

**Senator Paul Simon  
Water for the Poor Act**

**Report to Congress**

**June 2010**

Bureau of Oceans, Environment, and Science  
U.S. Department of State

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Cover photograph: Marta Bevacqua Photos/Getty Images.



“...Water represents one of the great diplomatic and development opportunities of our time. It’s not every day you find an issue where effective diplomacy and development will allow you to save millions of lives, feed the hungry, empower women, advance our national security interests, protect the environment, and demonstrate to billions of people that the United States cares, cares about you and your welfare. Water is that issue....”

*Hillary Rodham Clinton, Secretary of State  
Excerpted from her speech on World Water Day,  
Washington, DC, March 22, 2010\**

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\* Full text available at <http://www.state.gov/secretary/rm/2010/03/138737.htm>.



Under Secretary of State for Democracy and Global Affairs María Otero participates in the signing of a memorandum of understanding between USAID and Bank Rakyat of Indonesia providing microcredit loans for water access.

Photograph: U.S. Embassy, Jakarta



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# Acronyms

AEECA	Assistance for Europe, Eurasia, and Central Asia
CDC	Centers for Disease Control and Prevention
COCOMS	U.S. Combatant Commands
DOS	Department of State
EPA	Environmental Protection Agency
ESCAP	Economic and Social Commission for Asia and the Pacific
ESF	Economic Support Fund
ECLAC	Economic Commission for Latin America and the Caribbean
FAO	Food and Agriculture Organization of the United Nations
FFP	Food for Peace
GHCS	USAID’s Global Health Child Survival
IAEA	International Atomic Energy Agency
ICRC	International Committee of the Red Cross
IDA	International Disaster Assistance
MCC	Millennium Challenge Corporation
MCH	maternal and child health
NASA	National Aeronautics and Space Administration
NOAA	National Oceanographic and Atmospheric Administration
OECD	Organization for Economic Cooperation and Development
OFDA	USAID Office of Foreign Disaster Assistance
OPIC	Overseas Private Investment Corporation
POU	point of use
PRM	DOS Bureau of Population, Refugees and Migration
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund

UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USAID	United States Agency for International Development
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WASH	water, sanitation, and hygiene
WATSAN	water and sanitation
WfP	Water for the Poor
WHO	World Health Organization
WMO	World Meteorological Organization
WSSH	water supply, sanitation, and hygiene

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## *Report at a Glance*

- The United States invested<sup>\*</sup> about \$774 million in FY 2009 for all water sector- and sanitation-related activities in developing countries.<sup>†</sup>
  - The U.S. Agency for International Development (USAID) and the Millennium Challenge Corporation (MCC) invested over \$513.7 million to improve access to sustainable water supply, sanitation, and hygiene in at least 57 countries. About 32 percent of this went to activities in sub-Saharan Africa.<sup>‡</sup>
  - In FY 2009, some 5.7 million people gained improved access to safe drinking water and 1.3 million gained improved access to sanitation as a result of USAID investments.<sup>§</sup>
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\* The term “invested” means “estimated budget obligations.”

† This is composed of USAID (\$598.7 million), MCC (\$121.3 million), and the U.S. Army Corps of Engineers Iraq (\$54 million) obligations.

‡ Refer to Tables 2 and 9, Annex I.

§ See Table 6, Annex I.



# Senator Paul Simon Water for the Poor Act 2009 Report to Congress

Public Law 109-121, December 1, 2005

## I. Introduction

The Senator Paul Simon Water for the Poor (WfP) Act of 2005 requires the Secretary of State, in consultation with the U.S. Agency for International Development (USAID) and other U.S. Government agencies, to develop and implement a strategy to increase affordable and equitable access to safe drinking water and sanitation within the context of sound water resources management in developing countries. It also requires the Secretary of State, in consultation with the USAID Administrator, to submit an annual report to Congress describing changes in the U.S. strategy and progress in achieving the objectives of the WfP Act. This is the fifth report to Congress since the Act was passed and, like previous reports, represents one point in an evolving process to strengthen the United States' response to these issues.

## II. The Challenge

By 2025, nearly two-thirds of the world's population will be living under water-stressed conditions. Water scarcity and poor water quality will increase disease, undermine economic growth, limit food production, and become an increasing threat to peace and security. Today, more than 800 million people lack access to safe water and more than 2 billion to basic sanitation. Inadequate access to water supply, sanitation, and hygiene causes the deaths of more than 1.5 million children each year.<sup>1</sup> Competition over water resources is an increasing source of tension and conflict, and droughts and floods now affect more people than all other natural disasters combined. Climate change will exacerbate all of these challenges.

## III. U.S. Strategy

U.S. efforts to improve water and sanitation access are part of a larger, integrated foreign assistance strategy that helps to build and sustain democratic, well-governed states that respond to the needs of their people, act to reduce widespread poverty, seek to cooperate with neighboring countries, and conduct themselves responsibly in the international system. We are committed to investing in ways that achieve the greatest impact through

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<sup>1</sup> Source: World Health Organization (WHO).

strategic, integrated, catalytic, and innovative action, in close coordination with host country partner governments, civil society, international organizations, and other donors.

Previous reports to Congress on the implementation of the WfP Act have described in detail the U.S. Government's goals, objectives, and approach to addressing international water challenges.<sup>2</sup> In her 2010 World Water Day speech, Secretary Hillary Rodham Clinton asked Under Secretary of State for Democracy and Global Affairs Maria Otero and USAID Administrator Rajiv Shah to review current efforts and identify specific steps to strengthen the United States' capacity to deliver sustainable, measurable results. This process is currently underway. At the same time, we are continuing to strengthen and expand the number of country-specific plans and strategies (included in Annex 2). Plans now exist for 34 countries receiving assistance from the United States—many include detailed reporting on past and projected outcomes.

## IV. U.S. Support for Water and Sanitation in FY 2009

Broadly speaking, U.S. activities on water and sanitation at the country level are designed in consultation with the host country and take into account a number of factors, including the level of need, the enabling environment (conditions on the ground that will support long-term sustainable results), the U.S. comparative advantage (versus that of others working in the sector), and opportunities to leverage U.S. foreign assistance through partnerships and similar mechanisms with other donors and partners. Other factors include consistency with U.S. foreign policy priorities and compliance with statutory directives that affect foreign assistance allocations.

### Bilateral Assistance

In FY 2009, the United States invested<sup>3</sup> approximately \$774 million directly for water- and sanitation-related activities in developing countries. In addition, the U.S. Government supported water sector and sanitation activities through our contributions to 13 international organizations and seven international financial institutions.<sup>4</sup>

USAID's combined FY 2009 obligations for water sector- and sanitation-related activities (defined as sustainable water supply, sanitation, and hygiene [WSSH], water productivity, water resources management, and disaster risk reduction) for 62 countries totaled \$598.7 million, an increase of \$109.1 million over FY 2008 funding.<sup>5</sup> In FY 2009,

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<sup>2</sup> Previous reports to Congress on the implementation of the Senator Paul Simon Water for the Poor Act are available at [www.state.gov/g/oes](http://www.state.gov/g/oes). The Department of State/USAID Framework for Action on Water and Sanitation is available at that website in the 2008 WfP Report.

<sup>3</sup> The term "invested" means "estimated budget obligations."

<sup>4</sup> See Tables 11 and 12 in Annex I

<sup>5</sup> See Table 2 in Annex I

the Millennium Challenge Corporation (MCC) obligated \$121.3 million for all water sector- and sanitation-related activities.<sup>6</sup> And the U.S. Army Corps of Engineers (USACE) obligated approximately \$54 million for water and sanitation projects in Iraq during FY 2009.

For WSSH alone, USAID obligated \$481.8 million and MCC obligated \$31.9 million, for a combined total of \$513.7 million in FY 2009. USAID WSSH-related funding support to sub-Saharan Africa in FY 2009 decreased by \$9.29 million over 2008 and currently represents 34 percent of USAID funding allocated for water worldwide.

Since its inception in 2005, the MCC has invested a total of almost \$1.3 billion in country-led water sector- and sanitation-related activities.<sup>7</sup> During that same period (2005–2009), USAID invested \$2.1 billion.

Although the lion's share of water sector and sanitation-related bilateral programming is normally executed through USAID and MCC projects, U.S. Government technical agencies, such as the National Aeronautics and Space Administration, the Centers for Disease Control and Prevention (CDC), the National Oceanographic and Atmospheric Administration, USACE, the U.S. Geological Survey, the Environmental Protection Agency, and many others often make unique contributions that greatly magnify our overall quantity and quality of aid. Highlights of their contributions in 2009 are contained in Annex 3.

## Support to Multilateral Development Banks and International Organizations

The United States is a member of, makes financial contributions to, and exercises leadership in seven multilateral development banks that support water and sanitation projects around the world. In FY 2009, the multilateral banks provided \$9.22 billion in all water sector- and sanitation-related financing, more than double the previous year's spending.<sup>8</sup> A recently released report by the World Bank's Independent Evaluation Group<sup>9</sup> says that almost a third of all World Bank projects approved since 1997 have been water-related, including irrigation, groundwater, hydro-power, floods and drought, water supply and sanitation, watershed management, rivers, lakes, coastal zones, inland waterways, and fisheries.

The United States also contributes to 10 international organizations that support water and sanitation projects around the world as well as water and sanitation services in the context of emergency relief: the United Nations (UN) Food and Agriculture

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<sup>6</sup> See Table 9 in Annex I.

<sup>7</sup> See Table 10 in Annex I.

<sup>8</sup> See Table 11 in Annex I.

<sup>9</sup> The World Bank Independent Evaluation Group, "Water and Development: An Evaluation of World Bank Support," 1997–2007, released 4/26/2010.

Organization, the International Atomic Energy Agency, the UN Development Programme, the UN Environment Programme, UN-HABITAT, the UN Educational, Scientific and Cultural Organization, UNICEF, WHO, the World Meteorological Organization, and the UN Regional Economic Commissions.<sup>10</sup> In FY 2009, the total U.S. contribution to UN programmatic work on water was approximately \$41.28 million.<sup>11</sup>

The U.S. Government, through the State Department, is the largest single bilateral country donor to international humanitarian organizations such as the UN High Commissioner for Refugees (UNHCR), the International Committee of the Red Cross (ICRC), and the UN Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), providing over \$1.74 billion in FY 2009 for protection and assistance (including water, sanitation, and hygiene [WASH]-related services) to refugees, conflict victims, stateless persons, vulnerable migrants, and other populations of concern. In collaboration with the CDC, the State Department also supports capacity-building efforts of partners to address WASH-related issues among vulnerable populations. In FY 2009, some of the largest State Department contributions were made to UNHCR (\$630.1 million), ICRC (\$256.4 million), UNRWA (\$268 million), and nongovernmental organizations (\$160 million).

## V. Activities and Results: Evidence of Aid Effectiveness

Globally, in 2009, USAID-sponsored programs resulted in more than 5.79 million people gaining access to an improved water source and more than 1.33 million gaining access to basic sanitation in at least 57 countries. USAID-sponsored activities to improve the quality of water at its point of use resulted in 7.8 billion liters (or 2 billion gallons) of disinfected drinking water.<sup>12</sup>

Throughout FY 2009, USAID grants were largely targeted to support water and sanitation projects that involve low-tech solutions such as water purification, public taps, small-scale piped water, tube wells, small sewer systems, septic tanks, and hygienic latrines. USAID also made critical investments in education programs that promote behavior that contributes to good sanitation and hygiene.

The U.S. Government encourages developing-country governments to create national water strategies, and supports those country strategies where they do exist. For instance, our USAID Mission in the Democratic Republic of the Congo was able to reach rural populations with its support of the national Healthy Village and School Strategy. With

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<sup>10</sup> See Table 12, Annex I.

<sup>11</sup> Although the U.S. Government does not earmark contributions to international organizations for water, the estimates here are based on the percentage of each organization's overall budget that is spent on water multiplied by the overall U.S. Government contribution to each organization.

<sup>12</sup> See Table 6, Annex I.

\$6.5 million in FY 2009 funding, USAID built or rehabilitated 269 water sources, providing water access to an estimated 67,250 people.

Through the MCC, the U.S. Government provided assistance for larger infrastructure projects in several “compact” countries to improve irrigation systems, rebuild critical infrastructure, and increase access to clean water and sanitation. Georgia, for instance, has rehabilitated one of five municipal water systems targeted for investment, which will improve the water supply for 42,000 people. Armenia has recently signed eight out of nine construction contracts for infrastructure irrigation; approximately 8 kilometers of irrigation canals have recently been rehabilitated and 34 additional kilometers are in the process of being rehabilitated. In Africa, most MCC activities encompassing water are in the feasibility, design, and capacity-building phase. Mozambique recently completed a feasibility study and is in the design process for a dam that will help increase water supply to the port city of Nacala; it is also launching a procurement to construct 150 boreholes that will increase potable water supply to rural areas.

In Iraq, one of the world’s most water-stressed countries, USACE completed a total of 113 projects during FY 2009, including 26 water distribution projects, 23 water treatment projects, 13 sewage collection projects, and continued support for operations and maintenance of ongoing water and irrigation infrastructure projects throughout the country. As a result of these efforts, 192,000 residents of Sadr City received potable water from the R3 Water Treatment Plant. Also, canals servicing 105,000 hectares (or 259,460 acres) of Eastern Euphrates farmland were built or repaired by Iraqi workers to improve irrigation and prevent periodic floods from depleting top soil.<sup>13</sup>

In the West Bank and Gaza, USAID financed the rehabilitation and construction of both small- and large-scale water networks throughout the West Bank, including the installation and rehabilitation of 68.8 kilometers of water pipes and the provision of 5,600 m<sup>3</sup> of additional water per day to benefit approximately 68,000 Palestinians. In the sanitation sector, the USAID West Bank and Gaza Mission supported activities that benefited approximately 20,000 West Bank residents; these activities included the rehabilitation and expansion of small and medium-scale sewage systems and the upgrading of sanitation systems at schools, health clinics, and other public facilities.

Finally, to leverage additional private and public resources for clean water and hygiene programs, USAID Missions in Armenia, Cambodia, India, Mozambique, Pakistan, Senegal, and Tanzania partnered with local private sector companies, community-led groups, and, in some cases, global corporations such as Coca Cola, Unilever, and Proctor & Gamble.

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<sup>13</sup> See Annex 3 for a more detailed USACE report.



# Annex I

## U.S. Government Assistance in Fiscal Year 2009

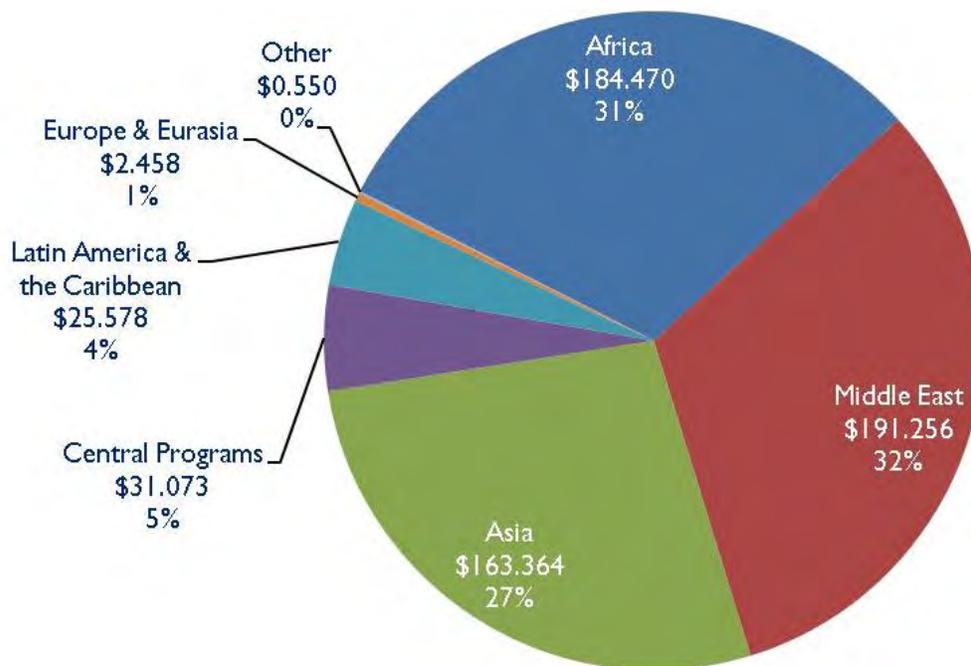
**TABLE I: PRIORITY COUNTRIES FOR U.S. WATER AND SANITATION ACTIVITIES, FISCAL YEAR 2009**

Sub-Saharan Africa		Asia and the Pacific	Europe and Eurasia	Latin America and the Caribbean	Middle East and North Africa
Democratic Republic of the Congo	Mozambique	Afghanistan	Armenia	Haiti	Iraq
Ethiopia	Nigeria	Bangladesh	Georgia		Jordan
Ghana	Senegal	Cambodia	Kosovo		Lebanon
Kenya	Somalia	India			West Bank/Gaza
Liberia	Sudan	Indonesia			
Madagascar	Tanzania	Pakistan			
Mali	Uganda	Philippines			
	Zambia	Timor-Leste			

**FIGURE I: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR, INCLUDING IDA & FFP, BY REGION, FISCAL YEAR 2009**

(millions of dollars)

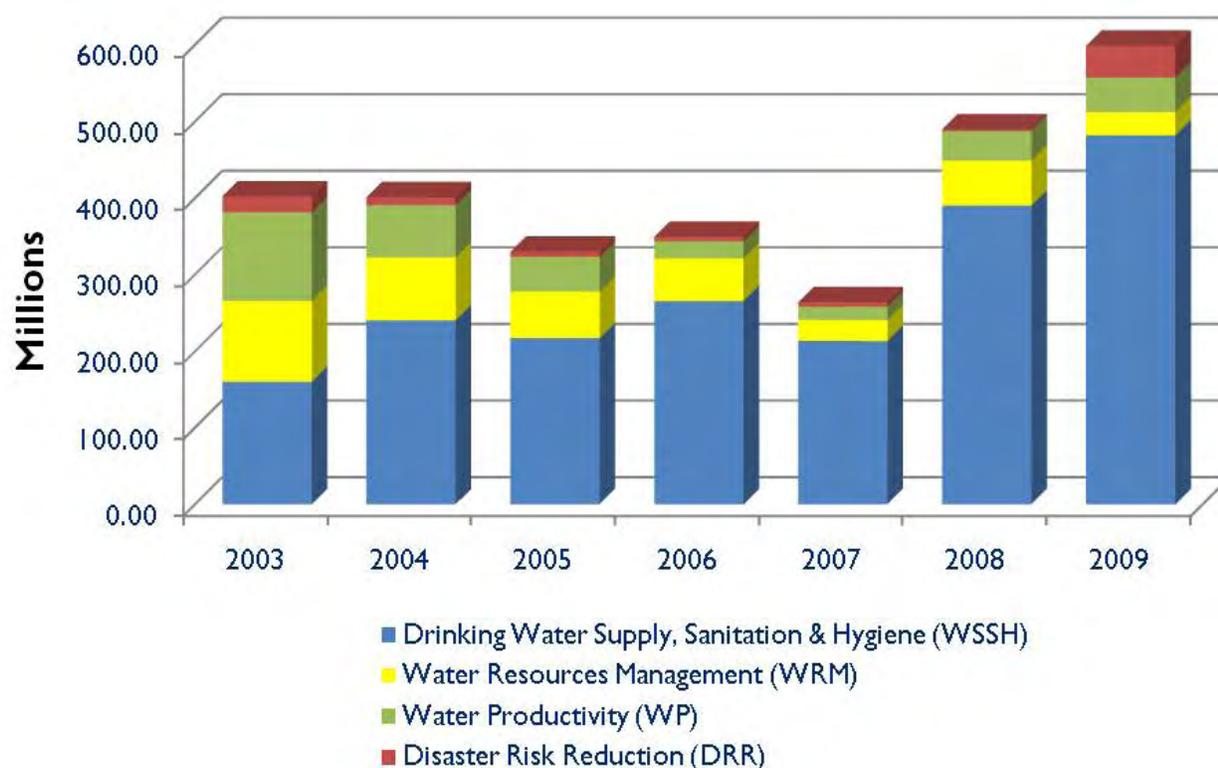
Worldwide Water Sector Funding – \$598.749 million



Data source: FACTS extract May 2010 with USAID Office of Foreign Disaster Assistance extract December 2009.

**FIGURE 2: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR BY THEME, FISCAL YEARS 2003–2009**

(millions of dollars)



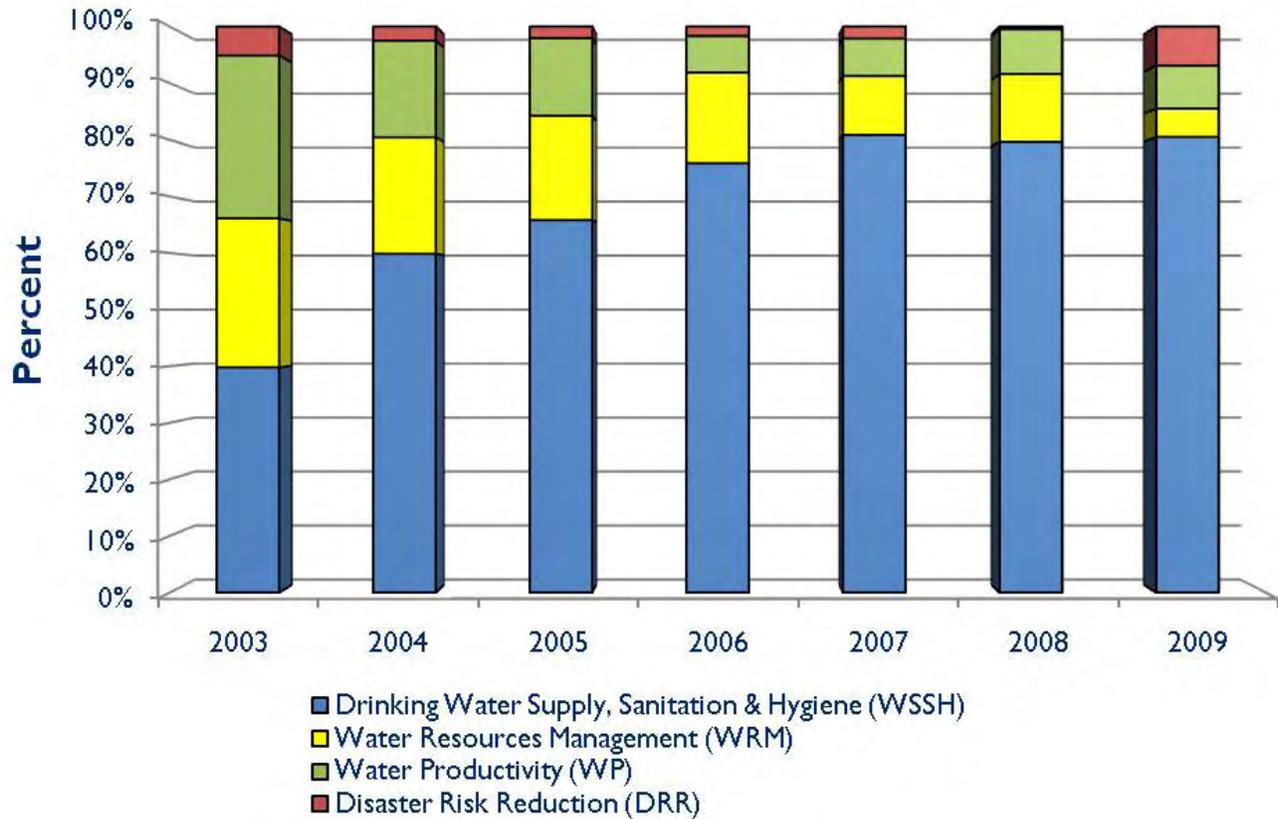
**TABLE 2: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR BY THEME, FISCAL YEARS 2003–2009**

(millions of dollars)

Theme	2003	2004	2005	2006	2007	2008	2009
Drinking Water Supply, Sanitation, and Hygiene	159.80	239.80	216.93	265.00	213.22	389.92	481.85
Water Resources Management	105.70	82.50	60.73	56.00	27.41	58.58	30.27
Water Productivity	115.60	68.40	45.35	22.50	17.39	38.91	45.30
Disaster Risk Reduction	20.60	10.00	6.76	5.84	5.65	2.20	41.33
<b>Grand Totals</b>	<b>401.70</b>	<b>400.70</b>	<b>329.77</b>	<b>349.34</b>	<b>263.67</b>	<b>489.61</b>	<b>598.75</b>

**FIGURE 3: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR BY THEME, FISCAL YEARS 2003–2009**

*(as a percentage of total funding for that fiscal year)*



**TABLE 3: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR BY THEME, FISCAL YEARS 2003–2009**

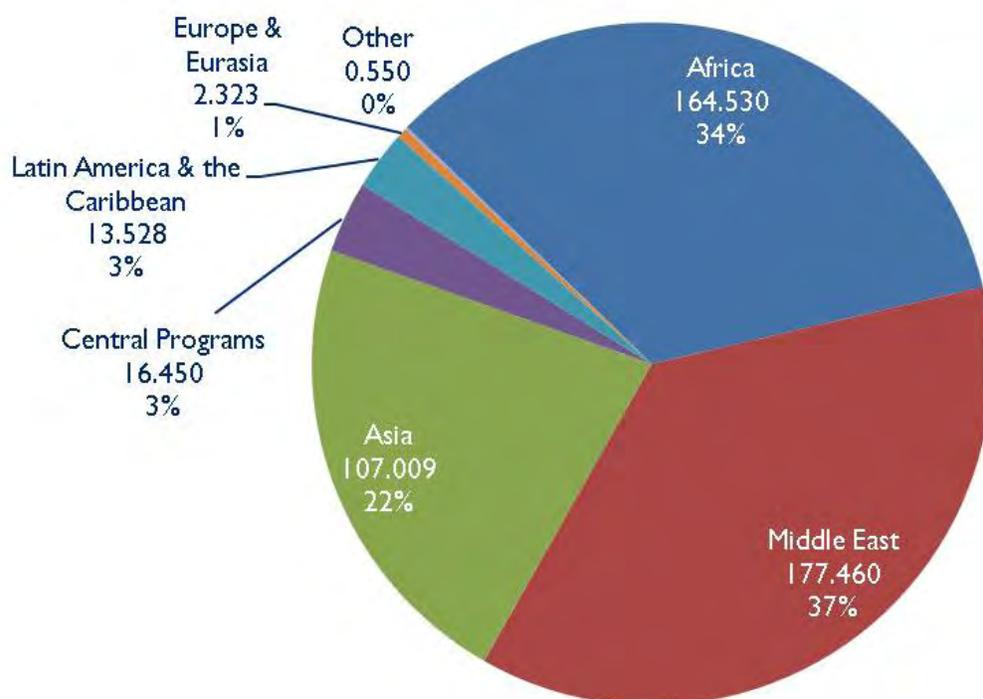
*(as a percentage of total funding for that fiscal year)*

Theme	2003	2004	2005	2006	2007	2008	2009
Drinking Water Supply, Sanitation, and Hygiene	40%	60%	66%	76%	81%	80%	80%
Water Resources Management	26%	21%	18%	16%	10%	12%	5%
Water Productivity	29%	17%	14%	6%	7%	8%	8%
Disaster Risk Reduction	5%	2%	2%	2%	2%	0.4%	7%
<b>Percentage</b>	<b>100%</b>						

**FIGURE 4: ESTIMATED USAID OBLIGATIONS FOR WATER SUPPLY, SANITATION, AND HYGIENE, INCLUDING IDA & FFP, BY REGION, FISCAL YEAR 2009**

\$481.850 million, 80% of total

Worldwide Water Sector Funding - \$598.749 million



Data source: FACTS extract, May 2010, with USAID Office of Foreign Disaster Assistance extract, December 2009.

**TABLE 4: ESTIMATED USAID OBLIGATIONS FOR WATER SUPPLY, SANITATION, AND HYGIENE ACTIVITIES BY OPERATING UNIT, FISCAL YEAR 2009<sup>1</sup>**

(millions of dollars)

Region/Country	Water Supply & Sanitation <sup>2</sup>	IDA Water Supply & Sanitation <sup>3</sup>	FFP Water Supply & Sanitation <sup>4</sup>	Grand Total
<b>GRAND TOTAL</b>	<b>373.708</b>	<b>98.659</b>	<b>9.483</b>	<b>481.850</b>
<b>Africa</b>	<b>95.650</b>	<b>62.397</b>	<b>6.483</b>	<b>164.530</b>
Angola	3.000			3.000
Benin	0.800			0.800
Burkina Faso			1.119	1.119
Burundi	0.250			0.250
Chad		2.449	1.875	4.324
Comoros		0.050		0.050
Democratic Republic of the Congo	6.500	3.873	3.000	13.373
Ethiopia	6.500	8.318	-	14.818
Ghana	3.000			3.000
Kenya	5.500	2.824	-	8.324
Liberia	2.349	0.050		2.399

Region/Country	Water Supply & Sanitation <sup>2</sup>	IDA Water Supply & Sanitation <sup>3</sup>	FFP Water Supply & Sanitation <sup>4</sup>	Grand Total
Madagascar	5.111		0.089	5.200
Malawi	0.300			0.300
Mali	1.500		-	1.500
Mauritania		0.025		0.025
Mozambique	1.250			1.250
Namibia		0.350		0.350
Niger		0.050		0.050
Nigeria	2.150			2.150
Rwanda	1.950			1.950
Senegal	3.600	0.050	0.400	4.050
Somalia	1.500	1.260		2.760
Sudan	15.940	22.980		38.920
Tanzania	3.600			3.600
Uganda	5.250			5.250
Zambia	4.100			4.100
Zimbabwe	-	13.636		13.636
USAID Africa Regional	4.000			4.000
USAID East Africa Regional	1.000			1.000
USAID Southern Africa Regional	1.000	6.108		7.108
USAID West Africa Regional <sup>6</sup>	7.000	0.374		7.374
USAID Office of Development Partners - Africa Unallocated	8.500			8.500
<b>Middle East</b>	<b>164.200</b>	<b>13.260</b>	<b>-</b>	<b>177.460</b>
Egypt	1.700			1.700
Iraq		13.010		13.010
Jordan <sup>5</sup>	53.500			53.500
Lebanon	6.500			6.500
West Bank and Gaza <sup>5</sup>	102.200			102.200
Yemen	0.300	0.250		0.550
<b>Asia</b>	<b>81.518</b>	<b>22.491</b>	<b>3.000</b>	<b>107.009</b>
Afghanistan <sup>6</sup>	21.500	1.074		22.574
Bangladesh	1.500	0.159	3.000	4.659
Burma		0.810		0.810
Cambodia	1.350			1.350
India	3.000	1.003		4.003
Indonesia	8.823			8.823
Laos		0.250		0.250
Nepal		0.194		0.194
Pakistan	31.305	16.673		47.978
Philippines	2.269	0.089		2.358
Sri Lanka		2.239		2.239
Tajikistan	0.031			0.031
Timor-Leste	5.000			5.000
Asia Middle East Regional	0.580			0.580
USAID Regional Development Mission-Asia	6.160			6.160
<b>Central Programs</b>	<b>16.450</b>	<b>-</b>	<b>-</b>	<b>16.450</b>
USAID Economic Growth, Agriculture and Trade	4.450			4.450
USAID Global Health	5.200			5.200

Region/Country	Water Supply & Sanitation <sup>2</sup>	IDA Water Supply & Sanitation <sup>3</sup>	FFP Water Supply & Sanitation <sup>4</sup>	Grand Total
USAID Office of Development Partners - non-Africa Unallocated	6.800			6.800
<b>Latin America &amp; the Caribbean</b>	<b>13.473</b>	<b>0.055</b>	-	<b>13.528</b>
Bolivia	2.800		-	2.800
Colombia	0.700			0.700
Ecuador	3.000			3.000
Guatemala	0.250	0.041		0.291
Haiti	4.100			4.100
Nicaragua	1.353		-	1.353
Peru	1.270			1.270
USAID Caribbean Regional		0.014		0.014
<b>Europe &amp; Eurasia</b>	<b>1.867</b>	<b>0.456</b>	-	<b>2.323</b>
Armenia	1.207			1.207
Azerbaijan	0.010			0.010
Georgia	0.500	0.456		0.956
Russia	0.150			0.150
<b>Other</b>	<b>0.550</b>	-	-	<b>0.550</b>
State Oceans and International Environment and Scientific Affairs	0.550			0.550

<sup>1</sup> FY 2009 budget data represent best estimates from USAID analysis of information as of May 2010, USAID Office of Foreign Disaster Assistance information as of December 2009.

<sup>2</sup> All of these activities meet the 2009 statutory requirements.

<sup>3</sup> \$71.270 million of the total \$98.659 million went toward activities that provided "sustainable" water supply and/or sanitation services and met the 2009 statutory requirements. \$41.607 of the \$71.270 million supported activities in Africa.

<sup>4</sup> P.L. 480 funds are part of the Food for Peace program and cannot be counted toward the 2009 statutory requirement.

<sup>5</sup> Spring Supplemental Appropriations included Pakistan, \$12 million; Jordan, \$19 million; and West Bank and Gaza, \$94.2 million—all three in water supply and sanitation.

<sup>6</sup> Bridge Supplemental Appropriations included Afghanistan, \$3 million in water supply and sanitation; and USAID West Africa Regional, \$2 million in water productivity.

Note: Water supply, sanitation, and hygiene funding includes the following accounts: Development Assistance, Global Health Child Survival/USAID, Economic Support Fund, Assistance for Europe, Eurasia and Central Asia, and International Disaster Assistance.

**TABLE 5: ALLOCATIONS FROM FOREIGN ASSISTANCE ACCOUNTS TO MEET THE 2009 STATUTORY REQUIREMENT ON WATER AND SANITATION SUPPLY PROJECTS BY REGION<sup>1</sup>**

(millions of dollars)

Region/Country	DA	GHCS / USAID	ESF	AEECA	IDA	Grand Total
<b>GRAND TOTAL</b>	<b>117.948</b>	<b>34.529</b>	<b>141.824</b>	<b>5.358</b>	<b>0.341</b>	<b>300.000</b>
<b>Africa</b>	<b>66.950</b>	<b>17.690</b>	<b>26.000</b>	<b>-</b>	<b>-</b>	<b>110.640</b>
Angola	3.000					3.000
Benin		0.800				0.800
Burundi	0.250					0.250
Democratic Republic of the Congo		1.500	5.000			6.500
Ethiopia	5.000	1.500				6.500
Ghana	2.000	1.000				3.000
Kenya	4.000	1.500				5.500
Liberia		0.150	9.000			9.150
Madagascar	4.250	0.950				5.200
Malawi		0.300				0.300
Mali	1.000	0.500				1.500
Mozambique	0.750	1.250				2.000
Namibia	1.000					1.000
Nigeria	2.000	0.150				2.150
Rwanda	1.000	1.000				2.000
Senegal	4.500	0.500				5.000
Somalia		0.500	1.000			1.500
Sudan		4.940	11.000			15.940
Tanzania	5.000					5.000
Uganda	5.000	0.250				5.250
Zambia	3.200	0.900				4.100
USAID Africa Regional	4.000					4.000
USAID East Africa Regional	1.000					1.000
USAID Southern Africa Regional	2.000					2.000
USAID West Africa Regional	8.000					8.000
Africa Allocation from USAID Office of Development Partners	10.000					10.000
<b>Asia</b>	<b>20.508</b>	<b>10.189</b>	<b>47.478</b>	<b>3.651</b>	<b>-</b>	<b>81.826</b>
Afghanistan		2.500	18.000			20.500
Bangladesh		1.500				1.500
Cambodia		1.350				1.350
India	2.000	1.000				3.000
Indonesia	2.000		7.673			9.673
Kyrgyz Republic				1.630		1.630
Pakistan		3.500	21.805			25.305
Philippines	2.508	0.339				2.847
Tajikistan				1.821		1.821
Timor-Leste	5.000					5.000
Uzbekistan				0.200		0.200
Asia and Middle East Regional	2.000					2.000
USAID Regional Development Mission-Asia	7.000					7.000
<b>Middle East</b>	<b>2.500</b>	<b>-</b>	<b>59.296</b>	<b>-</b>	<b>-</b>	<b>61.796</b>
Jordan			43.296			43.296

Region/Country	DA	GHCS / USAID	ESF	AEECA	IDA	Grand Total
Lebanon			8.000			8.000
Morocco	0.600					0.600
West Bank and Gaza			8.000			8.000
USAID Middle East Regional	1.900					1.900
<b>Central Programs</b>	<b>17.340</b>	<b>5.200</b>	-	-	<b>0.341</b>	<b>22.881</b>
USAID Democracy, Conflict and Humanitarian Assistance					0.341	0.341
USAID Economic Growth, Agriculture and Trade	9.340					9.340
USAID Global Health		5.200				5.200
USAID Office of Development Partners Non-Africa Worldwide Unallocated	8.000					8.000
<b>Latin America &amp; the Caribbean</b>	<b>10.650</b>	<b>1.450</b>	<b>8.500</b>	-	-	<b>20.600</b>
Bolivia	2.500	0.700				3.200
Dominican Republic	2.400					2.400
Ecuador	3.000					3.000
Guatemala	0.750	0.250				1.000
Haiti		0.500	8.500			9.000
Nicaragua	2.000					2.000
<b>Europe &amp; Eurasia</b>	-	-	-	<b>1.707</b>	-	<b>1.707</b>
Armenia				1.207		1.207
Georgia				0.500		0.500
<b>Other</b>	-	-	<b>0.550</b>	-	-	<b>0.550</b>
State Department Bureau of Oceans, Environment, and Science			0.550			0.550

<sup>1</sup> FY 2009 budget data represent best estimates from USAID analysis of information as of March 2010.

Note: Grand total amount represents the \$300 million FY 2009 water earmark.

Acronyms: DA = Development Assistance; GHCS/USAID = Global Health Child Survival/USAID; ESF = Economic Support Fund; AEECA = Assistance for Europe, Eurasia, and Central Asia; IDA = International Disaster Assistance

**TABLE 6: NUMBER OF PEOPLE WITH IMPROVED ACCESS TO DRINKING WATER SUPPLY AND SANITATION FACILITIES, AND LITERS OF DRINKING WATER DISINFECTED WITH POINT-OF-USE (POU) TREATMENT PRODUCTS, BY COUNTRY AND OPERATING UNIT, FISCAL YEAR 2009**

Region/Country	Number of People with Improved Access to Drinking Water Supply	Number of People with Improved Access to Sanitation Facilities <sup>1</sup>	Liters of Disinfected Drinking Water by POU Treatment <sup>2</sup>
<b>TOTAL</b>	<b>5,791,660</b>	<b>1,330,313</b>	<b>7,833,928,304</b>
<b>Africa</b>	<b>1,490,911</b>	<b>359,587</b>	<b>6,603,258,000</b>
Angola	13,104		
Benin			60,480,000
Burkina Faso	6,900		
Burundi	129,137	26,068	
Chad			100,200
Democratic Republic of the Congo	67,250	435	
Ethiopia	332,441	76,312	
Ghana	16,000	16,000	
Kenya	80,000	45,000	1,650,000,000
Madagascar	55,993	28,083	2,213,052,000
Malawi			552,499,880
Rwanda			326,552,000
Senegal	8,400	-	
Somalia	81,367	38,720	
Sudan	355,890	40,606	21,139,000
Tanzania	10,747	5,717	
Uganda	83,000	67,950	79,434,920
Zambia	6,765	900	1,700,000,000
USAID Africa Regional	174,507	3,233	
USAID East Africa Regional	16,297	4,569	
USAID West Africa Regional	53,113	5,994	
<b>Asia</b>	<b>2,625,256</b>	<b>830,581</b>	<b>131,220,304</b>
Afghanistan			131,014,000
Bangladesh <sup>3</sup>	388,945	423,575	
Cambodia			206,304
China	27,178		
India	304,730	22,405	
Indonesia	281,525	19,705	-
Pakistan <sup>4</sup>	1,297,480		
Philippines	116,856	355,994	
Timor-Leste	1,071	-	
USAID Regional Development Mission-Asia	207,471	8,902	
<b>Middle East</b>	<b>208,000</b>	<b>65,038</b>	<b>-</b>
Egypt	140,000	24,000	
Jordan	-	1,038	
Lebanon		20,000	
West Bank and Gaza	68,000	20,000	
<b>Central Programs</b>	<b>-</b>	<b>-</b>	<b>1,085,450,000</b>
USAID Economic Growth, Agriculture and Trade	-	-	
USAID Global Health			1,085,450,000

<b>Region/Country</b>	<b>Number of People with Improved Access to Drinking Water Supply</b>	<b>Number of People with Improved Access to Sanitation Facilities<sup>1</sup></b>	<b>Liters of Disinfected Drinking Water by POU Treatment<sup>2</sup></b>
<b>Europe and Eurasia</b>	<b>74,340</b>	<b>-</b>	<b>-</b>
Armenia	55,000		
Kosovo	19,340		
<b>Latin America and Caribbean</b>	<b>1,393,153</b>	<b>75,107</b>	<b>14,000,000</b>
Bolivia	8,315	50,054	
Ecuador	20,160	2,055	
Guatemala			14,000,000
Haiti	1,364,678	22,998	

<sup>1</sup> FY 2009 budget data represent best estimates from USAID analysis of information as of December 2009.

<sup>2</sup> FY 2009 budget data for point-of-use treatment disinfected water from USAID analysis of information as of January 26, 2010.

<sup>3</sup> Bangladesh: The majority of people who received improved access to water supply (388,075) and all people receiving improved access to sanitation were supported through Food for Peace assistance.

<sup>4</sup> Pakistan: Improved access to drinking water supply only.

**TABLE 7: ESTIMATED USAID OBLIGATIONS FOR THE WATER SECTOR BY REGION, FISCAL YEAR 2009**

(millions of dollars)

All Water-Related Activities	Africa	Middle East	Asia	Central Programs	Latin America and the Caribbean	Europe and Eurasia	Other	Total
Water Supply, Sanitation, and Hygiene	95.650	164.200	81.518	16.450	13.473	1.867	0.550	373.708
IDA-Funded Water Supply, Sanitation, and Hygiene	62.397	13.260	22.491		0.055	0.456		98.659
FFP-Funded Water Supply, Sanitation, and Hygiene	6.483		3.000		-			9.483
All Water Supply, Sanitation, and Hygiene (WSSH) Activities	164.530	177.460	107.009	16.450	13.528	2.323	0.550	481.850
Water Resources Management	2.750	8.750	11.034	3.045	4.550	0.135	-	30.264
Water Productivity	14.551	5.046	10.614	7.590	7.500	-	-	45.301
Disaster Risk Reduction	2.639	-	34.707	3.988			-	41.334
All Non-WSSH Activities	19.940	13.796	56.354	14.623	12.050	0.135	-	116.899
<b>Grand Total – All Water Sector Categories</b>	<b>184.470</b>	<b>191.256</b>	<b>163.364</b>	<b>31.073</b>	<b>25.578</b>	<b>2.458</b>	<b>0.550</b>	<b>598.749</b>

*Notes:*

FY 2009 budget data represent best estimates from USAID analysis of Development Account budget information as of May 2010 and USAID Office of Foreign Disaster Assistance IDA account budget information as of December 2009.

Spring Supplemental Appropriations included Pakistan, \$12 million; Jordan, \$19 million; and West Bank and Gaza, \$94.2 million—all three in water supply and sanitation.

Bridge Supplemental Appropriations included Afghanistan, \$3 million in water supply and sanitation; and USAID West Africa Regional, \$2 million in water productivity.

*Acronyms:* FFP = Food for Peace; IDA = International Disaster Assistance

**TABLE 8: ESTIMATED USAID OBLIGATIONS FOR ALL USAID WATER SECTOR ACTIVITIES (WATER SUPPLY, SANITATION AND HYGIENE, WATERSHED/WATER RESOURCES MANAGEMENT, WATER PRODUCTIVITY, DISASTER RISK REDUCTION), FISCAL YEAR 2009<sup>1</sup>**

(millions of dollars)

	Water Supply, Sanitation, and Hygiene	Watershed/ Water Resources Management	Water Productivity	Disaster Risk Reduction	Grand Total
<b>Grand Total</b>	<b>481.850</b>	<b>30.264</b>	<b>45.300</b>	<b>41.334</b>	<b>598.749</b>
<b>Africa Total</b>	<b>164.530</b>	<b>2.750</b>	<b>14.551</b>	<b>2.639</b>	<b>184.470</b>
Angola	3.000				3.000
Benin	0.800				0.800
Burkina Faso	1.119	-	-		1.119
Burundi	0.250	-			0.250
Chad	4.324		-		4.324
Comoros	0.050				0.050
Democratic Republic of the Congo	13.373				13.373
Ethiopia	14.818	-	-		14.818
Ghana	3.000	-			3.000
Kenya	8.324	-	-		8.324
Liberia	2.399	0.500	6.301		9.200
Madagascar	5.200	-		1.639	6.839
Malawi	0.300	0.200			0.500
Mali	1.500	-	-		1.500
Mauritania	0.025				0.025
Mozambique	1.250	-	0.750		2.000
Namibia	0.350			1.000	1.350
Niger	0.050				0.050
Nigeria	2.150				2.150
Rwanda	1.950	0.650			2.600
Senegal	4.050		2.000		6.050
Somalia	2.760				2.760
Sudan	38.920	-	-		38.920
Tanzania	3.600	0.400	1.000		5.000
Uganda	5.250				5.250
Zambia	4.100		-		4.100
Zimbabwe	13.636				13.636
USAID Africa Regional	4.000			-	4.000
USAID East Africa Regional	1.000				1.000
USAID Southern Africa Regional	7.108	1.000			8.108
USAID West Africa Regional <sup>3</sup>	7.374		3.000		10.374
USAID Office of Development Partners - Africa Unallocated	8.500		1.500		10.000
<b>Middle East Total</b>	<b>177.460</b>	<b>8.750</b>	<b>5.046</b>	<b>-</b>	<b>191.256</b>
Egypt	1.700	1.000			2.700
Iraq	13.010				13.010
Jordan <sup>2</sup>	53.500	5.000	3.796	-	62.296
Lebanon	6.500	1.200	0.300		8.000

	<b>Water Supply, Sanitation, and Hygiene</b>	<b>Watershed/ Water Resources Management</b>	<b>Water Productivity</b>	<b>Disaster Risk Reduction</b>	<b>Grand Total</b>
Morocco		0.600	-	-	0.600
West Bank and Gaza <sup>2</sup>	102.200				102.200
Yemen	0.550	-			0.550
USAID Middle East Regional	-	0.950	0.950		1.900
<b>Asia Total</b>	<b>107.009</b>	<b>11.034</b>	<b>10.613</b>	<b>34.707</b>	<b>163.363</b>
Afghanistan <sup>3</sup>	22.574	-	-		22.574
Bangladesh	4.659	-		34.547	39.206
Burma	0.810				0.810
Cambodia	1.350		-		1.350
India	4.003				4.003
Indonesia	8.823				8.823
Kyrgyz Republic	-	0.340	1.290	0.060	1.690
Laos	0.250				0.250
Nepal	0.194				0.194
Pakistan <sup>2</sup>	47.978	5.500	3.000	0.100	56.578
Philippines	2.358	3.264	3.973		9.595
Sri Lanka	2.239				2.239
Tajikistan	0.031		1.820		1.851
Timor-Leste	5.000				5.000
Uzbekistan	-		0.200		0.200
Asia Middle East Regional	0.580	1.090	0.330		2.000
USAID Regional Development Mission-Asia	6.160	0.840			7.000
<b>Central Programs Total</b>	<b>16.450</b>	<b>3.045</b>	<b>7.590</b>	<b>3.988</b>	<b>31.073</b>
USAID Democracy, Conflict and Humanitarian Assistance	-	-		3.958	3.958
USAID Economic Growth, Agriculture and Trade	4.450	3.045	6.390	0.030	13.915
USAID Global Health	5.200				5.200
USAID Office of Development Partners - non-Africa Unallocated	6.800		1.200		8.000
<b>Latin America &amp; the Caribbean Total</b>	<b>13.528</b>	<b>4.550</b>	<b>7.500</b>	<b>-</b>	<b>25.578</b>
Bolivia	2.800	0.400			3.200
Colombia	0.700				0.700
Dominican Republic			2.400		2.400
Ecuador	3.000	0.900			3.900
Guatemala	0.291	0.650	0.100		1.041
Haiti	4.100	0.900	4.000		9.000
Nicaragua	1.353		1.000		2.353
Panama		1.700			1.700
Peru	1.270				1.270

	<b>Water Supply, Sanitation, and Hygiene</b>	<b>Watershed/ Water Resources Management</b>	<b>Water Productivity</b>	<b>Disaster Risk Reduction</b>	<b>Grand Total</b>
USAID Caribbean Regional	0.014				<b>0.014</b>
<b>Europe &amp; Eurasia Total</b>	<b>2.323</b>	<b>0.135</b>	-	-	<b>2.458</b>
Armenia	1.207		-		<b>1.207</b>
Azerbaijan	0.010				<b>0.010</b>
Georgia	0.956	-	-		<b>0.956</b>
Russia	0.150	0.135			<b>0.285</b>
<b>Other Total</b>	<b>0.550</b>	-	-	-	<b>0.550</b>
State Department Bureau of Oceans, Environment, and Science	0.550				<b>0.550</b>

- <sup>1</sup> FY 2009 budget data represent best estimates from USAID analysis of Development Account budget information as of May 2010 and USAID Office of Foreign Disaster Assistance IDA account budget information as of December 2009.
- <sup>2</sup> Spring Supplemental Appropriations included Pakistan, \$12 million; Jordan, \$19 million; and West Bank and Gaza, \$94.2 million—all three in water supply and sanitation.
- <sup>3</sup> Bridge Supplemental Appropriations included Afghanistan, \$3 million in water supply and sanitation; and USAID West Africa Regional, \$2 million in water productivity.

**TABLE 9: MILLENNIUM CHALLENGE CORPORATION OBLIGATIONS, FISCAL YEAR 2009**

MCC FY 2009 Obligations		FY 2009 Obligations <sup>1</sup>		
Country	Activity	Drinking Water Supply, Sanitation and Hygiene	Water Resources Management	Improved Water Productivity
Armenia	Rescoping <sup>2</sup> from irrigation project to program administration			-\$0.6
Burkina Faso <sup>3</sup>	Irrigation Activity <sup>4</sup>			\$87.6
	Improved Water Efficiency <sup>5</sup>			\$4.5
El Salvador	Rescoping <sup>2</sup> on Basic Drinking Water Supply	-\$0.4		
Georgia	Rescoping <sup>2</sup> : Increased investment in small town urban water under Regional Infrastructure Development Project <sup>6</sup>	\$21.1		
Ghana	Rescoping <sup>2</sup> on irrigation project			-\$6.2
Jordan	609g pre-compact grant for preparation of proposal for waste water and drinking water studies	\$13.3		
Mali	Rescoping <sup>2</sup> from irrigation to road within the agricultural activity			-\$1.9
Moldova	609g pre-compact grant for preparation of proposal for irrigation projects			\$3.0
Morocco	Rescoping <sup>2</sup> from irrigation to other agricultural activities			-\$3.8
Nicaragua	Rescoping <sup>2</sup> on water supply for farms to forestry activity			-\$1.0
Senegal	609g pre-compact grant for irrigation project design and project preparation			\$7.8
	irrigation project <sup>7</sup>			\$0.0
Tanzania	Descoping of unused portion of preproposal grant (609g) for Non-Revenue Water Activity/Lower Ruvu Plant Expansion Activity	-\$2.1		
<i>Subtotal Rural and Peri-Urban Water Supply and Sanitation</i>		-\$0.4		
<i>Subtotal Urban Water Supply and Sanitation</i>		\$32.3		
<i>Subtotals by category</i>		\$31.9	\$0.0	\$89.4
<b>GRAND TOTAL</b>	<b>FY 2009 OBLIGATIONS</b>		<b>\$121.3</b>	

<sup>1</sup> Compact entry into force, budget re-allocations and rescoping, 609g pre-compact obligations, and threshold obligations. N.B. FY 2008 WfP report separately listed commitments as well as obligations.

<sup>2</sup> Rescoping is a natural part of managing multi-year Compacts and typically reflect adjustments due to improved information on project costs. Changes may also be due in some cases to suspension, termination, and amendment of projects.

<sup>3</sup> Burkina Faso also includes latrines and boreholes at schools and teacher facilities as part of the Bright 2 School Program. This small FY 2009 obligation is not listed because it represents a small portion of a larger program.

<sup>4</sup> FY 2008 commitments included 91.4 million. Of this, \$3.8 million was obligated in FY 2008 and the remainder was obligated in FY 2009. Part of the commitment was reported under Water Resources Management but is now reported under Improved Water Productivity. Both are included under the same activity in the MCC accounting system.

<sup>5</sup> Portion of \$36.5 million Diversified Agriculture Project.

<sup>6</sup> Actual FY 2009 increase was \$21.6 million but decrease of \$6.8 million has already occurred in FY 2010 which will be reported in the FY 2010 report.

<sup>7</sup> The Senegal Compact was signed in FY 2009 committing \$170.1 million for the irrigation project. Obligation of these funds will occur when the Compact enters into force.



**TABLE 10: MCC'S CUMULATIVE WATER OBLIGATIONS,<sup>1</sup> BY SIGNING DATE; AS OF SEPTEMBER 30, 2009**  
(millions of dollars)

Country	Total Compact Amount	Compact Signed Date (funds committed)	Entry into Force Date (funds obligated)	Compact Completion Date	Drinking Water Supply, Sanitation, and Hygiene	Water Resources Management	Improved Water Productivity	Pre-Compact funding (609g) grant	Total (Pre-Compact and Compact funding)
Madagascar	110	April 2005	July 2005	July 2010					0.00
Honduras	215	June 2005	September 2005	September 2010			32.35		32.35
Cape Verde	110	July 2005	October 2005	October 2010			9.24		9.24
Nicaragua	175	July 2005	May 2006	May 2011			1.023		1.02
Georgia <sup>2</sup>	395	September 2005	April 2006	April 2011	64.5				64.54
Benin	307	February 2006	October 2006	October 2011					0.00
Armenia	236	March 2006	September 2006	September 2011			131.22		131.22
Vanuatu	66	March 2006	April 2006	April 2011					0.00
Ghana <sup>3</sup>	547	August 2006	February 2007	February 2012	13.4		21.42		34.82
El Salvador	461	November 2006	September 2007	September 2012	23.3				23.30
Mali <sup>4</sup>	461	November 2006	September 2007	September 2012			149.95	7.67	157.62
Mozambique	507	June 2007	September 2008	September 2013	203.6			4.70	208.30
Lesotho	363	July 2007	September 2008	September 2013	159.1	5.0		0.07	164.13
Morocco	698	August 2007	September 2008	September 2013			105.45		105.45
Mongolia	285	October 2007	September 2008	September 2013					0.00
Tanzania	698	February 2008	September 2008	September 2013	66.3				66.30
Burkina Faso	481	July 2008	July 2009	July 2014		9.10	118.84		127.94
Namibia	305	July 2008	September 2009	September 2014					0.00
Senegal	540	September 2009	TBD	TBD			170.00	7.81	177.81
Moldova	262	January 2010	TBD	TBD				3.00	3.00
Jordan		Expected 2010	TBD	TBD				13.30	13.30
<b>TOTAL</b>					<b>530.20</b>	<b>14.10</b>	<b>739.50</b>	<b>36.55</b>	<b>1,320.36</b>

<sup>1</sup> MCC Compact funding is committed when compacts are signed and obligated when compacts "enter-into-force." These cumulative obligation figures are subject to change. Changes are due in some cases to suspension, termination, or amendments to projects, and in some cases to re-structuring as a natural part of ongoing project management.

<sup>2</sup> For Georgia, the reported Water Sanitation and Hygiene value includes \$1.2 million of irrigation as part of the Regional Infrastructure Development project, as of March 15, 2010.

<sup>3</sup> For Ghana, the Water and Sanitation Investment is an estimated portion of a \$59.9 million community services project, which is managed by local communities and is subject to change.



**TABLE 11: ESTIMATED WATER-RELATED FINANCING FROM MULTILATERAL DEVELOPMENT BANKS, FISCAL YEARS 2008 AND 2009**

(millions of dollars)

Organization	FY 2008	FY 2009
World Bank Group	\$ 2,359.9	\$ 5,742.2
Global Environment Facility	\$ 102.0	\$ 33.9
African Development Bank	\$ 364.8	\$ 510.0
Asian Development Bank	\$ 461.5	\$ 841.2
Inter-American Development Bank	\$ 797.0	\$ 1,808.8
North American Development Bank	\$ 6.0	\$ 35.0
European Bank for Reconstruction and Development	\$ 166.0	\$ 252.6
<b>Total</b>	<b>\$ 4,257.2</b>	<b>\$ 9,223.7</b>

**TABLE 12: U.S. CONTRIBUTIONS TO INTERNATIONAL ORGANIZATIONS AND INTERNATIONAL FINANCIAL INSTITUTIONS<sup>1</sup>**

UN Organization	U.S. Contribution Water/Sanitation Activities
Food and Agriculture Organization	\$ 1,000,000
International Atomic Energy Agency	\$ 1,200,000
United Nations Development Programme	\$ 6,320,000
United Nations Environment Programme	\$ 306,820
UN-HABITAT	\$ 200,000
United Nations Educational, Scientific and Cultural Organization	\$ 864,402
United Nations Children's Fund	\$ 29,340,000
World Health Organization	\$ 1,760,000
World Meteorological Organization	\$ 226,000
Regional Commissions	\$ 72,000
<b>TOTAL</b>	<b>\$ 41,289,222</b>

<sup>1</sup> Although the U.S. Government does not earmark contributions to international organizations for water, the estimates here are based on the percentage of each organization's overall budget that is spent on water multiplied by the overall U.S. Government contribution to each organization.



# Annex 2

## Country Reports

### I. AFRICA

#### ANGOLA

Angola has abundant surface and groundwater resources with surface water available to the populations in northern, eastern and central Angola, and groundwater evenly distributed throughout the entire country including the southwestern and semi-arid zones. However, Angola's nearly 30 years of internal conflict had devastating effects on water infrastructure and now less than one third of Angolans have access to safe water. Angola has been estimated to have among the highest under-five mortality rates in the world - one out of every four children do not reach the age of five. According to national epidemiological data, 18 percent of these deaths are attributable to water and sanitation-related diseases such as cholera, diarrhea and typhoid.

However, water supply is improving with investments in urban areas, and plans are underway for rural areas. A national water supply management unit is being established with responsibility to strengthen capacity of water utilities at local levels. Significant capacity-building is required to ensure utilities can provide services and recover operational costs. Point-of-use treatment will continue as a viable option for remote locations and low-income populations. UNICEF is currently working closely with the government to develop a national framework for community management of water supply systems. Local water associations will likely require technical assistance.

A 2007 UNICEF study revealed that national sanitation coverage is 28 percent, leaving 10.5 million people routinely practicing unsafe means of excreta disposal. The situation is grimmest in rural areas, where less than 15 percent of households use toilets, with only 7 percent of these considered sanitary.

USAID's objective is to support the Government of Angola in providing an adequate quantity of quality water and improved sanitation services at an acceptable cost and on a sustainable basis. U.S. Government assistance in the water and sanitation sector incorporates health, good governance and civil society participation.

**Approach:** Water earmark funds are being used for activities that have primary and direct goals of increasing access to improved drinking water supply and sanitation services; enhancing the quality of those services; and/or improving hygiene conditions. The Municipal Development Program and UNICEF activities are improving the access of Angolans to WASH services. Water utility reform and activities improving the governance and management of water utilities are 100 percent attributable to the water earmark. The geographic information system (GIS) mapping and defining a utility's infrastructure is an often neglected, but nonetheless essential part of the management of a water system and Population Services International's (PSI) point of use (POU) water purification also achieve goals under the water earmark.

Overall, USAID Angola's 2009 water program is composed of a coordinated set of activities that together improve access and quality of water and sanitation services. And finally, it is expected that this program will make a contribution that will be scalable and therefore support the government's initiative to supply water for all.

**USAID Targets and Results:** USAID is expanding its water supply and sanitation activities into the area of good governance. USAID technical assistance will help local administrations and community organizations better involve local residents in water systems management and will improve their knowledge of consumer rights.

Since FY 2008, USAID has provided assistance, through PSI, for the safe water systems initiative involving three key areas including the treatment of contaminated water with inexpensive sodium hypochlorite solution, safe water storage, and behavior change. Certeza is a locally manufactured safe point-of-use water purification treatment. In FY 2009, over 218,000 bottles of the Certeza solution were sold to the public, thereby reducing

the risks of waterborne illnesses and the spread of polio. Each of these bottles is estimated to provide a family of six with clean drinking water for one month. In addition, PSI organized a complementary behavior-change communications campaign to disseminate information about the importance of water treatment, as well as good hygiene and hand-washing. 171 outreach activities were implemented and more than 27,000 people were reached in public places around Luanda and in Cunene.

USAID has also contributed to UNICEF's Water and Sanitation Program in Cunene which improves community water points, provides water and sanitation facilities for schools, and mobilizes local groups in setting up effective community-based management organizations, helping more than 12,000 people to gain access to clean water. USAID is funding the following activities: 1. Provision of improved community water points along with laundry facilities; 2. Provision of water and sanitation facilities for schools; and 3. Social mobilization to set up effective community-based management.

The project implementation was delayed mainly due to the emergency situation in Cunene, caused by flooding that displaced more than 22,000 people and affected between 150,000 and 160,000 people between February and June 2009. According to the latest assessment, done in November 2009, most of the estimated 15,000 people remain in the three emergency camps, placing even higher expectations on the project. Project activities are being integrated with the ongoing emergency efforts in order to create a more sustainable and safe environment for the population that is affected by floods. Combined, these POU water treatment and other activities provided over one million people with safe drinking water.

Because of its cross-cutting themes, provision of essential services by local and national institutions which captures program elements in good governance, health and economic growth, the general objective of Angola Services Support Project is to improve essential service delivery of water, electricity and health services to unserved populations in Angola, leading to economic growth. USAID is supporting GIS mapping activities with the Luanda water utility provider so that it can improve its services.

Indicator	Result
# of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	13,104
Custom Indicator: # of bottles of water treatment sold	218,000

## DEMOCRATIC REPUBLIC OF THE CONGO

**Overview of the DR Congo Water and Sanitation Sector:** The DRC has abundant water resources, but access to improved sources of drinking water is very low in rural areas (80 percent urban compared to 24 percent in rural areas, Demographic and Household Survey 2007). Access to basic sanitation overall is very low (22 percent urban versus 15 percent rural). According to the Ministry of Health, 14 percent of the deaths of children under five are attributable to waterborne diseases. In 2008, the Ministry of Health developed a five-year program with the specific objective of reaching an additional nine million Congolese people (about 12,000 villages) with clean water across the country by 2012. However, the DRC is behind the objective of achieving its 7<sup>th</sup> Millennium Development Goal of 71 percent of population having sustainable access to safe drinking water and basic sanitation by 2015.

The purpose of USAID/DRC’s water supply, sanitation and hygiene (WASH) program is to:

**“Contribute to improving the health of the DRC people through investing in selected complementary improvements in WASH within the geographic coverage of the bilateral and field support health programs.”**

**Approach:** The first USAID/DRC WASH planning document was developed in July 2009 with technical assistance from the USAID Global Health Bureau. This document is guiding USAID/DRC WASH programming in FY 2009 and FY 2010. To contribute to the national objective, USAID/DRC plans to support three main activities:

- Support to the national “Healthy Village and School Strategy” in selected health zones. This strategy is based on a community participation process using the Participatory Hygiene and Sanitation Transformation (PHAST) methodology, which uses low-cost technology and a community-based approach for the design, construction, operation and maintenance of latrines, well drilling, and spring capping. The methodology also uses behavior change communication to promote hand-washing with soap, safe water storage and handling, and correct and consistent use of latrines for safe human waste disposal.
- Social marketing of highly effective and easy-to-use water purifier sachets (PUR) and Aquatabs; these point-of-use products will be distributed in health centers, pharmacies, retailers, wholesalers, NGOs and households, and in emergency situations, particularly in cholera outbreaks that are frequent during the rainy season in eastern DRC.
- Technical assistance to the National Water and Sanitation Committee (CNAEA) to strengthen its monitoring and evaluation (M&E) system and improve its coordination capacities.

**Measuring Effectiveness:** With FY 2009 funding from the ESF and GHCS accounts, USAID started supporting the Healthy Village and School Strategy in nine USAID-supported health zones. A total of 269 water sources were built or rehabilitated with U.S. Government funding, providing access to water to an estimated 67,250 people. An equal emphasis was put on hygiene improvement. In FY 2010, this strategy will be expanded and integrated into a primary health care program supported by USAID in 80 health zones. Improving water sources will not necessarily result in reduced morbidity as water is often contaminated when it is transported from the water source to the household, and during storage and use in the household. Unfortunately, household level products for the treatment of water are widely unavailable in rural areas. For this reason, in FY 2010, USAID will support increased availability of water treatment products in both rural and urban areas and will incorporate communications activities, and community engagement in the promotion of improved hygiene practices.

USAID Indicator	FY 2009 Target	FY 2009 Actual
Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	5,000	67,250
Number of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance	5,000	435
Liters of water disinfected with point of use home water treatment solution to the U.S. Government funded social marketing programs	NA	NA

## ETHIOPIA

**Water Sector and Sanitation Goals:** Ethiopia's 80 million people have one of the world's lowest rates of access to safe drinking water, sanitation and improved hygiene practices despite abundant surface and groundwater resources. Ethiopia is classified as a water-stressed country with a per capita safe water availability of 2.5 liters. Almost 84 percent of Ethiopians live in rural areas; only 42 percent have access to safe drinking water (13 percent have access to piped water) and only 12 percent have access to improved sanitation facilities. Diarrhea accounts for approximately 20 percent of all under-five deaths; and 88 percent of the total diarrhea cases are attributed to inadequate and unsafe water and poor sanitation.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water resources management
- Improve water productivity

**Approach :** USAID/Ethiopia's WASH program aims to increase access to improved water supply by developing and rehabilitating springs, hand dug wells and shallow boreholes. The program promotes household latrine construction and gender appropriate school sanitation facilities to improve access to sanitation. In addition, innovative approaches are implemented for strengthening hygiene behavior activities to reduce open defecation, to improve hand washing at critical times and water storage and point of use water treatment. Other program strategies include system strengthening and capacity building at various levels, and training of WASH committees and local artisans to manage water supply schemes. The major programs currently programming WfP Act funds are: Community School Partnership Program, Pastoral Livelihoods Initiative Phase II, PSNP\_PLUS, and Tenawo Beijo Newu (Your Health Is In Your Hands) WASH Program.

**Measuring Effectiveness:** In FY 2009, USAID funded the establishment/rehabilitation of 96 protected water schemes (21 springs, 63 hand-dug wells and 12 shallow wells). USAID programs constructed 15,263 pit latrines for household use and 114 ventilated improved pit latrines for schools and health centers. Each scheme established a WASH committee for overall management and sanitation and hygiene promotion. USAID trained 311 WASH committee members in water scheme operation, maintenance and financial management, and trained 97,424 people in sanitation and hygiene education. Monitoring indicates that inclusion of women, who are disproportionately affected by the lack of and need for water and sanitation facilities close to their homes, has contributed to better water source management and care. In addition, USAID helped improve pastoralists' access to water sources in regions often plagued by drought and water resource over use. In particular, USAID supported water pipeline extensions in the Afar Region and pipeline maintenance in the Oromia Region for market facilities. For sustainability, these projects closely collaborated with the municipalities and provided training in water management, construction/reconstruction of pipelines and wells, and land use management. Through these and other efforts, 332,441 people now have access to safe drinking water and 810,450 to improved sanitation, with 42,709 school children now accessing gender-appropriate latrines.

USAID Indicators	2009
Number of people with access to potable water	332,441
Number of households with access to latrines	162,090

## GHANA

**Water Sector and Sanitation Goals:** Significant progress has been made in expanding access to improved water supply over the last decade. Achieving Ghana's Millennium Development Goal (MDG) of 76 percent of the population accessing potable water by 2015 is now feasible. However, sanitation is available to a very small proportion of the population in both urban and rural areas, placing Ghana far behind its MDG goal of 65 percent of the population accessing sanitation facilities.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water productivity

**Approach:** USAID's Water and Sanitation program began in early 2010 following a comprehensive water and sanitation strategy developed in 2009. Under this program, USAID/Ghana will implement a combination of activities to increase the availability, quantity and quality of water, improve disposal of human waste, and increase community understanding of the importance of using and maintaining water and sanitation infrastructure. U.S. Government support for improved water and sanitation will focus on supporting technology that is adapted to local conditions and has maintenance requirements that are feasible in the setting. Support will also emphasize building capacity for the local governance of water and sanitation infrastructure. To ensure sustainability of U.S. Government-supported improvements, the program will develop financial mechanisms to ensure that locally generated funds can support maintenance. Significant efforts will be made to improve knowledge, attitude, practices and behaviors of communities and individuals related to hygiene issues including consistent use of hand washing with soap, cleanliness and maintenance of sanitation facilities, and protection of potable water sources.

MCC's five-year Compact with Ghana entered-into-force in FY 2007. The Compact's Agricultural Project provides \$21 million for irrigation projects to support the water needs of farmer-based organizations located in three project regions in the country.

Ghana's MCC Compact also includes a Rural Development Project, designed to support priority investments as identified by participating communities. Investments include construction and rehabilitation of educational facilities, electrification of rural areas, and approximately \$13 million for construction or rehabilitation of drinking water facilities, including boreholes and small town water systems.

**Measuring Effectiveness:** To date, approximately \$2.4 million of the MCC Compact funding allocated to irrigation has been expended for feasibility studies on ten irrigation schemes that are candidates for development or rehabilitation, of which approximately \$0.3 million were expended in FY 2009. Once studies and designs are finalized later this year, a number of schemes will be selected and constructed using Compact funds.

Only a small amount of MCC's Compact Rural Development funding for water supply (approximately \$200,000) has been spent on project preparation and in procuring services of a number of works contracted in each of the three project region in Ghana. Now that the contracts are in place, MCA-Ghana is in position to issue task orders for the works. Task orders for the boreholes have been issued and orders for the small town water systems are being processed.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. The table below includes baselines and targets for the Ghana Compact set for the end of fiscal years 2008, 2009 and 2010. Due to variations in implementation timelines and plans, some indicators may not require targets for every year; they are instead labeled as "na," or "Not Applicable." In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as "TBD," or "To Be Determined." Targets labeled as TBD will be set by MCA-Ghana in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD will be set as soon as possible, but no later than the end of the Compact's fourth year.

<b>MCC Results</b>						
<b>Indicator (all measures are cumulative)</b>	<b>Unit</b>	<b>Baseline</b>	<b>2009 Target</b>	<b>2009 Actual</b>	<b>2010 Target</b>	<b>End of Compact Target</b>
Number of people affected by Water and Sanitation Facilities Sub-Activity	Number of people	0	na	na	52,000	129,840
Number of people trained in hygiene and sanitary best practices	Number of people	0	na	na	1,329	1,661
Number of water points constructed	Number of water points	0	na	na	156	377
Additional hectares irrigated with MCC support	Hectares	0	280	0	1,380	4,200
Number of irrigation facilities constructed/rehabilitated	Number of facilities	0	na	na	na	10
Hectares of land with potential for new/rehabilitated irrigation facilities identified	Hectares	0	5,060	5,084	na	5,060

USAID has also been working in Ghana on water issues. In FY 2009, Ghana developed a Water and Sanitation Strategy and designed an activity to carry it out. Preliminary results of the four year \$13.5 million project will be reported in late 2010. In 2009, U.S. Government resources under the PL 480 Food for Peace Program reached 16,000 people in target areas, increasing their access to improved drinking water supply and sanitation facilities, exceeding the target of 10,000 set for the year. Since the program was in the final year of implementation, the U.S. Government trained 40 water and sanitation committees made up of 316 persons to improve their skills in operation and maintenance, and monitoring and evaluation of the facilities. U.S. Government resources were also used to develop “Purified Water. A better life” campaign to promote water purification behaviors through the use of Aquatabs® (point-of use water purification tablets) and hand washing with soap. In addition, 162 individuals were trained, outfitted, and stocked as “health top-up vendors” to sell health improvement products including Aquatabs and oral rehydration salts. These community based distributors of Aquatabs sold 600,000 tablets of Aquatabs within the period, translating to 12 million liters of drinking water disinfected with point-of use treatment product. The community health top-up vendors approach has proven to be an effective intervention.

<b>USAID Indicators</b>	<b>2009</b>
Number of people with access to improved drinking water	16,000
Number of people with access to improved sanitation facilities	16,000
Liters of drinking water disinfected with U.S. Government-supported point of use treatment product	12,000,000
Number of active health top up vendor distributing water purification and hygienic commodities.	162

## KENYA

**Water Sector and Sanitation Goals:** While Kenya has launched broad ranging water sector reform and has stepped up investment in water supply, sanitation and hygiene (WASH), the country still faces considerable challenges in reaching the water and sanitation Millennium Development Goals (MDGs). Current improved water supply coverage is estimated at 40 percent for rural areas and 60 percent for urban areas, and only 20 percent in urban and peri-urban poor settlements. The most recent data from the Ministry of Health (MoH) puts overall improved sanitation coverage at 46 percent, with access in urban areas around 55 percent and in rural areas 42 percent.

U.S. goal is to:

- Create, promote and replicate sustainable and catalytic models of WASH service delivery
- Increase management sustainability and transparent, participatory governance of WASH service delivery

**Approach:** The Water and Sanitation program follows a comprehensive water and sanitation approach. Under this program, USAID/Kenya will support moving the Kenyan WASH sector towards models of service provision that rely on market forces to better serve the poor and needy. USAID programs will take a leadership role in promoting new models: Multiple Use Services (MUS) Provision; Community-Led Total Sanitation and Sanitation Marketing; Peri-Urban Water Supply and Sanitation Service Delivery; and Hygiene Behavior Change at Scale.

Once communities have access to services, there are significant challenges associated with keeping them operating over time. To address management and operational challenges, USAID Kenya will intervene through: Business Development Services for Small WASH Enterprises; Innovative WASH Financing for Small-Medium Scale WASH; and WASH Governance Strengthening.

**Measuring Effectiveness:** In FY 2009, Kenya developed a Water and Sanitation Strategy that will guide future WASH programming.

Specifically, out of FY 2010 WASH development assistance funding, money will be used in supporting ongoing USAID/Kenya water and sanitation programs being implemented by: (i) World Concern Development Organization (WCDO) incremental funding in underserved, semi-arid areas of Coast and Rift Valley Provinces; and (ii) Millennium Water Alliance (MWA) incremental funding in underserved, drought-prone areas of Eastern, Coast, North Eastern, and Nyanza Provinces. In addition, one or more new WASH projects will be designed and launched and the remaining funds will be used for USAID administrative costs and monitoring and evaluation support.

The GHCS-USAID Maternal Child Health funds (\$1.5 million) will be programmed under various instruments: (i) to provide technical assistance through Maternal and Child Health Integrated Program (MCHIP) to the Division of Child and Adolescent Health and National AIDS and STD Control Program (NAS COP) , to establish a coordinated national plan to improve community household hygiene and sanitation practices through distribution and dissemination of appropriate community training curricula and job aids; (ii) The APHIA II service delivery mechanisms will support community-led total sanitation aimed at improving sanitation and health behaviors amongst poor rural communities throughout Kenya; and (iii) USAID-AMPATH Partnership Project and ACCESS-Uzima project will carry out activities to support community-led interventions aimed at increasing access to water supply, sanitation, and hygiene services for the poor with an emphasis on under-five children.

USAID Indicator	2009
Number of people with access to improved drinking water	80,000
Number of people with access to improved sanitation facilities	45,000
Liters of drinking water disinfected with U.S. Government-supported point of use treatment product	1.65 billion

## LIBERIA

**Water Sector and Sanitation Goals:** Liberia's 2008–2011 Poverty Reduction Strategy (PRS) notes that poor access to safe drinking water and sanitation services contributes heavily to the burden of illness and poverty. Lack of year-round access to water and consumption of contaminated water affects rural as well as urban poor, who are badly served by the formal sector. Women and children are the primary drawers and users of water, and many carry water from long distances or pay high prices (for water of questionable quality) from vendors. In addition, outbreaks of waterborne or water-related disease (cholera, typhoid fever) and a high prevalence of diarrhea<sup>19</sup> put severe burdens on caretakers of children and health providers, keep children out of school, and lower the labor available for agricultural and other productive pursuits. Access to safe drinking water, sanitation and improved hygiene behaviors have been prioritized in the PRS under Pillar IV: Rehabilitating Infrastructure and Delivering Basic Services. The PRS established a goal of reducing the water and sanitation-related disease burdens of the country, and USAID's activities for improvements in the availability of safe drinking water and improved sanitation are directly aligned with the vision of the PRS. U.S. Government water and sanitation goals in Liberia are to increase the following:

- Number of people with access to improved drinking water supply as a result of U.S. Government assistance;
- Number of liters of water disinfected with U.S. Government-supported point-of-use treatment; and
- Number of people with access to improved sanitation facilities as a result of U.S. Government assistance.

**Approach:** To make measurable improvements in water supply, sanitation and hygiene, six counties and certain communities in Montserrado County have been selected and targeted as operational areas under the USAID Water, Sanitation and Hygiene Program (WASH). An implementing partner was selected and a Cooperative Agreement signed in February 2010. Staff are in-country and activities are underway. Additionally, the Municipal Water and Sanitation Project, now in the final stages of design, will be launched in late FY 2010. This project will revitalize the potable water and waste management systems in the municipal capitols of Robertsport, Sanniquellie, and Voinjama. Performance targets have not yet been set.

An allocation of WASH funds were also committed to the Rebuilding Basic Health Services Project (RBHS, launched in FY 2008) to focus on water supply in health facilities, hygiene promotion in clinics, schools, and inclusion of point-of-use water treatment and hand washing. RBHS will respond to certain local community's designated priorities for its WASH interventions. Hence, close communication in planning, outreach, and community development and education between RBHS partners and the new WASH and Municipal Water and Sanitation activities' implementing partners will be highly beneficial to both initiatives. Challenges faced in the sector include decision-making and management of local water resources, "free rider syndrome" in terms of collecting fees to maintain water supply, as well as governance and community capital for carrying on maintenance, operations, and cost recovery of water and sanitation infrastructure. Gender roles, where women do most of the drawing and carrying and men usually select water sites and control the cash, are salient issues. Also, men tend to be more transient and tend to move from the community for work, making them often unreliable as hand pump maintenance and repair persons, though tradition and custom hold that men should dig wells and maintain mechanical equipment such as pumps. Gender issues and communities' labor traditions (where men and women contribute to the common good) will need to be addressed in working with communities, school and traditional leaders to move towards sustainability.

As gender involvement in decision-making, management and other factors are critical to the success of the program, care will be given to make sure that women, as well as men, participate at every level of implementation. Decision making will include women's groups as well as men, and women will be involved from the onset on the planning and execution of activities.

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<sup>19</sup> 20 percent of children under five had diarrhea in the two weeks preceding the survey, Liberia DHS, 2007.

**Results:** As reported in the FY 2009 Performance Plan and Report, USAID/Liberia targets for these initiatives have yet to be set. These will be determined when all activities are being implemented and baselines have been established. Certainly by the end of FY 2010, both baselines and FY 2011 performance targets will be set.

## MADAGASCAR

The 2009 local political crisis before and after the March 2009 military coup disrupted the majority of water supply and sanitation (WATSAN) project activities. In July, the U.S. Government suspended direct support to the Government of Madagascar (GOM) and all non-humanitarian assistance. As a result, planned construction of at least 80 water points was halted. A WASH-friendly initiative in 738 health centers and 464 public primary schools, that would have given 124,812 students access to potable water, hand-washing facilities and hygienic latrines, was also terminated. As a result, the FY 2009 targets for the two WATSAN indicators were not met.

Despite the reduction in foreign assistance in FY 2009, the U.S. Government remains the largest bilateral donor in health, and is continuing to provide access to improved water supply and sanitation.

USAID's maternal and child health (MCH) strategy empowers civil society, community organizations, and community health workers (CHWs) who provide a full range of services to 2,726,909 mothers and 1,759,296 children in 12 regions that include: integrated management of childhood illness, behavior change communication, and sale of social marketing products. In FY 2009, 26,284 diarrhea treatment kits, 1.1 million long lasting insecticide treated nets, and water purification solution that treated 2.2 billion liters of water were sold. In addition, the U.S. Government provided formative supervision, monitoring, and coaching for 2,600 CHWs in 347 communes to improve reporting of activities and provision of services.

To improve sanitation, the U.S. Government trained over 318 local masons in the production, installation, maintenance, and marketing of Madagascar's approved "Sanplat" hygienic latrine slabs, adapted to meet the special needs of the country's Muslim communities. The masons became regular suppliers and maintenance technicians for latrine slab development and installation. Demand-driven approaches resulted in households investing in sanitation through the purchase of 1,097 hygienic latrine slabs. The U.S. Government initiated a sanitation marketing program through small local businesses and entrepreneurs, assisting them in producing, selling, obtaining, displaying, and promoting water, sanitation, and hygiene (WASH) products including latrine slabs, soap, and water treatment products. The U.S. Government facilitated the development of a business plan between a local bank and local hardware producers/vendors who may receive WASH loans in FY 2010 to develop sanitation products and services. To expand the WASH-friendly initiative to other public spaces, such as market places and public bus transport stations, the U.S. Government designed and piloted a public-private partnership model for two fee-for-service, privately-managed, public WASH facilities. During the first month, 2,800 people visited one of the facilities. The U.S. Government will build five additional facilities following this successful model.

In FY 2009, USAID/Madagascar's annual behavioral outcome monitoring survey showed that in U.S. Government intervention zones, despite the interruption in or suspension of project activities, rates of open defecation and use of latrines to dispose of children's stool stayed stable. Another partner conducted a midterm evaluation and the lessons learned included: partners need to provide drilling teams with a spare drilling kit, reinforce formative supervision of drilling teams, and adapt standard sanitation construction approaches in areas with a high water table and sandy soil.

Despite obstacles, the U.S. Government addressed access to WATSAN through working with NGOs, scouts, religious groups (including Muslim communities), and the private sector. Demand for clean water was stimulated through a variety of community-level activities. The U.S. Government trained 4,044 community health workers and a network of women's associations to lead individual and collective change in WASH-related behaviors. An additional 65 communities were identified as priority participants in WASH education and community mobilization activities.

The U.S. Government supported a group of small-scale private operators and a for-profit enterprises using low-cost/pro-poor manual drilling and pumping technologies to install 85 water points and two rainwater harvesting systems, and to rehabilitate one existing gravity flow water supply system. To ensure village-level operations and maintenance, community management structures were established to manage and maintain each newly installed or rehabilitated water point.

## RESULTS FY 2009

Indicator	Target	Result
# of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	302,700	55,993*
# of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance	165,800	28,083*
Liters of water treated with point of use methods	1,687,500,000	2,213,052,000

\* The targets were not met because of inconsistency among U.S. Government partners in interpreting the indicator definition. When setting up their targets in FY 2009, Research for Triangle International through their Santenet2 Project considered their community mobilization activities around Water Supply, Sanitation and Hygiene themes as contributing first, to access to drinking water and second, to access to improved sanitation facilities as a result of U.S. Government assistance. However, these activities cannot be counted under those two Water Supply and sanitation indicators. Also, because of the military coup in Madagascar, the only two projects able to install water and sanitation hardware infrastructure were suspended or reprogrammed from March 2009 as a result of the United States Government directive to suspend any support to the Government of Madagascar. Only 18.50 percent of the intended population received access to water as one project stopped construction and the other could no longer work with the public sector and finally, only 16.94 percent received access to improved sanitation facilities. The remaining projects working on access to water concentrated their activities on water supply trainings for community health workers and community members to increase demand for water. Also, the new USAID/Madagascar Water and Sanitation Project (Water for Prosperity Project or RANO HP Project) was not awarded until September 2009.

## MALI

**Water Sector and Sanitation Goals:** USAID and the U.S. Embassy Mali provided support to increase the supply of safe water and improve basic sanitation in order to decrease infectious diseases in Mali.

U.S. goals are to:

- Improve water productivity

**Approach:** In FY 2009, USAID/Mali received less than \$2 million for water related activities. With these funds, USAID supported the purchase and distribution of capsules for water treatment at the household level. This was followed by investment in a robust public awareness campaign regarding the importance and proper use of these tablets. USAID also supported the Government of Mali's celebration of Global Hand Washing Day, which featured the participation of the President and more than 10,000 schoolchildren.

In FY 2010 USAID will receive \$2 million for water and sanitation resources and is currently developing a new water sanitation and hygiene strategy. These resources will be used to: 1) build the capacity of water management committees and community-based workers on clean water and sanitation approaches and the promotion of "Essential Family Practices" such as hygiene and sanitation. This will involve establishing water committees and training them to collect and manage funds for repairs of their water sources; 2) initiate public awareness campaigns to increase the demand for and use of water purification methods; 3) improve access to clean drinking water by drilling and installing manual- and solar-operated pumps and improving the quality of traditional wells; 4) support the construction and utilization of sanitation systems such as latrines; and 5) support the promotion of best practices in domestic waste management, with a focus on appropriate waste disposal.

MCC's five-year Compact entered-into-force in FY 2007. MCC's Compact provides \$154 million to improve irrigation systems to stimulate production and economic growth, as well as to provide support for latrines, wells, and education and treatment for waterborne diseases. The Alatona Irrigation Project seeks to develop newly irrigated lands, introduce innovative agricultural and water management practices through intensive training, and establish farmer associations to provide input supplies, post-harvest and market access services to members. It is expected that up to 5,200 hectares will be newly irrigated and approximately 10,400 people will benefit from the irrigation investment.

**Measuring Effectiveness:** USAID uses four indicators to measure results and track progress: 1) the number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance; 2) the number of people in target areas with access to improved sanitation facilities; 3) the percentage of the population that uses an appropriate drinking water treatment method; and 4) percentage of the population that has the practice of using soap and water to wash their hands, thereby preventing the transmission of common diseases when touching the mouth and eyes.

In FY 2009, USAID/Mali received less than \$2 million for water and sanitation activities. Several initiatives were implemented, but limited activities and short staffing did not allow for a rigorous measure of the indicators. USAID/Mali will track the results of each indicator in FY 2010.

USAID/Mali supported two primary water and sanitation activities in FY 2009. In July 2009, the U.S. Government supported the procurement and promotion of capsules for water treatment at the household level through the official launching of Aqua Tabs, a chlorine tablet, as part of "Water Disinfection Day." This was followed by "Water Disinfection Demonstration Day" in collaboration with local women's groups. Communication materials, including flyers and radio and television spots, were developed and aired. To date, 950,000 chlorine tablets have been sold, equivalent to the treatment of more than 19,000,000 liters of water. USAID also supported the celebration of "Global Hand Washing Day," in which 10,000 school children, school authorities, parents, government officials, donors, religious leaders, transportation companies, civil society organizations and private sector stakeholders participated. The highlight of the event was the demonstration by the Malian President of proper hand washing techniques which was followed by the 10,000 children as well as all the participants simultaneously washing their hands.

Under MCC's five-year Compact, several key contracts were signed and mobilized during FY 2009 including the largest construction contract which entails the development of 5,200 hectares of irrigated land, the main canal, the main drain and secondary canals and structures. A second key contract for construction supervision and contract coordination for infrastructure was also signed and mobilized. A smaller construction contract for the rehabilitation of the main gates for the irrigation system was also signed, and planning on land tenure, institutional issues, and social infrastructure continued.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. The table below includes baselines and targets for the Mali Compact set for the end of fiscal years 2008, 2009 and 2010. Due to variations in implementation timelines and plans, some indicators may not require targets for every year, in which case they are labeled as "na," or "Not Applicable." In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as "TBD," or "To Be Determined." Targets labeled as TBD will be set by MCA-Mali in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD must be set as soon as possible, but no later than the end of the Compact's fourth year.

MCC Results								
Indicator (all measures are cumulative)	Unit	Baseline	2008 Target	2008 Actual	2009 Target	2009 Actual	2010 Target	End of Compact Target
Number of hectares of land irrigated in the Alatorna zone	Hectares	0	0	0	0	0	1,000*	5,200*
Number of drinking water points accessible to the households	Number of water points	0	na	na	na	na	173	377

\* The 2010 and End of Compact targets for this indicator are currently being revised by MCA and pending review by the MCA Mali board. The figures presented here are expected targets and subject to change.

## MOZAMBIQUE

**Water Sector and Sanitation Goals:** Currently, national water supply and sanitation coverage rates both hover around 50 percent, placing Mozambique below the African average, and unlikely to meet the Millennium Development Goals (MDGs), especially for sanitation. In 2008, the water supply coverage rate was 50 percent in urban areas and 52 percent in rural areas. For sanitation, the 2008 coverage rate was 50 percent in urban areas and 42 percent in rural areas. For Mozambique, the lack of access to drinking water and sanitation and limited adherence to sanitation principles are contributing to communities' health problems, increased levels of malnutrition, and lowered agricultural productivity.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Increase the availability and use of clean water
- Increase the adoption of key health and hygiene practices and use of health services

**Approach:** U.S. Government funds are building upon accomplishments and interventions of the P.L. 480 Title II Multi-Year Assistance Programs (MYAP) and through a cross-sector program "Strengthening Communities through Integrated Programming" (SCIP) that USAID is implementing in Nampula and Zambezia provinces. SCIP integrates health, agriculture, enterprise development, and water and sanitation activities in the communities. Approximately 36 percent of the population in each of the two provinces has access to clean water - the lowest percentages for the entire country of Mozambique. For the water and sanitation component, these activities include training of water committees, hygiene messaging, Community Led Total Sanitation and the improvement of existing multi-use water sources or the development of new ones. Through an innovative approach to Public-Private Partnership with Coca-Cola, USAID is leveraging an additional \$1 million that being implemented in two districts in Nampula province. The program also works in partnership with district authorities to determine priority communities, with local authorities to determine the composition of the water management committee and with community-based water management committees to determine the location of new or improved water sources and funding schemes to ensure financial sustainability. This program will reinforce and integrate activities that create strong community health care systems and community agricultural program, serving as a model for Mozambique.

MCC's five-year Compact with Mozambique entered-into-force in FY 2008. The MCC investment program includes \$203.6 million of water and sanitation programs to improve drinking water in eight cities and towns, sanitation in six cities, the rehabilitation of a critical water supply dam, as well as technical support and capacity building. The Compact also includes major improvements to existing drinking water infrastructure, such as distribution systems, treatment plants, water mains and reservoirs as well as sanitary and drainage improvements, including a latrine and hygiene education program.

The Water Supply and Sanitation Project is designed to work in close cooperation with the World Bank's Water Services and Institutional Support (WASIS) project. MCC and the World Bank are actively engaged in supporting the development of a new agency specifically focused to bring the private sector to the operation and management of small and medium sized cities – a previously underserved sector.

**Measuring Effectiveness:** Since USAID's SCIP was awarded at the end of FY 2009, activities are at early stages of implementation and specific achievements are in the process of being established. It is expected that initial impact will be seen at the end of FY 2010. MCC's program investments resulted in disbursements of approximately \$1.58 million during FY 2009 primarily spent on project preparation and capacity building. Because the MCC investments are primarily focused on large works in the project preparation phase, current results are related to project process milestones rather than outputs or outcomes. FY 2009 targets were met with five feasibility and design contracts signed for urban and rural water activities.

MCA-Mozambique has met two critical conditions precedent for the Water and Sanitation Project: the first was the legal establishment in April 2009 of the Water and Sanitation Infrastructure Management Unit (AIAS), a new agency responsible to bring in private sector operators to small and medium-sized communities where

sustainability is a particular challenge. Following elections in late 2009, senior staff were appointed to the agency and roles and responsibilities for the agency are now being developed and implemented. Individual indicators and their respective baselines and targets are developed for each MCC Compact. Due to variations in implementation timelines and plans, some indicators may not require targets for every year, in which case they are labeled as “na,” or “Not Applicable.” In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as “TBD,” or “To Be Determined.” Targets labeled as TBD will be set by MCA-Mozambique in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD will be set as soon as possible, but no later than the end of the Compact’s fourth year.

<b>MCC Results</b>				
<b>Indicator (all measures are cumulative)</b>	<b>Unit</b>	<b>Baseline</b>	<b>2010 Target</b>	<b>End of Compact Target</b>
Number of private household water connections in urban areas	Water connections	TBD	na	TBD
Number of standpipes in urban areas	Standpipes	TBD	na	TBD
Number of Rural Water points constructed	Water points	0	150	600
Persons Trained in Hygiene and Sanitary Best Practices	Persons	0	na	TBD

## NIGERIA

**Water Sector and Sanitation Goals:** Less than half of Nigerians have access to improved sources of water, and only 17.2 percent are served by piped water. Thirty percent of the population does not have access to adequate sanitation. Under the Nigerian constitution, state and local governments are responsible for providing basic services, including water and sanitation services. However, few of the 36 states or 774 local governments appear able to carry out this mandate. While all 36 states have state water boards that focus on municipal supply, most water supply is unreliable. And although some states have established Rural Water Supply and Sanitation Agencies (RUWASAs), these under-resourced entities have weak capacity. Local governments have very limited budgets and human resource capacity for implementing sector activities. Private sector and civil society engagement in the water sector is low, despite a national water policy that calls for a commercial orientation and private sector participation.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water and sanitation governance
- Promote sustainable financing for water supply services

**Approach:** Through a new local governance agreement, USAID Nigeria is providing technical assistance and training in Bauchi and Sokoto states of Nigeria to build the water management capacity of state water boards and local governments. USAID assistance is helping local governments provide their citizens better access to potable water, improve the policy environment relating to water supply, and develop creative ways, including public-private partnerships, to improve available funding for water facilities to make water supply more secure, sustainable, and available. Water-related activities are closely coordinated with U.S. Government-funded education and health programs to ensure that target schools and health facilities have adequate water and sanitation.

USAID Nigeria is also supporting community coalitions, local government water and sanitation committees, and community-based organizations to articulate demand-side advocacy and develop capacity for maintenance and management of community-based water systems. USAID is addressing these challenges in close collaboration with the Women Farmers Advancement Network (WOFAN), the RUWASAs, local governments, the state universal basic education board, parent-teacher associations, NGOs, and other partners. WOFAN is working with 44 communities to implement a hygiene program using 22 newly established Environmental Health Clubs aimed at teaching healthy practices and reducing the incidence of open defecation and thus reducing the incidence of diseases, especially among children. This activity is currently constructing boreholes, Ventilated Improved Pit (VIP) Latrines, Urinals and Hand-washing stations in 44 communities of Bauchi and Kano States of Nigeria and will extend to Sokoto State in a couple of months.

The CDC provided technical assistance to launch a point-of-use water treatment program which will continue to be used for HIV/AIDS patients and in integrated cholera response efforts. Approximately 120,000–150,000 Nigerians will benefit from U.S. government support.

By the end of March 2011, it is estimated that 22,000 people will benefit from access to safe drinking water; 19,800 people will benefit from access to improved sanitation facilities while 33,000 school children will benefit from using VIP latrines in both Bauchi and Kano States of Nigeria.

## SENEGAL

**Water Sector and Sanitation Goals:** Currently, the Government of Senegal (GOS) began reforming its water supply and sanitation (WSS) sector in 1996 and, since then, has made substantial improvements in coverage and sector organization. As such, Senegal is on track to meet its Millennium Development Goals (MDG) targets for water by 2015, with lesser prospects for sanitation. The United States Government will work with Senegal in achieving the MDGs and in becoming a model for other countries in the region.

U.S. goals are to:

- Improve water productivity
- Strengthen participatory governance
- Increase demand for sustainable water, sanitation and hygiene services and products
- Strengthen the capacity of actors in the sector
- Install and rehabilitate improved drinking water and sanitation infrastructure

**Approach:** In 2005, Senegal developed a programmatic approach to coordinate WSS stakeholders called le Programme d'eau potable et d'assainissement du millénaire (PEPAM) or The Millennium Potable Water and Sanitation Program. PEPAM has been instrumental in setting Senegal's progressive WSS sector policy and an investment program that appears sufficient to meet MDG targets in urban and rural water access and sanitation facilities. In FY 2009, USAID started an initiative that supports activities and programs under the PEPAM framework. These activities will improve sustainable access to WSS and hygiene in targeted small towns, rural, and peri-urban areas of Senegal. USAID is currently implementing several programs with WSS activities that include: a water and sanitation program; a social marketing for point-of-use water purification activity; an agriculture and natural resources program; a school construction program; and five water and sanitation small grants with local NGOs. In addition, USAID has partnered with Coca-Cola to create a Global Development Alliance activity that will provide additional resources to scale up the Mission's activities. USAID and implementing partners coordinate with the Government of Senegal, other donors and other actors to plan an integrated approach to address the interrelated social, governance, economic, health, ecological and sustainability challenges in the sector. The U.S. Government represents one of the largest donors in the rural WSS sector and funds distinct projects under the larger GOS program and, depending on future funding, accounts for approximately 9 percent of the current financing of the rural components.

MCC's five-year Compact with Senegal was signed in September 2009. The Compact includes approximately \$170 million of MCC funding for the Irrigation and Water Resources Management Project which will rehabilitate key components of the Senegal Valley's main irrigation and drainage system increasing reliability, eliminating the risk of abandonment of irrigated land and improving crop yields, as well as developing newly irrigated lands.

**Measuring Effectiveness:** In FY 2009, the U.S. Government launched a WSS initiative by designing and starting several programs that will assist Senegal in the sector. In FY 2009, USAID activities assisted 8,400 people with access to improved drinking water supply and 7,200 students with access to improved sanitation facilities at their schools. In addition, In July 2009, USAID engaged a private corporation to socially market the point of use water purification tablets, Aquatabs. The five year project aims to provide clean drinking water to approximately 1.3 million individuals or 260,000 families. This private-public partnership will be launched nationally in FY 2010. Other Maternal and Child Health interventions include work to promote improved hygiene and sanitation practices. Community health educators reached 219,969 people with personal hygiene and environmental sanitation messages.

There were no disbursements of MCC funding under the newly-signed MCC Compact in FY 2009. However, the Government of Senegal has financed and completed two feasibility studies related to the Compact, namely studies focusing on: (i) Delta main irrigation and drainage infrastructure improvements and protection of the St. Louis water reservoir; and (ii) Podor primary and secondary perimeter development for five irrigation schemes (the MCC Compact will finance construction in one of the Podor irrigation schemes). In November 2009, the

accountable entity in Senegal issued solicitation documents for consultants to provide final design and construction supervision services for activities in Delta and Podor.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. Due to variations in implementation timelines and plans, some indicators may not require targets for every year, in which case they are labeled as “na,” or “Not Applicable.” In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as “TBD”, or “To Be Determined.” Targets labeled as TBD will be set by MCA-Senegal in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD will be set as soon as possible, but no later than the end of the Compact’s fourth year.

<b>MCC Indicators (all measures are cumulative)</b>	<b>Unit</b>	<b>Baseline</b>	<b>2010 Target</b>	<b>End of Compact Target</b>
Agricultural cropping intensity	Hectares cultivated/ Total Hectares irrigated	0.95	na	1.50
Area of land under irrigation	Hectares	11,800	na	39,740
Efficiency of irrigation Infrastructure	Cubic meters / second	13	na	65

<b>USAID Indicators</b>	<b>2009</b>
Number of people with access to improved drinking water supply	8400
Number of people with access to improved sanitation facilities	0
Liters of Water Treated with Point of Use methods	0

## SOMALIA

**Water Sector and Sanitation Goals:** Improving access to water and sanitation and education will serve the dual purpose to help boost confidence in the Transitional Federal Government and regional authorities in Somaliland and Puntland, and to close the vulnerable spaces where extremist elements might otherwise penetrate with inputs and ideology. Emphasis will be placed on visible and quick-impact community based projects that can provide immediate tangible benefits to some of the most vulnerable members of society while laying the foundation for longer term benefits. The U.S. Government will sequence assistance to ensure the development of service systems while meeting immediate needs in a manner that will promote equity and good governance, and where possible will leverage services being provided by local authorities.

**Approach:** In FY 2010 USAID/Somalia received \$500,000 under water supply and sanitation program element earmarked water funds that are now integrated in the Somali Education and Water program. It is expected that the current water earmarked funds will be used for the ongoing construction or rehabilitation of water and sanitation facilities in 250 school communities. The water funds will be used to improve access to potable water and sanitation facilities for school children and the surrounding school community. The program will also work with teachers and community education committees (CEC) to increase knowledge of safe hygiene practices and will work with local authorities to support water supply initiatives. The program will strengthen education for Somali children while developing water service through community water, environment and sanitation committees to strengthen their capacity to maintain and manage water points. The integrated approach will provide a coordinated and efficient means to develop school and water infrastructure including, boreholes, water pumps, protecting water sources, provision of latrines and hand-washing facilities. The program will also develop and utilize training materials for communities and teachers on water management, health and hygiene promotion.

**Measuring Effectiveness:** The U.S. Government is supporting water and sanitation activities all over Somalia wherever there is relative peace. An integrated education and health approach has ensured that renovated and newly constructed classrooms are equipped with sanitation facilities, including provision of latrines, hand washing facilities and teachers and children trained in hygiene promotion. So far, with U.S. Government support, a population of 81,367 people, including students are benefiting from the completed infrastructure. These activities are aimed at complementing the construction and rehabilitation of classrooms and improve the overall school-learning environment. In targeted schools 104 latrines have been completed with another 241 ongoing and 445 marked for completion by December 2009. The provision of private latrines in schools have minimized girls absenteeism since they have private toilet facilities away from the boys and they no longer feel shy about using these facilities. Moreover, an additional 34 hand washing facilities have been completed and 49 are ongoing. Through school based water and sanitation facilities, over 8,280 children are benefiting directly. Impact from U.S. Government-supported activities according to parents and teachers of the targeted community has reduced cases of school absenteeism resulting from common waterborne diseases and increased motivation of the female child to attend school. Finally, the manual for hygiene promotion and trainings have been completed and hygiene training for both children and the surrounding community will be conducted using these materials.

USAID Indicators	2009
Number of people with access to improved drinking water	81,367
Number of people with access to improved sanitation facilities	38,720

## SUDAN

Sudan's WSSH and other water sector program is USAID's largest in sub-Saharan Africa (SSA) involving total funding of almost \$39 million in FY 2009, with almost \$16 million from development accounts in WSSH, and almost \$23 million dealing with International Disaster Assistance (IDA) account WATSAN activities. To support the Comprehensive Peace Agreement by providing peace dividends, the U.S. Government works to improve the capacity of the Ministry of Water Resources and Irrigation, the Southern Sudan Water Corporation, local authorities, and the private sector to provide essential water and sanitation services. The USAID goal in WSSH is sustainable improvement in water supply and sanitation access and key hygiene behaviors.

In 2009, a total of 213,000 people in southern Sudan gained access to potable water through rehabilitation of water infrastructure; drilling and repairing boreholes; and, promoting point-of-use water chlorination products which provided over 108 million liters for an estimated 170,000 regular users. Nine latrine blocks were constructed in schools and clinics; additionally 3,000 people gained access to private sanitation facilities and 557,621 individuals were trained in improved health and hygiene behaviors. USAID resources were used to increase focus on capacity enhancement for local government authorities, supporting the development of governance structures, community management, and effective behavior change communications.

USAID also completed the first phase of an urban WSSH program, which focused on a variety of quick impact projects to expand water and sanitation services to areas with large populations previously affected by cholera outbreaks in Juba town. Quick impact projects included social marketing of point-of-use water chlorination products; the construction of three small water treatment stations along the Nile River; rehabilitation of 50 boreholes in Juba town, and an extensive hygiene promotion campaign. Hygiene outreach has reached targeted populations through behavior change communication messages, health worker trainings, and sessions at local communities and elementary schools. Long-term investment included constructing the Muniki and Kator pipelines, totaling over five kilometers of new water mains; the Kator booster station; 24 new public water taps at four locations in Kator; 150 new household latrines; and four new public ablution blocks. Next year the program will expand to Wau town in Western Bahr el Ghazal.

During the reporting period, USAID launched a new rural water and sanitation program to enable state and county governments to meet the health needs of their citizens, including WSSH in rural areas of southern Sudan and the Three Areas. The program continues to transition the sector towards more developmental approaches such as sector systems strengthening, WSSH governance at state and county levels, and operations and maintenance with associated cost recovery. In 2009, 69 boreholes were drilled, 180 hand pumps were repaired and capacity was strengthened in 98 water user associations. USAID is also working with the Government of Southern Sudan to explore innovative partnerships and more cost effective appropriate technologies for both potable water supply and sanitation including developing private sector supply chains for spare parts, promoting hand augured wells which reduce costs by 60 percent, and the construction of bio-sand filters.

In FY 2009 USAID helped to establish coordination mechanisms for all state and local officials with water and sanitation responsibilities and the development partners engaged in the sector. USAID chaired the WASH Donor Group and USAID implementing partners actively participated in the WASH NGO Forum, both groups that have been established to share information to ensure efforts are not duplicated and future plans can be developed collaboratively.

**The Sudan Health Transformation Project (SHTP) - Phase II** in FY 2009 will reduce diarrheal diseases which account for a large majority of the overall disease burden associated with unsafe water supply, sanitation, and hygiene. The diarrheal disease prevention program will focus on the household level water, sanitation and hygiene (e.g., safe water storage; latrine demand creation and promotion of handwashing; or household-level technologies and products); complementary hygiene promotion and behavior change activities (e.g., social marketing of products and behaviors; or schools and clinic programs in the public and private sector); and interventions to support an enabling environment (political leadership/sector reform; supportive national and state policies; community organizations; institutional capacity strengthening; and financing). Key health-focused household WSSH interventions are those that increase effective use of improved drinking water supply and sanitation; increase water quantity per capita used for drinking and hygiene improvement; ensure

microbiologically safe drinking water quality, measured at the household level; improve handwashing practices; or result in the effective use of a sanitary means of excreta disposal.

**Building Responsibility for the Delivery of Government Services (BRIDGE)** is a three-year development cross-sectoral program designed to support the Comprehensive Peace Agreement by strengthening the capacities of state and local government to respond to citizens’ needs by delivering basic services in health, education and economic growth. With maternal and child health, household WASH funding, BRIDGE will improve hygiene behaviors through behavior change campaigns and build the capacity of local government and community groups to promote household sanitation. Working with state and county authorities, FY 2009 resources will be used to:

- Improve management, planning and monitoring of WASH activities
- Provide material and technical support for WASH officials
- Build the capacity of community based water management committees
- Link community groups with WASH officials
- Construct and rehabilitate community and school based water points
- Construct household and school based latrines
- Conduct hygiene education
- Strengthen private sector involvement in the WASH value chain

The USAID Urban WSSH Program will use FY 2009 funding in the Sudan Infrastructure Services project to rehabilitate the urban water treatment utility to provide water to Wau town, the urban center of Greater Bahr el Ghazal. Beyond infrastructure rehabilitation, this program will focus on capacity building for the Wau Urban Water Corporation (UWC) and strengthening the management and operational planning of the UWC. By targeting Wau town, USAID will make a significant and immediate impact on public health in Wau (one of three major urban centers in southern Sudan) while establishing a model that can be replicated in other peri-urban centers with war-damaged water infrastructure.

In early in 2009, USAID selected Wau town after consulting with the Government of Southern Sudan, Ministry of Water Resources and Irrigation. Wau had been severely impacted by cholera during the last several years.

The Sudan Health Transformation Project (SHTP) - Phase II will have two primary components: i) delivery of high impact primary health care (PHC) and selected HIV/AIDS services; and ii) strengthening decentralized health services. Activities will be implemented in areas where high refugee and internally displaced person (IDP) returns increase pressure on limited existing services. In FY 2009, SHTP II will increase access to clean water in health facilities by rehabilitating existing water points and basic sanitation services in USAID funded areas to ensure sustainable water supply and sanitation.

**RESULTS FY 2009**

Indicator	Result
# of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	213,500
# of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance	3,000
Liters of Water Treated with Point of Use methods	108,030,480

## TANZANIA

**Water Sector and Sanitation Goals:** Approximately one-third of Tanzania is arid or semi-arid, and frequent droughts afflict the majority of the country. Thirty-eight percent of the land is under various levels of protected status. However, illegal logging continues, and Tanzania has the third-fastest deforestation rate in Africa, due mainly to its position in the bottom 10 percent of the world's economies in terms of per capita income. With 80 percent of the population living in and subsisting on rural areas, the need for fuel wood drives the deforestation rate. The impact on watersheds has been devastating, and in some cases total watershed collapse is imminent. U.S. Government-supported plans to increase agricultural growth and expand the staple food supply through the Global Hunger and Food Security Initiative, seeks to reduce Tanzania's dependency on unreliable rain-fed agriculture by increasing the area of developed high potential land for irrigation from 289,245 to over 2,000,000 ha in FY 2010. The outcome of this work to promote food security critically depends on having a successful water policy and sound water management.

Only 55 percent of Tanzanians have access to improved drinking water. The substantial gap between urban and rural access to safe drinking water (81 percent urban vs. 46 percent rural) is due mainly to rural communities' dependence on their ever-dwindling natural resources. The sanitation situation is even worse, with only 33 percent of Tanzanians having access to improved sanitation. The majority of schools, estimated at 63 percent, do not meet the minimum target for latrines, 65 percent have no water access, and 80 percent have no hand-washing facilities.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Support sustainable water and watershed resources management to benefit human populations and the ecosystems upon which they depend
- Reduce the prevalence of water-related disease
- Increase the time available for productive activities, including education
- Promote greater investments in physical capital

**Approach:** USAID's approach in Tanzania integrates natural resources management, rural development, and WASH to increase sustainable access to WASH services by poor rural and small-town dwellers; increase the number and capacity of water user groups to design, manage, and take a leadership role in the long-term sustainable provision of safe and clean access to drinking water; increase access to sustainable financing for communities and entrepreneurs engaged in WASH activities; and support sustainable management of water resource quantity and quality for domestic water supply and ecosystem services. For example, the U.S. Forest Service previously conducted watershed assessments in the Greater Gombe Ecosystem and the Ugalla Community Landscape Conservation Area, and now continues to work with USAID partners to plan for new science-based water supply developments to ensure long-term sustainability. Similar approaches, with an emphasis on supporting water user groups and working within the Districts Water Sector Development Program, were implemented in the Ruaha-Rungwa River Sub-Basin, the Wami-Ruvu River Basin, the Pangani River Basin, and the Lake Manyara/Lake Natron Inland Basin, which benefitted over 200,000 Tanzanians by the end of FY 2009.

Florida International University started in February 2010 to implement the Tanzania Integrated Water, Sanitation and Hygiene (iWASH) Program in two critical river basins in Tanzania—the Wami-Ruvu and the Rungwa-Ruaha. The goal is to support sustainable, market-driven water supply, sanitation, and hygiene services to improve health and increase economic resiliency of the poor in targeted rural areas and small towns within an integrated water resource management framework. Over a three-year period, iWASH will not only positively impact the lives of 140,070 people through direct interventions, but also inform policies and development strategies through implementation of innovative and cross-cutting approaches to break the cycle of poverty as it revolves around access to safe, clean water.

Fully integrated within iWASH, is the Phase II of the Water and Development Alliance (WADA)—a collaboration between USAID and Coca-Cola—launched in March 2010. WADA (II), whose goal is to support sustainable water supply, sanitation, and hygiene services to improve health and increase economic resiliency of the poor in targeted rural areas and small towns within an integrated water resource management framework, will implement water supply and sanitation activities in schools, clinics, and communities in the Ruaha-Rungwa and Wami-Ruvu River Basins. Planned activities are intended to provide over 50,000 Tanzanians with access to improved drinking water and sanitation facilities in 2009.

In addition to USAID, MCC is also actively engaged in water and sanitation activities in Tanzania. Tanzania's 5-year MCC Compact, which entered into force in February 2008, dedicates \$66 million to a project designed to increase the quantity and reliability of potable water for domestic and commercial use. The project focuses on improving water supply infrastructure in two cities—Dar es Salaam and Morogoro. MCC's goals are to increase the capacity of the Lower Ruvu Water Treatment Plant serving the Dar es Salaam area, from about 180 million liters per day to approximately 270 million liters per day; improve system efficiencies in the Dar es Salaam distribution network by reducing non-revenue water via reduction of physical leaks and commercial losses; and increase the capacity of the water supply system serving the Morogoro area from approximately 18 million liters per day to approximately 33 million liters per day. By increasing the volume of water supply, this project is expected to reduce the prevalence of water-related disease, to increase time available for productive activities such as education, and to promote greater investments in physical capital.

USAID and MCC are members of the Development Partner Group (DPG) on Water and collaborate regularly with multilateral donors such as the World Bank, African Development Bank (AFDB), and United Nations. Project approaches and activities contribute to implementing Tanzania's Water Sector Development Strategy, which facilitates multi- and bilateral donor harmonization. For example, the Lower Ruvu Water Treatment Plant improvements build on the recent rehabilitation funded by the AFDB, which has brought the dilapidated plant back to its original capacity. Additionally, the World Bank is currently funding design services for the Non-Revenue Water Activity. MCC funds will use these designs to reduce water loss in the greater Dar es Salaam area. All MCC activities contribute to progress in implementing Tanzania's National Water Sector Development Strategy.

**Measuring Effectiveness:** The following indicators are being used to track progress of U.S. activities in Tanzania:

- Number of people with access to improved drinking water supply
- Number of people with access to improved sanitation facilities
- Prevalence of diarrhea
- Volume of individual water consumption (liters per capita per day)
- Volume of water produced (million liters per day)
- Value (\$) of feasibility and design contracts for water systems

In FY 2009, USAID/Tanzania developed a Water Supply, Sanitation and Hygiene Sector Assessment, exploring programming options and informing the design of the Mission's integrated interventions in the sector. Through the first phase of the WADA program, USAID and Coca-Cola improved access to safe drinking water, improved sanitation, and increased hygiene in two of the country's most critical river basins, reaching over 20,000 people (primarily schoolchildren), as well as over 150,000 people in communities that benefited from improved watershed protection. WADA provided rain catchment systems, improved sanitation infrastructure (such as ventilated improved pit toilets), initiated and trained community water and sanitation management committees, and applied integrated river basin management strategies in the Pangani and Wami-Ruvu, two of Tanzania's most populated river basins. USAID also supported water supply and sanitation projects to communities within six critical ecosystems, and in 2009 important new groundwork was laid by forming water user groups, completing community mapping, conducting hydrogeologic surveys for well placement, and developing community sanitation

and hygiene priority plans, all of which provide sound scientific basis in support of the implementation of integrated Water, Hygiene and Sanitation interventions in 2010.

In addition, the Government of Tanzania has created an institution to implement the five-year MCC Compact—MCA-Tanzania—and the Compact entered into force in September 2008. MCA-Tanzania is currently undertaking procurements related to the water activities. It awarded contracts for Feasibility Studies and Designs, as well as Project Coordination and Technical Assistance of the Water Project. Award for all construction contracts is anticipated in 2010. Under MCC’s five year Compact, approximately \$700,000 was disbursed during FY 2009. As of September 30, 2009 the three projects (Non-Revenue Water Reduction, Expansion of the Lower Ruvu Water Treatment Plant, and Rehabilitation of the Morogoro Water Treatment Works) were in early design; these will be complete by May 2010. FY 2009 funds were also used to put in place a Project Coordinator/Technical Advisor to begin evaluating capacity gaps and detailing asset management programs and sustainable tariff cases.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. The table below represents baselines and targets set for the Tanzania Compact for the end of Fiscal Years 2008, 2009 and 2010. Due to variations in implementation timelines and plans, some indicators may not require targets for every year, in which case they are labeled as 'na', or 'Not Applicable'. In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as 'TBD', or 'To Be Determined'. Targets labeled as TBD will be set by MCA-Tanzania in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD must be set as soon as possible, but no later than the end of the Compact’s fourth year.

MCC Results						
Indicator (all measures are cumulative)	Unit	Baseline	2009 Target	2009 Actual	2010 Target	End of Compact Target
Volume of water produced (Lower Ruvu)	Million litres per day	180	na	na	na	270 (90 additional MLD due to project)
Volume of water produced (Morogoro)	Million litres per day	18	na	24.00	na	33 (15 additional MLD due to project)
Volume of non-revenue water (Dar es Salaam)	Percent	68	na	52.00	na	56
Volume of non-revenue water (Morogoro)	Percent	40	na	11.00	na	32
Operations and maintenance cost recovery ratio (Dar es Salaam)	Percent	108	na	110.00	118	151
Operations and maintenance cost recovery ratio (Morogoro)	Percent	100.34	na	101.00	105	115

## UGANDA

**Water Sector and Sanitation Goals:** In Uganda, poor hygiene and sanitation causes three-quarters of the disease burden. Clean water means fewer diseases for rural villages, yet the national coverage level for safe drinking water is only 63 percent, while coverage in northern Uganda is even lower at about 55 percent. The coverage in northern Uganda is reducing as communities leave internally displaced camps and return to their original homes, where infrastructure has been degraded by the insurgency. Traveling long distances or waiting long hours to collect water is a common practice, with women and children bearing primary responsibility.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water resources management
- Improve water productivity

**Approach:** To increase access to safe water, USAID supports expansion of the private operator schemes and the output-based aid (OBA) in selected town councils. USAID also supports the rehabilitation of water infrastructure that was run down during the period of insurgency. Therefore, USAID/Uganda's water program focuses on increasing the accessibility of drinking water and sanitation services to communities. USAID/Uganda continues to invest in the water sector because it addresses health issues and contributes to national economic growth. The economic impact of not having localized access to water is reduced productivity, reduced incomes, and increased occurrence of disease.

The situational analysis carried out by the USAID/Uganda Northern Uganda Water Supply Services (NUWSS) project for the towns of Pader and Kitgum determined that in Pader there was no water system apart from three standalone motorized boreholes. Kitgum had piped water coverage for only 30 percent of its 50,000 inhabitants, and the system, when operational, ran only at 20 percent of its installed capacity. In FY 2009, USAID/Uganda through NUWSS rehabilitated two pumps in Kitgum, bringing an additional 60 cubic meters of water per day to the town. Coverage increased to about 40 percent of the population and rehabilitated pumps are now running at 60 percent of installed capacity. A contracted private operator maintains the water system while USAID has initiated the design of a distribution network for the whole town.

USAID/Uganda through the Maternal and Child Health program (AFFORD) is working with the private sector and Government of Uganda officials to increase accessibility and affordability of HIV/AIDS, reproductive health, child survival and malaria products. Included in this package is dissemination of sanitation awareness and distribution of domestic water treatment kits.

**Measuring Results:** In FY 2009, USAID/Uganda through NUWSS rehabilitated two pumps in Kitgum, bringing an additional 60 cubic meters of water per day to the town. Coverage increased to about 40 percent of the population and rehabilitated pumps are now running at 60 percent of installed capacity. A contracted private operator maintains the water system while USAID has initiated the design of a distribution network for the whole town.

USAID Indicators	2009
Number of people with access to improved drinking water supply	83,000
Number of people with access to improved sanitation facilities	67,950
Local capital mobilized for water and sanitation investments (Government of Uganda counterpart funding)	\$412,000

## ZAMBIA

**Water Sector and Sanitation Goals:** The U.S. Government supports efforts to improve health and sanitation for Zambian households and communities. U.S. Government efforts contribute to reduced impact of waterborne diseases and improved learning environments for Zambian students – especially girls.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water resources management
- Improve water productivity

**Approach:** The U.S.-funded water and sanitation program is designed to improve health and the school learning environment by providing water and sanitation facilities in the most critically underserved schools and communities. The situation in schools is poor. Only nine percent of schools have a sufficient number of toilets for girls, while only 29 percent have sufficient toilets for boys. While inadequate sanitation facilities affect all school-aged children, girls are affected more than boys, with many pushed out of the classroom because of a lack of privacy or unhygienic conditions. U.S. Government-supported efforts emphasize the repair and installation of water pumps and the construction of latrines that are suitable to both boys and girls. Special efforts ensure that female teachers and students are comfortable with the water and sanitation facilities provided. The program also has a component on hygiene education which includes teacher training and peer to peer education. Through creative activities such as drama, songs, and competitions, schools are encouraged to implement a number of creative activities with focus on hygiene, use of toilets and safe water.

The U.S. Government, in collaboration with the Government of Zambia and other stakeholders, socially markets a point-of-use home water-treatment solution called Clorin to disinfect household drinking water to prevent diarrhea in children and people living with HIV/AIDS. The United States also procures and installs borehole pumps and water storage tanks and repairs leaking water pipes and taps, which supply safe drinking water to health facilities. These activities are implemented as integral parts of facility renovations to TB and HIV infrastructure to improve delivery of TB and HIV services.

U.S. assistance supports the Government of the Republic of Zambia’s safe water educational campaigns which promote good personal hygiene practices such as regular hand washing, boiling drinking water, proper storage of water, and proper latrine construction and use. U.S. assistance supports clean water educational campaigns through promotional messages that encourage consistent and correct use of home water treatment solutions through interpersonal communication, radio and television broadcasts, drama shows, and print media.

**Measuring Effectiveness:** In FY 2009 U.S. Government-supported program installed 16 wells in 16 schools and constructed three latrine blocks. In addition, the program developed health education teaching materials that will be distributed in teacher training sessions in FY 2010. U.S.-supported programs provide technical and environmental oversight of project activities to ensure water is adequately tested and construction is safe. The school water program will likely reach 800 schools over the next three years. During the same period activities supported by the U.S. Government program disinfected 1.7 billion liters of drinking water, close to the target of 2 billion. Other illustrative results include increased awareness of, demand for, and use of clean water and access to sanitation.

USAID Indicators	2009 Target	2009 Result
Number of people with access to improved drinking water supply	7000	6765
Number of people with access to improved sanitation facilities	1000	900
Liters of water treated with point of use methods	2 billion liters	1.7 billion liters

## II. ASIA

### AFGHANISTAN

**Water Sector and Water and Sanitation:** Water is essential for development. Its absence affects everything the Government of the Islamic Republic of Afghanistan (GIROA) wants to achieve for its people and in turn everything that the United States Government wants to achieve in this country. Water has a dramatic and every day impact on agricultural productivity, economic growth, health, education, quality of life, and political and social stability.

Afghanistan has significant water resources, yet is not optimizing social and economic benefits from these resources. For example, Afghans have very poor access to improved water and sanitation services—among the lowest percentage of access in the world. Improved infrastructure, governance, and management of existing and new services will be key areas for future investment. Enhancing the technical capacity of individuals working in this sector and the institutional frameworks that guide policy formulation and implementation will be essential.

The U.S. Government has several different agencies working in close collaboration with the people and Government of Afghanistan. A coordinated approach among U.S. Government agencies will allow for greater synergy and developmental impact. The Provincial Reconstruction Teams (PRT) can also play an important facilitating role here. To help coordinate this approach, the U.S. Government has formed the Infrastructure Working Group (IWG) in Afghanistan.

Specific Water Sector strategic goals:

- Provide benefits to the people through economic opportunity and development, improvements to health, and overall prosperity.
- Be consistent with the direction set by the GIROA and as reflected in national law, policy and strategic direction per the Afghanistan National Development Strategy (ANDS) and the supporting U.S. Government Water Sector Strategy.
- Build technical and management capacity within the country, encourage and enable ownership by the people, and be sustainable in the long term.
- Be comprehensive in terms of meeting high priority needs, geographic scope, and standards of technical and financial soundness, including environmental protection and enhancement.
- Be implemented collaboratively with all partners, leverage expertise of different entities, and capitalize on the synergies and efficiencies of partnerships and joint efforts.
- Have near, mid, and long-term implementation elements which produce demonstrable results in the short-term while solving larger needs in time.
- Effectively address projected demographic changes as well as environmental variables, including climate change.
- Ensure projects are designed, constructed, and maintained properly to ensure they remain operationally functional over time.

**Approach Describing U.S. Investments:** To successfully achieve the Water Sector’s strategic goals, the overall water and sanitation program has been broken into the three specific investment groups: Agriculture, Water Supply and Sanitation, and Water Resources Management.

#### ***i. Agriculture***

This goal promotes water use to enhance agricultural productivity while conserving biodiversity resources. The U.S. Government proposes to integrate agricultural productivity issues with environmental conservation. Key to this approach will be improved land and water management practices within watersheds including helping farm families deal with drought and flood. These extreme weather events could be exacerbated by climate change.

- *Specific USAID Program: Watershed Assessments* – Perform watershed assessments to identify potential water resource development projects that have a high probability of sustainable and successful implementation. The assessments will focus on smaller water resources projects – irrigation storage dams, which if advanced to the next phase of Survey and Design, can be designed and constructed in a relatively short time period. This will support Civ-Mil Campaign Plan of “clear-hold-build-transfer” and support job creation, stability, and economic growth.
- *Specific USAID Program: Irrigation Water Usage/Conservation*: Ongoing support for improved irrigation/agricultural water usage is achieved through the Afghanistan Water, Agriculture, and Technology Transfer (AWATT) program implemented by New Mexico State University in association with the Ministry of Agriculture Irrigation and Livestock (MAIL).

## **ii. Water Supply and Sanitation**

This goal focuses on expanding access to water supply and sanitation including better hygiene, while improving the enabling environment to sustain progress over time. Commercialization of water utilities remains an important objective and four urban areas (Jalalabad, Mazar, Ghazni and Gardez) will receive targeted technical assistance to reduce technical and commercial losses and increase revenue. New community-based water projects will be launched to meet more immediate needs and demonstrate results. Over time, the U.S. Government hopes to educate close to three million people on hygiene related issues, establish 50,000 latrines, and build or rehabilitate 10,000 wells and 50 water supply systems. A new urban water initiative will be launched to increase access to potable water for 400,000 people. Collectively, these activities will help increase access to potable water supply and sanitation facilities.

- *Specific USAID Program: USAID’s Sustainable Water Supply and Sanitation (SWSS) Project* - is a 4-year, \$54 million project initiated in November 2009 to increase access to clean water and sanitation facilities for over one million Afghans in 1000 communities (wells, springs, piped water systems, and latrines), improve household hygiene practices, and build the technical and financial capacities to operate the new facilities.
- *Specific USAID Program: Commercialization of Afghanistan Water and Sanitation Activity (CAWSA)* - provides technical assistance to help Strategic Business Units (SBUs) of Afghan Urban Water Supply and Sewerage Corporation (AUWSSC) to improve the water supply systems of Mazar-e-Sharif, Jalalabad, Ghazni and Gardez in coordination with other stakeholders. The main objective of the three-year CAWSA Program is to establish a viable business model for water service delivery in Afghanistan.
- *Specific USAID Program: USAID’s Kabul City Urban Water* - subject to availability of funds, USAID is planning to invest \$100 million over four years for an urban water activity in Kabul, Kandahar, and possibly other cities. This year USAID plans to invest approximately \$17 million to provide piped water to an additional 250,000 people in Kabul. The program is part of a \$71 million program coordinated by KfW (the German Development Bank).
- *Specific USAID Program: USAID’s Communications for Behavioral Change Expanding Access to Private Sector Health Products and Services for Afghanistan (COMPRI-A) Project* - teams up with a local manufacturer to offer affordable safe water solutions through the wide-spread introduction of chlorine solution into the commercial market. A 40 cent bottle purifies enough water for a family for a month. Since 2006, approximately 800,000 bottles of chlorine have been distributed, enough to provide 800 million liters of clean water.

## **iii. Water Resources Management**

This goal serves to strengthen the institutions at the national, provincial and local levels that administer water resources management. The U.S. Government will continue to support various institutions to better define policies, regulations, and guidelines for overall governance and management of the sector including trans-boundary issues. Enhancing the technical capacity of individuals working in these institutions will be an important area of focus. Additional focus on improved commercial practices for water management will be maintained.

- *Specific USAID Program: USAID Ministerial Advisor Support Program* - Provides long-term policy and planning advisors as well as Trans-Boundary advisor to GIRoA's Ministry of Energy and Water and the Supreme Council on Water Affairs Management.
- *Specific USAID Program: USAID Support for Water-Related Institutions Program* – Will support a Kabul “Water Week” in the fall, 2010, to discuss water management priorities and coordinate donor support for specific projects.
- *Specific USAID Program: Long-Term Infrastructure Development* - Large multi-purpose dams are a priority for GIRoA. The costs and impacts of such projects are so large that they require extensive, integrated water resources management planning and design – incorporating multiple donors. As an outcome of the January 2010 “Afghanistan – The London Conference”, USAID assists GIRoA with Ministerial Development Clusters to implement the Afghan National Development Strategy as a means to prioritize and sequence development objectives.

**Measuring Performance:** Indicators and targets are proposed for the strategic goals based on performance-based outputs or metrics. Outputs/metrics are defined as the quantifiable results. The outputs are annually monitored as part of the strategic goals.

***Ultimate Long-Term Outputs:***

1. Watershed assessments completed within 18 provinces.
2. Five annual water conferences held.
3. Information sharing system implemented among U.S. Government agencies.
4. Rural water and sanitation improvements implemented in 1000 communities.
5. Urban household water connections for 400,000 people and urban sanitation improvements for 200,000 people.
6. Watershed management improvements implemented in 50 communities.
7. Trans-boundary water management strategy developed by GIRoA.
8. Approximately four water advisors annually provide strategic advice to GIRoA institutions.
9. Approximately 1000 people receiving training in improved water resources management (technical and administrative subjects).
10. Approximately 10,000 additional hectares of land irrigated.
11. Four new business models for commercial water management implemented.

**Progress and Results:** In spite of the fact that the U.S. Government Water Sector Strategy was just recently finalized in March 2010, USAID/Afghanistan has achieved significant demonstrable impacts in the areas of sanitation, agriculture, and water resources management components of the Water Sector that have been actively implemented in 2009 as shown in the table below.

## 2009 USAID RESULTS

Specific Water Program	2009 USAID Results
Agriculture Number of additional Irrigated Hectares	25,000 Hectares
Water Supply and Sanitation SWSS Program – Projects Approved by PRTs ..... SWSS Program – Projects Currently Under Review..... SWSS Program – Number of People Benefiting from Approved Projects..... CAWSA Program – Number of Participant-Hours Training..... CAWSA Program - Capital Improvements Grants (in \$)..... COMPRI-A – Number of Bottles of Chlorine Distributed (since 2006)..... COMPRI-A - Equivalent liters of Clean Water from Chlorine (since 2006)... COMPRI-A – Number of People Trained in Clean Water and Chlorine Use.... COMPRI-A – Number of Communities Safe Water Posters Distributed.....	82 30 270,000 10,208 35,133 80,000 800 million 40,000 18,500
Water Resources Management Number of GIROA/MEW Water Resources Advisors..... (Management and Technical Support to MEW and SWAM) Number of GIROA Trans-Boundary Advisors..... (Management Support to MEW) Sponsored “Afghanistan Conference on Water Resources..... Development and Management” – July 2009	2 Advisors  1 Advisor  1 Conference

## BANGLADESH

**Water Sector and Sanitation Goals:** Bangladesh has a myriad of water problems that pose significant development challenges. Over 25 percent of the population is still in need of access to safe drinking water. Similarly, only 39 percent have access to hygienic sanitation systems. During the monsoon season, one-third of the country regularly floods. In the dry season, one-third of the country suffers from water scarcity for both irrigation and domestic use. In the southern coastal belt an additional challenge is saline water intrusion, which contaminates drinking wells. Finally, naturally occurring arsenic contaminates wells, threatening to reverse earlier trends in reducing diarrheal disease.

U.S. goals are to:

- Increase access to water supply and sanitation, and promote better hygiene

**Approach:** USAID used maternal and child health (MCH) funds to promote water-related hygiene activities. USAID implemented activities through the health clinics program to create awareness about the use of safe water for prevention of waterborne diseases, with an emphasis on childhood diarrhea. USAID's Safe Motherhood and Newborn Care Project (SMNCP) trained staff and community persons on counseling skills to promote hand washing messages for prevention of infections in pregnant mothers and newborns. In addition, in FY 2009, through USAID's environment project, Integrated Protected Area Co-management (IPAC), 26 well hand-pumps were renovated and maintained in one protected area site, providing access to safe drinking water to over a thousand poor villagers. USAID's programs also contributed significantly to the Government of Bangladesh goals for safe drinking water and sanitation. The Government of Bangladesh strongly supports water and sanitation programs at national and local levels. In addition, USAID contributed significantly to the achievement of the Millennium Development Goals, a U.S. foreign assistance priority that calls for 50 percent coverage in safe water and hygienic sanitation facilities by the year 2015.

**Measuring Effectiveness:** In FY 2009, USAID efforts resulted in increased awareness on safe water use to prevent and manage diarrhea of 1,583,075 people and increased awareness of hand washing to prevent infection during child delivery of 60,000 people. Maternal and child health (MCH) funds promoted water-related hygiene activities by reaching more than 1.5 million diarrheal cases with the message of hand washing and safe water use. The awareness campaign targeted mothers and caretakers of children, and encouraged hand washing with soap before preparing food, eating, feeding a child, and after using the toilet. USAID's Safe Motherhood and Newborn Care Project (SMNCP) trained 2,300 staff and community persons, reaching 60,000 married women. In addition, USAID provided birth attendants with safe delivery kits, including soap, in order to practice proper hand washing before conducting child deliveries. Based on its success to date, IPAC will leverage additional support from other donors and expand its interventions to address access to drinking water in protected areas. IPAC will carry out this expansion in collaboration with the European Commission in the Sundarbans, the world's largest mangrove forest, and with UNICEF and UNDP in the Chittagong Hill Tracts during FY 2010. These interventions will provide 5,000 more people access to safe drinking water.

Using P.L. 480 resources, in FY 2009 USAID assistance programs installed deep tube wells and piped water, constructed latrines, provided education about the existence of arsenic in drinking water sources, and provided formal awareness-raising sessions by trained health volunteers on hygienic sanitation. In FY 2009, USAID provided access to safe drinking water for over 388,000 people using PL 480 resources. More people have access to safe drinking water, principally because other USAID-funded health campaigns were so successful in sensitizing communities to the benefits of clean water that the catchment area was increased for tube well construction. USAID assistance provided access to hygienic sanitation for 423,475 people during 2009. Data and anecdotal evidence show that, through U.S. Government interventions, communities significantly changed their water and sanitation practices. USAID-funded implementing partners note that community members have stopped using crop fields for sanitation needs. Awareness efforts, and construction of latrines and water points, have resulted in an increased use of hygienic latrines by 53 percent and increased access to safe drinking water by 49 percent among 407,000 households over the life of the program. In FY 2009, USAID used water development account funds to promote water-related hygiene activities. USAID implemented activities through its health clinics program to create awareness about the use of safe water for prevention of waterborne

diseases, with an emphasis on childhood diarrhea. USAID’s water programs have significantly contributed to goals set forth by the GOB for safe drinking water and sanitation. USAID has contributed significantly to the achievement of the Millennium Development Goals in Bangladesh; meeting the MDG goals for water and sanitation is a U.S. foreign assistance priority that calls for reducing by 50 percent the percentage of people without access to improved safe water supply and hygienic sanitation facilities by the year 2015. The current PL 480 program ends in FY 2010, but a final evaluation, currently underway, will help inform planning for future funding of water and sanitation activities.

USAID Indicators	2009
Number of diarrhea cases reached with message on safe water use to prevent and manage diarrhea	1,583,075
Number of women reached with hand washing message to prevent infection during child delivery	60,000
Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	388,945
Number of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance	423,575

## CAMBODIA

**Water Sector and Water and Sanitation Goals:** In FY 2009, U.S. water and sanitation activities focused on providing communities with access to clean drinking water and sanitation facilities, as well as encouraging behavior change such as hand washing.

**Approach:** In Cambodia, U.S. health, education and economic growth programs integrate water and sanitation activities across program areas. The U.S. Government also works closely with the Royal Government of Cambodia and other development partners to ensure activities support National Health Strategic Plan priorities. U.S. programs work with communities, schools, the private sector, and national public health delivery systems to prevent waterborne diseases and increase access to safe drinking water. Behavioral change communication is helping rural Cambodians to better understand health and see themselves as the most important instrument in the health and well-being of their families. Point of Use (POU) water programs are increasing access to safe drinking water through installation of community water filtration systems, social marketing of water filters, and chlorine water tablets. Primary school and household sanitation and hygiene are increased through the installation of latrines and access to clean water pumps. The U.S. Government also supports the production of local low-cost soap, distribution of rehydration salts and zinc, and the dissemination of targeted community education. U.S. funded activities form working groups, facilitate cross-provincial visits and assist water service providers to expand access to safe water by extending existing piped water system, or upgrading water treatment facilities to meet national standards.

**Measuring Results:** Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance.

- Liters of drinking water disinfected with U.S. Government supported point of use treatment products.

**Progress and Results:** The United States promoted diarrhea-preventative behaviors by integrating hand washing and the use of clean water messages into U.S.-funded community health education activities. As a result, over 12,000 individuals participated in water sanitation and hygiene education events; over 200,000 liters of drinking water were disinfected; and community members purchased nearly 600 water filters. The United States also funded the purchase and distribution of 100,000 Diarrhea Treatment Kits (oral rehydration salt and Zinc).

U.S. funding was used to construct a large-scale Biotech Water Filtration System in a floating village which produces up to 7,200 liters of drinking water per day and provides clean water for 500 households. In addition, with U.S. assistance to primary and lower secondary schools, 32 toilets were built, seven toilets were renovated, 11 wells were dug, and 22 water systems were installed.

The United States supported the design and facilitation of a Water Business Forum in Kampong Speu for almost 100 private water suppliers, end users, and provincial government officials. As a result, it increased the Government's commitment to regulate more appropriately through a better understanding of private sector water issues. Activities also formed three working groups, facilitated a cross-provincial visit with 16 Water Service Providers (WSPs), and assisted the WSPs to expand access to safe water by extending existing piped water systems or upgrading water treatment facilities to meet national standards. The United States signed 26 memoranda of understanding with WSPs, and these WSPs are expected to finish upgrades by mid FY 2010.

Indicators	Result achieved in FY 2009
Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	500 households in a floating village have access to clean drinking water 12,000 individuals participated in water sanitation and hygiene education events
Liters of drinking water disinfected with U.S. Government supported point of use treatment products	206,304 liters of drinking water disinfected

## INDIA

**Water Sector and Water and Sanitation Goals:** India's growing population and expanding economy have generated increased demand for basic infrastructure, particularly water and sanitation services. Groundwater levels have fallen more than 70 meters below the levels of 30 years ago. Nearly half a million children die every year from diarrhea, while 21 percent of communicable diseases result from contaminated water.

USAID/India promotes poverty alleviation and sustainable development by:

- Improving access to water supply and sanitation;
- Improving health through better hygiene; and
- Improving water resources management.

**Approach Describing U.S. Government Investments Intended to Reach the Goals:** USAID identifies and structures bankable projects and provides access to market-based financing in water and sanitation. Assistance helps cities better maintain and operate their water and sanitation assets by strengthening urban governance. USAID/India is planning to undertake an analysis of the water and sanitation sector to determine trends and strategic investment opportunities for the U.S. Government and other donors. Following the assessment, USAID/India will strengthen information management and decision-support systems to better link climate change and food security planning to more sustainable water and sanitation outcomes. Finally, the Mission will pilot and promote adoption of low-cost appropriate technical models to water security in key rural populations.

Agriculture consumes over 80 percent of freshwater resources in India. Through its agriculture program, USAID/India develops public-private partnerships that introduce more efficient water use technologies and improves water resources management. Activities will encourage the shift to cropping practices that reduce chemical use, subsequent run-off of surface water and reduction in groundwater recharge.

Improving the delivery and use of water and sanitation services in India's rapidly growing urban areas is critical for meeting the U.S. Government's health objectives for India, particularly in child mortality. USAID/India efforts to improve water and sanitation services will have the greatest beneficial impact on the health and hygiene of women and girls who are disproportionately affected. The USAID/India health program supports partnership approaches for the promotion of hygiene and sanitation. For example, USAID/India has established a Health and Hygiene Alliance that will harness resources from the private sector. The Alliance was launched by U.S. Ambassador to India Timothy J. Roemer on March 22, 2010, World Water Day. Health capacity building efforts link poor urban slum dwellers with municipal water supply and sanitation infrastructure programs. Future program efforts will help central, state, and local governments improve the delivery of urban services, with a specific focus on increasing the accessibility of water, sanitation and hygiene services for the urban poor.

**Measuring Results:** The two standard indicators presently being used to track progress of U.S. Government activities in India are: (a) Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance; and (b) Number of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance.

**Results:** With modest resources, in FY 2009, 304,730 men and women accessed improved potable water, and 22,405 men and women increased their access to improved sanitation facilities. The program's capacity building efforts succeeded in increasing source revenue by more than \$622 million cumulatively in 11 municipalities, and helped nine municipalities invest more than \$93 million in critical water and sanitation projects, a 54 percent increase over 2008 levels.

## INDONESIA

**Water Sector and Sanitation Goals:** Indonesia has committed to meeting its Millennium Development Goals to have safe drinking water access for 86 percent of its people and basic sanitation for 73 percent of its people by 2015. Currently, the proportion of households with piped water connections in urban areas remains low, only 34 percent in 2008. Poor households suffer because of prohibitively high connection fees and/or regulatory barriers to supplying water to informal settlements. Only about 69 percent of urban households have access to the basic sanitation. Open defecation remains the standard practice among almost 20 million of urban Indonesians living without access to any sanitation facilities. More than 100 million Indonesians do not have access to safe drinking water. Unsafe drinking water is one of the leading causes of diarrhea, the second highest killer of children under five in Indonesia.

U.S. goals are to:

- Increase access to (and use of) improved water supply and sanitation facilities.
- Decrease the per unit water cost paid by the poor in targeted communities by at least 20 percent through more participatory, transparent, accountable and financially enabled services.

**Approach:** To increase access to water and sanitation, USAID promoted better health by improving water resources management and increasing access to clean water supply and sanitation services through the Environmental Services Program (ESP), which ended in March 2010. Through the Safe Water Systems Aman Tirta program, which ended in January 2010, USAID took the initiative to increase access to safe drinking water by introducing a low-cost, easy-to-use and safe water purification product, Air RahMat, for use at the household level. USAID will launch new projects focused on improving access to water and sanitation in FY 2010. The largest project, entitled Indonesian Urban Water, Sanitation, and Hygiene, in the next five years will target two million new water customers and 200,000 Indonesians with improved sanitation facilities, and mainstream a model for reaching poor populations in urban areas. All other projects will complement these efforts, including a two-year project entitled RW Siaga (“Prepared Communities - Plus”) that combines a focus on improving community-based water and sanitation facilities with healthy behaviors to reduce malnutrition. USAID works in collaboration with the World Bank, Asian Development Bank, Australian Agency for International Development, Dutch Trust Fund, and Canadian International Development Agency, which all have large programs focused on infrastructure development and rehabilitation in urban water supply and sanitation.

**Measuring Effectiveness:** In FY 2009, USAID project provided 281,525 Indonesians with access to safe water, improved sanitation facilities for 19,705 Indonesians, piloted new models for service provision for the poor, and improved the management of 223,653 hectares of watershed. Through the ESP, \$7.8 million of public and private funds were mobilized to expand the impact, including a \$2.2 million conditional gift from the Government of the Netherlands to expand ESP assistance to eastern parts of Indonesia in the spirit of Potomac Agreement. In FY 2009, USAID’s continued partnership with the Ministry of Health led to the new national community-based total sanitation campaign. The campaign presents household water treatment and safe storage as a major factor for reducing diarrheal disease in addition to other healthy behaviors: hand washing with soap, elimination of open defecation, domestic waste water and solid waste management. USAID conducted informational campaigns on all five components in Indonesian communities and schools. An evaluation of program sites associated a 23 percent increase in improved health and hygiene practices with a 10.6 percent decrease in diarrhea incidence over two years.

USAID Indicators	2009
Number of people with access to improved drinking water supply	281,525
Number of people with access to improved sanitation facilities	19,705
Public and private mobilized for water and sanitation investments	\$7,801,210
Number of hectares under improved natural resource management	223,653

## PAKISTAN

**Water and Sanitation Goals:** Pakistan ranks in the high-risk category with respect to water availability, with only 1,384 cubic meters of clean water available per person. Approximately 40 percent of communicable diseases are waterborne, and approximately 11 percent of deaths of children under five are caused by diarrhea. As such, the goals of U.S. investments in Pakistan related to water are to improve access to water supply and sanitation, and promote better hygiene.

**Approach:** USAID supports the Pakistan Safe Drinking Water and Hygiene Promotion Project, which operates in 28 districts, six Federally Administered Tribal Areas (FATA), and six Frontier Regions (FRs). The program directly benefits approximately 3 million people, and reaches an estimated 32 million people with public communications campaigns. The project is designed to provide training in operations, maintenance, and management of water treatment units and drinking water source management; mobilize communities to develop cost recovery mechanisms; conduct reviews of water treatment and water quality testing technologies; and increase access to and use of safe drinking water through introduction of point-of-use treatment technologies, hygiene education, and behavior change communication.

A key principle underlying the project is that social mobilization leads to sustainability and better management of water facilities by communities. The project is also assisting the Government of Pakistan in designing a comprehensive hygiene promotion and capacity-building strategy. All of these activities will complement the Government of Pakistan's investment in water supply hardware and the government's ongoing "Clean Drinking Water for All" programs.

**Measuring Results:** The following indicators will be used to track progress of U.S. activities in Pakistan:

- Number of people with access to improved drinking water supply
- Number of people with access to improved sanitation facilities
- Education in childhood diarrhea (*National data is collected at four- to five-year intervals for these indicators. Interim process indicators are reported below.*)

**Results:** By the end of 2009, the project had trained over 1,621 government, NGO, and community staff in operating, maintaining and managing water filtration units. Over 3,000 water quality tests were conducted on drinking water sources. The project mapped and investigated 554 public drinking water sources and performed water quality tests in the FATA. Over 750,000 residents of rural areas in focus districts and agencies were reached with safe drinking water and hygiene promotion messages. More than 5,500 hygiene promoters have been mobilized, including doctors, religious leaders, and water filtration plant operators. An estimated population of 31 million was reached through relaying 155,979 radio messages nationwide. Orientation has also been completed with over 3,400 women volunteers to spread the hygiene messages in the wider communities. In addition, 31,152 teachers received hygiene training and then successfully completed safe hygiene activities with 431,403 schoolchildren in government primary schools. These children are expected to carry these messages to their households, reaching a population of about 3 million.

Seeing an opportunity to engage both the private sector and the local communities in which they work, the project partnered with five companies to create a sustainable solution that met their common goals. Unilever provided over 276,500 soaps to complement USAID's hand-washing education activities. Medentech provided over 200,000 of its Aquatabs, which remove much of bacteria and other harmful organisms in unclean water. Mobilink's mobile communications network sponsored 3 million free educational and promotional messages distributed to the cell phone network. Merck offered water testing kit at reduced price and Green Star marketed Purr sachet in one union council with the assistance of project. With these private sector partners' contributions, USAID/Pakistan has developed a sustainable market-based approach to improving sanitation practices among target populations.

## PHILIPPINES

**Water and Sanitation Goals:** Inadequate water supply and poor sanitation continue to be major problems in the Philippines. The latest Philippines Census data showed that nearly 18 percent of Filipinos (or 5.4 million people) lack access to an improved water supply system, and 56 percent lack piped connections. For sanitation, data showed that 24 percent lack access to toilets or adequate sanitation. Poor sanitation in the country is evidenced by the persistent high incidence of diarrhea, which is reported at more than 700,000 cases a year.

In the Philippines, the U.S. water supply and sanitation goals are to:

- Improve access to water supply and sanitation, and promote better hygiene

**Approach:** To increase the number of people with access to potable water and improved sanitation services, U.S. assistance includes a) supporting the expansion of financing sources for water-related activities through the Philippine Water Revolving Fund, with credit guarantee from the Development Credit Authority for the leveraged private funds; b) strengthening capacity of water utilities to deliver water services and of local governments to implement sanitation programs and hygiene promotion; and c) promoting policy and institutional reform for the water sector. Other U.S. assistance involved direct provision of water supply infrastructure in selected schools and conflict-affected communities in Mindanao.

**Measuring Results:** The following indicators will be used to track progress of U.S. activities in the Philippines:

- Number of people with access to improved drinking water supply
- Number of people with access to improved sanitation facilities

U.S. assistance for the water and sanitation sector resulted in increased access of over 111,000 people to improved water supply and over 355,000 people to improved sanitation services in 2009. In addition, U.S. assistance resulted in the development of a 10-step toolkit to promote proper hygiene behavior, which has been adopted by six local governments. Improvement in hygiene will be observed and measured in FY 2010. Through the USAID/Rotary International Water Alliance, USAID Philippines water and sanitation projects have successfully leveraged at least \$700,000 of Rotary Foundation and the local Rotary Districts and Clubs resources for the construction of water supply and sanitation systems that will directly contribute to the sectoral targets in 2010.

USAID Indicators	2009 (actual)
Number of people with access to improved drinking water supply	116,856
Number of people with access to improved sanitation facilities	355,994

## TIMOR-LESTE

**Water and Sanitation Goals:** In support of the Senator Paul Simon Water for the Poor Act, the objective of the U.S. Government program in Timor-Leste is to strengthen district government delivery capacity for community water supply, sanitation, and hygiene (WASH) and environmental services leading to measurable improvement of health, productivity, and environmental conditions, in support of reaching Milenium Development Goals. Current levels of access are among the lowest in Southeast Asia, a conserative 55 percent for water and 40 percent for sanitation nationally.

U.S. goals in Timor-Leste are to:

- Increase access to improved water supply and to improved sanitation, as defined by Millennium Development Goals;
- Improve water resources management; and
- Improve community health and hygiene behavior.

**Approach:** To achieve U.S. Government water and sanitation goals, the program is designed to strengthen the Government’s ability to deliver district and sub-district level water and sanitation, health, and environmental services. The program works closely with district and sub-district government staff of the Ministries of Infrastructure, Health, Economy and Development, and Agriculture and Fisheries as the primary program counterparts. Technical support is provided to build capacity at the district and sub-district level, as well as to support partners in the community. In addition, procurement of materials and services is performed with counterparts as integral team members to further enhance their service delivery capabilities.

USAID is the primary U.S. agency responsible for implementing the water and sanitation program, working with the Government of Australia (AusAID) and the Asian Development Bank (ADB) to assist the Government of Timor-Leste reach objectives stated in its Rural Water, Sanitation and Hygiene (RWASH) sector strategy, which identifies strengthening of district level community water and sanitation services in parallel to a broader government decentralization initiative. The approach is an effort to transition the WASH sector from a historic NGO-driven, post-conflict environment to one in which basic water and sanitation needs are sustainably managed by local government and communities.

**Measuring Effectiveness:** USAID efforts to 31 March 2010 have resulted in increased access to water and sanitation facilities for 12,377 and 3,782 people, respectively, in less than one year of community implementation. The number of local stakeholders (community committee members, district officials, local NGOs) trained in WASH activities for the same period is 3,104. The number of hectares under improved water management is 21. The percent of households in program target communities with a hand washing station is 59 percent.

USAID Indicators	30 September 2009
Number of people with access to improved drinking water supply	1.071
Number of people with access to improved sanitation facilities	n/a
Number of hectares under improved water resource, watershed, or basin resource management	n/a
Percent of households in program communities with a handwashing station	n/a

### III. EUROPE AND EURASIA

#### ARMENIA

**Water Sector and Sanitation Goals:** Despite the progress achieved in Armenia's water and sanitation sector, Armenia remains vulnerable. Many water networks in the country (mostly outside of Yerevan) receive only a few hours of water supply each day, and some receive water only on alternate days, and almost all sewage is discharged into rivers untreated. An estimated 80 percent of water is lost to network leakages and illegal connections.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Develop long term capital financing mechanisms in Armenia's water and sanitation sector
- Improve water productivity

**Approach:** USAID assistance in water supply and sanitation sector has been designed to complement the World Bank, German Development Bank (KfW), Asian Development Bank, and European Bank for Reconstruction and Development efforts to support rehabilitation investments (loans) to water utilities and management and lease contracts. USAID has provided the building blocks for the commercialization activities of water companies and was the only donor supporting legal and regulatory reforms. USAID assisted the Government of Armenia in the completion of feasible strategies and financing mechanisms for investments needed in the water and sanitation sector, and developed the business plan for establishing a water sector revolving fund in Armenia.

USAID continues to provide limited resources for the rehabilitation of water supply networks. Particularly in the town of Artashat and 27 surrounding villages where potable water was supplied for 2-4 hours a day (in some places even less), where water losses are estimated at 80 percent due to severe corrosion, USAID completed the renovation of water supply networks serving more than 100,000 Armenians. Further U.S. Government support for improved water supply and sanitation will focus on supporting rehabilitation of water networks and small sanitation projects for vulnerable communities in the rural villages of Armenia outside of the water companies' service area in public-private partnerships, leveraging resources from other donor organizations and local communities.

To improve the financial sustainability of the sector by playing a catalytic role in mobilizing financing from the government of Armenia, the private sector, and international lenders and other donors, upon request from Government of Armenia, the U.S. Government will provide technical assistance for the establishment of a water sector revolving fund. As a result of this technical assistance a sustainable, capital-market linked financing mechanism for water services will be in place. In addition, it will provide incentives and support for cost recovery and improved debt service capacity among Armenia's water companies.

USAID, along with the Coca-Cola Corporation, UNDP, and the local Municipality of Dilijan, will implement a GDA activity to install a sewage treatment plant and associated sewage network in the town to reduce pollution to the Aghstev River and to protect the ecosystem of that area.

The MCC began to work with the government of Armenia on water issues when a five-year Compact entered into force in FY 2006. The \$144 million Irrigated Agriculture Project provides support to increase the area of land under irrigated production, to make water sourcing and delivery more efficient for farmers, and to improve farmers' use of water for higher value agricultural production. The Compact provides funds for rehabilitating infrastructure, including main canals, pumping stations, gravity schemes, tertiary systems, and drainage systems in the Ararat Valley. The improvement in infrastructure is complemented with activities that strengthen irrigation system entities—including water supply agencies and user associations—to provide training to farmers on improved techniques for on-farm water management, high value agriculture production, and post-harvest, processing, and marketing of agriculture products.

**Measuring Effectiveness:** USAID developed the following indicators, and will be used to track progress of USAID activities in Armenia:

- Number of people with improved access to safe potable water
- Improve water sanitation of more than 5,000 people in Armenian villages
- Improve sewage treatment and reduce pollution to the river in the target area for approximately 15,000 people
- Development of revolving fund for Armenia’s water and sanitation sector

Approximately 100,000 Armenians received access to twelve hours of water supply. USAID completed the study on feasible strategies and financing mechanisms for investments needed in the water and sanitation sector, and developed the business plan for establishing a water sector revolving fund in Armenia. Small-scale water supply reconstruction project for 270 households has been started and the water reservoir has been rehabilitated. The GDA activity is under revision due to entry of a new partner, the European Bank for Reconstruction and Development (EBRD) to finance the collection system.

During FY 2009, MCC disbursed approximately \$11.7 million in Armenia for water sector and irrigation-related activities, which was spent on the rehabilitation of irrigation main canals and structures and the training of farmers in improved agricultural technology. Additionally, MCC invested in the completion of designs for pumping stations, gravity schemes, main canals, tertiary canals, and drainage systems. Construction is now underway for all projects.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. The table on the next page includes baselines and targets for the Armenia Compact set for the end of fiscal years 2008, 2009, and 2010.

Indicator (all measures are cumulative)	Unit	MCC Results						End of Compact Target
		Baseline	2008 Target	2008 Actual	2009 Target	2009 Actual	2010 Target	
Primary canals rehabilitated	Kilometers	0	0	0	1.3	1.8	15.2	27.7
Tertiary canals rehabilitated	Kilometers	0	0	6.4	6.5	6.4	120	220
Training/technical assistance provided for On-Farm Water Management	Number of farmers	0	11,000	13,123	27,579	27,282	38,379	45,000

## GEORGIA

**Water Sector and Sanitation Goals:** The spread of infectious diseases by contaminated water supplies and inadequate sewage treatment systems remain a major health challenge in Georgia. Georgia's water supply, sanitation, and waste water networks are highly deteriorated, leading to estimated water losses as high as 50 percent and frequent waterborne infections. Water delivery is sporadic, and most wastewater is discharged directly into open water bodies. Maintenance and repair are desperately needed, yet inadequate legal and institutional frameworks impede progress.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water resource management

**Approach:** MCC's five-year Compact with Georgia entered-into-force in FY 2006. Georgia's MCC Compact includes a Regional Infrastructure Development Project Activity to provide approximately \$58 million for regional and municipal physical infrastructure for water supply and sanitation. This project is designed to help targeted regions deliver safe, reliable, affordable and accessible public and utility services. At the time of Compact signing, it was estimated that more than half the water and sewage systems were beyond their service lives in target regions.

Georgia's MCC Compact, signed in FY 2005, dedicates \$69.4 million to improving municipal service delivery and provides grants to eligible government entities (local self-government, municipal enterprises, and central government) to develop infrastructure. The Regional Infrastructure Development (RID) Project focuses on rehabilitating regional and municipal physical infrastructure for water supply, sanitation, irrigation, and solid waste in regions outside of the capital, Tbilisi. Within this framework, the program is moving forward on five municipal water supply and sanitation systems in the cities of Bakuriani, Borjomi, Kobuleti, Kutaisi, and Poti. The goal is to provide the population of the regions with a 24-hour safe drinking water supply and to improve conditions for the development of tourism and small and medium-sized businesses. This is expected to improve productivity, increase small and medium business opportunities, and reduce household costs for water resources, generating household savings that can be put to other uses. In addition, the engineering design for the rehabilitation of an irrigation project will be funded.

USAID is supporting water resource and natural resource management activities in two targeted watersheds. With FY 2009 funds USAID will initiate efforts in FY 2010 to develop and implement water resource management activities in these watersheds that will lead to clean water supplies, improved sanitation, the completion of waste water treatments plans, and will initiate other interventions relevant to this program. A second program supported Georgia's efforts to reform its troubled water distribution sector, improve financial cost recovery, and identify sources of private sector participation in the future management of Georgian water distribution. A third program supported ten out of fifteen targeted conflict-affected schools that had poor or no water supply systems and lavatory facilities. For these interventions, USAID spent monies earmarked for FY 2008, and the activities have been initiated from the beginning of FY 2010. The U.S. Government installs high-quality water supply systems and/or lavatory facilities in these schools.

**Measuring Effectiveness:** The following are some of the key indicators being used to track the progress of each USAID project:

- Savings in household expenditures for all RID (municipal water) subprojects, due to more efficient and consistent water service
- Volume of individual water consumption (liters per capita per day)
- Population served by all RID subprojects
- Number of municipal water subprojects completed
- Value (\$) of signed goods and works contracts for municipal water subprojects

- Numbers of trilateral water meetings and events held in the South Caucasus
- Number of trilateral water sampling and analysis events held in the South Caucasus
- Number of cooperative agreements signed between the nations of Georgia, Azerbaijan, and Armenia
- Number of water wells drilled to supply high quality drinking water to schools
- Number of lavatory facilities installed in schools

The Government of Georgia created an institution to implement the five-year Compact—MCA Georgia—and the Compact entered into force in FY 2006. MCA-Georgia is working closely with the Municipal Development Fund (another government agency) to restore the water supply systems in Bakuriani, Borjomi, Kobuleti, Kutaisi, and Poti. Of these, one project is nearing completion, construction contracts have recently been awarded for two cities, and the procurement of works in the other two cities will soon be launched, following completion of the designs.

To implement larger-scale projects than would otherwise be possible under the RID facility, MCA-Georgia is cooperating with the European Bank of Reconstruction and Development, the Swedish International Development Agency, the European Union Delegation to Georgia, and other donors, in jointly financing the RID projects. A memorandum of cooperation on water monitoring was signed by the nations of Georgia, Azerbaijan, and Armenia. It led to the first-ever joint water sampling and analytical event involving the hydro meteorological authorities of all three countries.

MCC is also working on Georgian water issues, and MCC's investment program will now focus on the rehabilitation of five municipal water supply systems plus an irrigation feasibility study/engineering design. Rehabilitation of the municipal systems includes head works, trunk lines, extension of distribution networks, and metering. Of the amount committed, approximately \$23 million has been expended to date (as of end March 2010). FY 2009 disbursements were approximately \$7 million. The first of the municipal water supply systems, funded jointly with European Bank for Reconstruction and Development, has been completed; the MCC/MCG share was almost \$4 million. This completed system now serves 42,000 people. Works packages for the other four municipal systems have been awarded and are in progress. Indicators for the Rural Infrastructure Development Project do not track water investments separately from other investments and are therefore not presented.

## Kosovo

**Water Sector and Sanitation Goals:** Water Supply and Sanitation services in Kosovo face many challenges, including inadequate sanitation and sewage distribution systems; contamination of drinking water, well water, and rivers; sewage pipes that are in need of repair; lack of connection to the public sewage system with most households relying on septic tanks; direct disposal of waste water and industrial effluents in rivers and lakes; absence of waste water treatment systems; and operational difficulties in regional water supply companies, including lack of funds, electricity problems, billing and collection issues, and daily water interruptions. Only 73 percent of Kosovo’s population has access to drinking water, far below rates in neighboring Albania (91 percent). The remaining 27 percent of the population (concentrated in Peje, Prizren and Ferizaj) uses untreated water.

U.S. goal is to:

- Improve access to water supply and sanitation

**Approach:** Currently, USAID operates two programs focused on improving the infrastructure and institutions operating in the water sector. USAID’s Small Infrastructure for Water and Sanitation Program (SIWSK) is helping five municipalities improve the quality of and access to potable water and sanitation for 85,000 residents. USAID’s Kosovo Water Institutional Sector Reform (K-WISER) Program is supporting two Regional Water Companies (RWCs) to strengthen their institutional capacity and quality of service delivery through technical assistance and infrastructure improvements.

### Small Infrastructure for Water and Sanitation Program

USAID, in partnership with International Relief and Development (IRD), is working with the municipalities of Pejë/Pec, Klinë/Klina, Malishevë/Malisevo, Glogovc/Glogovac, and Lipjan and their respective RWCs. Access to potable water is below the national average in these areas with only about 45 percent of residents having access as compared to the national average of 61 percent.

### Kosovo Water Institutional Sector Reform Program

USAID, in partnership with PA Government Services, Inc., is supporting two RWCs, Hidrodrini in Peja/Pec and Hidroregjioni Jugor in Prizren, to improve water supply and sanitation services in their respective regions and to operate on a financially sustainable basis.

**Measuring Effectiveness:** In FY 2009, USAID Kosovo developed and designed a three year activity called Small Infrastructure for Water and Sanitation. Preliminary results of the three year \$5 million project were reported in late 2009. In 2009, U.S. Government resources under this activity reached 19,340 people in target municipalities, increasing the quality and access to potable water supply and sanitation exceeding the target of 18,000 set for the year. By the end of fiscal year 2010, the SIWSK Program will provide access to 75,000 people and will install services to about 40,000 people.

The K-WISER project is measured through a number of key performance indicators including reduction in leakage, reduction in administrative losses, increase in the number of customers connected to the water network, and increase in the number of customers paying in full for the water they consume. The project also targets a reduction in the cost of producing water.

USAID Indicators	2009 Actual
Number of people with access to improved drinking water	19,340
Number of person-months of employment generated through U.S. Government assistance	1,642
Increase in incomes generated through U.S. Government assistance	\$759,000
Percentage change (reduction) in technical losses of water in targeted RWCs as a result of U.S. Government assistance	40%
Percentage change in administrative losses (increase payments) of water in targeted RWCs as a result	31.5

## IV. LATIN AMERICA AND THE CARIBBEAN

### DOMINICAN REPUBLIC

USAID's Batey Community Development Project strives to improve water and sanitation conditions in eight public bateyes (sugar workers' towns) in Eastern Dominican Republic through community-based projects in education, health, water and sanitation, and emergency preparedness. The Batey Community Development Project has several activities related to water and sanitation including improving access to water for domestic use, access to basic sanitation services and the quality of drinking water. The overall goal for these water and sanitation improvement activities is to contribute to improving general health and nutrition conditions in participating communities.

The Batey Community Development Project undertakes several different and complimentary activities to improve water and sanitation. The project improves community water distribution systems by improving wells, storage tanks, distribution systems, and use points in communities and schools. It improves sanitation conditions in the bateyes by building latrines, training communities on environmental hygiene, and supporting bi-monthly community clean up days. The project also improves the water and sanitation conditions in schools by building or improving bathrooms, hand-washing facilities, and water storage tanks. In addition, the project has provided all households and primary school classrooms with ceramic water filters to ensure access to clean drinking water for beneficiary families and students. The project has formed and trained water committees in each of the participating communities, which are in the process of becoming certified and incorporated into the Dominican Government's National Water Institute's (INAPA, its acronym in Spanish) rural water association program (ASOCAR, its acronym in Spanish).

The Batey Community Development Project measures its impact in water and sanitation by quantifying the number of people and households with access to improved water and sanitation services and also by measuring the prevalence of diarrhea in children under five. Although diarrhea has multiple causes, water and sanitation conditions clearly contribute to the prevalence of diarrhea in children.

FY 2009 funding for water and sanitation activities in the Batey Community Development Project totaled \$2.2m. These funds are budgeted for use in 2009 and 2010. To date, the Project has achieved the following results:

- Six improved and repaired community water systems
- Four primary schools with improved bathrooms and hand-washing facilities
- Improved environmental health conditions and solid waste management in eight bateyes
- An estimated 3,000 batey residents and 800 students with access to potable water
- Installation of one community water purification system
- Creation and training of eight community water committees

In 2010, the project will continue to improve water and sanitation conditions in bateyes by finishing three water systems projects, repairing the bathrooms and hand-washing facilities in an additional primary school, and building approximately 250 latrines. These projects are currently underway.

## ECUADOR

**Water Sector and Sanitation Goals:** USAID/Ecuador's activities aim to increase local access to clean and reliable water and sanitation systems in the border communities that had previously lacked the most basic services. USAID/Ecuador's multi-faceted approach combines the provision of improved potable water and sanitation with comprehensive health education efforts.

U.S. goal is to:

- Improve access to water supply and sanitation and promote better hygiene

**Approach:** USAID/Ecuador is putting special emphasis on basic services, to improve health and the quality of life for residents of the border regions. Although the provision and coverage of health services--including water and sanitation--in Ecuador has increased significantly in recent years, service quality and efficiency remain low, particularly in rural areas. Considering that poor water and sanitation are among the foremost causes of diseases, the objective of USAID/Ecuador's activities is to increase and improve access to clean water and appropriate sanitation services in the border regions of Ecuador.

**Measuring Effectiveness:** In FY 2009, USAID/Ecuador built 25 water and 11 sanitation systems, providing potable water to 20,160 people and sanitation facilities to 2,055 people. USAID/Ecuador worked with Government of Ecuador counterparts to identify water and sanitation priorities, and balanced these priorities with a cost-benefit analysis that ensured that the maximum number of beneficiaries was reached at a reasonable cost. A fully functional community water management board is crucial for the sustainability of water and sanitation systems. In FY 2009, USAID/Ecuador created 11 new water management boards and strengthened the capacity of 31 additional boards formed in previous years of implementation. Training for board members included operation and maintenance, tariff setting, billing and collection, water quality, and watershed protection. USAID/Ecuador also used water management boards to promote the participation of women by identifying the best potential female candidates for leadership positions.

As a result of this effort, approximately 25 percent of water management board members supported by USAID are women, in important leadership roles such as treasurers and board presidents. This high rate of representation has improved gender dynamics in these communities, where women are encouraged to participate in other discussions that affect their families and communities. Another key component of USAID/Ecuador's program was an ambitious health education campaign to improve hand-washing practices among mothers, teachers, health promoters, child care providers, and children aged five and under. The campaign trained more than 53,300 people. USAID's campaign accomplished important results in FY 2009, including 50 percent of children reporting washing their hands before eating. USAID awareness campaigns, direct training, and the provision of water and sanitation facilities from September 2008 to September 2009 have resulted in a reduction of 31 percent in diarrheal diseases in children under five years in project areas.

**Water – Watershed Resources Management Goals:** USAID/Ecuador's activities aim to improve the management of critical habitats that provide water for municipal and hydroelectric use through payment for ecosystem services. USAID/Ecuador's approach integrates the strengthening of local institutions and promotes sustainable natural resources use in rural areas.

U.S. goal is to:

- Improve access to water supply and sanitation and promote better hygiene

**Approach:** USAID/Ecuador's approach strengthens the institutional capacity of water endowment funds; promotes sustainable natural resources use in rural areas to improve the livelihoods of communities in up and down stream watershed; and strengthens Quito Water Fund's (FONAG) education and conservation programs. Additionally, the project supports surveillance and monitoring activities in these areas, complementing efforts from the Ministry of Environment.

**Measuring Effectiveness:** In FY 2009, the USAID-supported Water Protection Fund (FONAG) helped four new water funds to become fully operational; five water funds were institutionally strengthened, improving the

management of 300,331 hectares in biologically significant watersheds. USAID leveraged nearly \$2 million in contributions to these funds from Municipal Water Companies, hydroelectric companies, NGOs, the French Institute for Development Research, and the “Life for Quito” Corporation, to protect basins that supply water to millions of inhabitants in the cities of Paute, Zamora, Tungurahua, Riobamba and Quito. Total matching funds – derived largely from the new funds – represented 220 percent of USAID funding. USAID assistance benefited 3,120 people with small productive activities in Tungurahua, Paute and Zamora (pasture management and family farms), and reached an additional 2,079 with economic alternatives around the Antisana, Cayambe-Coca, and Illinizas Ecological Reserves. USAID’s watershed project assisted residents of critical areas to adopt more sustainable farming practices to improve their livelihoods, such as production of organic vegetables, guinea pig breeding, cattle management, and ecotourism. In addition, the environmental education program reached more than 11,578 children in the urban and rural areas of Quito. Financial support for non-destructive productive activities and improved management practices (e.g., participatory planning, environmental education, park guards) reduced threats to biodiversity and helped improve the quantity and quality of drinking water. Most importantly, the program has established four endowments to support water resources management through integrated planning that will continue beyond USAID’s assistance.

USAID Indicators	2009
Number of people in target areas with access to improved drinking water supply as a result of U.S. Government assistance	20,160
Number of people in target areas with access to improved sanitation facilities as a result of U.S. Government assistance	2,055
Number of hectares in areas of biological significance under improved management as a result of U.S. Government assistance.	300,331

## HAITI

**Water Sector and Sanitation Goals:** Haiti's January 12 earthquake severely disrupted Haiti's water and sanitation systems, which has resulted in a major human health risk. Sanitation (safe excreta disposal) and solid waste disposal are considered to be of the most urgent priority. It is estimated that currently, there is approximately only one latrine for every 190 people in the internally displaced person (IDP) camps. Proposed post-earthquake activities would be to increase the available water quantity and drinking water quality, to increase the use of sanitary facilities for human excreta disposal, to improve key hygiene behaviors, to increase the capacity of the Government of Haiti WASH officials and institutions at local levels to apply low-cost WASH technologies and improve WASH services, and to increase the capacity of private enterprises in the WASH sector. Moreover, the massive movement of IDPs to already economically vulnerable rural areas further increased the pressure on natural resources and scarce water resources. USAID is currently working on expanding current programs in order to address the needs of the IDPs moving to their home towns and villages with employment and economic growth activities, infrastructure investments and other assistance.

U.S. goal is to:

- Improve access to water supply and sanitation and promote better hygiene

**Approach:** U.S. Government assistance in Haiti facilitates the productive use of scarce water resources, critical for food security and sustainable development. Haiti's water resources are characterized by wide seasonal fluctuation of rainfall, resulting in periodic drought or flooding. With insufficient recharge capacity due to deforestation, aquifers are being depleted; widespread soil erosion that clogs rivers, streams, and irrigation systems is exacerbated by destructive annual cropping systems practiced by subsistence-level hillside farmers.

**Measuring Effectiveness:** During FY 2009, USAID health programs continued to provide access to safe water for more than 10,000 HIV/AIDS-affected households in 10 departments of the country, benefiting an estimated 50,000 individuals. U.S. Government support for a safe water treatment solution resulted in Haitian households using more than 49 million liters of treated water at a cost of only \$0.90 per person per year. U.S. assistance also leveraged matching funds that helped to train over 1,000 teachers in improved hygiene practices and install water filter systems in more than 550 schools, 90 clinics, and 400 homes – serving more than 50,000 people. In areas of Haiti where U.S. Government health sector assistance and P.L. 480 Title II programming are currently targeted, community education activities related to water will reach approximately 50 percent of the population. The new Community Health for AIDS Migration Program will focus on the use of potable water and oral rehydration salts to reduce child deaths from diarrhea as part of their maternal and child health interventions.

USAID programs to rehabilitate social and productive infrastructure completed 47 clean water activities in six hotspot cities and improved sanitation facilities at more than 50 schools; 404 water points/systems destroyed by 2008 hurricanes were rehabilitated. These activities increased access to clean water for more than 1.3 million persons. New latrines benefited more than 22,000 school children, and more than 86,000 households realized easier access to clean water, as well as environmental improvements from clearing of urban drainage canals, which served as public toilets, garbage disposal sites, and breeding grounds for insect carriers of disease including malaria and dengue fever.

USAID contributed to efficient water use by focusing on Haiti's poorly maintained and highly deteriorated irrigation systems in four of the most vulnerable watersheds. USAID rehabilitated or expanded several irrigation systems either by direct system-wide interventions or through small grants to producer associations enabling them to carry out the work. In particular, USAID supported labor-intensive rehabilitation of more than 64 kilometers of irrigation canals, resulting in immediate income for the laborers and 6,000 irrigated hectares of land back into food production. USAID also supported improvements in four irrigation systems covering another 700 hectares by providing matching funds to the Ministry of Agriculture for repair/construction work. The rehabilitation of these systems permits double-cropping. USAID also supported land and water stabilization measures to mitigate damage from future storms including planting more than 650,000 trees, and rehabilitating 123 kilometers of transportation infrastructure. Over 14,000 hectares are now protected by erosion control structures such as gully plugs and contour terraces. USAID funded several designs for the renovation and

stabilization of irrigation systems, farm-to-market roads, and 12 kilometers of riverbank protection; implementation will begin in FY 2010.

USAID programs contributed to popularizing fish farming in the watersheds through grants that enabled the local business to provide enterprise development and marketing services to 12 vegetable and fish producers. USAID programs also promoted water catchments and sustainable soil/water management, contributing to environmental protection and income generation. USAID supported the training of 6,901 farmers in improved techniques focused on agricultural production, natural resource management, and enterprise development. USAID programs resulted in over 20,000 hectares brought under improved technologies or management practices to reduce threats to the downstream communities.

During FY 2009, USAID facilitated the establishment of four public-private partnerships (PPPs) to support watershed management by investing US\$2.5 million which leveraged over \$4.5 million of private sector funding. The PPPs include agro-forestry, fruit and vegetable processing, cacao production and export, and projects rehabilitating four irrigation systems.

## V. MIDDLE EAST

### JORDAN

**Water Sector and Sanitation Goals:** Jordan is an extremely arid country with a rapidly increasing population and limited water resources, resulting in an annual per capita water availability of 150 cubic meters. This makes Jordan one of the most-water-challenged countries in the world. Nearly all Jordanians have access to safe drinking water. Approximately 62 percent are served by the sanitation network. The key challenge in Jordan is to increase the availability of freshwater supplies for municipal, industrial, and agricultural uses. Currently, continuous supply of water is rare—only in Aqaba. Most Jordanians in urban settings receive water once or twice weekly—in rural areas, less often—and utilize storage tanks in the interim.

U.S. goals are to:

- Improve access to water supply and sanitation, and promote better hygiene
- Improve water resources management
- Increase water productivity

**Approach:** USAID promotes improved water resources management by increasing awareness of water issues, strengthening water sector institutions, building new infrastructure, and changing behaviors. Although efforts will be focused in Jordan's largest population centers—the Amman-Zarqa region, Irbid region, and Aqaba—efforts are also underway to increase awareness of water issues and strengthen water sector institutions in smaller communities throughout Jordan over the next five years. USAID will support the construction and operation of treatment facilities to provide sanitation services, with the long-term goal of providing appropriate water and sanitation infrastructure to serve the entire country. USAID will promote the use of treated wastewater, increase the efficiency of water used, and explore alternative rural livelihood approaches to reduce the stress on groundwater resources.

USAID support complements efforts of the Government of Jordan and its National Water Master Plan. Other key partners in the water and sanitation sector include the European Union, German, Japanese, and French Development Agencies. Coordination among donors is conducted through a formal group currently chaired by French Development Agency (AFD).

MCC and Jordan entered into a grant agreement that will provide up to \$13 million to develop a large-scale program focused on water and sanitation. The grant agreement will finance feasibility studies and environmental and social assessments for water and wastewater network projects, and technical advisors to help negotiate the expansion of an existing wastewater treatment plant. The proposed investment projects, which may total up to \$275 million over five years when finalized, are focused on Zarqa, a dry governorate to the east of the capital. While the preliminary agreement with Jordan does not constitute a commitment to sign the larger Compact agreement, it marks an important milestone in the Compact development process, which MCC expects to sign in FY 2010. If approved by the MCC Board, the Jordan Compact is expected to have significant investments in water and sanitation.

**Measuring Effectiveness:** The following indicators will be used to track progress of U.S. activities in Jordan:

- Number of people benefiting from improved water resources management
- Number of policies and agreements that enhance integrated natural resources management
- Number of people trained in improved water management practices and approaches

Water supply, distribution, and sanitation infrastructure created in the Greater Amman area provide improved services to over two million Jordanians. USAID supported training of more than 2,600 Jordanians in water use efficiency, water conservation, and watershed management approaches, and adoption of a new policy on water demand management. Over 1,300 small loans supported community initiatives to harvest water or use it more efficiently benefiting nearly 8,000 people. Construction progressed on two rural wastewater treatment facilities

that will serve more than 100,000 people when completed. Provision of technical assistance strengthened local capacity in water source protection, improved wastewater management, and treatment for sewage. More than 1,300 Jordanians were trained in environmental management systems, wastewater reuse, and other areas critical to water resources management.

MCC did not disburse funds for work in the water sector under the Jordan 609(g) grant during FY 2009. Approximately \$8 million out of the \$13 million for feasibility and assessment studies has been committed to date under the grant agreement.

## LEBANON

**Water Sector and Water and Sanitation Goals :** Lebanon has relatively abundant water resources, but faces a likely severe water deficit within the next 25 years due to mismanagement and more than 50 percent of resources lost. In order for Lebanon to generate and sustain broad-based growth, it must develop its water sector at all levels starting with water supply and demand management reaching water quality protection. Currently, GOL investments are concentrated more on expanding large-scale infrastructure for water supply (dams, diversions, stations) rather than looking at water demand management issues.

**Approach:** The U.S. Government assists Lebanon to invest in its people through health programs focused on water supply and sanitation. By improving water supply and quality of water resources that are critical to potable use and health, as well as economic growth, the program will address important factors for stability in Lebanon. Through focusing on water and sanitation, the U.S. Government is addressing managerial as well as environmental problems of the Litani River, one of the key water sources in Lebanon. Allowing pollutants to continue to be dumped directly into this fragile resource is a key concern. Programs focus on providing a sound and technically appropriate solutions to wastewater problems and improving water management and water quality monitoring of the Litani River watershed. The U.S. Government is also assisting the four water entities covering South Lebanon, North Lebanon, the Bekaa, and Beirut and Mount Lebanon, to help them become self sustaining entities, able to draw private investment in the water sector and will lead Lebanon towards a system of long-range planning, conservation, cost recovery and efficiency planning, and overall sustainable resource management for growth and opportunity. Activities focus on strengthening their capabilities, training employees, introducing information technology systems, implementing new tariff structures, introducing long term planning and strategies, promoting water conservation and improving water supply infrastructure. U.S. assistance is also targeting the Litani River Authority to improve water quality and quantity management at the Litani River basin watershed. The ultimate goal is to improve water services and increase water benefits for all Lebanese through strengthened and more effective management procedures, improved water infrastructure, and enhanced water governance.

### Measuring Results:

- Number of people in target areas connected to functioning wastewater treatment facilities as a result of U.S. Government assistance: 20,000
- Number of staff from water entities trained as a result of U.S. Government assistance: 8
- Number of functioning water and wastewater facilities constructed or rehabilitated with U.S. Government assistance: 2
- Number of Management systems and plans used at water management entities as a result of U.S. Government assistance: 2
- Amount of treated wastewater in targeted areas complying with national standards: 600 m<sup>3</sup>

**Progress and Results:** In FY 2009, USAID completed the construction and commissioning of two wastewater treatment plants (WWTPs) that will alleviate pollution of the Litani River by treating 6,000 cubic meters of raw sewage that previously flowed directly into the river. Twenty thousand people who were initially connected to the system benefited from the two WWTPs. USAID will continue until 2010 to assist the communities in managing and operating these wastewater treatment facilities. The two facilities constructed with easy-to-maintain technology are operating trouble-free and are being calibrated to meet the required design standards. Two new programs aimed at supporting Water entities -4 Water Establishments, Ministry of Energy and Water and the Litani River Authority- have been launched at the end of FY 2009. Results will be reported in FY 2010.

## MOROCCO

**Water Sector and Sanitation Goals:** Water and irrigated agriculture have emerged as priorities among MCC partner counties because they are fundamental pillars to improving the livelihoods and wellbeing of the rural poor. Issues such as climate change and food security have added urgency to the need for clean reliable water sources. Morocco, with its arid climate and limited natural resources can benefit from a sustainable management of soil and water resources and a shift away from water intensive crop production.

U.S. goal is to:

- Improve water productivity

**Approach:** MCC's five year Compact entered-into-force in FY 2008. The Compact's \$300 million Fruit Tree Productivity Project aims to stimulate growth in the agricultural sector and reduce volatility of agricultural production by rehabilitating existing olive orchards and expand production of fruit trees, move small farms from high water-use, low-value cereals to low water-use, high-value and drought resistant commercial fruit tree species, and support improvements to increase irrigation efficiency and productivity of olive and date trees. The two activities in the Productivity Project focused on increasing irrigation efficiency are worth a total of \$105 million, which include \$57 million to improve irrigation of the olive orchards and \$47 million to improve irrigation of date palm orchards.

Specifically, the Fruit Tree Productivity investment is designed to stimulate growth in the agricultural sector through transformation from extensive cropping of annuals, notably cereals, to more productive market-oriented cultivation of perennial tree crops (olives, almonds, figs, dates) based on sustainable management of soil and water resources and improved links to national and international markets. The objectives are to: 1) reduce water needs in agriculture by moving from high water-use, low-value cereal grains to low water use, high-value commercial fruit tree species; 2) reduce volatility in agricultural production and farm revenues by expanding the area of commercial tree species that produce more stable yields and can better handle moisture stress; 3) protect the natural resource base by eliminating wheat production from hillsides, replacing it with trees that reduce erosion and conserve the soil; 4) replace wheat, where Morocco is not competitive on the international market, with commercial tree crops, where it has a natural competitive advantage; and 5) organize and link small-holders to high-value markets.

**Measuring Effectiveness:** Under MCC's five-year Compact, approximately \$1 million was disbursed during FY 2009. As of September 30, 2009, final designs for Tranche 1 of the irrigation rehabilitation activities for the Fruit Tree Productivity Project were complete and invitation for procurement bids were being finalized; these bids were received in October 2009 and contracts were signed in January/February 2010. Feasibility studies and environmental management plans for all perimeters in Tranches 2 and 3 are nearing completion, as well as action plans for the improvement of fruit tree cultivation practices in Tranche 1.

Individual indicators and their respective baselines and targets are developed for each MCC Compact. The table below includes baselines and targets for the Morocco Compact set for the end of fiscal years 2008, 2009 and 2010. Due to variations in implementation timelines and plans, some indicators may not require targets for every year, in which case they are labeled as "na", or "Not Applicable." In years in which targets are anticipated or required, but complete data is unavailable at this time, the target is set as "TBD," or "To Be Determined." Targets labeled as TBD will be set by MCA-Morocco in conjunction with MCC before the end of the relevant year. Baselines labeled as TBD must be set as soon as possible, but no later than the end of the Compact's fourth year.

<b>Indicator (all measures are cumulative)</b>	<b>Unit</b>	<b>Base- line</b>	<b>2008 Target</b>	<b>2008 Actual</b>	<b>2009 Target</b>	<b>2009 Actual</b>	<b>2010 Target</b>	<b>End of Compact Target</b>
Cumulative number of farmers trained	Farmers	0	na	na	na	na	13,278	64,972
Number of agribusinesses assisted	Agri-businesses	0	na	na	0	0	0	200
Cumulative area of irrigated perimeters rehabilitated (ha)	Hectares	0	na	na	0	0	0	27,994
Cumulative area of oasis rehabilitated	Hectares	0	na	na	0	0	na	10,026
Number of hectares under production with MCC Support (Cumulative area planted in olive trees, almond trees and fig trees)	Hectares	0	na	na	5,462	398	26,900	120,000

## WEST BANK AND GAZA

**Goals:** Increased access to improved public infrastructure is a critical foundation for social and economic development. The public infrastructure required to support an independent, sovereign, viable Palestinian state is lacking or in desperate need of repair or replacement. It is especially evident when referring to existing water and sanitation systems. These systems offer limited coverage and are poor in quality. In response, USAID West Bank and Gaza (USAID/WBG) Mission plans to develop strategic sources of new water supply, drill and equip wells in the West Bank, assist the Palestinian Water Authority to secure water rights, and develop new water sources consistent with water conservation efforts and the rational development of underground aquifers. Such activities will support U.S. foreign policy objectives by demonstrating U.S. support for a moderate Palestinian government and a longer-term development assistance partnership.

**Approach:** USAID continually monitors what other donors and the Palestinian Authority are implementing in infrastructure and assesses if key needs are being met. Water infrastructure needs are not being met sufficiently by other donors. Therefore, as a continued effort to support U.S. foreign policy objectives, the USAID/WBG Mission plans to continue to increase access to potable water and sanitation services to un-served areas to meet basic domestic and commercial needs. This will include the construction of large-scale water infrastructure at the national level, and small and medium sized water infrastructure projects at the community and municipality levels. While activities to be undertaken by this program will be limited initially to the West Bank; activities in Gaza will also be considered for implementation if the political and security situation permit.

**Measuring Results:** The following indicators are used for tracking progress of U.S. activities in the water and sanitation sectors and reporting results:

- Number of people with improved access to drinking water supply as a result of U.S. Government assistance
- Number of people with improved access to sanitation facilities as a result of U.S. Government assistance

**Results During 2009:** In FY 2009 USAID/WBG has financed the rehabilitation and construction of both small and large-scale water networks throughout the West Bank including the installation and rehabilitation of 68.8 kilometers of water pipes and the provision of 5,600 m<sup>3</sup> of additional water to Palestinians per day to benefit around 68,000 beneficiaries. In the sanitation sector, the USAID West Bank and Gaza Mission supported only a few activities to benefit around 20,000 West Bank residents, including the rehabilitation and expansion of small and medium scale sewage systems and upgrade of sanitation systems at schools, health clinics and other public facilities.

USAID Indicators	Beneficiaries
Number of people with improved access to drinking water supply as a result of U.S. Government assistance	68,000
Number of people with improved access to sanitation facilities as a result of U.S. Government assistance	20,000

## Annex 3

# Agency-Specific Reports

### “Whole of Government” Response

In addition to the contributions of USAID summarized in the main body of the report and described in Annex 2, other U.S. Government agencies make unique contributions to water and sanitation that greatly magnify our overall effectiveness. In many cases these agencies made both programmatic and significant non-financial contributions that are highlighted below.

The **Centers for Disease Control and Prevention (CDC)** obligated \$890,000 in Latin America, Africa and Asia for water safety plans and programs, hygiene education, and waterborne disease prevention and response. In FY 2009, CDC’s technical assistance contributed to: sales of sufficient water treatment products to treat over 15 billion liters of water in 25 countries; seven additional African countries being certified as free of Guinea worm transmission; and the creation of a Regional Network for water safety plans in Latin America and the Caribbean. CDC field studies established the safety of and best practices for the manufacture of new products for household water treatment, and the effectiveness of implementing these products and hand washing promotion in antenatal care clinics, schools, and programs for persons living with HIV/AIDS. As a result of these studies and activities, the numbers of people served by household water treatment and hand washing promotion programs continues to grow, with a significant reduction in the risk of diarrheal and other waterborne infections. In addition, CDC provided much-needed technical assistance to the Office of Foreign Disaster Assistance in stemming cholera outbreaks in DRC and Zimbabwe. For more detailed information, please go to <http://www.cdc.gov/healthywater/global/programs/>.

The **Department of Defense U.S. Combatant Commands**: Funded through the Overseas Humanitarian, Disaster and Civic Assistance (OHDACA) appropriation, regional Combatant Commands frequently implement Humanitarian Assistance Projects in local communities within their area of responsibility. Many of these projects support a range of water and sanitation programs, such as enhancing flood control systems, improving water and/or sanitation treatment facilities, and assisting with well construction and maintenance. Approved activities not only alleviate suffering of populations lacking adequate water and sanitation resources but also reduce and/or mitigate broader civil vulnerabilities. In FY 2009, OHDACA-funded water projects were approved in Brazil, Cameroon, Côte d'Ivoire, Croatia, Djibouti, Timor-Leste, Honduras, India, Indonesia, Kosovo, Laos, Lebanon, Morocco, Niger, Pakistan, the Philippines, Togo, and Vietnam. All activities are coordinated with appropriate USAID and State colleagues, and projects are initiated and implemented in collaboration with national ministries and a range of other U.S. Government partners, such as the United States Geological Survey, the U.S. Army Corps of Engineers, and the Navy's Facilities Engineering Service Center.

The **Department of State (DOS)** uses diplomacy to advance cooperation on shared waters, to raise the political will of countries to address their water and sanitation challenges, and to strengthen regional and global water-related processes. In 2009 the Department of State finalized a cooperative agreement with the Millennium Water Alliance to implement the Ambassadors’ Water, Sanitation, and Hygiene in Schools Initiative. This initiative will enable up to 20 U.S. embassies worldwide to help provide latrines, hand-washing stations, and hygiene education to a school in its region. The Embassies will use project milestones to convene leaders to discuss the importance of water and sanitation in schools and homes. DOS also launched the “African Ministers Council on Water (AMCOW) Technical Assistance Program” in 2009, to strengthen the capacity of the AMCOW Secretariat to effectively address critical water sector issues in Africa, and to facilitate the engagement of U.S.-based foundations, nongovernmental organizations, academia, and the private sector in Africa on water and sanitation issues. The Department convened a conference of experts from NGOs, private sector, and the

U.S. Government to discuss pro-poor approaches to development assistance for water and sanitation. The meeting helped raise awareness about strategies to provide access to the poorest populations. Throughout 2009, DOS was an active participant in the G8 Water Experts Group, leading to the joint statement at L'Aquila on a stronger G8-Africa partnership on water and sanitation. The Department engaged in discussions with other donors and stakeholders to foster cooperation on the Nile through the Nile Basin Initiative. DOS used international meetings, such as the 5th World Water Forum and Stockholm World Water Week, and engaged multilateral institutions, such as UNESCO's International Hydrologic Program and the World Meteorological Organization, to coordinate efforts with other donors and stakeholders, and to foster collaboration on a number of issues and priorities, ranging from integrating climate and water to addressing the disproportionate impact the lack of access to safe drinking water and sanitation has on women and girls. These meetings also facilitated the engagement of the full range of U.S. expertise in the sector, including U.S. technical agencies, the private sector, academia, and non-governmental organizations. Feed the Future (FTF), the U.S. global hunger and food security initiative, addresses the water-food security challenge by encouraging focus countries to include the improvement of water quality, infrastructure, storage, and conservation, the increase of food productivity, and the enhancement of weather forecasting into their food security investment strategies and implementation plans.

The **Environmental Protection Agency (EPA)** provides sustainable water resources management expertise in promoting safe drinking water and sanitation that aims to improve water quality for the benefit of public health and the environment. In fulfilling several interrelated objectives, EPA partners with priority countries, international organizations such as WHO, UNEP, OECD, FAO, and several federal agencies including the Department of State and USAID in developing international guidance and synergistic programs to reduce water contamination along the U.S.-Mexico border, and in several developing countries. Under the U.S.-Mexico Environmental Program, encompassing 10 border States and tribes, EPA supported construction of wastewater and drinking water facilities, demonstration projects in storm-water detention, ecological wetlands, rain water harvesting technologies, composting toilets, and estuary restoration. In FY 2009, the Border Environment Infrastructure Fund and Project Development Assistance Program helped to complete 13 projects that provided wastewater and drinking water service for over 370,000 people in the United States and Mexico. Other international EPA initiatives included a cooperative agreement with WHO and partner organizations in India to develop and implement Water Safety Plans (WSP) in Hyderabad and another State Department effort in Nagpur. In Latin America and the Caribbean, EPA and its partners, including CDC, developed and implemented WSPs in 6 cities that led to the creation of a WSP Network for the region which continues to provide technical support. Also, in the wider Caribbean, EPA reduced risks to safe drinking water systems through the prevention of land-based sources of pollution. More generally, EPA staff expertise has contributed to various international platforms in water strategies, quality and environmental impact assessments from land use changes and human health risk assessment from water contaminants (e.g., mercury, arsenic, etc.) enhancing global harmonization in approaches and processes.

The **U.S. Geological Survey (USGS)** is an earth science agency that provides reliable, impartial, basic hydrologic data, investigations, and research to further humanitarian assistance, capacity building, and science diplomacy. The hydrologic information we provide is used by decision makers to minimize the loss of life and property resulting from floods, droughts, and land movement; to effectively manage groundwater and rivers for drinking, agriculture, commerce, industry, and ecological uses; to protect and enhance water resources for human health, aquatic health, and environmental quality; to characterize the likely effects of climate change on water resources; and to contribute to wise physical and economic development of the water resources for the benefit of present and future generations. USGS performs international science at the request of USAID, COCOMS, Department of State, MCC, and other nations. In recent years the USGS has worked in Iraq, Afghanistan, Pakistan, India, Honduras, and other countries. The USGS also plays a leadership role in the UNESCO International Hydrological Programme.

The **Millennium Challenge Corporation (MCC)** is founded on the principle that aid is most effective when it reinforces good governance, measures for results, and is country-owned. MCC-funded programs are developed through a country-led process in which partner countries are responsible for identifying their constraints to poverty reduction, as well as the development and implementation of programs as negotiated in a

grant agreement, or MCC compact agreement. Water-related activities are frequent components of MCC compacts. When a compact is signed, MCC commits program funds up-front and disburses the funds over its five-year lifespan. Obligation of MCC funds occurs when the compacts “enter into force” and projects are ready to begin disbursements, sometimes in the next fiscal year. MCC has obligated over \$1 billion in cumulative investments through FY 2009 supporting water-for-the-poor activities, including more than \$121 million of obligations in FY 2009 alone. Most of these funds are obligated under the Burkina Faso Compact in FY 2009 for activities designed to increase rural incomes and employment, and enhance the competitiveness of rural economies. The Senegal Compact, signed in FY 2009, but with an obligation of funds in FY 2010, includes \$170 million to rehabilitate key components of the country’s main irrigation and drainage systems, help increase reliability, eliminate the risk of abandonment of irrigated land and improve crop yields, as well as develop newly irrigated lands.

The **National Aeronautics and Space Administration (NASA)**: NASA had a \$1.7 billion FY 2009 budget in Earth Sciences. In this budget NASA spent \$104.3 million for Water Cycle research, \$88 million for Climate Variability and \$47.8 million for Applied Sciences. Under the Applied Sciences Program, NASA works to convert their research and technology for societal benefit. For a relatively small expenditure of \$3.2 million in Applied Sciences, NASA’s scientists and satellite monitoring assets provided invaluable data for improved water resources management in developing nations. For instance, a joint USAID-NASA program established an earth observation, monitoring, and visualization system known as SERVIR. The program worked with African scientists to develop models for flood forecasting and in Central America to conduct spatial analyses of extreme events, to improve response to natural disasters. In 2010, the program plans to launch a similar monitoring system in the Himalayas. The glaciers and snowmelt in that mountain range serve as the water tower of Asia, providing the water supply for more than 1.3 billion people. Other programs included a global flood and landslide monitoring/prediction system; lake level monitoring; regional water assessments in the Middle East and North Africa using remote sensing and modeling; a land data assimilation system for improved Famine Early Warning System; distributed hydrological information for water management in the Nile Basin; satellite estimates of groundwater depletion in India; integrative data for improved water management; capacity building; and Iraq irrigation data. For more information visit [http://wmp.gsfc.nasa.gov/reports/NASA\\_DoS\\_Water-for-the-Poor\\_fy2009\\_6-7-10.pdf](http://wmp.gsfc.nasa.gov/reports/NASA_DoS_Water-for-the-Poor_fy2009_6-7-10.pdf).

The **National Oceanographic and Atmospheric Administration (NOAA)** obligated nearly \$1.3 million in FY 2009 for projects with global, regional and state-level significance. NOAA, USAID/OFDA, WMO, Hydrologic Research Center and partner National Meteorological and Hydrological Services are developing a global flash flood guidance system to support the development of an early warning system, protocols and procedures, and capacity building to provide rapid assessments of potential flash floods, improving lead time and enabling for rapid response and mobilization of resources. In Central America, Latin America and the Caribbean, NOAA supported water resources and watershed management capacity building across water-sensitive sectors with respect to climate change vulnerabilities, assessments and adaptation strategies. This included developing a hydrographic model for forecasting flood events and training personnel on guidance manuals and assessment methodologies. NOAA also provided direct technical assistance and advice to Caribbean governments in the development of their National Programs of Action to prevent, reduce, control and/or eliminate marine degradation from land-based activities. Watershed management capacity building was expanded to two South American nations as well as to China’s Xiamen Estuary and Juilong River Basin.

In FY 2009, the **Overseas Private Investment Corporation (OPIC)** financed \$250 million of an \$878 million project to sustainably extract water from a southern Jordanian aquifer and convey it to Amman, where it will improve water quantity, reliability and quality and provide an emergency supply to villages along the transmission route.

The **Peace Corps**: Through their community-level presence, Peace Corps Volunteers helped community members acquire and properly use affordable household water treatment methods including solar disinfection, boiling, ceramic filters, and biofilters. They helped strengthen the management of water and sanitation committees to ensure the sustainability of water and sanitation infrastructure, trained water system operators, and taught community members how to maintain latrines. Volunteers facilitated the financing and construction

or repair of community and school gravity-flow water systems, rainwater catchment systems, wells, soak-away pits and latrines. They also trained local masons in techniques including ferro-cement tank construction. In FY 2009, Peace Corps programs helped over 66,000 people gain access to water systems and over 35,000 people gain access to improved sanitation. In addition, Peace Corps volunteers interacted with over 80,000 beneficiaries with hygiene education messaging. The majority of water and sanitation activities took place in Africa and Latin America.

The **U.S. Army Corps of Engineers (USACE)**: USACE provides technical expertise to support international programs for the Department of State, USAID, U.S. Department of Defense Combatant Commands and Millennium Challenge Corporation. In Iraq, USACE obligated approximately \$54 million for water and sanitation projects in FY 2009. From prior year obligations, USACE completed 113 projects in Iraq in FY 2009 and these totaled approximately \$273 million. The completed Iraq projects included 26 water distribution projects, 23 water treatment projects, 20 projects supporting operations and maintenance of water systems, and 13 sewage collection projects. An additional 41 projects were ongoing throughout FY 2009 and included 17 water treatment projects, 11 water distribution projects, and four sewage collection projects. Key results included an improved water source for 192,000 people and improved irrigation for over one million hectares of farmland. In Jordan, during FY 2009, USACE provided "due diligence" technical support (\$118,000) to MCC on major water and wastewater distribution system improvements and rehabilitation projects proposed by the Government of Jordan. In Asia, USACE completed \$7.5 million in Humanitarian Assistance projects on behalf of U.S. Pacific Command (PACOM), including improved water and sanitation systems for 22 schools and five medical clinics located in Vietnam, Laos, Cambodia, and Indonesia. Projects resulted in improved access to water and sanitation for a population of 4,000 students and 2,000 patients. In Africa, USACE provided \$1.6 million in technical assistance through the MCC to Ghana, Mozambique, and Senegal for irrigation, roadway drainage and a dam feasibility study. In Afghanistan—in partnership with USDA and USGS—USACE completed watershed assessments for five southeastern provinces. Through this process, 159 possible irrigation storage dam sites and 136 potential micro hydropower irrigation diversion sites were identified. This effort served as a first stage of implementing a sustainable water management strategy in southeast Afghanistan, including both short-term structural improvements and longer-term watershed restoration.

The **U.S. Bureau of Reclamation (USBR)** provides technical assistance and multi-country training programs in a variety of areas related water resources development and management. In FY 2009 Reclamation provided a modest amount of assistance (\$500,000) related to dam safety; this included dam safety training programs for Pakistan, China and Tanzania. In addition, other technical assistance and training programs were offered on hydropower management for China, and integrated water resources management, project planning, design and construction in Taiwan. In FY 2009, Reclamation also continued to provide support to the Department of State activities related to the Middle East Desalination Research Center in Muscat, Oman.