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USAID Investments in Drinking Water Supply Projects and Related Activities in 2005

A Report to the U.S. House and Senate Appropriations Committees
March 2005



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USAID Helps Alleviate the Global Water Crisis

Worldwide demand for water is steadily increasing as industrialization, agricultural use, urbanization, and a rising standard of living for the globe's growing population drive water consumption ever higher. Slightly more than one-half of available freshwater supplies are currently used for human purposes, and world water demand doubles every 20 years.

Successful management of freshwater resources is a critical development issue. By 2025, more than 2.8 billion people—35% of the world's projected population—will live in 48 countries facing water stress or water scarcity. One in every four people in the developing world—more than 1.2 billion people—currently lack access to a safe water supply, and two in five have no access to improved sanitation (connection to a public sewer or septic system, or access to a pour-flush latrine, simple pit latrine, or ventilated improved pit latrine). Lack of water, poor water quality, inadequate sanitation, and poor hygiene practices are directly responsible for the vast majority of cases of diarrheal disease, which kill over 2 million children each year. In addition, water resources management has an impact on insects that carry diseases, most notably mosquitoes. Malaria alone kills over 1 million people each year, with ninety percent of these deaths in sub-Saharan Africa, mainly among children. USAID investments reflect the urgent need to provide safe and affordable domestic water supply and integrate it into overall water management. USAID also promotes sanitation and hygiene to protect drinking water sources, the environment, and human health.

The FY 2005 Appropriations Act Conference Report States:
“The conference agreement includes Senate language providing that \$100,000,000 shall be made available for drinking water supply projects and related activities. The managers expect USAID to report no later than 90 days after enactment of this Act on funding and implementation of its water projects, including the number and location of wells drilled, and the cost per well.”

Note: Since this report is due very early in the fiscal year (within 90 days after enactment of the Appropriations Act and before most USAID obligations are made), the USAID obligations provided in this report represent projected estimates only for total funding throughout FY 2005. Available data later in the fiscal year may show actual obligations different from these projections. Differences are primarily due to the provision of Supplemental and International Disaster Assistance funds to areas of conflict or natural disasters, which can not be predicted in advance. Other differences may be due to the reprogramming of funds to different types of activities based on changes in mission or agency priorities.

Table I. Estimated FY 2005 USAID Drinking Water Supply and Sanitation Obligations by Country and Region
(Reported in Millions of USD)

Region	Country or Operating Unit	Drinking Water Supply	Sanitation	TOTAL
Africa	Angola	0.500	0.000	0.500
	Burundi	0.174	0.174	0.348
	Eritrea	1.617	0.200	1.817
	Ethiopia	0.671	0.400	1.071
	Ghana	0.500	0.350	0.850
	Kenya	0.300	0.300	0.600
	Madagascar	0.274	0.153	0.427
	Mozambique	0.769	0.769	1.538
	Senegal	0.100	0.000	0.100
	Somalia	0.626	0.526	1.152
	South Africa	0.750	0.400	1.150
Sudan	1.458	0.708	2.166	
	Africa Total	7.739	3.980	11.719
Asia & Near East	Afghanistan ^a	13.000	0.000	13.000
	Bangladesh	0.562	0.458	1.020
	India	2.055	3.049	5.104
	Indonesia	7.076	2.569	9.645
	Lebanon	0.000	1.200	1.200
	Pakistan	3.300	3.000	6.300
	Philippines	0.075	0.000	0.075
	Yemen	0.335	0.335	0.670
	Asia & Near East Total^b	26.403	10.611	37.014
Egypt, Jordan, & West Bank/Gaza	Egypt	0.000	0.000	0.000
	Jordan	15.270	0.000	15.270
	West Bank/Gaza ^c	11.518	0.500	12.018
	Egypt, Jordan, & West Bank/Gaza Total	26.788	0.500	27.288
Europe & Eurasia	Armenia	2.328	0.000	2.328
	Montenegro	0.665	0.000	0.665
	Tajikistan	0.150	0.000	0.150
	Ukraine	0.450	0.000	0.450
	Uzbekistan	0.300	0.000	0.300
	Europe Regional Programs	0.100	0.100	0.200
	Eurasia Regional Programs	0.100	0.100	0.200
	Europe & Eurasia Total	4.093	0.200	4.293

^a Excludes \$17.5 million for water supply and \$4.8 million for sanitation activities from supplemental funding expected to be obligated in FY 2005 for Afghanistan.

^b Less Egypt, Jordan, and West Bank/Gaza; also excludes at least \$10.3 million for water supply and \$7.5 million for sanitation activities expected to be obligated in FY 2005 from the Supplemental Appropriation for Iraq Relief and Reconstruction.

^c Excludes prior year carryover of \$66.7 million for water supply and \$60 million for desalination activities from supplemental funding expected to be obligated in FY 2005 for West Bank/Gaza.

Table I. Estimated FY 2005 USAID Drinking Water Supply and Sanitation Obligations by Country and Region
(Reported in Millions of USD)

Region	Country or Operating Unit	Drinking Water Supply	Sanitation	TOTAL
Latin America & Caribbean	Bolivia	2.872	1.874	4.746
	Colombia	2.583	1.429	4.012
	Dominican Republic	0.125	0.125	0.250
	Ecuador	5.167	4.567	9.734
	El Salvador	0.195	0.195	0.390
	Haiti	1.500	1.500	3.000
	Jamaica	0.000	0.556	0.556
	Peru	1.000	1.000	2.000
	Latin America & Caribbean Total	13.442	11.246	24.688
Central Programs	Global Health Programs	1.100	1.300	2.400
	Foreign Disaster Assistance ^d	31.495	15.258	46.753
	Central Programs Total	32.595	16.558	49.153
	TOTAL — All Regions	\$ 111.060	\$ 43.095	\$ 154.155

^d Given that the total amount of Foreign Disaster Assistance to be obligated for unforeseen emergencies and disasters throughout FY 2005 is unknown until the fiscal year ends on September 30, 2005, reported obligations for water supply and sanitation activities represent a straightline estimate based on FY 2004 obligations.

USAID estimates that it will obligate for FY 2005 more than \$543 million to a variety of water-related activities. This figure includes a preliminary estimate of \$17.8 million in Iraq for water activities from a proposed Supplemental Appropriation for Iraq Relief and Reconstruction.

The \$543 million estimate includes more than \$154 million for drinking water supply and sanitation-related activities aimed at protecting human health, excluding supplemental funding for such activities in Afghanistan, Iraq, and West Bank/Gaza. The \$154 million estimate breaks down into \$111 million for water supply projects in more than 33 countries, and \$43 million for

sanitation and hygiene projects in more than 25 countries (Table I). As defined by USAID, water supply and sanitation obligations include those activities that improve access to and availability of clean drinking water; reduce water contamination through provision of proper drainage and removal of human waste; ensure water source protection; and promote improved hygiene behaviors.¹

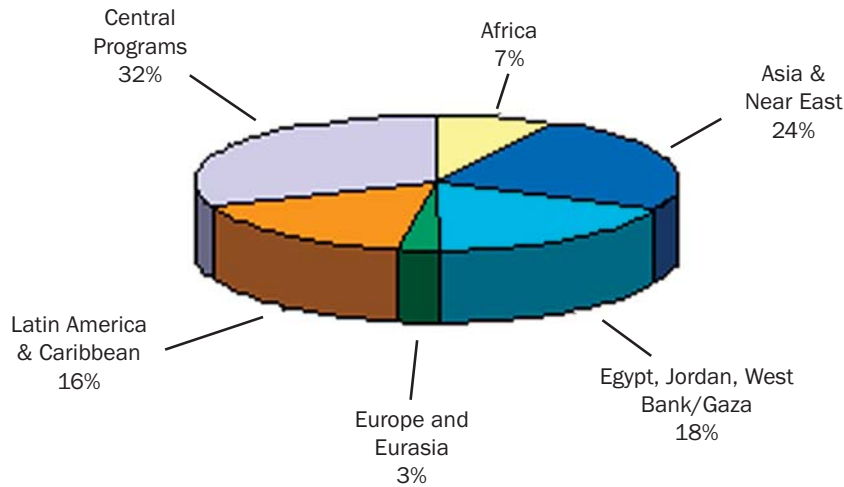
Regional Focus of USAID's Drinking Water Supply Projects and Related Activities

More than \$27 million of USAID's total investment in drinking water supply and sanitation activities takes place in Jordan and West

Bank/Gaza (Figure 1). Because Jordan and West Bank/Gaza, along with Egypt, have represented a disproportionately large percentage of USAID's total water supply obligations over the last few years, these areas have been disaggregated from the Asia and Near East Region for reporting purposes. Other Bureau or Operating Unit recipients with significant drinking water supply and sanitation funds include Central Programs and Operating Units at over \$49 million, Asia and the Near East Region (less Egypt, Jordan and West Bank/Gaza) at over \$37 million, the Latin America and Caribbean Region at over \$24 million, Africa at over \$11 million, and Europe and Eurasia at over \$4 million.

¹ USAID plans to spend an additional \$79 million on the development of large-scale wastewater treatment facilities in twelve countries, which is not included in this report on improved drinking water supply and related sanitation and hygiene interventions.

Figure 1. FY 2005 USAID Drinking Water Supply and Sanitation Obligations by Region
(totaling over \$154 million)



Development of Wells for Water Supply

Sixteen countries have reported data on well development activities expected during FY 2005 (Table 2), with a total of 2,588 wells expected to be developed between October 1, 2004 and September 30, 2005. The average estimated cost per well is \$4,230, and includes boreholes, dug wells, developed springs, and improved technology traditional wells. In many instances, additional wells have been drilled using leveraged partner funds and are not included in Table 2 showing results of direct USAID funding. For example, wells in Ghana and Mali have been developed since the onset of FY 2004 and will continue in FY 2005 through the USAID-supported West Africa Water Initiative.

Table 2. Available Data on Number of Wells Expected to be Developed and Cost per Well in FY 2005

Country	Number of Wells
Africa	
DR Congo	725
Eritrea	10
Ethiopia	1,111
Ghana	141
Guinea	5
Kenya	133
Liberia	42
Mali	16
Rwanda	7
Senegal	75
Tanzania	100
Uganda	120
Egypt, Jordan & West Bank/Gaza	
Jordan	11
Latin America & Caribbean	
Ecuador	14
El Salvador	4
Haiti	74
Total Number of Wells*	2,588
Average Cost per Well	\$4,230

* Excludes 110 wells planned for development in Iraq and 3,490 in Afghanistan during FY 2005.

Drinking Water Supply and Sanitation Obligations: Illustrative Projects and Activities

Drinking water supply and sanitation projects specifically address the provision of clean and adequate supplies of drinking water to rural and urban communities, and the promotion of practices that protect these supplies from contamination by improper handling of domestic water supplies, household waste and inadequate sanitation. Representative project and activity descriptions are provided below:

In **Ethiopia, Pakistan, and Haiti**, USAID and its partners in the Safe Drinking Water Alliance have launched a new point-of-use water purification product developed by Procter & Gamble to provide safe water in areas of these countries where diarrhea is endemic and a major killer of children under five. Water treatment approaches such as these have shown reductions of 30-50% in diarrheal disease, with even higher reductions during water-borne epidemics. Partners use social marketing techniques to sell the product at a price affordable to those in need through commercial and nonprofit channels, as well as promote home water treatment and diarrhea prevention such as hand washing

with soap through communication campaigns.

In **Madagascar**, USAID is helping the 2,000 villagers in the community of Talatamaty to launch an information campaign about the advantages of village sanitation, waste disposal, and well water protection. This is followed by concrete actions to improve the physical environment by protecting water quality in communal streams and surrounding rice paddies from domestic wastewater and livestock contamination. Positive results of these actions are yielding cleaner, potable water in wells, and a decrease in the incidence of waterborne disease within the community.

In **Afghanistan**, USAID is using both supplemental and regular appropriation funding to work with local non-governmental organizations identifying rural areas in desperate need of clean drinking water. Community members volunteer to exchange their excavation labor for the development of wells. Local



partners provide the concrete, cover housing, pumps and piping, and instruction in both proper maintenance and the use of the facilities. Water availability, as well as the quality of the water provided, has greatly improved in many villages throughout the country. In addition, travel time between homes and drinking water sources has decreased, which enables villagers to spend more time caring for family members or engaging in income-earning activities.