategy is aligned with the Government of the Islamic Republic of Afghanistan's (GIROA) National Priority Programs (NPPs) and the priorities of the water donor community.

**Target Closure Date:**

Based on the above, we request SIGAR's concurrence to the closure of Recommendation 1.

see SIGAR  
comment 7

*(2) Develop and implement a performance measurement plan upon completion of the new strategy that can be used to evaluate USAID's performance in meeting the new strategy's goals and objectives*

**USAID Comments:** The Mission concurs with Recommendation 2.

**Actions Taken/Planned:**

The new Mission Performance Management Plan (PMP) includes indicators to measure the effectiveness of programs benefitting the water sector. The indicators cover a broad range within the water sector, including sanitation, hygiene, irrigation, energy and infrastructure.

USAID integrates water sector reporting into the Mission PMP to effectively manage water activities. All USAID programs, including water activities, are required to have a PMP that is monitored by the Contracting Officer's Representative (COR) or Assistance Officer's Representative (AOR) and implementing technical team. The COR/AOR and technical team report activity performance to the mission in order to provide ongoing evaluation at both activity and strategic levels. These standard monitoring practices allow USAID to assess its performance of the new water strategy.

**Target Closure Date:**

Based on the above, we request SIGAR's concurrence to the closure of Recommendation 2.

see SIGAR  
comment 8

*(3) Ensure this strategy includes clear lines of responsibility and accountability of whom within USAID will implement the strategy*

**USAID Comments:** The Mission concurs with Recommendation 3.

**Actions Taken/Planned:**

The new Mission Water Strategy will charge the Mission Water Working Group with implementing and updating the water strategy. A description of proposed mechanisms will be given in the Water Concept Paper and includes the USAID office responsible for managing each future activity.

**Target Closure Date:**

Based on the above, we request SIGAR's concurrence to the closure of Recommendation 3.

see SIGAR  
comment 9

Please see attachments for further clarification.

**Attachment:**

1: USAID response to SIGAR Alert Letter 14-4 on Watershed Assessments

**Appendix:**

1: Technical Comments  
2: Table: U.S. Inter-Agency Water Strategy Goals, Outputs, and Outcomes

cc: U.S. Embassy/Kabul Coordination Directorate

### SIGAR's Response to Comments from the U.S. Agency for International Development, dated April 16, 2014

1. Contrary to USAID's assertion, our draft report did not state that the lack of an additional agency work plan affected USAID's ability to achieve results in the water sector. Instead, we stated that the lack of the work plan as called for by the 2010 Water Strategy made it difficult to determine how the results of individual water projects contributed to broader U.S. government water sector development efforts.
2. Our draft report did not suggest, as USAID commented, that its water strategy cannot be reviewed on a rolling basis and respond to changing needs in Afghanistan's water sector. On the contrary, the draft report only stated, as USAID acknowledges in its comments, that the 2010 Water Strategy was not updated.
3. USAID states in its comments that a full and final evaluation of its performance against the 2010 Water Strategy is premature, given that the strategy's completion at the end of 2014 has not yet been reached. Nevertheless, our point remains valid that, without a detailed work plan as called for by the 2010 Water Strategy, it is difficult to determine how individual water projects contributed to broader U.S. government water sector development efforts in Afghanistan.
4. Our draft report did not assert that USAID had completely eliminated commercial water and sewer systems as objectives. Instead, we stated that USAID's priorities had shifted from favoring large infrastructure projects toward building capacity at Afghan ministries to manage these projects themselves.
5. We presented these project achievements in both the draft and final report. (See pp. 19–21 of this report.)
6. As our draft report acknowledges, the watershed assessments were eventually shared with Afghan ministries and the broader donor community. Nevertheless, it remains the case that these assessments were not shared widely until, in some cases, 2 years after their completion. We maintain that the assessments would have been more useful if USAID had shared them with interested parties in a more timely way.
7. Because the new water strategy has not been finalized, it is premature to close recommendation 1 at this time. Once the strategy is complete, we will assess whether it is appropriate to close the recommendation.
8. Although USAID reports that it has a new mission performance management plan with indicators to measure the effectiveness of programs benefitting the water sector, we do not, at this time, have enough information to assess how USAID will use this plan to evaluate its performance in meeting the new, draft water strategy. As we note in this report, the mission's performance management plan for 2011–2015 includes indicators for measuring outputs and outcomes in water sector projects, such as "more efficient use of expanded water resources," "improved access to water supply and sanitation," and the "number of people in target areas with access to improved sanitation facilities as a result of U.S. government assistance." However, these indicators do not measure the same outputs and outcomes called for in the 2010 Water Strategy. Once the new strategy is complete, we will assess the extent to which the new mission performance plan aligns with the new strategy and, based on that assessment, determine whether to close recommendation 2.

9. Because the new water strategy has not been finalized, it is premature to close recommendation 3 at this time. Once the strategy is complete, we will assess whether it is appropriate to close the recommendation.

## APPENDIX III - ACKNOWLEDGEMENTS

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