United States Government Accountability Office

GAO

Report to Congressional Addressees

November 2010

AFGHANISTAN DEVELOPMENT

U.S. Efforts to Support Afghan Water Sector Increasing, but Improvements Needed in Planning and Coordination

GAO-11-138

November 2010

AFGHANISTAN DEVELOPMENT

U.S. Efforts to Support Afghan Water Sector Increasing, but Improvements Needed in Planning and Coordination

GAO Accountability • Integrity • Reliability

Highlights

Highlights of GAO-11-138, a report to congressional addressees

Why GAO Did This Study

Water is critical to the stability of Afghanistan and is an essential part of U.S. efforts in Afghanistan. Since 2002, the United States Agency for International Development (USAID) and the Department of Defense (DOD) have awarded $250 million for water projects.

This report examines (1) the alignment of U.S. water goals and projects with Afghan water-sector development goals; (2) U.S. agencies' coordination of water-sector efforts among themselves, with the Afghan government and the donor community; (3) U.S. efforts to manage and monitor these water projects; and (4) U.S. efforts to build sustainability into water-sector projects. GAO reviewed and analyzed planning, funding, and performance documents from U.S. agencies and implementing partners, and interviewed U.S. officials in Washington, D.C., and U.S., Afghan, and donor officials in Afghanistan.

What GAO Recommends

GAO makes several recommendations to the USAID Administrator, in conjunction with DOD and other relevant agencies, to improve planning, coordination, and management of U.S.-funded water projects in Afghanistan. This includes developing an interagency plan and designating a centralized database. GAO also recommends steps the USAID Administrator needs to take to improve performance management. USAID and DOD generally concurred with our recommendations.

View GAO-11-138 or key components.
For more information, contact Charles M. Johnson, Jr. (202) 512-7331 or johnsoncm@gao.gov.

What GAO Found

The goals outlined in the U.S. government's 2010 Inter-Agency Water Strategy generally align with Afghan government strategic goals for the water sector. The Strategy identifies short, medium, and long-term goals to be achieved between 2010 and 2014. Additionally, since 2002, the U.S. government has implemented a wide range of water projects throughout Afghanistan to improve access to safe drinking water and sanitation, agriculture irrigation, and water-sector management. These projects generally align with Afghan water-sector goals. The United States expects to accelerate development efforts in the water sector and estimates that an additional $2.1 billion will be needed to fund these efforts from fiscal year 2010 through fiscal year 2014.

The Government Performance and Results Act and several U.S. strategic documents concerning operations in Afghanistan emphasize the importance of interagency coordination. GAO has reported on the importance of interagency coordination and collaboration when multiple U.S. agencies are involved in U.S. counterterrorism-related efforts. GAO's review showed that the United States has taken steps to better coordinate water-sector development projects but that additional efforts are needed. For example, the U.S. government has developed an Infrastructure Working Group, an Inter-Agency Water Strategy, and has started to meet on a regular basis. However, an interagency implementation plan called for in the strategy has not been completed. Also, USAID and DOD have not developed a centralized database to enhance coordination, which GAO previously recommended. Moreover, U.S. agencies generally do not meet on a regular basis with all the relevant ministries in the Afghan government, and they lack complete data concerning other donor projects to maximize the U.S. investment in development projects.

USAID's Automated Directives System outlines USAID's performance management and monitoring procedures. GAO found that gaps existed in USAID's performance management and monitoring efforts for water sector projects in Afghanistan. For example, while 4 of the 6 implementers of projects GAO reviewed established performance indicators, some did not always establish targets for the indicators as required. In addition, although USAID collected quarterly progress reports from 5 of the 6 water project implementers for the projects GAO reviewed, it did not analyze and interpret this information as required. Finally, though USAID has identified several alternative monitoring procedures staff can use to help mitigate monitoring challenges in high threat environments, USAID has not effectively ensured that such guidance was disseminated to staff in Afghanistan.

The U.S. government has included a focus on building sustainability into U.S.-funded water projects in Afghanistan. Recent U.S. strategies have emphasized the importance of project sustainability. GAO has identified two key elements to ensuring water project sustainability: enhancing technical and managerial capacity to maintain projects within the institutions with water-sector responsibilities, and ensuring funding is available to keep projects operational after they have been completed. Ongoing USAID water projects included in this review have incorporated sustainability initiatives. DOD guidance also emphasizes sustainability. However, DOD officials have acknowledged the difficulties of sustaining water projects in Afghanistan.

Contents

Tables

Figures

Abbreviations

ANDS	Afghan National Development Strategy
CERP	Commander's Emergency Response Program
CIDNE	Combined Information Data Network Exchange
COIN	counter-insurgency
DOD	Department of Defense
GPI	Good Performers Initiative
GPRA	Government Performance Results Act
ISAF	International Security Assistance Force
IWG	Infrastructure Working Group for Afghanistan
NATO	North Atlantic Treaty Organization
NGO	nongovernmental organization
PMP	performance management plan
PRT	Provincial Reconstruction Team
SIGAR	Special Inspector General for Afghanistan Reconstruction
USACE	U.S. Army Corps of Engineers
USAID	U.S. Agency for International Development
USDA	U.S. Department of Agriculture
USFOR-A	United States Forces-Afghanistan
USGS	U.S. Geological Service

GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

November 15, 2010

Congressional Addressees

The United States and the Islamic Republic of Afghanistan have identified water as critical for the long-term stability of Afghanistan. Years of war and conflict, coupled with persistent drought, have had a devastating impact on the water sector of Afghanistan. According to a National Risk and Vulnerability Assessment for Afghanistan, published in 2010, only about 27 percent of the Afghan population has access to safe drinking water and just 5 percent has access to improved sanitation.[1] These are among the lowest rates in the world. Agriculture, the source of livelihood for almost 80 percent of the population, accounts for up to 93 percent of Afghanistan's total water usage through irrigation. Yet, only about 30 percent of Afghanistan's agricultural land receives adequate water. Between 2002 and the second quarter of 2010, the U.S. government has awarded about $250 million for water development efforts[2] in Afghanistan and, in March 2010, estimated it would need an additional $2.1 billion in funding to achieve U.S. development efforts in Afghanistan's water sector from fiscal year 2010 through fiscal year 2014. As U.S. government documents indicate, U.S. water-sector development efforts support the U.S. government's Counter-Insurgency (COIN) strategy in Afghanistan.[3]

[1]The government of Afghanistan, with the assistance of the European Commission, conducted the *National Risk and Vulnerability Assessment 2007/8: A Profile of Afghanistan* (January 2010) over a 12-month period that crossed both the 2007 and 2008 calendar years.

[2]USAID uses "award" to refer to financial assistance that provides support or stimulation to accomplish a public purpose through a contract, grant, or cooperative agreement, including those funds that the contract, grant, or cooperative agreement stipulates are for the future years and are disbursed subject to the availability of future appropriations. DOD uses "commitment" to refer to an administrative reservation of funds for a specific procurement of goods or services, which are subject to the availability of funds. For purposes of this report, we use "award" to refer to both of these.

[3]The key elements of the COIN strategy are sometimes described as "clear, hold, build." The objective of these elements is to: (1) remove insurgent and anti-government elements from a given area or region, thereby creating space between the insurgents and the population; (2) maintain security, denying the insurgents access and freedom of movement within the given space; and (3) exploit the security space to deliver humanitarian relief and implement reconstruction and development initiatives that will connect the Afghan population to its government and build and sustain the Afghanistan envisioned in the strategic goals.

This report examines (1) whether U.S. development goals and projects for the Afghan water sector align with the goals of the Afghan government; (2) U.S. agencies' coordination of water-sector development efforts among themselves, with the Afghan government and with the donor community; (3) the U.S. government's efforts to manage and monitor its water-sector projects; and (4) the U.S. government's efforts to build sustainability into water-sector projects.

To address these objectives, we reviewed U.S. Agency for International Development (USAID), Department of Defense (DOD), and other relevant U.S. government planning, funding, and reporting documents related to U.S. funding and projects for water-sector development in Afghanistan. We discussed the funding and projects with officials from USAID, DOD's Commander's Emergency Response Program (CERP), the Departments of State and Agriculture in Afghanistan, and with USAID, DOD, and other relevant agencies' officials in Washington, D.C. In Afghanistan, we met with the Minister of Rural Rehabilitation and Development and the Deputy Minister of Water and Energy and attended a meeting of the Technical Secretariat of the Supreme Council for Water Affairs Management, where relevant ministries were represented.[4] We also met with some representatives of implementing partners for U.S. agencies and the donor community. We analyzed program budget data provided by USAID and DOD. To further understand coordination issues related to the United States, the Afghan government, and the donor community, we attended meetings among them.

To provide an overview of U.S. assistance to the Afghan water sector, we focused our analysis on USAID's ongoing and completed water-exclusive and water-related activities, including award and implementing partner documents, and on DOD's CERP-funded ongoing and completed water-related projects. To ascertain the alignment of U.S. funded projects to Afghan water goals, we analyzed the objectives of three ongoing USAID-funded water-exclusive projects and four USAID-funded water-exclusive projects completed since 2003. These projects represent about 50 percent of the total funding disbursed by USAID for water projects in Afghanistan

[4]During the course of our review, a GAO team met with officials from the Afghan Ministry of Agriculture, as part of GAO's review of U.S. development assistance in the Afghan agricultural sector. We used information collected during this meeting. See GAO, *Afghanistan Development: Enhancements to Performance Management and Evaluation Efforts Could Improve USAID's Agricultural Programs*, GAO-10-368 (Washington, D.C.: July 14, 2010).

from fiscal year 2002 through the 2nd quarter of fiscal year 2010. Additionally, we identified 19 USAID-funded infrastructure projects completed or ongoing since 2002 that contained water-related activities. We received data for 13 of these projects. From these, we identified 511 water-related activities. These activities together accounted for about 50 percent of total USAID disbursed funding for water projects in Afghanistan from fiscal year 2002 through the 2nd quarter of fiscal year 2010. To assess the U.S. government's performance management and evaluation efforts, we reviewed five of the seven USAID water-exclusive projects and one of USAID's water-related projects that had a large water component. Our findings from these six projects cannot be generalized to water projects we did not include in our review. We also reviewed CERP regulations to ascertain CERP planning and monitoring requirements for water projects, as well as prior GAO reports that addressed CERP-funded development efforts in Afghanistan.[5] We discussed these issues with USAID and DOD officials in Washington and Afghanistan, as well as staff from implementing partner organizations. To assess USAID's and DOD's efforts to address water project sustainability in Afghanistan, we identified two key elements necessary for project sustainability, as identified in the 2010 U.S. Government Inter-Agency Water Strategy and other U.S. strategic documents: enhancing technical and managerial capacity and ensuring funding is available to keep projects operational after they have been completed. We reviewed project documents for the six selected USAID water projects and reviewed DOD's CERP regulations to ascertain required sustainability-related procedures. We discussed these issues with USAID and DOD officials in Washington and Afghanistan, as well as staff from implementing partner organizations.

We conducted this performance audit from May 2009 through September 2010 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

[5]GAO previously reported on some of the challenges of CERP-funded development projects in Afghanistan. See GAO, *Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed*, GAO-08-689 (Washington, D.C.: July 8, 2008); and *Military Operations: Actions Needed to Improve Oversight and Interagency Coordination for the Commander's Emergency Response Program in Afghanistan*, GAO-09-615 (Washington, D.C.: May 18, 2009).

and conclusions based on our audit objectives. More detailed information on our scope and methodologies, as well as data reliability assessments, can be found in appendix I.

Background

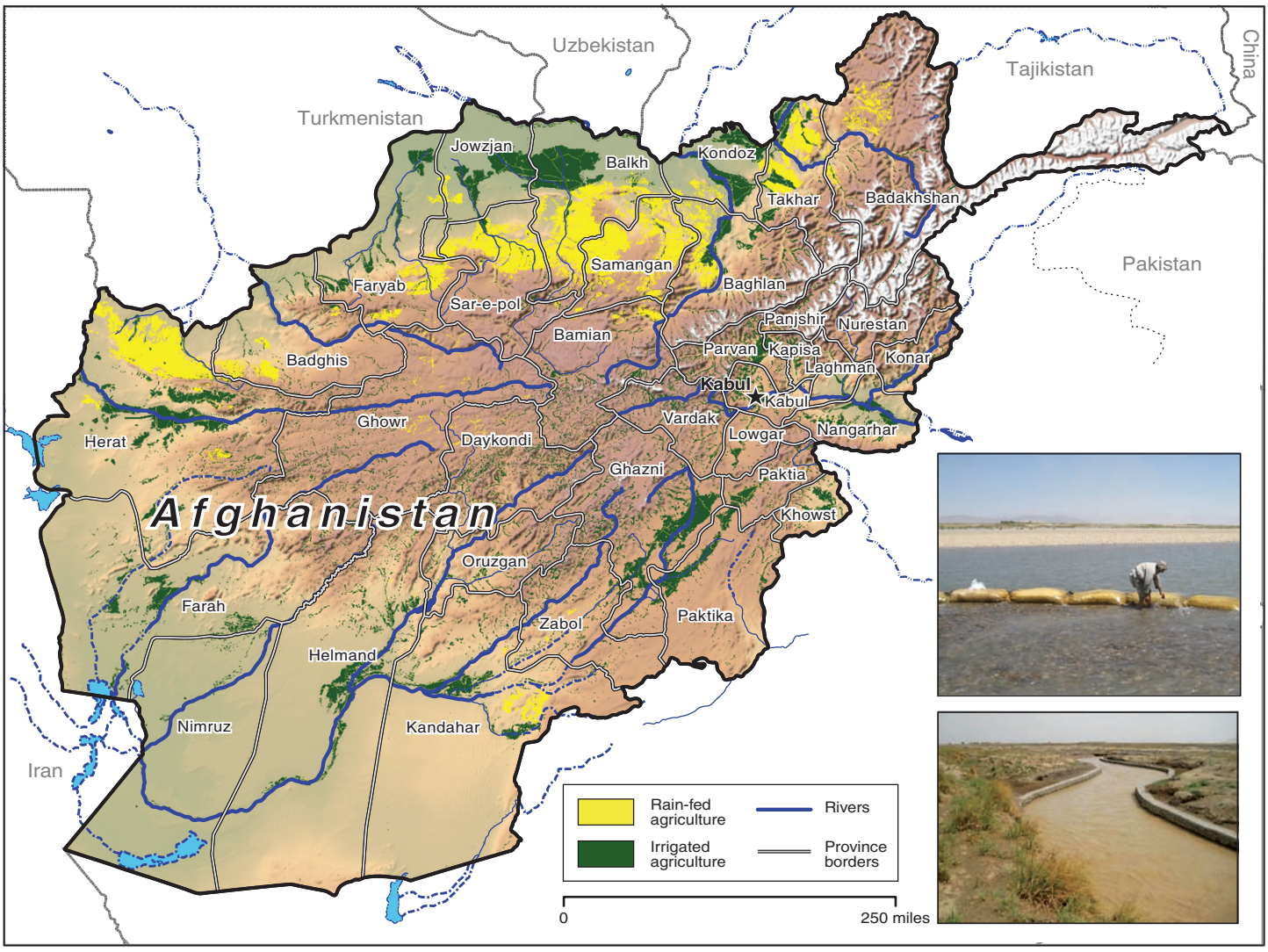
Afghanistan, while considered a water-scarce nation, has significant water resources, originating from precipitation in its high mountains. Average annual precipitation is estimated to be approximately 180 billion cubic meters, of which 80 percent originates from snow in the Hindu Kush mountain range. While some of this water is lost to evaporation, the balance recharges Afghanistan's surface and groundwater systems, which serve as the nation's primary sources of water. Only about 30 percent of agricultural land receives adequate supplies of water, and Afghanistan now uses less than a third of its available water resources. Furthermore, the lack of infrastructure to store and control river flow results in severe flooding in some years and drought in others.

Almost 80 percent of Afghanistan's population derives their livelihood from the agriculture sector, which is highly dependent on irrigation. Afghanistan is mountainous and much of its land is not naturally arable (see fig. 1). Specifically, irrigation makes up 93 percent of Afghanistan's total water usage. The agriculture sector, however, has been severely impacted by years of civil strife and war, droughts and damaging floods, and breakdowns in community-based and government institutions operating the Afghan irrigation systems. As a consequence, irrigation infrastructure seriously deteriorated and many farmers returning to their land cannot get a reliable irrigation water supply.

In addition, access to safe drinking water, sanitation, social services, and markets among the rural population is the lowest in the region and among the lowest in the world.[6] It is estimated that four out of five Afghans in rural areas may be drinking contaminated water. Countrywide, 28 percent of rural Afghans use surface water (rivers, lakes, and irrigation ditches) as their primary source of drinking water.

[6]GAO recently issued a report reviewing U.S. aid to developing countries, including Afghanistan, for water and sanitation under the Senator Paul Simon Water for the Poor Act of 2005. See GAO, *U.S. Water and Sanitation Aid: Millions of Beneficiaries Reported in Developing Countries, but Department of State Needs to Strengthen Strategic Approach*, GAO-10-957 (Washington, D.C.: Sept. 24, 2010).

Figure 1: Afghanistan's Rain-Fed and Irrigated Agriculture Regions



Sources: GAO analysis of USAID data; United States Geological Survey and Map Resources (map); USDA (photos).

Afghanistan's water sector faces many other challenges. According to the 2007- 2008 National Risk and Vulnerability Assessment for Afghanistan, published in January 2010, 27 percent of the population has access to safe drinking water and 5 percent has access to improved sanitation, which is among the lowest rates in the world. The World Bank has reported that current access to piped water infrastructure is among the lowest in the world at 18 percent, and because of poor operation and maintenance, the water service reaches an even lower share of the population. In addition, a

report prepared by a USAID Afghanistan Program Manager for Power and Water noted that while Kabul has an estimated 35 percent of the city's population served by piped water, it has no municipal wastewater system. Consequently, microbial contamination of water resources by domestic wastewater has increased substantially.

Activities in Afghanistan could have an impact on resource availability in neighboring countries. Four of Afghanistan's five major river basins flow into the territory or boundary waters of five of its six neighbors—Pakistan, Tajikistan, Uzbekistan, Turkmenistan, and Iran. The construction of large water storage or diversion facilities could affect these countries. The ability of the government of Afghanistan to achieve sustainable and multipurpose use of its abundant water resources will depend on its capacity to engage in dialogue, negotiate, and establish relationships and agreements with its neighbors.

Water's importance cuts across all facets of life: its availability impacts food production and nutrition, city development and growth, income generation and livelihood, and human health and hygiene, among other areas. While the water issues that need to be addressed in any particular nation are unique, examples of water-sector issues include:

- Drinking water, sanitation, and hygiene: Improving access to, and effective use of, safe water and basic sanitation, and promoting better hygiene.

- Irrigation: Rehabilitating and improving existing irrigation systems, developing new irrigation schemes, and implementing strategies to reduce water losses and monitor use.

- Water governance and regulation: Investing in policy and legal reforms, building local capacity, and strengthening water resources planning, management, and governance.

- Environment: Promoting good environmental stewardship through actions such as controlling erosion, reducing industrial pollution, protecting watersheds, managing river basins, and implementing disaster risk reduction activities to reduce vulnerability to droughts and floods.

Key Players in Afghanistan's Water-Sector Development

A number of U.S. government agencies, Afghan ministries, international partners, and nongovernmental organizations (NGO) assist in developing the Afghan water sector. As table one shows, there are several U.S. agencies involved in the U.S. effort to improve Afghanistan's water sector. These agencies include: USAID, DOD, through CERP[7] and the U.S. Army Corps of Engineers (USACE), the Department of State (State), the U.S. Geological Service (USGS), and the U.S. Department of Agriculture (USDA).

[7]CERP is designed to enable local commanders (including Provincial Reconstruction Team (PRT) commanders) in Afghanistan to respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility. PRTs in Afghanistan are designed to help improve stability by increasing the Afghan government's capacity to govern, enhance economic viability, and strengthen local governments' ability to deliver public services, such as security and healthcare. They are also key instruments through which the international community delivers assistance at the provincial and district level. Since October 2006, PRTs have been part of the North Atlantic Treaty Organization (NATO)-led International Security Assistance Force (ISAF) mission. See GAO, *Provincial Reconstruction Teams in Afghanistan and Iraq*, GAO-09-86R (Washington, D.C.: Oct. 1, 2009). As of November 2010, there are 27 PRTs in Afghanistan, 12 of which are under U.S. command.

Table 1: U.S. Agencies Involved in Development of Afghanistan's Water Sector

Agencies	Roles and responsibilities
USAID	USAID is the principal U.S. agency responsible for extending development assistance. USAID works around the world to further America's foreign policy interests in expanding democracy and free markets while improving the lives of the citizens of the developing world by supporting economic growth, agriculture and trade; global health; and democracy, conflict prevention, and humanitarian assistance. USAID seeks to increase access to safe drinking water in rural and urban areas; increase the supply of water, expand sanitation services, and build a strong foundation for sustaining water and sanitation programs; and expand and improve irrigation networks.
DOD	CERP is designed to enable local commanders (including PRT commanders) in Afghanistan to execute smaller scale projects[a] that respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility. DOD uses CERP funds to, among other things, increase agricultural production or cooperative agricultural programs through projects that focus on irrigation systems, irrigation wells and ditches, canal cleanup, and aquifer development. Other CERP projects focus on water and sanitation.
	USACE is a service provider for CERP and USAID-funded water projects. USACE has generally engaged in water-sector development programs by participating in national-level working groups related to water-sector development.
State	State works to increase access to safe water and sanitation services; promote the sustainable management of water resources; remove water as a source of tension between or among countries, and use water as a diplomatic tool to build confidence and promote cooperation among countries. State also manages or coordinates a number of accounts that may support water-related assistance.
USGS	USGS seeks to assess the basic hydrology of Afghanistan; create a water-quality monitoring program; build capacity of Afghans; estimate the amount of safe water available; and identify water sources in areas currently lacking water supply.
USDA	USDA works with other agencies to assist with the rehabilitation of watersheds and improves irrigation infrastructure in order to increase access to water for farmers and to improve the condition of targeted watersheds

Source: GAO analysis of USAID, DOD, State, USGS, and USDA documents.

[a]DOD Financial Regulation vol. 12, ch. 27, 270101 and 270102, and USFORA Pub 1-06, defines the purpose for which U.S. appropriation or other funds provided for CERP may be expended; and specifies the procedures for executing, managing, recording, and reporting such expenditures. The regulation states that CERP is intended for small-scale projects less than $500,000.

As shown in table 2, seven Afghan government bodies have authority over water-related issues.

Table 2: Afghan Ministries Involved in Development of Afghanistan's Water Sector

Ministries	Roles and responsibilities
Ministry of Urban Development	In charge of policy making and legislation of urban water supply and sanitation. Within this ministry, the Afghanistan Urban Water Supply and Sewerage Corporation is in charge of management and operation of urban water supply in cities.
Ministry of Rural Rehabilitation and Development	In charge of rural water supplies and sanitation as well as irrigation (village level) and rural micro hydropower projects
Ministry of Energy and Water	Develops and manages water resources and water resources infrastructures and hydropower
Ministry of Health	Regulates and monitors quality of drinking water
Ministry of Agriculture, Irrigation, and Livestock	Develops and manages irrigated agriculture and livestock, on-farm water management, and water application to crops
Ministry of Mines	Handles underground water resources management, survey, investigation, discovery, and development, and their control
National Environmental Protection Agency	Regulates and monitors any activity related to the environment, including water

Source: Afghan National Development Strategy's (ANDS) Water Resource Management Sector Strategy (2007/08–2012/13).

The international community also assists Afghanistan with the development of the water sector. Afghanistan's international partners include the World Bank, the Asian Development Bank, the European Commission, the Canadian International Development Agency, the German Agency for Technical Cooperation, and the Japanese International Cooperation Agency, as well as various agencies within the United Nations. Many foreign and domestic NGOs are also involved in a wide range of activities.

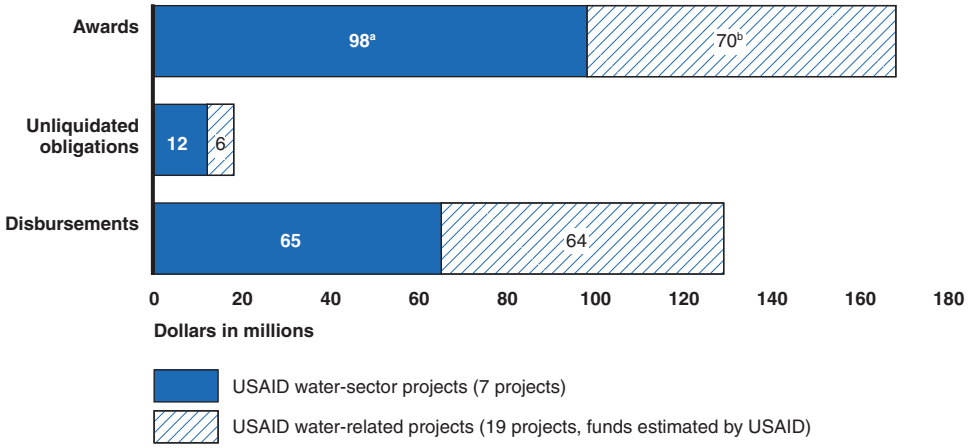
U.S. Government Funding of Afghan Water-Sector Projects

USAID and DOD, through CERP,[8] have been the primary sources of U.S. government assistance for the development of the Afghan water sector. As illustrated in figure 2, USAID awarded $168 million for its water-sector efforts between fiscal year 2002 and the second quarter of fiscal year 2010

[8]CERP is intended to be used for small-scale projects that provide a quick and effective method to institute an immediate positive impact on the Afghan people. In addition, battalion and PRT commanders can approve the use of funds for projects under CERP up to $50,000 per project, and PRTs in Afghanistan may coordinate with other U.S.-funded programs, including other commanders' CERP projects.

to fund a wide range of completed and ongoing water projects in Afghanistan.[9]

Figure 2: USAID Afghan Water-Sector Project Funding, Fiscal Year 2002 through the Second Quarter of Fiscal Year 2010



Source: GAO analysis of budget data provided by USAID/Afghanistan.

[a]The difference between the amount USAID has awarded ($98 million) for water sector projects and that amount that has been obligated ($65 million + $12 million) for these projects (about $21 million) remains subject to future obligational authority.

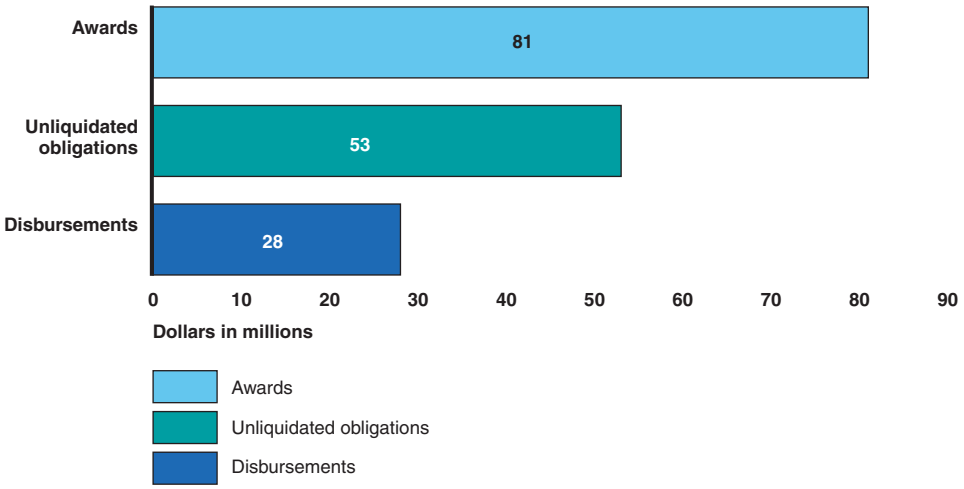
[b]The $70 million in award funding for the USAID water-related projects illustrated in figure 2 is an estimate based on budget data provided by USAID/Afghanistan. The award amount shown is the estimated total for the overall projects' water activities only, not the total award for all project activities.

A more detailed discussion of USAID's funding of U.S. water projects in Afghanistan is discussed in appendices II and III.

DOD, through CERP, has awarded approximately $81 million in funds for water-related projects carried out under its stewardship between fiscal year 2006 and the second quarter of fiscal year 2010. As figure 3 shows, DOD has disbursed approximately $28 million for CERP water-related projects and carried an unliquidated obligations balance of approximately $53 million.

[9]For the purposes of this report, water projects include projects that focus on water supply and sanitation; water use in the agriculture sector, such as the construction, rehabilitation, or cleaning of irrigation systems, canals, and flood protection banks; the governance and management of water resources, including capacity building within the sector; and multipurpose hydropower dams that aid in the management of water supplies and water use for irrigation. The report does not focus on large hydropower projects that serve primarily to develop the Afghan energy sector.

Figure 3: DOD CERP Afghan Water-Sector Project Funding, Fiscal Year 2006 through Second Quarter Fiscal Year 2010



Source: GAO analysis of CERP data provided by DOD.

Note: The amount of CERP-funded awards, unliquidated obligations, and disbursements are based on data provided by DOD in July 2010 from its CERP Checkbook database. Checkbook is used to track all CERP projects, including project status as well as the amounts committed, obligated, and disbursed for each project on a monthly basis. The amounts in this figure reflect the CERP balances reported in DOD's Checkbook database as of July 2010, which DOD confirmed as current as of September 2010. DOD did not explain why 66 percent ($53 million of $81 million) of the awarded CERP funding remained undisbursed.

Other U.S.-Funded Water-Related Projects

While this report focuses primarily on USAID and DOD, other U.S. agencies identified in table 1 have funded efforts to improve Afghanistan's water sector. For example, the Good Performers Initiative (GPI), an Afghan government initiative supported by the U.S. government through State and USAID has provided high-impact development assistance to provinces that have demonstrated counter-narcotics achievements. This includes the funding of water-sector projects. As of the end of March 2010, nine GPI projects included water activities, with awards totaling approximately $5.5 million.[10] Further information on the GPI projects is located in appendix IV.

[10]Two of the nine GPI projects with water activities also included other activities. The first was a project to construct an irrigation structure (the water activity) and a primary school building. The second project was for the construction of university boundary wall and water storage (the water activity). The data provided, however, did not allow us to identify the specific amount of funds awarded for the water activities of these two projects.

U.S. Strategic Goals and Projects for Afghan Water Sector Generally Align with the Afghan Government's Strategic Goals

Our analysis indicates that the water-sector goals articulated in the U.S. Government's Inter-Agency Water Strategy for Afghanistan generally align with the goals of the ANDS[11] and the ANDS water-sector strategy. Since 2002, the U.S. government—led primarily by USAID and DOD—has implemented a wide range of water projects throughout Afghanistan and, while some preceded the ANDS and the U.S. interagency water strategies, implemented projects generally addressed the needs and goals of the Afghan water sector. The U.S. government plans to accelerate water-sector development efforts from fiscal year 2010 through fiscal year 2014.

U.S. Strategic Goals Generally Align with the Afghan Government's Goals

The goals contained in the U.S. Inter-Agency Water Strategy for Afghanistan are generally consistent with the goals of the water strategy of the government of Afghanistan. In 2008, the Afghan government issued its ANDS Water Resource Management Sector Strategy for the period 2008-2013. In March 2010, the Obama administration approved the U.S. Government Inter-Agency Water Strategy for Afghanistan to serve as the guiding strategic approach behind U.S. water-sector development efforts in Afghanistan for fiscal year 2009 through fiscal year 2014. According to this document, the U.S government's water strategy is intended to be consistent with the direction set by the government of Afghanistan and as reflected in national law, policy, and strategic direction in ANDS. Both the U.S. Inter-Agency Water Strategy and the Afghan government strategy aim to improve the management of Afghanistan's water resources and to provide improved social and economic benefits that will help reduce poverty and improve the quality of life for the people of Afghanistan. Our analysis of the documents shows that the two strategies have articulated goals within six key areas, and these goals generally align between the two strategy documents, as depicted in figure 4. The key areas are (1) Water Supply and Sanitation; (2) Agriculture; (3) Hydropower; (4) Environment; (5) Governance and Management; and (6) Transboundary issues. Figure 4 summarizes the goals and alignment between the two documents.

[11]ANDS (2008) is Afghanistan's guiding document for achieving its reconstruction goals. The strategy focuses on improving the country's security, governance, and economic growth and reducing poverty. It also provides information on the resources needed to carry out the strategy and on the shortfall in Afghanistan's projected revenue needed to support these efforts. It was released in 2008 and covers the years 2008 through 2013.

Figure 4: Goals of the U.S. and Afghan Water Development Strategies, by Category

U.S. Inter-Agency Water Strategy for Afghanistan		ANDS Afghan Water Resource Management Sector Strategy
Water Supply and Sanitation		
• Expand access to safe drinking water supply and sanitation, including better hygiene	↔	• Provide adequate supply of safe drinking water and improve access to safe sanitation services
Agriculture		
• Improve infrastructure in order to harvest and store water in reservoirs and allow for the efficient distribution of irrigation water to cropped areas	↔	• Improve both irrigation supply systems and on-farm water management and distribution of water to crops
Hydropower		
• Create additional power generation facilities that can also provide co-management of water for irrigation and power generation	↔	• Expand electric sector, including through creation of power generation facilities within irrigation schemes, in order to enhance energy sector and provide benefits to water sector in general
Environment		
• Promote conservation of water and soil resources to better ensure long-term benefits to the community to complement water storage and modernization of irrigation infrastructure	↔	• Rehabilitation of ecosystems to prevent soil erosion and movement of sand and sediments into irrigated areas, irrigation canals, and lakebeds, and prevent desiccation of wetlands
Government and Management		
• Strengthen local water user associations, build the capacity of water-related institutions through technical assistance, and better define policies, regulations, and guidelines for overall governance and management	↔	• Create a pool of sufficiently experienced technical and economic experts on relevant issues concerning policies and regulations of water sector and to plan, design, and implement projects, in particular with regard to the new approach of integrated management of water resources and river basin planning
Transboundary Issues		
• To improve cooperative management of shared water resources between Afghanistan and its neighbors; strengthen Afghanistan's capacity to engage its neighbors on transboundary water resources; and strengthen the environment within the region for cooperative and coordinated management of shared water resources	↔	• To initiate regional water issues dialogues[a]

Source: GAO analysis of U.S. and Afghanistan government water-sector strategy documents.

[a]This is not listed as a specific goal, but is listed under Annex I: Water Sector Strategy Action Plan of the strategy document.

USAID began implementing a number of water projects in Afghanistan as far back as 2002. It developed a strategic plan for water in December 2004. The 2004 USAID strategic plan, covering fiscal year 2005 through 2010, was focused on one strategic objective: expanding access to water supplies and sanitation. Specifically, it stated that USAID planned to assist Afghan ministries responsible for water supplies and sanitation to promote access to water and sanitation services, especially in the rural and underserved areas. Not withstanding the lack of an earlier water strategy for Afghanistan, and as illustrated in a USAID Action Memo, the need in the Afghan water sector during the early 2000s was great. In fact, work done by USAID and DOD during this period addressed development needs in the Afghan water sector that still exist today. Other U.S. agencies, such as State, USDA, and USGS, had limited involvement in implementing water-sector projects during this period.

The U.S. Government's Water Projects Align with Afghan Goals

Since 2002, the U.S. government, led by USAID and DOD, has implemented a wide range of projects in Afghanistan that are either exclusively water projects or have water-related activities as a part of other larger development projects. Many projects were completed before the U.S. and Afghan water strategies were developed; nevertheless, they addressed aspects of Afghan water-sector needs and are generally in alignment with the Afghan water-strategy goals.

USAID Water Projects

Water-Exclusive Projects: According to data provided to us by USAID staff in Afghanistan, since 2003, USAID has completed four water exclusive projects[12] and continues work on three.[13] These projects, though completed or initiated prior to the Afghan and U.S. strategies, addressed Afghan water-sector needs and were consistent with the goals of the Afghan water strategy. The projects primarily focused on water supply and sanitation and, to some extent, on governance and management

[12]USAID included a fifth project—Kajaki Dam Auxiliary Infrastructure and Supporting Services Project at a funding of about $47 million—in its list of completed water projects, but we excluded this project because, although this dam will ultimately serve the dual purposes of electricity generation and irrigation, its current use is exclusively for electricity generation. USAID officials said that future development work on this dam will include irrigation.

[13]Also, USAID included a fourth project—Darunta Hydroelectric Power Plant Rehabilitation—in its list of ongoing water projects, but, as in the case of the Kajaki Dam, we excluded the Darunta Dam from our list because its current purpose is for electricity generation.

emphasizing capacity building, as shown in table 3. The water-exclusive projects represented about 50 percent, or $65 million, of the total funding of $129 million disbursed by USAID for water projects in Afghanistan from fiscal year 2002 through the 2nd quarter of fiscal year 2010. As noted earlier, appendix II provides a summary table of funding information on USAID's water-exclusive projects in Afghanistan.

Table 3: USAID's Water-Exclusive Projects in Afghanistan (2003 through 2012)

Project	Description	Types of water activities
Completed		
Emergency Health and Water for Kabul (9/28/2003 – 10/31/2004)	The project's main focus was water-supply and sanitation activities in Kabul.	• Create chlorination system for water-supply systems in Kabul • Operate water-supply systems to provide a clean, potable, and regular source of water to households within Kabul
Rural Water Supply and Sanitation Project (5/5/2004 – 9/30/2007)	The project sought to provide safe water, sanitation, and hygiene education in 13 provinces, and training of pump mechanics in 14 provinces, all in the east and south of the country, with an emphasis on rural areas.	• Build wells • Provide hygiene education
Afghanistan Urban Water and Sanitation Program (5/30/2004 – 12/31/2006)	Project sought to provide water supply and sanitation services in the eastern province of Paktia, and in Kabul. Work was initiated in the southern province of Kandahar, but Kandahar was eventually deleted from the program because of inadequate water resources and security concerns. Project activities included providing water and sanitation technical advisory services and designing and constructing a water system, among other things.	• Increase supply of safe drinking water • Provide water and sanitation technical advisory services
Kabul Environmental Sanitation and Health Project (8/22/2004 – 2/20/2007)	This project installed a piped water network to increase potable water access in Kabul. It also provided technical and on-the-job training to Afghan water utility mechanics.	• Install piped water network to increase access to potable water • Provide technical and on-the-job training to Afghan water utility mechanics

Project	Description	Types of water activities
Ongoing		
Afghanistan Water, Agriculture, and Technology Transfer (3/3/2008 – 3/2/2011)	The main objective of the project is to provide technical assistance to improve and strengthen Afghan capacity to manage and utilize the country's scarce water and natural resources. Additionally, the project seeks to increase the opportunity for Afghans to: (a) access information and knowledge on appropriate technology, (b) provide the tools and mechanisms for policy and institutional changes that would enhance the management of the supply and demand of water resources, and (c) develop legislative frameworks for tenure and rights over private and common land in the rural areas. Activities are being implemented in 17 provinces across Afghanistan.	• Develop and promote land and water-resource management policies • Identify and apply technologies to increase agricultural production in vulnerable areas • Strengthen linkages in private sector, public sector, and international institutions' research on water management
Commercialization of Afghanistan Water and Sanitation Activity (11/12/2008 – 11/11/2011)	The project seeks to establish a viable business model for water-service delivery in Afghanistan and to support Afghan government reforms to, among other things, improve the management of the water and sanitation sector. The project covers communities in the eastern provinces of Ghazni, Paktia, and Nangahar, and the northern province of Balkh.	• Establish a viable business model for water-service delivery in Afghanistan • Improve management of water and sanitation sector
Afghan Sustainable Water Supply and Sanitation Project (9/30/2009 – 9/29/2012)	The project seeks to increase access to potable water supply and sanitation services in poor communities and to train project beneficiaries in water system maintenance and hygiene practices, among other things. The project would benefit communities in 12 Afghan provinces, 11 of them in the east.	• Increase access to potable water supply and sanitation services in poor communities • Train project beneficiaries in water system maintenance and hygiene practices

Source: GAO analysis of water-project documentation provided by USAID/Afghanistan.

The projects are geographically widespread, with certain projects providing benefits to rural communities, and others providing benefits to urban communities throughout Afghanistan, including such volatile provinces as Kandahar and Helmand, the two provinces considered to be the heart of the ongoing Taliban insurgency. Appendix V shows details of the provincial locations of the USAID water-exclusive projects. USAID's effort to extend development assistance in such areas is consistent with the administration's COIN strategy, but work in such areas presents challenges for monitoring the performance of such projects as well as for their long-term sustainability.

Water-Related Activities: In addition to the water-exclusive projects discussed above, our analysis identified hundreds of water-related activities that USAID has implemented as part of larger infrastructure and economic rehabilitation projects implemented between fiscal year 2002 and the 2nd quarter of fiscal year 2010. Specifically, according to data provided by USAID, there were a total of 19 such infrastructure projects

with water-related activities. From 13 of these projects, we identified 511 water-related activities. According to our analysis, USAID's water-related activities accounted for about 50 percent or $64 million of total USAID water-sector disbursements (see app. III for detailed funding information on these activities). Also, while many preceded the Afghan and U.S. interagency strategies, these activities were broadly consistent with the Afghan water-sector goals. Examples of water-related activities included drilling wells for potable water supply, rehabilitating irrigation systems, and cleaning irrigation canals, and mostly addressed the goals of irrigation, water supply, and sanitation and, to a lesser extent, capacity building (see app. VI for more details). We attempted to identify the provincial locations of USAID's water-related activities, but, while USAID had data for the location of the parent infrastructure projects, the data provided by USAID that we analyzed did not always contain provincial or project location information.

DOD CERP Water-Related Projects

DOD has implemented a large number of water-related projects in Afghanistan under CERP. Based on our analysis of DOD CERP data, DOD implemented 1,663 water-related projects under CERP from fiscal year 2006 through the second quarter of fiscal year 2010.[14] See table 4 for a summary of CERP water-related projects implemented by DOD in Afghanistan.

These were mostly small-scale,[15] low-budget projects with funding ranging from $30 for a well and water storage tank to approximately $953,000 for a pipe scheme in Konar province. Table 4 shows that large portions of CERP water-related projects were devoted to water supply and sanitation (1,128 of 1,663, or 68 percent) and agriculture and irrigation projects (438 of 1,663, or 26 percent).

[14]We have included all the CERP water projects that we identified from DOD's Afghan CERP database provided to us, but cannot guarantee this represents the universe of all the water projects that DOD implemented using CERP funds during this period.

[15]As noted earlier, DOD financial guidance on CERP states that small-scale projects would generally be considered less than $500,000 per project.

Table 4: CERP Water-Related Projects in Afghanistan (Fiscal Year 2006-Second Quarter Fiscal Year 2010)

Project Category	Number of projects	Types of water-related activities
Water and Sanitation	1,128	• Refurbish well • Reconstruct canal • Construct sewage canals • Install water system • Construct public latrines
Agriculture and Irrigation	438	• Construct irrigation retaining walls • Build an irrigation and flood control system • Provide training to local nationals to build an irrigation system • Construct irrigation canal • Clean and repair an existing kareze system, an underground canal system that taps aquifers by gravity to provide water for drinking and irrigation
Other Urgent Humanitarian or Reconstruction Projects	21	• Clear canal of debris presenting flood hazard • Rehabilitate kareze • Rehabilitate dam for improved water storage
Education	19	• Teach irrigation system operation • Build bathrooms for two schools • Refurbish school sanitation system
Healthcare	16	• Repair clinic well • Provide local medical staff with the training and tools to provide clean water and hygiene training to local populations • Repair clinic plumbing
Protective Measures	9	• Construct flood protection walls • Purchase gabion wall material
Transportation	9	• Install irrigation pipes for culverts • Construct pipe scheme
Repair of Civic and Cultural Facilities	7	• Repair kareze • Repair water supply
Civic Cleanup Activities	6	• Clean canal • Clean out and repair community latrine and shower/laundry building
Economic, Financial, and Management Improvements	5	• Kareze cleaning • Water and sanitation survey
Civic Support Vehicles	2	• Repair water and sanitation truck • Purchase water truck
Rule of Law and Governance	2	• Construct restroom facilities • Construct latrine
Electricity	1	• Construct retaining dike wall
Total	**1,663**	

Source: GAO analysis of CERP data provided by DOD.

CERP water-related projects were implemented across at least 33 of the 34 provinces in Afghanistan. However, while the data did not allow us to identify projects' exact district or village locations, the CERP data we analyzed demonstrated that CERP-funded water-related projects were implemented in both rural and urban areas, and in some provinces where USAID's water-related activities have been implemented. CERP projects are part of the U.S. COIN strategy of extending development benefits to win the hearts and minds of the Afghan populace. However, the volatile security situation throughout Afghanistan, particularly in the south (the historic heartland of the Taliban) and east, has presented serious problems to the implementation of CERP-funded water-related projects.

U.S. Government Plans to Accelerate Water-Sector Development Efforts in Afghanistan from Fiscal Year 2010 through Fiscal Year 2014

According to documents provided to us by USAID and our discussions with agency officials involved in development work in Afghanistan, the U.S. government plans to accelerate water-sector development efforts in Afghanistan for fiscal year 2010 through fiscal year 2014. Under the government's Inter-Agency Water Strategy for Afghanistan approved in March 2010, U.S. agencies involved in water-sector efforts in Afghanistan have estimated that an additional $2.1 billion is needed between 2010 and 2014 to support water-sector development activities in Afghanistan. This is a significant increase over the approximately $250 million that U.S. agencies had awarded for water-sector development efforts from 2002 through March of 2010.[16]

Under their projected Afghan water development efforts, U.S. agencies envision three tiers of water projects that would be supported by this funding over the period. Many of these projects are the types of large-scale, capital-intensive projects, such as large dams, for which some of the Afghan government officials have expressed a preference. Appendix VII summarizes the water projects envisioned by U.S. agencies in Afghanistan for fiscal year 2010 through fiscal year 2014. The majority of these projected U.S. water efforts in Afghanistan do not currently identify what role each agency will play in the implementation of these projects.

[16]The estimated funding needs include funds for ongoing 2010 projects and 2011-2014 plans.

United States Has Taken Steps to Better Coordinate Afghan Water-Sector Projects, but Additional Efforts Are Needed

The Government Performance and Results Act of 1993 (GPRA)[17] and several U.S. strategic documents concerning operations in Afghanistan emphasize the importance of interagency coordination in Afghanistan. Moreover, we have previously reported on the importance of interagency coordination and collaboration when multiple U.S. agencies are involved in U.S. counterterrorism-related efforts.[18] U.S. agencies involved in water sector development efforts in Afghanistan have recently undertaken some steps to improve interagency coordination of water-sector projects. For example, U.S. agencies have developed an Infrastructure Working Group for Afghanistan (IWG), a U.S. Interagency Water Strategy for Afghanistan that emphasizes the importance of coordination, and have started to meet on a regular basis to coordinate some of their projects. The interagency strategy called for the development of an interagency implementation plan by August 2010. However, as of September 2010, an interagency implementation plan has not been completed. Additionally, USAID and DOD still have not developed a centralized database, which we previously recommended was needed to help ensure that adequate information exists to manage and make decisions on development projects in Afghanistan. Such a database would help the U.S. government identify and coordinate ongoing and completed water and other development projects among relevant U.S. agencies.[19] Moreover, despite some recent efforts, additional steps are needed to enhance U.S. coordination with the Afghan government, and with other members of the donor community. For example, U.S. agencies generally do not meet on a regular basis with all the relevant ministries in the Afghan government, and they do not have complete data concerning other donor projects in order to best leverage resources and maximize investments. These additional steps could help the United States to more effectively leverage resources of U.S. agencies and enhance coordination with Afghan government and other members of the donor community.

[17]Pub. L. No. 103-62.

[18]See GAO, *Combating Terrorism: Actions Needed to Enhance Implementation of Trans-Sahara Counterterrorism Partnership*, GAO-08-860 (Washington, D.C.: July 31, 2008) and *Combating Terrorism: The United States Lacks Comprehensive Plan to Destroy the Terrorist Threat and Close the Safe Haven in Pakistan's Federally Administered Tribal Areas*, GAO-08-622 (Washington, D.C.: Apr. 17, 2008).

[19]See GAO-08-689 and GAO-09-615.

Efforts Underway to Enhance Interagency Coordination

GPRA recognizes the importance of coordinating program areas where responsibility for achieving results is shared among agencies. Moreover, we have also reported on the importance of interagency coordination and collaboration[20] and broadly defined it as any joint activity that is intended to produce more public value than could be produced when organizations act alone.[21] Several other U.S. documents concerning operations in Afghanistan also emphasize the importance of interagency coordination.

The U.S. government has taken several steps to enhance coordination among agencies assisting the development of the Afghan water sector. The IWG was created in 2009 to coordinate, review, and oversee U.S. government-funded national, regional, and district-level activities in the areas of energy, transportation, and water.[22] U.S. agencies began meeting thereafter to discuss water-related infrastructure projects, such as the rehabilitation of hydroelectric dams,[23] water resources assessments, and the commercialization of water service delivery in Afghanistan. Prior to the creation of the IWG, interagency coordination for the Afghan water sector was limited; U.S. agencies conducting water-related activities in Afghanistan generally operated on their own and did not regularly coordinate or consult other agencies from 2002 to 2008, according to U.S. officials. As a result, U.S. officials we met with acknowledged that opportunities to leverage resources and to establish synergy among projects were often overlooked. According to USAID officials, water was not a U.S. development priority in Afghanistan until 2008, and this contributed to the lack of formal organization among U.S. agencies. These officials noted that coordination on water projects, when it occurred, was informal. Agencies did not meet on a regular basis to discuss ongoing

[20]See GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15 (Washington, D.C.: Oct. 21, 2005) and GAO-09-615.

[21]See GAO-06-15.

[22]The IWG includes representatives of USAID; State; U.S. Forces, Afghanistan (USFOR-A); USACE; the Federal Aviation Administration; Transportation Security Administration; Regional Command East; Regional Command South; PRTs; and other Working Groups (such as Agriculture and Economic) that have authorities, missions, or programs that implement or influence projects and investments in Afghanistan infrastructure and sustaining capacity development efforts.

[23]As pointed out earlier, USAID has included hydroelectric dams as part of U.S. water development assistance in Afghanistan, but, although the dams in question will have irrigation applications later, their current application is largely in the energy sector. Hence we have excluded them from the scope of our water-sector review.

projects. As noted earlier, in addition to USAID efforts, DOD funds Afghan water and other development-related projects through CERP and carries them out primarily through PRTs. However, USAID and U.S. government agencies other than DOD generally maintained a minimal representation on PRTs prior to 2008, which, according to USAID officials, affected the ability of U.S. agencies to coordinate projects.

Since this time, the United States developed an Integrated Civilian-Military Campaign Plan for Support to Afghanistan in August 2009. This plan directed that integrated planning and operations between civilian and military components occur at all levels. The document directs that U.S. Embassy and civilian-military working groups will organize along functional rather than agency lines, and in the field, civilian-military teams will organize at the district, provincial, and regional level to implement the U.S. counterinsurgency mission and to reduce the tendency of agencies to operate on their own.

In addition, the March 2010 U.S. Government Inter-Agency Water Strategy for Afghanistan, discussed earlier, also emphasizes the importance of coordinating U.S. government efforts in the water sector in order to facilitate greater synergy and developmental impact. The water strategy recognizes the role of the IWG in helping to coordinate the U.S. government water development activities in Afghanistan and states that the IWG will coordinate with other U.S. government working groups to enable development and implementation of cross-cutting and mutually supportive strategies. While in Afghanistan in December 2009, we attended a meeting of the IWG in Kabul, and a meeting on the Southeast Afghanistan Water Resources Assessment[24] at Bagram Air Force Base, to observe interagency coordination. The IWG meetings continued into 2010. The U.S. Inter-Agency Water Strategy further states that the IWG is responsible for helping coordinate water-development activities in Afghanistan and that PRTs can play an important facilitating role in the coordination of water projects.

CERP rules and guidance note that commanders should consider complementary programs provided by USAID and other non-governmental

[24]According to DOD, the Southeast Afghanistan Water Resources Assessment is an evaluation of potential water-resources improvement projects that the U.S. Army can practically and effectively implement in cooperation with the government of Afghanistan. According to DOD, nearly 300 potential water-resource project locations were evaluated in this study, along with their associated watersheds.

agencies operating in their areas of responsibility. In addition to PRT coordination, for projects greater than $1 million, CERP guidance requires coordination with the U.S. Forces Afghanistan's CERP Review Board, where USAID is a voting member. According to USAID officials, these processes provide useful opportunities to exchange information about ongoing and future projects. In March 2010 congressional testimony, the Deputy Assistant Secretary of Defense for Partnership Strategy and Stability Operations stated that USAID's participation in the CERP Review Board prevents duplication of effort and also helps identify any problems with sustainment for CERP-nominated projects. This official also stated that the increase of U.S. government civilians in the field significantly improves the integration and coordination of reconstruction projects. A senior USAID official responsible for coordinating USAID's representatives who work at PRTs stated that, at the various levels of coordination with the U.S. military, USAID staff does their best to share information concerning activities by USAID project implementers.

U.S Government Lacks an Interagency Implementation Plan for Its Water-Sector Efforts in Afghanistan

U.S. agency officials have identified the importance of sharing critical data and project information with each other. The U.S. Inter-Agency Water Strategy for Afghanistan, which seeks to define and articulate a common approach to water-sector development in Afghanistan, including short, medium, and long-term goals, and outlines an interagency strategy, called for the development of an aggregate interagency implementation plan by August 2010. However, the interagency implementation plan has not been completed. As we have previously reported, best practices indicate that agencies can enhance and sustain their collaborative efforts by, among other things, defining and articulating a common outcome, establishing mutually reinforcing or joint strategies, identifying and addressing needs by leveraging resources, agreeing on roles and responsibilities, and establishing means to operate across agency boundaries.[25] The development of an interagency implementation plan that identifies and addresses the leveraging of U.S. resources, establishes agreements on roles and responsibilities of the various U.S. agencies, and outlines means to operate across agency boundaries could further enhance U.S. efforts to improve interagency coordination.

[25]See GAO-06-15.

U.S. Lacks a Centralized Database for U.S.-Funded Water Projects in Afghanistan

We previously reported that DOD and USAID relied on separate data systems to track and manage development projects in Afghanistan, and recommended the agencies take steps to develop a centralized database to ensure that adequate information exists to manage and make decisions.[26] For example, USAID used its GeoBase tracking system to capture and maintain information on all its reconstruction and development activities in Afghanistan, and DOD did not have access to this system. DOD, at the time of our previous reviews, used the Combined Information Data Network Exchange (CIDNE)—a classified database to track CERP projects as well as other types of information concerning U.S. military operations. As of September 2010, a central database that contains information on all U.S.-funded development projects in Afghanistan still does not exist, and each U.S. agency continues to maintain its own project tracking system that identifies agency-specific information on water projects in Afghanistan.

USAID initiated a new database system in late 2009 known as *Afghan Info* to replace the GeoBase system, which it had been using previously for development and reconstruction project management. According to USAID, the purpose of *Afghan Info* is to provide "a comprehensive and transparent interagency picture of how project implementers use foreign assistance resources to support the United States' foreign assistance objectives in Afghanistan." USAID officials stated that they would like the *Afghan Info* system designated as the official system for data on U.S. assistance activities in Afghanistan; however, as of September 2010, they were still awaiting ambassador-level approval for this designation. The USAID official responsible for developing the database told us that the *Afghan Info* system did not include data from any other U.S. agency, aside from the quarterly CERP data,[27] and he did not know whether the system was being used to coordinate water-sector development in Afghanistan. Senior DOD officials in Afghanistan who are involved in implementing CERP-funded water projects told us in August 2010 they were not familiar with the *Afghan Info* system or the data it contained. DOD continues to use the CIDNE database for its CERP-related data. According to DOD officials, CIDNE is a classified system and was not meant as a platform for interagency coordination.

[26]See GAO-08-689 and GAO-09-615.

[27]Beginning in February 2010, DOD began providing unclassified data on a quarterly basis to USAID concerning CERP-funded activities in Afghanistan, and, according to USAID officials, this data is being incorporated into the *Afghan Info* database.

We have previously reported that compatible data systems or other mechanisms would enable U.S. agencies to share information about ongoing and completed projects with each other.[28] Maintaining an accessible data system that promotes information sharing among agencies is particularly important in an environment such as Afghanistan where officials from different agencies are involved in similar development efforts that are dispersed throughout the country. U.S. agency officials told us that having access to project data from other agencies would contribute to better project planning, eliminate potential overlap, and allow agencies to leverage each other's resources more effectively. We further reported that without a mechanism to improve the visibility of individual development projects, the U.S. government may not be in a position to fully leverage the resources available to develop Afghanistan and risks duplicating efforts and wasting taxpayer dollars.[29]

Additional Actions Could Enhance U.S. Coordination of U.S.-Funded Water Sector Projects with the Afghan Government and the International Community

As previously noted, the U.S. government is one of many international players involved in the efforts to provide substantial development assistance to Afghanistan, including efforts to enhance the Afghan water sector. As such, it is important that the United States coordinates its efforts to address goals and objectives outlined in its interagency water sector strategy with the Afghan government and the various other international partners.[30]

With respect to the U.S. government's coordination with the Afghan government, U.S. agency officials told us that they meet on an as-needed basis with individual Afghan ministry officials to discuss water issues. The U.S. government provides technical advisers (contractors) and assistance to the Technical Secretariat of the Supreme Council for Water Affairs

[28]We reported that interagency collaboration is often hindered by incompatible procedures, processes, data, and computer systems. See GAO-06-15 .

[29]GAO-09-615.

[30]In addition to the United States, Afghanistan's international partners include organizations such as the World Bank, the Asian Development Bank, the European Commission, the Canadian International Development Agency, the German Agency for Technical Cooperation, and the Japanese International Cooperation Agency, as well as various agencies within the United Nations. Many foreign and domestic NGOs are also involved in a wide range of activities.

Management.[31] The Technical Secretariat assists the Supreme Council by performing functions such as obtaining, reviewing, and analyzing documents relevant to the water sector; collecting and compiling technical data and legal documentation; and submitting relevant documentation and recommendations for action to the Supreme Council. U.S. advisers to the Supreme Council's Technical Secretariat assist the Secretariat in carrying out its responsibilities. U.S. advisers attend the Technical Secretariat meetings and share the meeting minutes with U.S. agency officials if U.S. officials are not in attendance at the meetings.

One recent example of cooperation between the United States, Afghan government, and donor community concerns transboundary water issues. Representatives of the Afghan government along with officials from the U.S. government and other donor governments began meeting on a regular basis in 2009 to discuss related issues and formulate a plan for capacity building within the Afghan government to handle transboundary water issues. These monthly transboundary water meetings have proven to be useful as an opportunity for the Afghan government to discuss sensitive issues in cooperation with the international community, according to USAID and international donor officials, and to better understand the importance of incorporating transboundary water considerations in development projects. The consequence of not obtaining concurrence from the Afghan government on transboundary issues could affect the willingness of certain Western governments and international entities to provide water-sector development assistance in Afghanistan, as occurred already in one case involving an international donor.

Afghan Ministry officials involved in water-sector development expressed some disappointment over the U.S. government's failure to involve them in the development of the U.S. Inter-Agency Water Strategy and viewed this as evidence that the U.S. government did not consider the Afghan government as an equal partner in the development of the Afghan water sector. USAID officials told us that they briefed Afghan government representatives at the start of the project and solicited the government's input but that the Afghan government did not take part in the development

[31]The Supreme Council for Water Affairs Management is the key policy-making body in Afghanistan for water-related matters and is comprised of the seven Afghan ministries that have responsibility, in various aspects, for the water sector and is responsible for implementing the Afghanistan Integrated Water Resources Management policy and coordinating the ANDS Water Sector Strategy among the major Afghan ministerial stakeholders.

of the U.S. strategy. The U.S. Inter-Agency Water Strategy for Afghanistan was signed in March 2010 and U.S. officials stated that they briefed Afghan officials in January 2010 on the finalized strategy. U.S. officials acknowledged, however, that more effective and consistent communication would improve the relationship on water-related issues, including the selection and prioritization of U.S.-funded projects.

With regard to donor coordination, U.S. government officials and representatives of the donor community with whom we met acknowledged that until 2010, minimal coordination had occurred among them on the broad range of water-sector issues in Afghanistan.[32] These officials stated that a key challenge to donor coordination is that international donors have their own portfolios that are linked to national objectives from their home countries. Because of this, international donors often want to pursue their own plans. International donor representatives told us that while such lack of coordination among donors can lead to duplication of efforts, it was unlikely that duplications had occurred given the extent of the development assistance needed in the Afghan water sector, even in the absence of coordination.[33] However, these representatives said that donors have likely missed opportunities to maximize their investments and leverage the contributions of other donors by not systematically coordinating their water-sector development programs.

In January 2010, at the initiative of USAID, the water-sector donor community in Afghanistan met to discuss a range of issues concerning urban water supply and sanitation and to discuss ways of coordinating their efforts in Afghanistan.[34] At the meeting, donors agreed that the

[32]The donor assistance has included direct financial contributions, technical assistance, project feasibility assessments, and capacity building. Donors, including the United States, have contributed to large infrastructure projects such as dams and urban water systems, as well as to a range of smaller projects, such as irrigation canals. Donor contributions cover both urban and rural areas in Afghanistan.

[33]The standard operating procedures outlined in USFOR-A Pub 1-06, *Money as a Weapon System* (December 2009), requires U.S. CERP-funded development projects to be coordinated through regional commanders and the nearest PRTs in areas where the United States is not the regional command.

[34]According to a senior USAID representative, the Afghan government was not in attendance during this January 2010 meeting because the donor community sought to first coordinate their efforts prior to meeting with the Afghan government.

German development organizations[35] would lead the monthly donor coordination meetings for the first 6 months, and USAID would lead meetings for the 6 months that follow.[36] As a first step to providing better visibility of donor activities, donors agreed at their first coordination meeting to take steps to share data concerning their completed and ongoing urban water and sanitation projects. The plan was to capture information in a spreadsheet and share with respective donors. Donors agreed that an improved information-sharing system would be useful in coordinating their projects and leveraging their resources. However, our review of the most recent effort to capture such information on a spreadsheet revealed missing donor data on the status of ongoing and completed urban water projects. In addition, according to USAID officials, no further effort has been undertaken to complete the spreadsheets. We were unable to assess whether such duplication had taken place because of the lack of effort to capture consolidated information on donor efforts.

According to a USAID official involved in these discussions, donor participants have raised the possibility of meeting on a quarterly basis with the Afghan government's Technical Secretariat of the Supreme Council for Water Affairs Management to coordinate activities in the Afghan water sector. Donors noted, however, that they preferred to focus in the near term on donor-specific issues before expanding to include issues that involve officials of the Afghan government.

USAID and other U.S. agency officials who were knowledgeable about both the energy and water sectors in Afghanistan stated that the Inter-Ministerial Commission on Energy has worked well as a coordination mechanism and could be a model for enhancing U.S. coordination of water-sector efforts with the Afghan government and the donor community.[37] This energy-sector Commission meets on a monthly basis and participants include officials from the Afghan ministries, the U.S. government, and other international donors. U.S. participants have stated that coordination through the Inter-Ministerial Commission has been very

[35]Deutsche Gesellschaft für Technische Zusanmenarbeit (GTZ) and KfW Entwicklungsbank.

[36]Unlike other development sectors, the water sector had not previously designated a "lead nation" to coordinate development work in Afghanistan.

[37]The Commission was created by Afghan presidential decree in October 2006 to provide oversight of the energy-sector policy and infrastructure investments, including coordination of international support.

effective and has provided opportunities to discuss energy development priorities and ongoing and future projects.[38] In addition to the monthly meetings, U.S. government advisers and advisers from other governments provide a wide variety of technical services on all aspects of the electrical power sector to the Commission secretariat.

The United States and other international donors have stated that the Technical Secretariat of the Supreme Council for Water Affairs Management could be the appropriate forum for institutionalizing coordination in the water sector among the Afghan and U.S. governments and other international donors, similar to the role the Inter-Ministerial Commission on Energy has played in enhancing the coordination of U.S., Afghan, and international donor community energy-sector efforts.

Gaps Exist in U.S. Agencies' Efforts to Manage and Monitor Performance for Afghan Water Projects

USAID has established performance management and monitoring procedures, including for implementers of water sector projects. USAID's Automated Directives System documents the agency's performance management and monitoring procedures. Project implementers must follow requirements outlined in USAID award documents. We recently reported that USAID had some gaps in performance management of both its agricultural programs in Afghanistan as well as its development assistance efforts in Pakistan's Federally Administered Tribal Areas.[39] We found similar gaps existed in USAID's performance management efforts for its Afghanistan water-sector projects. For example, while USAID collected quarterly progress reports from its implementing partners for five of the six water projects included in our review, agency staff did not analyze and interpret this information. As we previously reported, the security situation in Afghanistan poses a significant challenge to U.S. project-monitoring efforts. USAID and others have identified several

[38]The Special Inspector General for Afghanistan Reconstruction (SIGAR) reported that its representatives attended a June 2009 Commission meeting as observers and found that key project stakeholders and representatives from Afghan ministries were all engaged. SIGAR also reported that the meeting provided attendees with information from key contractors on the status of U.S. and international donor projects. See SIGAR, *Afghanistan Energy Supply Has Increased but An Updated Master Plan Is Needed and Delays and Sustainability Concerns Remain* (Jan. 15, 2010).

[39]GAO, *Afghanistan Development: Enhancements to Performance Management and Evaluation Efforts Could Improve USAID's Agricultural Programs*, GAO-10-368 (Washington, D.C.: July 14, 2010), and *Combating Terrorism: Planning and Documentation of U.S. Development Assistance in Pakistan's Federally Administered Tribal Areas Need to Be Improved*, GAO-10-289 (Washington, D.C.: Apr. 15, 2010).

alternative monitoring procedures agency staff can employ to help mitigate the security challenges; however, agency staff we met with were unaware of this guidance. DOD has certain performance management requirements for its CERP projects. We found various weaknesses in DOD's efforts to monitor CERP water projects in Afghanistan, which prevent the department from being able to assess project progress or results.

USAID's Performance Management Efforts Have Some Gaps and Are Challenged by Security Situation

USAID has established performance management procedures, including for implementers of water-sector projects, at the agency, mission, and project level. We reviewed six selected water-sector projects and found USAID's performance management efforts had some gaps, and that Afghanistan's security environment presents a challenge to these efforts. To assess USAID's performance management and monitoring of its Afghan water projects, we reviewed five of the seven[40] exclusive water projects discussed earlier in this report, as well as one water-related project, the Village-Based Watershed Restoration in Ghor Province project, which has a large water component. These six projects encompass a range of project costs, are both rural and urban-based, and include varying implementation periods, including completed and ongoing projects.[41]

[40]We did not include the Emergency Health and Water for Kabul project (9/28/2003 through 10/31/2004) and the Kabul Environmental Sanitation and Health project (8/22/2004 through 2/20/2007) because we were not able to obtain sufficient documentation for their performance management activities.

[41]The two completed projects that we have examined are: Rural Water Supply and Sanitation Project, and the Afghanistan Urban Water and Sanitation Program. The four ongoing projects are: Afghanistan Water, Agriculture and Technology Transfer; Commercialization of Afghanistan Water and Sanitation Activity; Afghan Sustainable Water Supply and Sanitation Project; and the Village-Based Watershed Restoration in Ghor Province Project.

USAID Performance Management Procedures

USAID's Automated Directives System establishes performance management and evaluation procedures USAID is expected to follow with respect to planning, monitoring, and evaluating its programs.[42] While USAID has noted that Afghanistan is an insecure environment in which to implement its programs, the agency has generally maintained the same performance management and evaluation procedures as it does in other countries in which it operates. In October 2008, USAID adopted new guidance endorsing several alternative monitoring methods in high threat environments. However, this guidance was not disseminated until December 2009, and USAID staff in Afghanistan responsible for water sector activities said during a July 2010 meeting that they were not aware of this guidance. Nonetheless, we incorporated this guidance in our review where applicable. Figure 5 presents a summary of the planning, monitoring, and evaluating requirements that make up USAID's performance management and evaluation procedures the agency expects its staff to follow.

[42]USAID's Automated Directives System is the agency's directives management program. It includes agency policy directives, required procedures, and optional material. Performance management and evaluation information is detailed in chapter 203: Assessing and Learning.

Figure 5: USAID's Required Performance Management and Evaluation Procedures

Planning	• Define goals and objectives • Identify performance indicators to meet goals and objectives • Establish baselines and targets for performance indicators • Define the frequency of data collection and reporting • Describe the means to be used to verify and validate information collected • Plan for data quality assessments • Determine how data will be used for decision making on improving performance, on allocating resources, and on communicating USAID's story • Plan for evaluations and special studies
Monitoring	• Collect performance data • Assess data quality, identify limitations, make efforts to mitigate limitations • Analyze data • Interpret data and make necessary program or project adjustments • Use data to guide higher-level decision making and resource allocation • Report results to advance organizational learning and demonstrate USAID's contribution to overall U. S. government foreign assistance goals
Evaluating	• Perform at least one evaluation for high-level objectives during the life of the objective to understand progress, or lack thereof, and determine possible steps to improve performance • Disseminate findings • Use findings to further institutional learning, inform current programs, and shape future planning

Source: GAO analysis of USAID's Automated Directive System's performance management and evaluation activities.

For the purpose of our review, we focused on those elements of the Automated Directives System performance management and evaluation procedures that we determined to be generally consistent with the

requirements stipulated by USAID in the applicable implementing partners' contracts, cooperative agreements, or grant award documents.[43]

Compliance with Performance Management Planning Requirements

Mission-Level Compliance: Planning provides a structure for project management and helps to clarify what needs to be done and why, and how well it should be done. At the mission level, USAID's Automated Directives System requires USAID officials to complete a Mission performance management plan (PMP) for each of its high-level objectives as a tool to manage its performance management and evaluation procedures. In line with this requirement, USAID's Mission to Afghanistan developed its first PMP in 2006, covering 2006, 2007, and 2008. Overall, the 2006-2008 Mission PMP incorporated key planning activities. For example, the PMP identified indicators, established baselines and targets, planned for data quality assessments, and described the frequency of data collection for four high-level objectives for all USAID programs in Afghanistan.[44] However, this Mission PMP for Afghanistan did not include performance indicators specific to water-sector projects.

As we previously reported, the Mission has operated without an up-to-date PMP for 2009 and 2010. However, according to USAID officials, the agency is in the process of developing a new missionwide PMP, which is expected to be completed by the end of fiscal year 2010. USAID attributed the delay in creating the new PMP to the process of developing new strategies in different sectors and gaining approval from the Embassy in Afghanistan and from agency headquarters in Washington.

Implementing Partner Compliance: At the project level, implementing partners are required to develop and submit monitoring and evaluation plans to USAID for approval, with the specific requirements for each project outlined in USAID contract, cooperative agreement, and grant award documents. We reviewed the award documents for these six projects and found that they generally required implementers to carry out similar performance planning, monitoring, and evaluating activities. The

[43]We did not address all of the performance management procedures outlined in figure 5 and restricted our analysis to information we were able to obtain over the course of our review.

[44]The four Mission strategic objectives include (1) a thriving licit economy led by the private sector, (2) a democratic government with broad citizen participation, (3) a better educated and healthier population, and (4) program support, enhancing Mission development results.

lone grant award, the Rural Water Supply and Sanitation project, had fewer specified performance management requirements.[45]

For the six water projects we examined, we assessed whether project implementers established goals and objectives, a requirement outlined in USAID's Automated Directives System; as well as whether implementers identified performance indicators and expected targets, and defined the frequency of and methods for data collection and reporting, which are required by both USAID's Automated Directives System and in all but one of the USAID contracts and cooperative agreements for the projects we reviewed. We found that implementing partners for all six projects defined project goals and objectives in their project planning documents. Implementers for the four ongoing projects we reviewed defined the frequency of and methods for data collection and reporting. The Afghanistan Urban Water and Sanitation project work plan did not meet this requirement, and the Rural Water Supply and Sanitation project was not required to do so. As table 5 shows, four out of six implementers established performance indicators, though some did not always establish targets for the indicators as required. These targets enable officials to measure progress against performance indicators.

Table 5: Selected USAID Water Projects with Implementer-Identified Performance Indicators

Performance Indicators with Targets, 2004-2009						
	Number of indicators with targets by calendar year					
Program	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Rural Water Supply and Sanitation	N/A	N/A	N/A	N/A		
Afghanistan Urban Water and Sanitation	-	-	-			
Village-Based Watershed Restoration in Ghor Province				-	16/17	16/17
Afghanistan Water, Agriculture, and Technology Transfer					-	3/5
Commercialization of Afghanistan Water and Sanitation Activity					-	0/11
Afghan Sustainable Water Supply and Sanitation						14/14

Source: GAO analysis of USAID project documents.

- Program operating with no established indicators

N/T Number of indicators with annual target / Total number of indicators

N/A Not applicable

[45]The Rural Water Supply and Sanitation project grant award did not explicitly require the establishment of performance indicators with baseline and target values or the development of data collection plans.

USAID Performance Monitoring Efforts Have Been Challenged by Staffing and Security Conditions

Performance monitoring is critical to agencies' determination of whether or not projects are on track and meeting established goals and objectives. According to USAID's Automated Directives System, monitoring efforts, among other things, should include collecting performance data, assessing data quality, and analyzing and interpreting data to make necessary program adjustments. We have previously reported on challenges relating to USAID's efforts to monitor projects in Afghanistan and Pakistan due to the security situation in these countries.[46] To assess USAID's performance monitoring of the six selected water projects, we examined the extent to which USAID collected performance data, including its ability to conduct site visits and its efforts to analyze and interpret implementing partner performance data.

We found USAID generally collected quarterly reports that it required its project implementers to submit. In particular, implementers of five of the six projects we reviewed provided quarterly reports on a regular basis, as was required in their project award documents. These reports generally contained project information, such as on activities, challenges, and expenditures. With respect to the remaining project included in our review, the Afghanistan Urban Water and Sanitation project, the USAID Office of Inspector General reported that there were inconsistencies in implementing partner reporting requirements, as well as compliance with those requirements.[47]

According to Automated Directives System guidance, conducting site visits is one recommended way to assess whether reports accurately reflect what occurs in the field. However, we saw limited evidence of documented site visit or other monitoring efforts. For example, only two of the projects we reviewed— the Afghanistan Urban Water and Sanitation project and the Afghanistan Water, Agriculture, and Technology Transfer project—had documented site visits. In addition, USAID provided documentation of one third-party monitoring report—from November to December 2009, USAID hired contractors to conduct a third-party monitoring effort of the Afghanistan Water, Agriculture, and Technology Transfer project in light of staffing limitations and security-related travel

[46]GAO-10-368; GAO, *Afghanistan's Security Environment*, GAO-10-613R (Washington, D.C.: May 5, 2010); and GAO-10-289.

[47]See USAID, Office of Inspector General, *Audit of USAID/Afghanistan's Urban Water and Sanitation Program*, Audit Report No. 5-306-07-006-P (Manila, Philippines: June 7, 2007).

restrictions that prevented agency staff from monitoring the project on site.

USAID officials we met with in Afghanistan acknowledged the importance of and expressed a desire for site visits to the locations of water projects; however, they pointed out that several factors, particularly the security situation, as well as staff shortages and heavy workloads, prevented them from doing so. USAID has predicated the success of its development programs in Afghanistan on a stable security environment; however, as we have reported,[48] the lack of a secure environment in Afghanistan has continued to challenge reconstruction and development efforts. One agency official told us that it is sometimes difficult to get the U.S. military to provide security for staff site visits due to the military's many other responsibilities. According to this official, the inability to conduct more site visits limits the agency's ability to build relationships with local partners and, in turn, presents a challenge to project management in general. This official noted the agency has recently hired additional staff and believed they would help to alleviate some of these monitoring concerns.[49]

USAID approved new guidance endorsing several alternative monitoring methods in high threat environments where it is difficult for USAID staff to make site visits. However, this guidance, which was promulgated in October 2008, was not disseminated to USAID staff until December 2009. Further, the USAID Mission to Afghanistan water sector staff with whom we spoke in late July 2010 said they were unaware of the new guidance. Alternative methods in the new guidance include using new technologies, working with third parties and coordinating with other agencies to monitor activities, and establishing flexible performance targets. These methods are similar to those developed by the agency to mitigate the difficulty it faced directly monitoring its programs in Pakistan's Federally Administered Tribal Areas due to these areas' dangerous security environment, and to those developed by the World Bank and used for World Bank projects in Afghanistan in areas where staff cannot travel.

While USAID collected implementing partner quarterly reports, the agency did not consistently analyze and interpret, as required, the performance

[48]GAO-10-368, GAO-10-613R, and GAO-10-289.

[49]GAO recently initiated a separate review of the Administration's increase in civilian personnel, or civilian surge, in Afghanistan.

information in these reports for the programs in our review. USAID officials told us that they regularly communicated with and collected progress reports from project implementers, but staff shortages and heavy workload have prevented them from consistently reviewing the reporting documents. As a result, Mission staff may not be fully aware of key project information typically contained in quarterly reports, such as project progress, key accomplishments, and challenges.

As noted earlier, the U.S. Mission Afghanistan continues to lack an approved PMP with performance indicators. Additionally, as table 5 previously illustrated, only one of the six implementing partners for U.S.-funded water projects included in our review had established targets for each of its performance indicators. As such, we are unable to provide a reliable assessment of U.S.-funded water projects in Afghanistan.

Limited Evaluations Conducted to Date

Project evaluation identifies the reasons for success or lack thereof, can illustrate which project activities work most effectively and efficiently, and can provide lessons for future initiatives. ADS requires USAID to undertake at least one evaluation for each of its high-level objectives. In September 2007, International Relief and Development (IRD) issued an assessment of the Rural Water Supply and Sanitation project.[50] Though the IRD report noted beneficiaries were generally happy with project results, it also highlighted several problems, including some project wells did not provide enough water, and some project pump handles and latrines were of low quality or poorly constructed. The assessment made several recommendations, including to improve the drilling and building of wells, namely through improved use of geological data; to consult with communities prior to project development; to test water quality prior to handing projects over to communities; to train local communities in the proper and safe use of equipment; and to improve the construction of latrines. According to USAID officials in Afghanistan, the results of this evaluation, and the lessons learned it presented, were used to inform development of the Afghan Sustainable Water Supply and Sanitation project. In addition, according to USAID officials in Afghanistan, no overall evaluation had been done for the other completed project—Afghanistan Urban Water and Sanitation—that we reviewed. However, these officials provided us with two evaluations of more limited scope, each of which examined subprojects contained within the overall project.

[50]In addition, in 2006 UNDP issued a progress report on the Rural Water Supply and Sanitation project.

According to these officials, these two evaluations were used to inform the Commercialization of Afghanistan Water and Sanitation Activity project, which they told us was developed to address some of the problems the Afghanistan Urban Water and Sanitation project faced. Regarding the four ongoing selected projects that we reviewed, USAID officials told us they planned to schedule an evaluation for the Afghan Sustainable Water Supply and Sanitation and Commercialization of Afghanistan Water and Sanitation Activity projects, though they did not indicate if or when the Afghanistan Water, Agriculture, and Technology Transfer or Village-Based Watershed Restoration in Ghor Province projects were due for a formal evaluation.

DOD's Management and Monitoring of Afghan Water Projects Has Weaknesses

DOD CERP regulations, which govern projects in Afghanistan, require certain performance management activities, including the establishment of performance metrics and monitoring of CERP projects.[51] The DOD regulations for CERP state, among other things, that performance indicators must be provided for proposed CERP projects of $50,000 or more and that all projects must be monitored to ensure that payments are commensurate with the work accomplished and engineering standards are met.[52]

Although DOD regulations require the development of performance indicators or metrics for CERP projects of $50,000 or more, it is still not clear how such indicators are and will be used to assess progress. We previously reported in July 2008[53] that although CERP-funded road development projects in Afghanistan contained measures of desired impact, DOD had not stated how these indicators would be measured. Additionally, we found that while CERP guidance for Afghanistan required project proposals to have an "adequate" plan to measure success in achieving the desired impact, it did not contain criteria for developing such a plan for performance measurement and evaluation. Our review of

[51]USFOR-A pub 1-06, *Money as a Weapon System*, December 2009, outlines standard operating procedures for CERP. DOD Financial Regulation vol. 12, ch. 27, 270314 and 270315 define the purpose for which U.S. appropriation or other funds provided for CERP may be expended, and specify the procedures for executing, managing, recording, and reporting such expenditures.

[52]DOD commanders responsible for CERP-funded projects are to ensure project performance information is updated against the relevant metrics and, upon completion, documented in all required databases. As we noted earlier, CIDNE is the primary database for DOD CERP-funded development projects in Afghanistan.

[53]GAO-08-689.

CERP-funded water projects in Afghanistan revealed that this situation has not been fully addressed. According to USFOR-A, DOD has an effort underway to formulate terms to be used to address measures for effectiveness that will be included in CERP's standard operating procedures. However, USFOR-A officials acknowledged there is currently no additional training provided to program managers to assist with identifying performance metrics.

Additionally, DOD officials we met with said that there was a lack of CERP project monitoring and that project results are not always being used to inform future project planning decisions. According to a senior USFOR-A official responsible for managing CERP projects in Afghanistan, the extent to which DOD personnel are able to conduct site visits depends on the geographic location, difficulty of the terrain, and the existing security situation. He also noted that understaffing hampered DOD's ability to monitor CERP water projects in Afghanistan. We have previously reported on actions needed to improve DOD's ability to monitor CERP projects in Afghanistan. For example, in 2009[54] we found that the program faced significant oversight challenges due to an insufficient number of trained personnel, and we recommended that DOD evaluate workforce requirements and ensure that adequate staff are available to administer CERP. DOD responded in May 2009 that the increase in forces in Afghanistan has also increased the number of personnel who manage CERP on a full-time basis. In addition, in December 2009, the Department of the Army published an execution order that included several new requirements for CERP personnel, including that certain key CERP personnel receive training for their assigned responsibilities. USFOR-A officials we met with in Afghanistan later in December 2009 commented that DOD still did not have enough personnel to effectively manage CERP, including juggling the duties of building projects and overseeing them in remote villages.[55]

[54]GAO, *Military Operations: Actions Needed to Improve Oversight and Interagency Coordination for the Commander's Emergency Response Program in Afghanistan*, GAO-09-615 (Washington, D.C.: May 18, 2009).

[55]As we noted earlier, GAO recently initiated a separate review of the U.S. effort to increase civilian personnel in Afghanistan.

U.S. Government Has Included a Focus on Building Sustainability into U.S.-Funded Water Projects

Sustainability is one of the U.S. government's key principles for development and reconstruction assistance in Afghanistan, and recent U.S. strategies have emphasized the importance of project sustainability. We have previously reported on challenges facing U.S. development efforts in Afghanistan, including developing a sustainable roads program[56]—such as a lack of resources, an untrained Afghan population, and limited Afghan government ministerial capacity to maintain and sustain donor-funded projects given Afghanistan is one of the world's poorest countries. (See our July 2010 e-supplement relating to poverty in Afghanistan—GAO-10-756SP.[57]) Based on our review of the U.S. Government Inter-Agency Water Strategy and discussions with agency staff, the U.S. government has identified two key elements to help ensure water project sustainability: (1) enhancing technical and managerial capacity to maintain projects within the institutions with water sector responsibilities, and (2) ensuring funding is available to keep projects operational after they have been completed. USAID project implementers have incorporated a number of sustainability-related initiatives into the water sector projects we reviewed. DOD and CERP guidance also emphasizes sustainability.

U.S. Government Strategies Recognize Importance of Sustainability

Our review of various U.S. government planning and strategy documents and discussions with U.S. government officials identified several efforts underway by the U.S. government to focus on sustainability of U.S.-funded water projects in Afghanistan. We identified sustainability in the following U.S. plans and strategies.

- USAID's Afghanistan Strategic Plan for 2005-2010 defines sustainability as a core value and indicates activities are designed so that Afghan institutions, communities, and individuals "own" the principles, processes, and benefits introduced. Projects that entail construction of infrastructure, reform of processes and procedures, and provision of services have components that help ensure Afghans have the capacity needed to carry them on, once USAID assistance is complete.

[56]GAO, *Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed*, GAO-08-689 (Washington, D.C.: July 8, 2008).

[57]GAO, *Afghanistan Development: Poverty and Major Crop Production (GAO-10-756SP), an E-supplement to* GAO-10-368 (Washington, D.C.: July 14, 2010).

- The USAID Afghanistan Mission PMP for 2006-2008 discusses development in the context of sustainability and identifies capacity building as a means of ensuring the sustainability of development projects. As we noted earlier, the mission is in the process of developing a new missionwide PMP.

- The 2009 U.S. Government Integrated Civilian-Military Campaign Plan for Support to Afghanistan lists as its first core principle "Afghan Leadership, Afghan Capacity, Afghan Sustainability," and notes U.S. efforts in Afghanistan must be designed to assist the Afghan government to assume a more effective leadership role.

- The U.S. Government Inter-Agency Water Strategy for 2009-2014 notes that water is critical for the long-term stability and economic development of Afghanistan and directs U.S. agencies to ensure projects are designed, constructed, and maintained properly to ensure they remain operational over time. The strategy also outlines several goals that will enhance water project sustainability. Among them is a focus on two key elements: (1) enhancing technical and managerial capacity to maintain projects within the institutions with water-sector responsibilities, and (2) ensuring funding is available to keep projects operational after they have been completed.

Selected Ongoing USAID Water Projects Include Sustainability-Related Initiatives

USAID identifies sustainability as one of its Nine Principles of Development and Reconstruction Assistance and considers sustainability to be the design of programs to ensure their impact endures. We reviewed four ongoing USAID funded water projects to determine the extent of focus on sustainability as outlined in the recent U.S. strategies.

The results of our review of these four projects showed that USAID water projects included sustainability related initiatives. For example:

- *Building technical and managerial capacity:* Implementers of the Afghanistan Water, Agriculture, and Technology Transfer and Village-Based Watershed Restoration in Ghor Province projects are providing technical training to Afghan farmers on more sustainable farming practices. The Commercialization of Afghanistan Water and Sanitation Activity project also includes a training component, such as apprenticeship and on-the-job training, to enhance the capacity of managers and technical staff responsible for operating local water systems. Examples of activities to build managerial capacity include the Afghanistan Water, Agriculture, and Technology Transfer and Village-Based Watershed Restoration in Ghor Province projects' provision of training and technical exposure to Afghan ministry staff to help them

identify and develop improved water and land use policies. The Afghanistan Sustainable Water Supply and Sanitation project seeks to improve the sustainability of rural water infrastructure by strengthening the capacity of local governing structures to monitor the use and maintenance of water facilities, as well as by developing written instructions on operating and maintaining them.

- *Financial sustainability:* The Commercialization of Afghanistan Water and Sanitation Activity project's plan to ensure financial sustainability includes billing customers for water services, with an eventual goal of cost-recovery, according to USAID and implementing partner officials. The project also includes activities to ensure all project improvements are reinforced and sustained over time. In addition, the Afghanistan Sustainable Water Supply and Sanitation project plan includes a performance indicator of ensuring long-term financing for community water systems, namely through the establishment of community water user groups as well as a mechanism to charge community members for water services. In addition, the Village-Based Watershed Restoration in Ghor Provice project includes an effort to ensure sustainable water supply in one town through the creation of a water-user association, responsible for operation and maintenance of the system. Officials of USAID and one of its implementing partners acknowledged that the long-term financial viability of such projects could be affected by the inability or unwillingness of Afghan customers to pay for water because of the level of poverty among the Afghan population and because Afghan citizens have not historically paid for their water.

CERP-Funded Projects Plan for Sustainability but Face Challenges

CERP regulations include consideration of project sustainability. According to DOD regulations, CERP is intended for small-scale, urgent humanitarian relief and reconstruction projects that, optimally, can be sustained by the local population or government. CERP procedures for evaluating proposed projects of $50,000 or more note that responsible staff are required to consider the sustainability of the project, including preparing a memorandum of agreement and obtaining the signature of the responsible Afghan official acknowledging responsibility and his or her commitment to budget for this agreement. These regulations also state staff should address whether recipients of CERP funding for projects equal to or greater than $500,000 have a plan for sustainability and who will be providing long-term maintenance and sustainability for the project. In addition, CERP officials we met with in Afghanistan acknowledged the importance of Afghan technical and managerial capacity and the availability of funds for post-project operations and maintenance of CERP

water projects, but pointed out that DOD is not responsible for establishing long-term sustainability strategies.

DOD officials have acknowledged the difficulty of sustaining CERP projects in Afghanistan. CERP and U.S. Army Corps of Engineers officials acknowledged that the physical sustainability of projects and maintenance is a problem. A DOD official noted that building capacity and ensuring projects can be sustained is more difficult than building the projects themselves. Another DOD official stated that having Afghans with the necessary skills and funding for operations and maintenance of projects was essential for the long-term sustainability of water projects. This official and others acknowledged a number of CERP projects, once completed and handed over to Afghans, were not sustained because the Afghans lacked the capacity to sustain them.

Conclusions

The development of the Afghan water sector is critical to the stability of Afghanistan, given the role of water in enhancing agriculture productivity and improving the health and well-being of the Afghan populace. Thus, the U.S. government's assistance in the water sector is an important element of U.S. development and counter-insurgency efforts. The approximately $250 million that the United States awarded from fiscal year 2002 through the second quarter of fiscal year 2010 has funded a significant number of water projects, but it pales in comparison to the over $2 billion the United States has projected would be needed to meet U.S. assistance obligations for water in the next 5 years. Because of this, planning, coordination, and oversight are particularly important. While the U.S. efforts and the goals are outlined in the 2010 U.S. Inter-Agency Water Strategy, the U.S. government lacks an interagency implementation plan called for in its strategy and that best practices have shown is critical to enhancing the coordination of multi-agency efforts. In addition, a centralized database that tracks all U.S. development projects in Afghanistan—including water-sector development, which we previously reported was lacking— does not currently exist. This is especially important in light of the U.S. Inter-Agency Water Strategy that indicates that multiple agencies would become involved in Afghan water-sector activities going forward. Lack of coordination and information sharing creates the potential for duplication of efforts and missed opportunities for synergy and the leveraging of resources among U.S. agencies.

USAID did not ensure that its implementing partners had established indicators or performance targets as required and did not consistently analyze and interpret implementing partner performance data, which is

vital to making program adjustments, higher level decisions, and resource allocations. Without a set of agreed upon performance indicators and targets, it becomes more difficult for USAID to accurately assess the performance of USAID-funded water projects in Afghanistan. Also, it is important that USAID routinely analyze and interpret data from project reports submitted by implementers, as its monitoring procedures require. Further, given security challenges may impede site visits to some project locations, it is important that USAID take steps to more effectively disseminate previously-approved alternative monitoring methods for "high threat" environment to its mission staff. Without effective monitoring, the U.S. government cannot be certain whether U.S.-funded water projects are achieving their intended results.

Recommendations for Executive Action

To enhance the coordination of U.S.-funded water projects, we recommend that the Administrator of USAID, in conjunction with the Secretaries of DOD and other relevant agencies take the following actions:

- Develop an interagency implementation plan, as called for in the 2010 U.S. Government Inter-Agency Water Strategy that (1) establishes agreement on roles and responsibilities of the various U.S. agencies with respect to the short, medium, and long-term goals identified in the strategy; (2) identifies and address the leveraging of U.S. resources; and (3) outlines means to operate effectively across agency boundaries.

- Consider designating *Afghan Info* or some other database as the centralized U.S. government project-development database for U.S. development efforts in Afghanistan. This database should, among other things, ensure that the information in the database (1) captures all agency development efforts, and (2) is accessible to all U.S. government agencies involved in U.S.-funded development projects in Afghanistan.

- Take steps, in coordination with relevant international donors, to explore options for establishing a formal mechanism to enhance coordination on water sector development among the donor community and the Afghan government.

To enhance performance management of U.S.-funded water projects, we recommend that the Administrator of USAID take the following actions:

- Ensure that implementing partners establish targets for all indicators.

- Consistently analyze and interpret program data, such as determining the extent to which annual targets are met.

- Take steps to ensure that Mission Afghanistan staff are aware of new Automated Directives System guidance on monitoring in high-threat environment, such as reissuing the guidance or incorporating a discussion of the guidance as part of pre-deployment training.

Agency Comments and Our Evaluation

- We provided a draft of this report to USAID and DOD for their review and comment. USAID provided written comments, which are reprinted in appendix VIII. USAID concurred with all of our recommendations and said it was taking steps to address them. USAID concurred with our recommendation to develop an interagency implementation plan and stated that a final interagency implementation plan would be developed in consultation with the U.S. government Infrastructure Working Group. USAID concurred with our recommendation to designate *Afghan Info* or some other database as the centralized U.S. government project-development database for U.S. development efforts in Afghanistan. USAID stated it has begun to utilize *Afghan Info* for this purpose and will continue to do so further in the future. USAID concurred with our recommendation to take steps, in coordination with relevant international donors, to establish a formal mechanism to enhance coordination on water-sector development among the donor community and the Afghan government. USAID noted that it meets frequently with other international donors to discuss coordination on the water sector and annually plans a national water conference. Additionally, USAID stated it would take steps to establish a more formal and regularly occurring forum to discuss coordination efforts among all donors in the water sector. Finally, USAID concurred with our recommendation to enhance performance management by ensuring implementing partners establish targets for all indicators, consistently analyzing and interpreting program data, and taking steps to ensure Mission of Afghanistan staff is aware of new guidance on monitoring in high-threat environments.

- DOD also provided written comments on a draft of this report. The comments are reprinted in appendix IX. DOD noted that, because Afghanistan is a war zone, DOD, USAID, and other relevant U.S. agencies have an obligation to work closely together to develop mutually agreed upon plans and strategies. DOD concurred with two of our recommendations and partially concurred with one of them. DOD concurred with our recommendation to develop an interagency implementation plan. DOD also concurred with our recommendation to

take steps, in coordination with relevant international donors, to explore options for establishing a formal mechanism to enhance coordination of water-sector development among the donor community and the Afghan government. DOD noted that the infrastructure working group in Kabul has been established to help coordinate these activities. DOD generally concurred with our recommendation that *Afghan Info* or some other database be designated as the centralized U.S. government project-development database for U.S. development efforts in Afghanistan. DOD pointed out that such a database, if designed to allow easy data access and sharing with not only the interagency but coalition and Afghan partners, would make a positive contribution. Furthermore, DOD cautioned that interagency database requirements should not impact its own needs and requirements for centralized project management, nor create additional requirements for its field personnel. DOD also stated that progress has been made in improving monitoring of CERP water projects and some of the other areas we highlighted, but did not provide specific examples of this progress in its official comments or when we met with DOD officials in August 2010 to discuss our findings. DOD also provided technical comments, which we have included throughout this report as appropriate.

We are sending copies of this report to interested congressional committees, USAID, and DOD. In addition, the report will be available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-7331 or johnsoncm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix X.

Charles Michael Johnson Jr.
Director
International Affairs and Trade

List of Addressees

The Honorable Carl Levin
Chairman
The Honorable John McCain
Ranking Member
Committee on Armed Services
United States Senate

The Honorable John F. Kerry
Chairman
The Honorable Richard G. Lugar
Ranking Member
Committee on Foreign Relations
United States Senate

The Honorable Joseph I. Lieberman
Chairman
The Honorable Susan M. Collins
Ranking Member
Committee on Homeland Security
and Governmental Affairs
United States Senate

The Honorable Ike Skelton
Chairman
The Honorable Howard P. McKeon
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable Howard L. Berman
Chairman
The Honorable Ileana Ros-Lehtinen
Ranking Member
Committee on Foreign Affairs
House of Representatives

The Honorable Edolphus Towns
Chairman
The Honorable Darrell Issa
Ranking Member
Committee on Oversight and Government Reform
House of Representatives

The Honorable Nita M. Lowey
Chairman
The Honorable Kay Granger
Ranking Member
Subcommittee on State, Foreign Operations,
and Related Programs
Committee on Appropriations
House of Representatives

The Honorable Russ Carnahan
Chairman
Subcommittee on International Organizations,
Human Rights and Oversight
Committee on Foreign Affairs
House of Representatives

The Honorable John Tierney
Chairman
The Honorable Jeff Flake
Ranking Member
Subcommittee on National Security and Foreign Affairs
Committee on Oversight and Government Reform
House of Representatives

The Honorable Mike Honda
House of Representatives

Appendix I: Objectives, Scope, and Methodology

This report examines (1) U.S. water projects in Afghanistan since 2002 and the extent to which U.S. goals for Afghan water-sector development assistance align with the goals of the Afghan government; (2) U.S. agencies' coordination of water-sector efforts among themselves and with the Afghan government and the donor community; (3) U.S. agencies' performance management efforts for water-sector projects; and (4) U.S. agencies' efforts to build sustainability into their water-sector projects.

To provide an overview of U.S. government assistance to develop Afghanistan's water sector, we spoke with officials from the U.S. Agency for International Development (USAID), the Departments of Defense (DOD) and State (State), and implementing partners in Washington, D.C., and Kabul, Afghanistan. In Kabul, we met with USAID program and budget officials, such as the Controller, and with DOD officials responsible for managing the Commander's Emergency Response Program (CERP). We focused on USAID's ongoing and completed water-exclusive projects and water-related activities, and on DOD's CERP-funded ongoing and completed water-related projects. We also included State's ongoing and completed water projects funded through the Good Performers Initiative, although the total funding was relatively small compared with USAID and DOD funding. We reviewed USAID's three ongoing water-exclusive projects and USAID's four water-exclusive projects completed since 2003.[1] These projects represent about 50 percent of the total funding disbursed by USAID for water projects in Afghanistan from fiscal year 2002 through the 2nd quarter of fiscal year 2010. We also reviewed USAID's 19 larger infrastructure projects completed or ongoing since 2002 that contained water-related activities. From 13 of these projects, we identified 511 water-related activities. These activities together accounted for about 50 percent of total USAID disbursed funding for water projects in Afghanistan from fiscal year 2002 through the 2nd quarter of fiscal year 2010.

We obtained and reviewed project documents, such as project performance management plans, quarterly and annual reports, contracts,

[1]USAID included a fifth completed project—Kajaki Dam Auxiliary Infrastructure and Supporting Services Project at a funding of about $47 million—in its list of completed water projects, but we excluded this project because, although this dam will ultimately serve the dual purposes of electricity generation and irrigation, its current use is exclusively for electricity generation. USAID officials said that future development work on this dam will include irrigation. Also, USAID included Darunta Hydroelectric Power Plant Rehabilitation in its list of ongoing water projects, but, as in the case of the Kajaki Dam, we excluded the Darunta Dam from our list because its current purpose is for electricity generation.

and contract modifications; project work plans; and financial data to assess USAID water-exclusive projects. We calculated funds awarded, funds disbursed, and the unliquidated obligations balance for the water exclusive projects. In order to further assess USAID's efforts to develop Afghanistan's water sector, we also obtained project details and financial data on water-related activities of larger USAID infrastructure projects. We analyzed the types of water-related activities completed under these projects and identified the total number of water-related activities and the amount of funds disbursed for each water-related activity. To assess CERP water-related projects, we reviewed CERP checkbook data, which we obtained from DOD, to identify water-related projects where funding could be directly attributed to the water sector and exclude those projects that did not fall under the scope of this report. DOD officials concurred with the approach we took to identify projects, and with our final selection. Additionally, we calculated totals for funds awarded, funds disbursed, and the unliquidated obligations balance for the CERP water-related projects identified through this analysis.

To determine the extent to which U.S. and Afghanistan water-sector development strategies aligned, we obtained and reviewed copies of the U.S. Government Inter-Agency Water Strategy for Afghanistan (2009-2014), the Afghanistan National Development Strategy, and the accompanying Water Resource Management Sector Strategy. We compared the strategies and relevant goals of the U.S. and Afghan documents, and based on this analysis, we identified the six key areas of water-sector development and the goals associated with those issue areas. We also interviewed relevant U.S. and Afghan officials regarding the U.S. and Afghan water sector strategies.

To assess how U.S. efforts have been coordinated among the various U.S. government agencies and with the Afghan government and the donor community, we reviewed pertinent U.S. documents, such as the U.S. Government Integrated Civilian-Military Campaign Plan for Support to Afghanistan, the U.S. Government Inter-Agency Water Strategy for Afghanistan, the Government Performance and Results Act, and other GAO reports to identify requirements for coordination. We reviewed GAO and Special Inspector General for Afghanistan Reconstruction reports concerning U.S. agency coordination in Afghanistan and elsewhere and met with officials from USAID, and the departments of Defense, State, and Agriculture in Kabul to obtain an understanding of how they coordinated their efforts to develop the Afghan water sector, the nature and frequency of their coordination, and the extent to which they had institutionalized their coordination efforts. We met with officials from DOD, USAID, and

other agencies to discuss their respective project management data systems for development projects and the extent to which they are interoperable. We also met with Afghan ministry officials, as well as other members of the donor community, to obtain their views of coordination with U.S. agencies. We attended a meeting of the Infrastructure Working Group in Kabul, and a meeting of the Southeast Afghanistan Water Resources Assessment at Bagram Air Force Base, to observe interagency coordination on water-related issues. We also attended a meeting of the Technical Secretariat of the Supreme Council for Water Affairs Management and talked with Afghan officials to obtain their views of U.S.-Afghan coordination on water-related issues. We attended a meeting of the donor community concerning transboundary issues and obtained their views of the nature and extent of donor coordination. We reviewed minutes from a donor coordination meeting in January 2010 and reviewed a spreadsheet that documented initial efforts at coordinating urban water development in Afghanistan. In addition, we discussed the effectiveness of U.S.-Afghan coordination in other sectors, such as the energy sector, to identify lessons learned and best practices that could be applied to the water sector. The information on foreign law in this report is not a product of our original analysis but is derived from interviews and secondary sources.

To assess USAID's and DOD's efforts to manage and monitor water sector projects, we reviewed pertinent GAO evaluations of performance management practices to identify best practices. In addition, we examined USAID's Automated Directives System requirements to identify the agency's procedures, requirements, and guidance. We did not address all of the Automated Directives System performance management procedures outlined in figure 6 of our report, and restricted our analysis to information we were able to obtain over the course of our review. We focused on those elements of the Automated Directives System performance management and evaluation procedures that we determined to be generally consistent with the requirements stipulated by USAID in the applicable implementing partners' contracts, cooperative agreements, or grant award documents. Our review of these elements focused on five of the seven USAID water-exclusive projects where we could find sufficient program documentation of performance management activities, and one of USAID's large infrastructure projects—the Village-Based Water Restoration in Ghor Province—that had a large water component. For these projects, we reviewed USAID award documents, as well as implementing partner planning, funding, and reporting documents, including quarterly reports. Our review of these documents provided us with information regarding the programs' performance management

structure, goals, objectives, indicators, and targets. We examined these and other documents to determine the extent to which the Mission and its implementers followed requirements, guidance, and best practices. We also reviewed DOD Financial Management Regulation, volume 12, chapter 27, which addresses CERP, as well as *Money as a Weapon System*, USFOR-A Pub 1-06, the CERP SOP. These two documents outlined planning and monitoring requirements for CERP projects. In addition, we reviewed prior GAO reports on CERP, which addressed performance management. We discussed these issues with USAID and DOD officials in Washington and Afghanistan, as well as staff from implementing partner organizations.

To assess USAID's and DOD's efforts to address water project sustainability in Afghanistan, we reviewed recent strategic documents on Afghanistan, including the U.S. Government Inter-Agency Water Strategy for 2009-2014, USAID's Afghanistan Strategic Plan for 2005-2010, and the USAID Afghanistan Mission PMP from 2006-2008. Based on our review of these documents, as well as our discussions with agency officials, we identified two key elements to ensuring project sustainability: enhancing technical and managerial capacity to maintain projects within the institutions with water-sector responsibilities, and ensuring funding is available to keep projects operational after they have been completed. Moreover, USAID staff with water-sector responsibilities concurred with these elements at our exit conference with the agency. We also reviewed project documents for the six selected USAID water-sector projects we included in our review of USAID's efforts to manage and monitor water-sector projects. Our review of these documents provided us with information regarding the projects' approaches to sustainability. We also reviewed DOD Financial Management Regulation, volume 12, chapter 27, which addresses CERP, as well as *Money as a Weapon System*, USFOR-A Pub 1-06, the CERP SOP. These documents outline required sustainability-related procedures for CERP projects. We also discussed these issues with USAID and DOD officials in Washington and Afghanistan, as well as staff from implementing partner organizations.

Appendix II: USAID Water-Exclusive Projects and Funding Data

Project description	Start date	End date	Total funding awarded	Total funding obligated	Total funding disbursed
Completed projects					
Emergency Health and Water for Kabul	9/28/2003	10/31/2004	$623,273	$614,594	**$614,594**
Rural Water Supply and Sanitation Project	5/5/2004	9/30/2007	10,000,000	10,000,000	**10,000,000**
Afghanistan Urban Water and Sanitation Program (AUWSP)	5/30/2004	12/31/2006	37,789,701	37,789,701	**37,789,701**
Kabul Environmental Sanitation and Health Project	8/22/2004	2/20/2007	4,207,988	4,207,988	**4,162,080**
Ongoing projects					
Afghanistan Water, Agriculture, and Technology Transfer (AWATT)	3/3/2008	3/2/2011	19,842,135	10,120,000	**7,220,661**
Commercialization of Afghanistan Water and Sanitation Activity (CAWSA)	11/12/2008	11/11/2011	8,508,717	4,423,100	**3,116,913**
Afghan Sustainable Water Supply and Sanitation Project (SWSS)	9/30/2009	9/29/2012	17,433,775	9,500,000	**1,653,697**
Planned projects					
Kabul Water Supply and Sanitation	TBD	TBD	20,000,000	-	-
Multi-purpose Dams and Impoundments	TBD	TBD	15,000,000	-	-
Kandahar Water Supply and Sanitation	TBD	TBD	5,000,000	-	-
Commercialization of Utilities in 4 Cities (in addition to current CAWSA activities)	TBD	TBD	4,000,000	-	-

Source: GAO analysis of budget data provided by USAID/Afghanistan.

Appendix III: Chronology of USAID's Water-Related Activities with Funding Data

Project description	Start date	End date	Project status	Total funding awarded for entire project	Total funding obligated for water activities	Total funding disbursed for water activities
Rehabilitation of Economic Facilities and Services Program (REFS)	9/30/2002	6/30/2007	Complete	$729,652,922	$17,465,370	$17,465,370
Rebuild Agriculture Markets Program	7/3/2003	9/30/2006	Complete	145,403,314	10,000,000	10,000,000
PRT Quick Impact Projects (UNDP/UNOPS)	9/30/2003	12/31/2006	Complete	25,652,473	469,802	469,802
PRT Quick Impact Projects (IOM)	9/30/2003	9/30/2007	Complete	61,912,413	2,765,908	2,765,908
Initiative to Promote Afghan Civil Society (IPACS)	1/3/2005	9/30/2010	Ongoing[a]	28,230,800	60,750	60,750
Alternative Development Program—Eastern Region (ADP/E)	2/15/2005	6/30/2009	Complete	118,386,801	9,578,241	7,871,368
Alternative Livelihood Project—Southern Region (ALP/S)	2/15/2005	10/31/2009	Complete	166,143,244	10,034,388	10,034,388
Alternative Development Program, North (ADP/N)	2/17/2005	2/16/2009	Complete	59,997,433	2,234,478	2,119,571
Expanding Access to Private Sector Health Products and Services	2/15/2006	11/30/2011	Ongoing	34,696,211	700,000	-
Human Resources and Logistical Support	3/1/2006	2/28/2011	Ongoing	84,337,180	1,000,000	1,000,000
Support for Basic Package of Health Services and Essential Package of Hospital Services Delivery	4/24/2006	5/23/2010	Complete	113,356,542	1,000,000	-
Support for Service Delivery and Quality of Basic Services in Afghanistan	7/1/2006	3/31/2011	Ongoing	38,910,949	300,000	-
Local Governance and Community Development Project	10/2/2006	4/30/2011	Ongoing	349,078,330	8,229,833	8,229,833
Local Governance and Community Development Project in Northern and Western Regions of Afghanistan	10/9/2006	6/30/2009	Complete	80,529,535	1,059,449	1,059,449

Project description	Start date	End date	Project status	Total funding awarded for entire project	Total funding obligated for water activities	Total funding disbursed for water activities
Afghanistan Small and Medium Enterprise Development Program (ASMED)	10/26/2006	10/30/2011	Ongoing	89,003,159	187,950	187,950
Village-Based Watershed Restoration in Ghor Province	1/8/2007	6/30/2011	Ongoing	5,591,985	3,392,056	1,491,589
Quick Response	2/1/2007	4/30/2009	Complete	9,975,075	714,359	714,359
Afghanistan Municipal Strengthening Program (AMSP)	5/1/2007	11/7/2010	Ongoing[a]	24,954,276	118,163	118,163
Alternative Development and Alternative Livelihoods Program Expansion North and West Project	3/5/2008	3/4/2011	Ongoing	75,133,597	367,477	367,477
Design review, construction management, construction quality assurance, and reporting services for infrastructure rehabilitation projects in Afghanistan	TBD	TBD	Planned	31,278,273	15,000,000 (Planned)	-

Source: GAO analysis of budget data provided by USAID/Afghanistan.

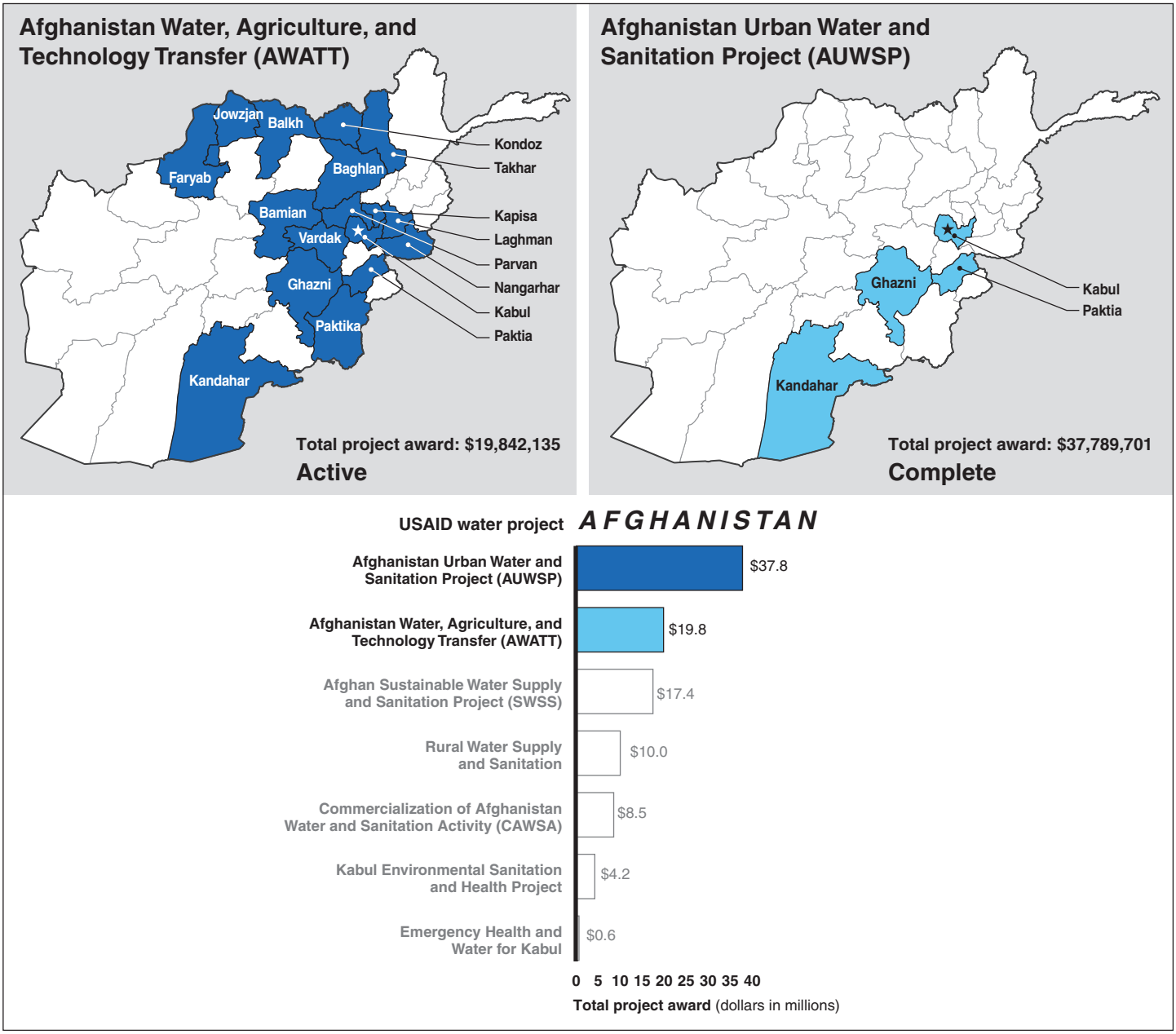
[a]These two projects were ongoing at the time of our review.

Appendix IV: Good Performers Initiative Water-Related Projects and Funding as of End of March 2010

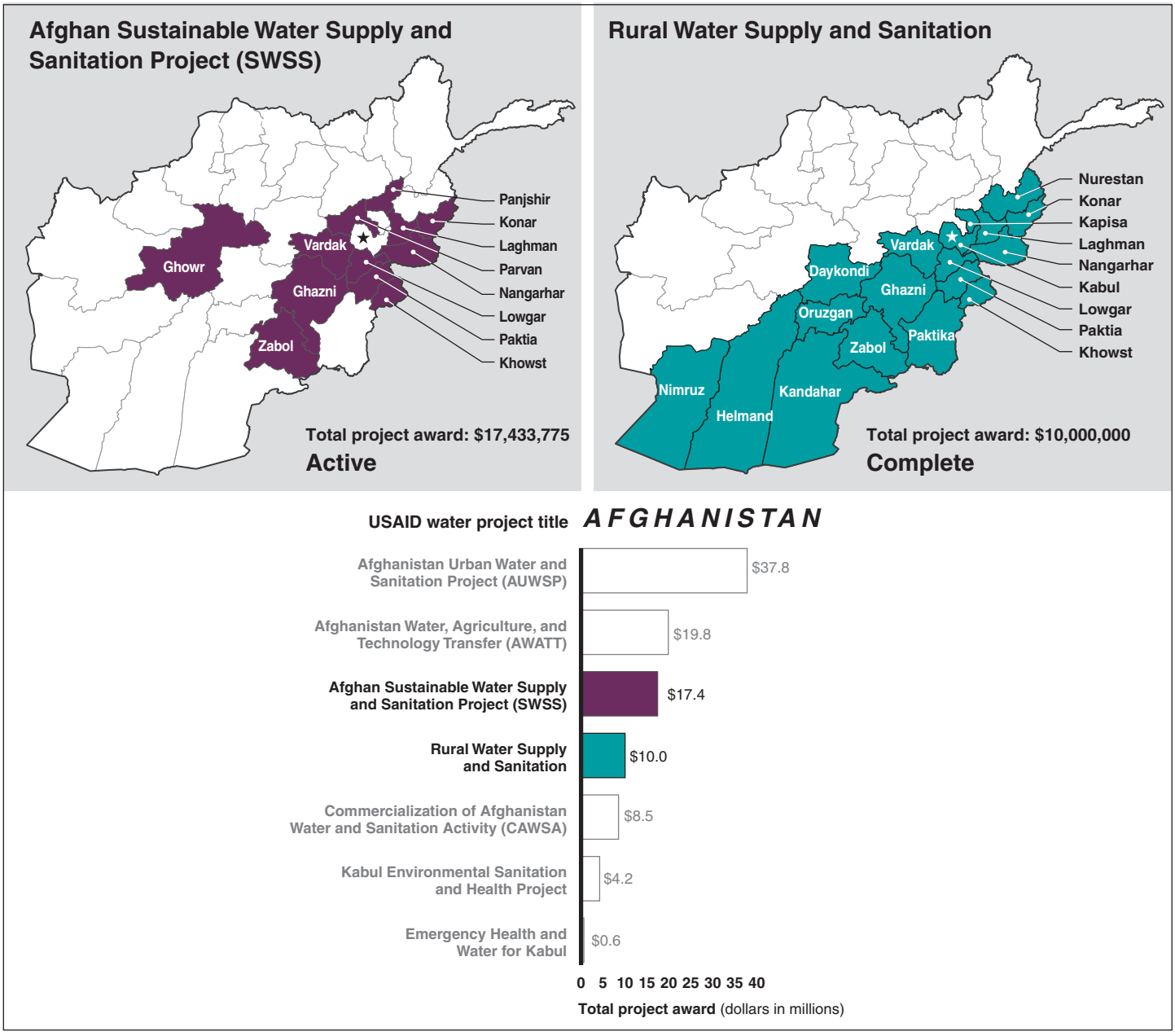
Project description	Project location by province	Project status	Award	Obligation	Disbursement
Construction of Irrigation System	Badakhshan	Ongoing	$770,000	$658,251	$592,426
Construction of Irrigation Structure and Primary School Building	Sar-e-Pol	Ongoing	500,000	404,670	303,503
Construction of Irrigation Structure	Konar	Completed	251,325	227,522	227,521
Canal Cleaning and Construction of Protection Walls	Konar	Completed	133,600	112,890	112,890
Boring of Tube Wells	Samangan	Completed	891,265	591,650	-
Construction of University Boundary Wall and Water Storage	Samangan	Completed/final certification is pending		153,820	92,292
Construction of Irrigation Structure	Bamian	Ongoing	986,112	976,119	439,254
Construction of Irrigation Structures	Nurestan	Completed	998,836	825,153	825,153
Construction of Irrigation System	Lowgar	Project contracted but pending due to problems in site selection	997,907	591,392	-
Total			**$5,529,045**	**$4,541,467**	**$2,593,039**

Source: GAO analysis of Good Performers budget data provided by State.

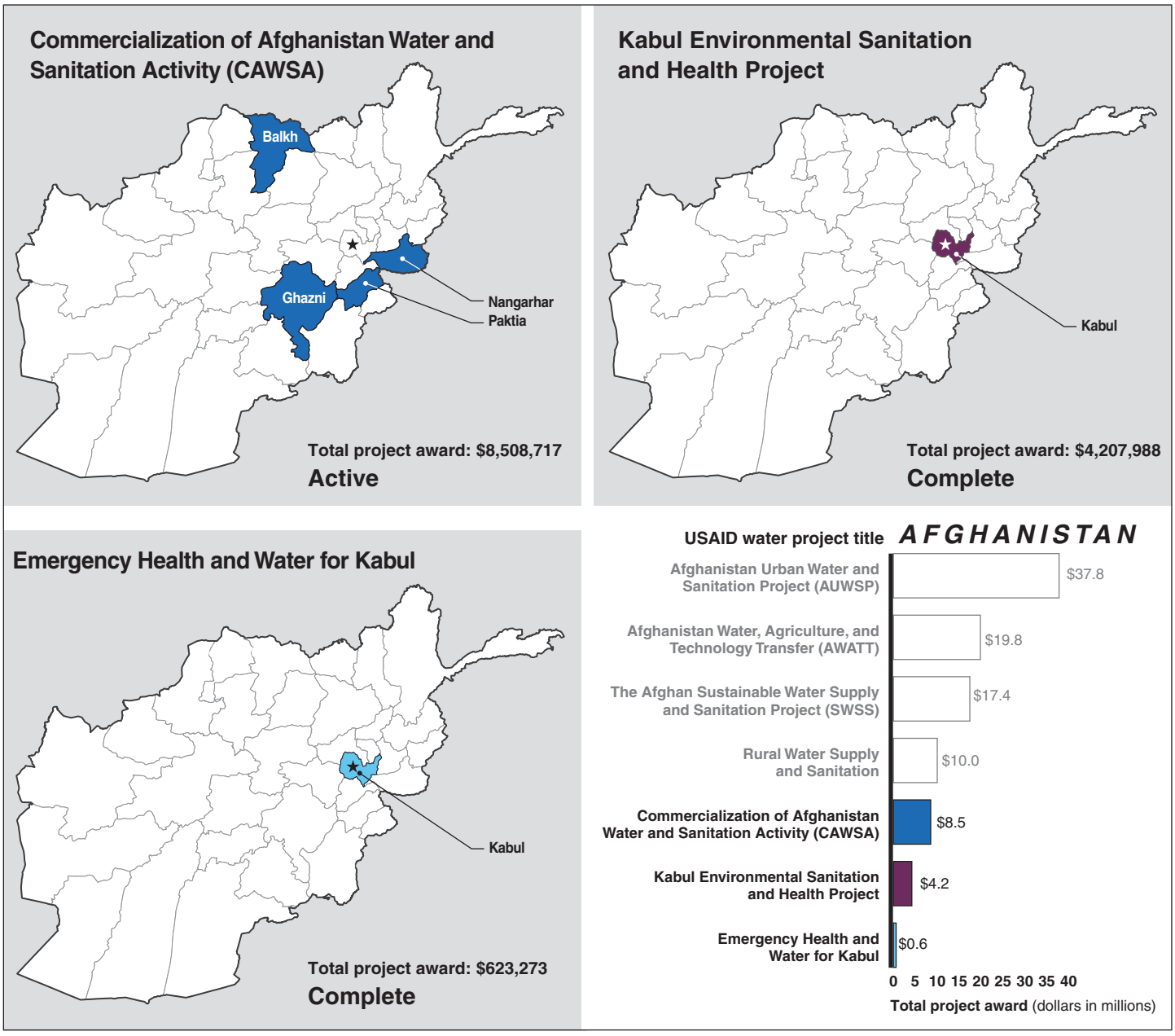
Appendix V: Provincial Locations of USAID Water-Exclusive Projects



Sources: GAO analysis of USAID data; UNODC (2009 maps).



Sources: GAO analysis of USAID data; UNODC (2009 maps).



Sources: GAO analysis of USAID data; UNODC (2009 maps).

Appendix VI: Chronology of USAID Water-Related Activities

Year project started	Project title	Total project award	Total funding disbursed for water activities	Description of project's water activities
2002	Rehabilitation of Economic Facilities and Services Program (REFS)	**$729,652,922**	**$17,465,370**	The REFS program sought to promote economic recovery and political stability by repairing infrastructure in Afghanistan. Water projects under this program focused on repairing irrigation systems, drilling wells for potable water, and cleaning and repairing irrigation canals.
2003	Rebuild Agriculture Markets Program	**145,403,314**	**10,000,000**	The water projects carried out under this program focused on the construction and rehabilitation of irrigation structures and drainage canals.
2003	PRT Quick Impact Projects (UNDP/UNOPS)	**25,652,473**	**469,802**	This project completed 5 water projects. The projects included the construction of piped water supply systems, the digging of a well, and the construction of a water intake system.
2003	PRT Quick Impact Projects (IOM)	**61,912,413**	**2,765,908**	Approximately 36 water projects were completed as part of the larger parent project. They included projects such as the construction of a water supply network; the provision of potable water; the construction of flood control protection walls; irrigation system improvements; canal rehabilitation; and the construction of dams and irrigation systems.
2005	Initiative to Promote Afghan Civil Society (IPACS)	**28,230,800**	**60,750**	Under IPACS, the second phase of a water supply construction project was completed in Trinkot.
2005	Alternative Development Program—Eastern Region (ADP/E)	**118,386,801**	**7,871,368**	The ADP/E program included approximately 98 water projects. Projects focused on the construction of flood protection walls; improvements to canals and canal intakes; pipe scheme projects; irrigation rehabilitation; and micro hydro power plants.
2005	Alternative Livelihood Project—Southern Region (ALP/S)	**166,143,244**	**10,034,388**	The ALP/S project included approximately 111 water projects. These projects included the cleaning of drains, canals, and kareezes; the construction of canal flood protection walls; canal bank repairs; and canal rehabilitation work.
2005	Alternative Development Program, North (ADP/N)	**59,997,433**	**2,119,571**	Approximately 19 water projects were completed under ADP/N. Projects included the rehabilitation of a main irrigation canal; the construction of canal intakes and protection walls; flood emergency canal cleaning; and the construction of one drinking water system.

Year project started	Project title	Total project award	Total funding disbursed for water activities	Description of project's water activities
2006	Expanding Access to Private Sector Health Products and Services	**34,696,211**		*Data not provided*
2006	Human Resources and Logistical Support	**84,337,180**	**1,000,000**	The Human Resources and Logistical Support program was launched to provide a broad range of human resources and logistical support to help design, monitor, and support the activities of USAID-funded contractors. In addition, the program also sought to provide consulting services to selected ministries of the Afghan government. Subsequently, the program provided a transboundary water-rights adviser to help the Ministry of Energy and Water develop water policies for negotiations with neighbors in other countries.
2006	Support for Basic Package of Health Services and Essential Package of Hospital Services Delivery	**113,356,542**		*Data not provided*
2006	Support for Service Delivery and Quality of Basic Services in Afghanistan	**38,910,949**		*Data not provided*
2006	Local Governance and Community Development Project	**349,078,330**	**8,229,833**	The Local Governance and Community Development Project included approximately 174 water projects. Projects included the rehabilitation of irrigation canals; the construction of wells for drinking water; repairs of drinking water pipe schemes; the cleaning of kareezes; the installation of drinking water hand pumps; the construction of water reservoirs; and the construction of check dams, among others.
2006	Local Governance and Community Development Project in Northern and Western Regions of Afghanistan	**80,529,535**	**1,059,449**	This project included approximately 28 water projects. Specific water projects included the construction of a school drinking water reservoir with filter system; wells for drinking water; water supply pipe schemes; irrigation canal cleaning; the construction of irrigation culverts; irrigation canal rehabilitation; and the construction of an irrigation system.
2006	Afghanistan Small and Medium Enterprise Development Program (ASMED)	**89,003,159**	**187,950**	The ASMED program included approximately 18 water projects. These projects included the construction of latrine facilities; market sanitation system improvements; wells for drinking water; and drainage system improvements.

Year project started	Project title	Total project award	Total funding disbursed for water activities	Description of project's water activities
2007	Village-Based Watershed Restoration in Ghor Province	**5,591,985**	**1,491,589**	This program focuses on the conservation of natural resources and increasing vegetation in critical watersheds. Water projects have included increasing access to improved drinking water; providing hygiene promotion training sessions; and increasing the number of hectares with sustainable improvement to irrigation water.
2007	Quick Response	**9,975,075**	**714,359**	*Data Not Provided*
2007	Afghanistan Municipal Strengthening Program (AMSP)	**24,954,276**	**118,163**	AMSP included one water project, a two-phase water supply construction project in Khost province.
2008	Alternative Development and Alternative Livelihoods Program Expansion North and West Project	**75,133,597**	**367,477**	This project completed approximately 17 water projects. Thirteen of these projects involved the cleaning of canals and the four others focused on the rehabilitation of kareezes.
TBD	Design review, construction management, construction quality assurance, and reporting services for infrastructure rehabilitation projects in Afghanistan	**31,278,273**		While the water projects are still considered to be planned projects, they will focus on the construction of multipurpose dams and impoundments.

Source: GAO analysis of project documentation and budget data provided by USAID/Afghanistan.

Appendix VII: Prioritized List of Unfunded U.S. Afghan Water Projects, Fiscal Years 2010 through 2014

(Dollars in millions)

Project	Life of project cost	Project description
Tier One: Highest Priority		
Kajaki Dam Phase One (Unit #2)	$170	Install a third turbine (18.5 megawatt) in the Kajaki Hydropower Plant to increase total power production
Signature Multipurpose Dam (Plan & Design)	10	Planning and design for a large multipurpose dam for irrigation and power production
Signature Multipurpose Dam (Construction)	340	Construct a large multipurpose dam for irrigation and power production
On-Farm and District Irrigation Management	70	Improve community and farm level supply and demand management of irrigation water resources and upstream watershed management
Tier Two: Second Highest Priority		
Kajaki Dam Phase Two (Plan & Design)	15	Plan and design new reservoir gates and powerhouse that would raise the water level and provide additional power plus allow for significantly increased irrigation of agricultural lands
Kajaki Dam Phase Two (Construction)	510	Install new reservoir gates and powerhouse that would raise the water level and provide additional power plus allow for significantly increased irrigation of agricultural lands
Small Multipurpose Dams (Plan & Design)	15	Next step in the watershed assessments being conducted by the U.S. Army Corps of Engineers to design 25 small dams for irrigation and power production with associated watershed management to reduce soil erosion and siltation
Small Multipurpose Dams (Construction)	110	Construct 25 small dams (less than 10 meters high) that could enhance irrigation and power production with associated watershed management to reduce soil erosion and siltation
Urban Water Supply and Sanitation (Plan & Design)	5	Plan and design new water supply and/or sanitation facilities
Urban Water Supply and Sanitation (Construction)	395	Construct new water supply and/or sanitation facilities
Tier Three: Third Highest Priority		
Signature Multipurpose Dam (Plan & Design)	10	Plan and design a large multipurpose dam for irrigation and power production
Signature Multipurpose Dam (Construction)	440	Construct a large multipurpose dam for irrigation and power production
National Water Master Plan	5	Develop an overall water master plan for the country that builds on previous existing water atlas work and catalogues both surface and ground water, as well as delineate aquifer extent, distribution, and sustainable yield
Total	**$2,095**	

Source: U.S. Infrastructure Working Group for Afghanistan, Decision Memorandum, March 2010.

Appendix VIII: Comments from the U.S. Agency for International Development

SEP 28 2010

Charles M. Johnson, Jr.
Director, International Affairs and Trade
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Johnson,

I am pleased to provide the U.S. Agency for International Development's (USAID) formal response to the GAO draft report entitled: "AFGHANISTAN DEVELOPMENT (U.S. Efforts to Support Afghan Water Sector Increasing but Improvements Needed In Project Planning, Coordination, and Management)" GAO-10-1012.

The enclosed USAID comments are provided for incorporation with this letter as an appendix to the final report.

Thank you for the opportunity to respond to the GAO draft report and for the courtesies extended by your staff in the conduct of this audit review.

Sincerely,

Drew W. Luten
Senior Deputy Assistant Administrator
Bureau for Management

Enclosure: a/s

USAID COMMENTS ON GAO DRAFT REPORT No. GAO-10-1012

Recommendation 1: Develop an inter-agency implementation plan, as called for in the 2010 U.S. Government Inter-agency Water Strategy that (1) establishes agreement on roles and responsibilities of the various U.S. agencies with respect to the short, medium, and long-term goals identified in the strategy; (2) identifies and address the leveraging of U.S. resources; and (3) outlines means to operate effectively across agency boundaries.

Response: Concur. A draft inter-agency implementation plan had been previously developed but given the rapidly changing dynamics in both funding and short-term strategic objectives in-country, it is currently not up-to-date. A final inter-agency implementation plan will be developed in consultation with the U. S. Government (USG) Infrastructure Working Group comprising of USAID, U.S. Forces Afghanistan (USFOR-A), U.S. Department of Agriculture (USDA) , and International Joint Commission (IJC) that will effectively leverage all U.S. resources.

Recommendation 2: Consider designating *Afghan Info* or some other database as the centralized U.S. government project-development database for U.S. development efforts in Afghanistan. This database should, among other things, ensure that the information in the database (1) captures all agency development efforts and (2) is accessible to all U.S. government agencies involved in U.S. funded development projects in Afghanistan.

Response: Concur. USAID has begun to utilize *Afghan Info* to document efforts in the Water Sector and will continue to utilize it even further in the future. *Afghan Info* incorporates information on USAID and Commander's Emergency Response Program (CERP)-funded projects; and USAID shares this information with other U.S. government agencies involved in development projects in Afghanistan.

Recommendation 3: Take steps, in coordination with relevant international donors, to explore options for establishing a formal mechanism to enhance coordination on water sector development among the donor community and the Afghan government.

Response: Concur. USAID meets frequently with other International Donors (World Bank, Asia Development Bank, German Agency for Technical Corporation (GTZ), etc) to discuss coordination on Water Sector and also annually plans a National Water Conference, but USAID will take steps to establish more of a formal and regularly-occurring forum to discuss coordination efforts among all donors in the water sector. The ability of USAID to lead all donors in this effort is somewhat limited because USG donates perhaps the least amount of money for the Water Sector among all major International Donors, but we will explore establishing a regularly-occurring (monthly) donor coordination meeting.

Recommendation 4: To enhance performance management of U.S. funded water projects, we recommend that the Administrator of USAID take the following action:

- Ensure that implementing partners establish targets for all indicators,
- Consistently analyze and interpret program data, such as determining the extent to which annual targets are met,
- Take steps to ensure that Mission Afghanistan staff are aware of new Automated Directive System (ADS) guidance on monitoring in high threat environment, such as reissuing the guidance or incorporating a discussion of the guidance as part of pre-deployment
training.

Response: Concur. USAID will have implementing partners establish targets for all performance-based indicators, analyze and interpret this program data to determine the extent to which annual targets are met, as well as ensure all Mission Staff are aware of new ADS guidance on monitoring in high threat environments.

Appendix IX: Comments from the Department of Defense

OFFICE OF ASSISTANT SECRETARY OF DEFENSE
2700 DEFENSE PENTAGON
WASHINGTON, DC 20301-2700

ASIAN & PACIFIC
SECURITY AFFAIRS

OCT 1 2010

Mr. Charles M. Johnson
Director, International Affairs and Trade
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Mr. Johnson:

The following are Department of Defense (DoD) comments to the GAO draft report (GAO-10-1012), "AFGHANISTAN DEVELOPMENT: U.S. Efforts to Support Afghan Water Sector Increasing but Improvements Needed in Project Planning, Coordination, and Management," dated September 14, 2010 (GAO code 320680). DoD comments refer to the three recommendations in the draft report.

RECOMMENDATION 1: To enhance the coordination of U.S. funded water projects, the GAO recommends that the Administrator of United States Agency for International Development (USAID), in conjunction with the Secretaries of the Department of Defense and other relevant agencies take the following action: develop an inter-agency implementation plan, as called for in the 2010 U.S. Government Inter-agency Water Strategy that (1) establishes agreement on roles and responsibilities of various U.S. agencies with respect to the short, medium, and long-term goals identified in the strategy; (2) identifies and addresses the leveraging of U.S. resources; and (3) outlines means to operate effectively across agency boundaries.

DoD RESPONSE: DoD concurs that USAID should be the USG lead agency for this type of economic development. The U.S. Government's water strategy document, which was developed in March 2010, includes planning and a policy framework with short, medium, and long term goals. DoD concurs that there is need for an interagency implementation plan for the water sector.

RECOMMENDATION 2: To enhance the coordination of U.S. funded water projects, the GAO recommends that the Administrator of United States Agency for International Development (USAID), in conjunction with the Secretaries of the Department of Defense and other relevant agencies take the following action: consider designating Afghan Info or some other database as the centralized U.S. government project-development database for U.S. development efforts in Afghanistan. This database should, among other things, ensure that the information in the database (1) captures all agency development efforts and (2) is accessible to all U.S. government agencies involved in U.S. funded development projects in Afghanistan.

DoD RESPONSE: DoD partially concurs that there needs to be a centralized database not only for water projects but also for other development projects in Afghanistan. A central USAID database needs to be flexible enough to allow for direct data inputs and outputs from other

interageney databases rather than be a closed system that limits access to other agencies to a user level only. USAID database requirements should not impact DoD's internal needs and requirements for centralized project management and add additional requirements for DoD personnel in the field (i.e. that DoD personnel would have to enter the same data twice, into a DoD and then USAID system.). A USAID database with a system architecture that allows easy data access and sharing with not only the inter-agency, but with coalition (ISAF) and Afghan partners, would make a positive contribution.

RECOMMENDATION 3: To enhance the coordination of U.S. funded water projects, the GAO recommends that the Administrator of United States Agency for International Development (USAID), in conjunction with the Secretaries of the Department of Defense and other relevant agencies take the following action: take steps, in coordination with relevant international donors, to explore options for establishing a formal mechanism to enhance coordination on water sector development among the donor community and the Afghan government.

DoD RESPONSE: DoD concurs that USAID should be the USG lead agency for this type of engagement with the donor community on water strategy. In Afghanistan, these types of engagements need to be coordinated with and agreed upon by appropriate civilian-military working groups, including international donors, to ensure that they are closely integrated with overall COIN operations. The infrastructure working group in Kabul has been established to help coordinate these activities.

DoD OVERALL RESPONSE: Because Afghanistan is a war zone, DoD, AID, DoS and other USG inter-agencies have an obligation to work closely together to develop mutually agreed upon plans and strategies. The civilian-military planning and implementation process established in 2009 has greatly improved USG interagency operations. Close coordination and integration of projects to develop Afghanistan's water sector, as part of the current civilian-military effort, will contribute to further progress. DoD also recommends that the GAO provide greater specificity and updated information about alleged weaknesses in monitoring CERP water projects, including an alleged lack of criteria for measuring project impacts, alleged shortages of CERP project managers, alleged inadequate training, and an alleged inadequate use of project results to inform future project planning decisions. DoD believes that progress has been made in these areas since the GAO conducted its interviews in Afghanistan.

My point of contact is Mr. Thomas Parker, (703) 695-8278, or Thomas.parker@osd.mil.

Sincerely,

John Hill
Principal Director, Office of Afghanistan, Pakistan & Central Asia

2

Appendix X: GAO Contact and Staff Acknowledgments

GAO Contact

Charles Michael Johnson, Jr. (202) 512-7331 or johnsoncm@gao.gov

Staff Acknowledgments

In addition, the following staff contributed to the report: Godwin Agbara, Assistant Director; Elizabeth Guran; Kevin Remondini; Joseph Carney; Burns Chamberlain; Emily Gupta; Bruce Kutnick; Karen Deans; Cindy Gilbert; Jena Sinkfield; and Etana Finkler.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday afternoon, GAO posts on its Web site newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to www.gao.gov and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's Web site, http://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548