



USAID
FROM THE AMERICAN PEOPLE

GLOBAL WATER AND DEVELOPMENT



Report of Water Sector Activities

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COVER PHOTOS: (From top left): Schoolchildren in India wash their hands with soap. Photo credit: Prashanth Vishwanathan
USAID supports accessible latrines at schools, like this one at Bauleni Special Needs School in Zambia, to help keep girls in school.
Photo credit: Water and Development Alliance/Zambia

Engineer Joumana Al-Ayed explains the water purification process at a pumping station that will serve the Jordanian population.
Photo credit: USAID/Jordan

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ADDRESSING THE GLOBAL WATER AND SANITATION CHALLENGE

Water impacts health, food, energy, security, economic growth, and environmental stability around the world. Currently 2.1 billion people live without access to safe drinking water, and approximately 4.4 billion people are without access to adequate sanitation. The burden of water collection falls mainly on women and girls, and they are the most vulnerable when household sanitation is not available. Rapid growth in urban areas puts already stressed water infrastructure and services into a downward spiral. Failure to tackle these water issues exacts a high toll on productivity, opportunity, and social well-being, and creates the potential for instability and conflict.



An Indonesian water utility manager shows that the water produced from the PDAM (utility) in Tirta Rangga is as clean as commercial drinking water. Photo credit: Annette Fay/Water CKM Project

USAID is actively addressing the challenge of improving water and sanitation access to a growing global population and engaging and empowering communities to become advocates, entrepreneurs, technical experts, change agents, and environmental stewards.

A Look Ahead to a New Era

This year's report release coincides with the launch of the new U.S. Government Global Water Strategy and corresponding USAID Water and Development Plan. The vision for the next iteration of water programming is a water-secure world. USAID activities will seek to increase the availability and sustainable management of safe water and sanitation for the underserved and most vulnerable. All activities will emphasize the need to strengthen governance and financing in the water sector. The new strategy was developed through a collaborative process involving more than 17 U.S. Government (USG) agencies and departments as well as USAID missions and other stakeholders.

In furtherance of the Global Water Strategy, the USAID Water and Development Plan seeks to provide 15 million people with sustainable access to safe drinking water services and 8 million more people with sustainable sanitation. USAID's Water and Development Plan presents multi-year, country-specific plans for each of the designated high-priority countries,* which describe how USAID will meet strategic goals, align with host-country priorities, and complement programming by other USG agencies and departments.

The Global Water Strategy and USAID Water and Development Plan propose a new generation of water-related programming informed by lessons learned from our missions and the latest evidence in the water and sanitation sector. Looking ahead, USAID will continue to develop approaches to ensure its work is effective and long lasting.

A Look Back on a Year of Progress

This Global Water and Development Report is organized by region and shares the achievements of FY 2016 investments including illustrative examples of country-specific programs addressing a wide range of water issues. Readers can learn about the Agency's urban sanitation work in Ghana and India; USAID's work to manage fragile and complex water ecosystems in Latin America and southern Africa; how the Agency helps the governments of Jordan and Lebanon deliver water services to burgeoning refugee populations; how USAID responds to conflict and crises in Afghanistan, Haiti, and South Sudan with life-saving water and sanitation; and much more.

In Fiscal Year (FY) 2016, USAID invested more than \$441.5 million toward water and sanitation efforts in 47 countries and regions, including 13 high-priority countries (see page 28 for definition). USAID programs made considerable progress on many water and sanitation fronts, including meeting and exceeding key strategic goals set forth in the Agency's first water and development strategy two years ahead of projections. As a result of USAID programs in FY 2016, more than **3.1 million people** received sustainable access to an improved water supply, and more than **3 million people** received improved access to sanitation facilities (see table on page 27 for details). These results include more than 500,000 women and girls benefiting from improved water services, and more than 1.8 million women and girls gaining access to improved sanitation.

*High-Priority Country: Designated under the criteria of the Water for the World Act of 2014 as a high priority for water, sanitation, and hygiene assistance based on needs, opportunities, and strategic considerations. Countries highlighted in this report as high-priority were designated in FY 2018.



“Natural leaders” have played a pivotal role in fostering community-based sanitation improvements in Ghana and elsewhere across West Africa.
Photo credit: USAID/Ghana

Stories and testimonials in this year’s report illustrate how USAID’s assistance is making an impact on the global water challenges facing households and communities.

- Small-scale water entrepreneurs in Kenya are able to provide clean water to more people in their communities because of USAID support to water business owners.
- Manufacturers are recycling and reusing water in Lebanon because USAID partners with the private sector to create incentives for adopting water-saving technologies.
- Entrepreneurs in informal, urban settlements in India, Nepal, Ghana, and Kenya are tackling low sanitation coverage by constructing durable, sustainable latrines in schools, communities, and health centers with USAID technical support and funding.
- Women are being elevated into decision-making roles about water use in Peruvian communities thanks to USAID training and mentoring.
- More wastewater is being treated and secured due to USAID infrastructure work in the Philippines.
- Crops are doing better downstream along the Limpopo River in Zimbabwe because of USAID’s assistance with upstream wetlands restoration.
- During conflicts or in the wake of natural disasters in Haiti, Afghanistan, and South Sudan, even the most vulnerable are being provided with clean water and basic sanitation because of USAID emergency response capabilities.

To increase USAID’s effectiveness, the Agency is accelerating efforts to leverage resources and tap expertise from the private sector and civil society. For example, in 2016, the Agency launched the USAID-Gap, Inc. Women + Water Alliance, redoubled its efforts with the Coca-Cola Company Water and Development Alliance, and strengthened relationships with other USG agencies and NGOs, such as Rotary International. These partnerships enable USAID to provide additional support to women and girls in vulnerable communities, not only to improve their access to water, sanitation, and hygiene (WASH) services but to amplify their voices in decision-making about water use and management.

To better share important information about programs, water and sanitation issues, and technical services, and to highlight the thought leadership of USAID programs and partners, USAID launched the Globalwaters.org website. This knowledge hub consolidates a wide array of water and sanitation information and data. USAID has made this information available to the public to raise awareness of challenges in the sector and USAID’s lessons learned and best practices for addressing them. The site will continue to evolve and grow in the coming year, and will continue to highlight country activities and accomplishments as well as global programs and partnerships.

At the same time, USAID programs around the globe continue to bring together governments, donors, civil society organizations, and development partners to address water issues, promote economic growth, advance global health, and stabilize fragile regions.

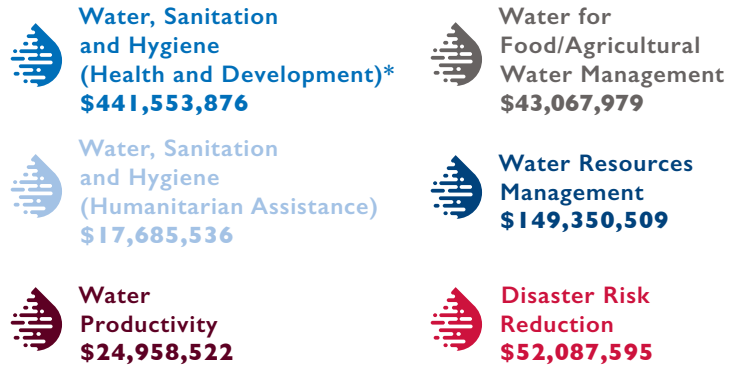
WATER AT USAID

Funding & Results

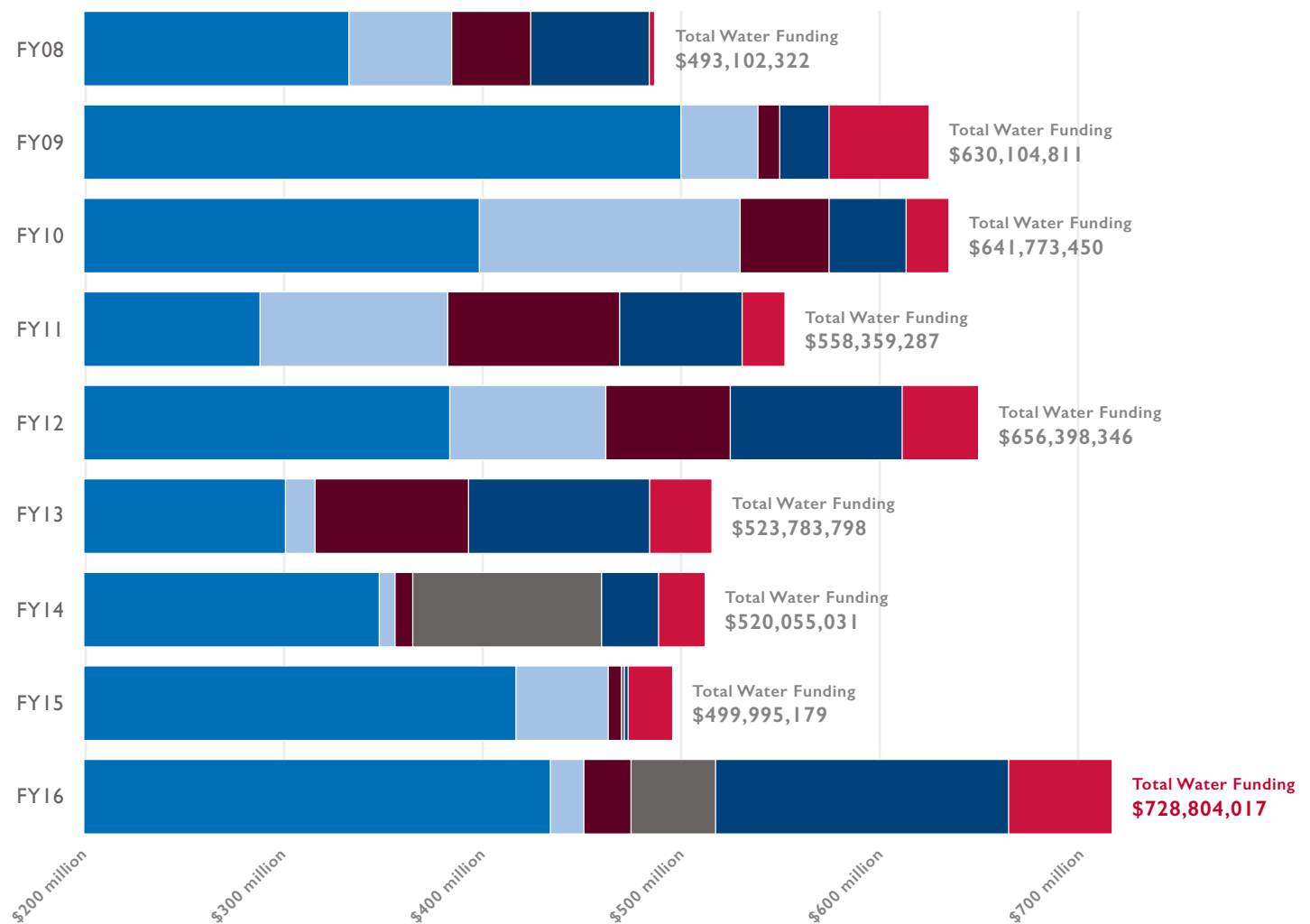
While USAID works around the globe to address water and sanitation needs, designated high-priority countries are the primary recipients of funding based on the greatest needs and opportunities related to affordable and equitable access to water, sanitation, and hygiene (WASH).

More than 61 percent of USAID FY 2016 water-related investments, \$441 million, went toward WASH programs. USAID allocated 39 percent of its funds to WASH programs in Africa. The Agency also worked in the areas of water for food, water resources management, water productivity, and water related disaster risk reduction, investing \$287.2 million in these important efforts to make a more water-secure world.

USAID'S TOTAL WATER FUNDING BY ISSUE AREA FOR FY 2016



WATER FUNDING BY ISSUE AREA FOR FY 2008 TO FY 2016



* Funding allocated to the Water, Sanitation and Hygiene Congressional Directive

MOBILIZING PRIVATE FUNDING

USAID leverages its funding through partnerships with the private sector, donors, academia, and host-country governments, among others. This formula brings stakeholders together early in the planning stages and yields more significant results as each institution brings different levels of expertise and experience to the table. Many activities highlighted in this report rely on these partnerships to tackle challenges ranging from poor water supply and sanitation coverage, water system infrastructure rehabilitation, and the development of evidence-based approaches to improve water resources management and food security. Below are some of USAID's key partnerships.



Private Sector:

- The Coca-Cola Company
- Gap, Inc. (activity started in 2017)
- Procter & Gamble
- Arcadia Biosciences Inc.
- Bear Valley Ventures

Donor Agencies:

- World Bank Group
- UK AID

Civil Society Organizations:

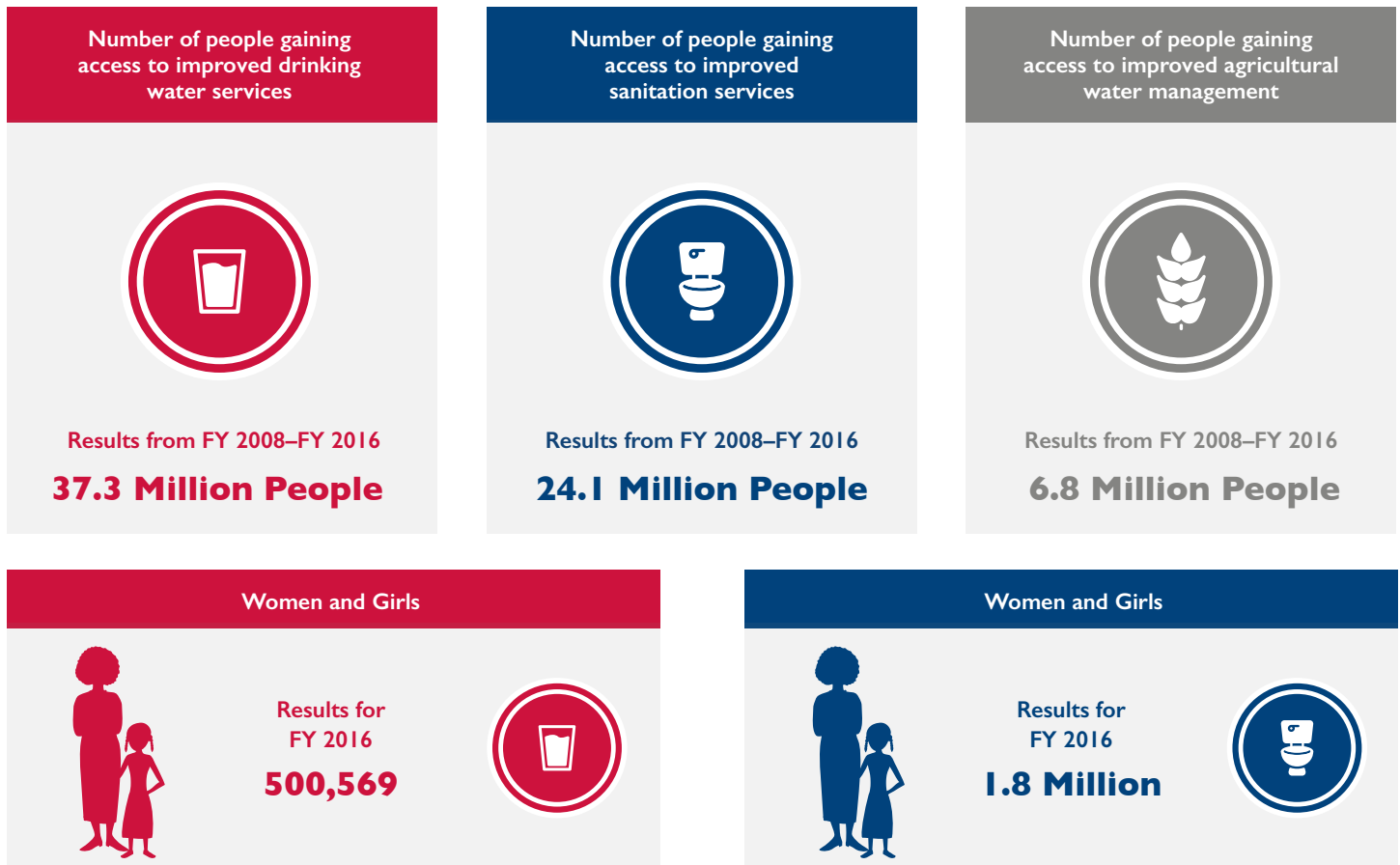
- CARE
- World Vision

Foundations:

- The Bill & Melinda Gates Foundation
- Stromme Foundation
- Stone Family Foundation

USAID Water and Sanitation Results from FY 2008 to FY 2016

As a result of USAID programs, communities around the world are benefiting from access to improved water and sanitation services.



AFRICA

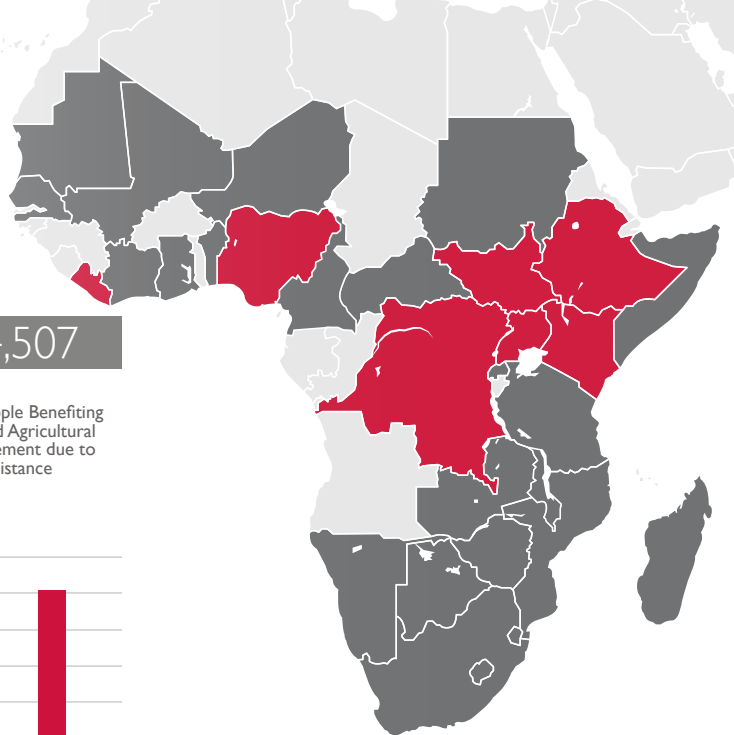
FY 2008 to FY 2016



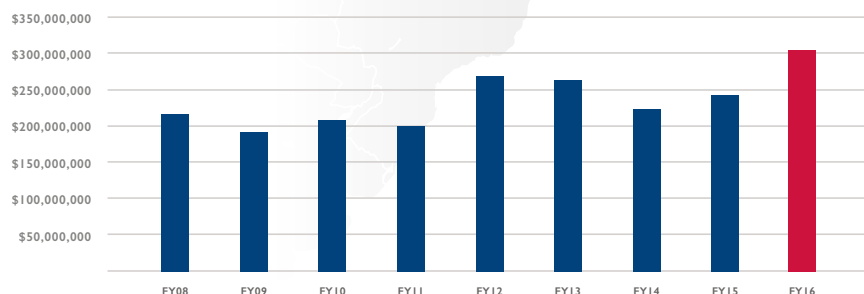
Number of People Gaining Access to Improved Drinking Water due to USG Assistance

Number of People Gaining Access to Improved Sanitation due to USG Assistance

Number of People Benefiting from Improved Agricultural Water Management due to USG Assistance



ALLOCATED FUNDING BY YEAR



● HIGH-PRIORITY COUNTRIES*

● STRATEGY-ALIGNED COUNTRIES*

Priority	2016 Country/Operating Unit	WASH (Health and Development)	All Other Water Programming
High-Priority	Democratic Republic of Congo	\$11,431,000	\$6,730,000
High-Priority	Ethiopia	\$16,844,000	\$78,288,678
High-Priority	Kenya	\$9,700,000	\$1,070,000
High-Priority	Liberia	\$10,538,000	\$-
High-Priority	Nigeria	\$10,937,000	\$2,666,867
High-Priority	Uganda	\$9,250,000	\$-
High-Priority	South Sudan	\$12,850,000	\$-
Strategy-Aligned	Benin	\$280,000	\$-
Strategy-Aligned	Botswana	\$150,000	\$-
Strategy-Aligned	Cameroon	\$125,000	\$-
Strategy-Aligned	Central African Republic	\$-	\$1,138,629
Strategy-Aligned	Cote d'Ivoire	\$225,000	\$-
Strategy-Aligned	Ghana	\$8,500,000	\$2,300,000
Strategy-Aligned	Lesotho	\$500,000	\$-
Strategy-Aligned	Madagascar	\$5,457,000	\$2,123,631
Strategy-Aligned	Malawi	\$4,500,000	\$5,662,541
Strategy-Aligned	Mali	\$7,700,000	\$6,487,638
Strategy-Aligned	Mauritania	\$-	\$158,639

*See page 28 for definitions.

Priority	2016 Country/Operating Unit	WASH (Health and Development)	All Other Water Programming
Strategy-Aligned	Mozambique	\$7,050,000	\$409,781
Strategy-Aligned	Namibia	\$250,000	\$-
Strategy-Aligned	Niger	\$-	\$2,814,059
Strategy-Aligned	Rwanda	\$4,973,000	\$-
Strategy-Aligned	Senegal	\$6,553,000	\$-
Strategy-Aligned	Somalia	\$-	\$1,828,423
Strategy-Aligned	South Africa	\$1,250,000	\$-
Strategy-Aligned	Sudan	\$-	\$3,470,581
Strategy-Aligned	Swaziland	\$600,000	\$-
Strategy-Aligned	Tanzania	\$10,000,000	\$11,129,760
Strategy-Aligned	Zambia	\$9,750,000	\$-
Strategy-Aligned	Zimbabwe	\$600,000	\$4,505,009
Regional Programs	-	\$22,000,000	\$4,171,808
	Total	\$172,013,000	\$134,956,044

AFRICA

Placing the Health and Well-Being of a Continent on Firmer Footing

USAID invests more of its WASH funding in Africa than any other geographic area. While access to safe drinking water is improving, sanitation access lags behind. The rural-urban divide continues to be a continental concern. Tried and true sanitation methods, along with innovative approaches, are being implemented in rural areas in need of more than basic coverage. Burgeoning urban centers are proving to have unique environmental challenges of their own in terms of improving coverage and mitigating disease. Evidence points to a connection among poor sanitation, malnutrition, stunting, health, and well-being, the effects of which are felt most strongly by the young and poor. Conflict and extreme weather events add distance and peril to water collection for many women. Throughout the continent, increasing populations and drought threaten food security and development gains.

Challenges vary country to country but common themes emerge in USAID programming—finding permanent solutions to sanitation coverage gaps; linking WASH access and behavior change to improved nutrition and health outcomes, especially in a child’s first 1,000 days; responding to emergencies in conflict zones; protecting watersheds to ensure the environmental sustainability of water supplies; developing market-based solutions to intractable problems; building the capacity of water

suppliers and entrepreneurs to serve more customers in hard-to-reach places; and engaging women as advocates, entrepreneurs, and artisans. In FY 2016, water programming in Africa totaled more than \$307 million in 29 countries. Under the new Global Water Strategy, the following countries have been designated as high priority recipients of USAID’s water and sanitation assistance: Democratic Republic of Congo, Ethiopia, Kenya, Liberia, Nigeria, South Sudan, and Uganda.



In early 2016, USAID piloted a new latrine in Ghana called the Digni-Loo that is simple to install, affordable, comfortable, and easy to clean.
Photo credit: USAID WASH for Health

The programs highlighted here are illustrative of USAID’s work and accomplishments in the region.



A young girl washes her hands at a newly installed water tap at her home in Makeni County, Kenya. KIWASH works with water service providers to expand household connections and extend their networks to unserved communities. Photo credit: USAID KIWASH

KENYA: HELPING ESTABLISH SELF-SUSTAINING WATER SUPPLIES AND COMMUNITIES

Kenya Integrated Water, Sanitation, and Hygiene Project (KIWASH)

Funding Level: \$50.9 million

Duration: 2015–2020

Challenge

Although 61 percent of Kenyans have access to improved drinking water supply and 30 percent have access to improved sanitation, access has not kept pace with population growth. The country must overcome considerable challenges in meeting the basic WASH needs of its 48 million people, a population also challenged with food insecurity. To address these shortcomings, USAID launched the Kenya Integrated Water, Sanitation, and Hygiene (KIWASH) Project in 2015 to target a million Kenyans with increased access to WASH, irrigation, and nutrition services.

Kenya's National Water Master Plan 2030 estimates that approximately \$14 billion in investment in water supply and \$5.4 billion in urban sewerage infrastructure are needed over the next 15 years. KIWASH takes a market-based approach to address the water supply gap in areas where municipal water companies have not fully established infrastructure or delivery systems. The project works with water service providers (WSPs) to improve their ability to take on debt and equity financing.

Opportunity

To help attract more financing for the WASH sector, KIWASH works with commercial banks to mobilize previously unavailable commercial finance to the sector. After training senior credit officers of the Co-operative Bank of Kenya, the bank financed the sector with a \$62 million loan to Nairobi County Water and Sewerage Company and is considering potential financing of \$71 million to three other WSPs.

To improve water services, KIWASH is also assisting small-scale water enterprises to expand household connections and extend their networks to unserved communities. To date, about 240 officers from various water enterprises have benefited from KIWASH technical assistance, helping more than 50,000 people access basic drinking water.

“KIWASH is one of our key partners, and they've played an important role in developing our strategic plan and business plan that will help improve management of existing water resources and collection of revenue, which will in turn make the company self-sustainable,” said Isaiah Andati, acting managing director at Busia Water and Sewerage Services Company, one of the 119 WASH enterprises that received KIWASH assistance in FY 2016.

KIWASH also works with county governments and private entrepreneurs to expand and improve operations and management of existing community drinking water systems in rural areas.

Integrating WASH, nutrition, and agriculture practices is another component of this activity. In FY 2016, KIWASH certified 90



USAID works with local artisans in communities like Anga, Mali, to repair or rehabilitate artesian drilling, such as this one, as an incentive to become open defecation free-certified. Photo credit: CARE Mali

villages as open defecation free, and established 12 farming demonstration sites to showcase low-cost methods for producing nutritious food and irrigation technologies that can significantly increase crop yields and raise incomes.

MALI: A GROUND GAME TO TACKLE MALNUTRITION

Nutrition and Hygiene Project

Funding Level: \$24.6 million

Duration: 2013–2018

Challenge

In the center of Simaye village in Mali's Mopti Region, men, women, and children gather under a large tree to listen. Two USAID-trained facilitators discuss the health challenges facing the village. Only three latrines serve many families, so more than half of the villagers are practicing open defecation. The water point no longer functions, so most families are pulling dirty water from the river. Many of the infants are not benefiting from exclusive breastfeeding and young children from a diversified diet, so they are malnourished.

Since 2013, this scene has repeated itself hundreds of times in the 15 districts and four regions of Mali—Mopti, Segou, Koulikoro, and Sikasso—most affected by malnutrition, poor access to health care, and substandard water and sanitation services. To address the persistent issues of food insecurity, poverty, and high undernutrition in a country that has among the highest fertility rates and child mortality rates in the world,

USAID is working to improve the nutritional status of pregnant women and children within the critical first 1,000 days of a child's life.

Opportunity

The strategy is to address the immediate causes of malnutrition—inadequate diet and infectious diseases such as diarrhea—as well as the underlying causes, such as poor hygiene and inadequate sanitation.

USAID's ground game is to train a cadre of frontline workers and change agents—community health workers, *relais* (community health volunteers, including pregnant women), agriculture agents, elected officials, artisans, and women's associations. These change agents will remain in their communities for years to come, demonstrating, monitoring, promoting, and reinforcing critical hygiene and nutrition behavior change, and building and repairing infrastructure that lead to improved nutrition and health outcomes and significant drops in open defecation.

Their work includes household visits emphasizing behavior change; malnutrition screenings; home gardening, cooking, and breastfeeding demonstrations and guidance; and open defecation free certification and monitoring.

Sometimes behavior change comes from a simpler source—modeling the improved behavior for others. Says USAID-trained Maman Leader Djema Doumbia, a pregnant mother herself, “Those who try nothing will have nothing. I want to thank USAID for their effective trainings and motivation. In our village, there are now very few cases of malnutrition. We are now

equipped with the tools to minimize these health problems at the community level and change perspectives on certain traditional health practices.”

GHANA: MAKING CHOLERA OUTBREAKS A THING OF THE PAST

WASH for Health

Funding Level: \$18.7 million

Duration: 2015–2020

Challenge

Despite recent sanitation successes and the introduction of promising technologies, roughly 85 percent of Ghanaians still lack access to improved sanitation. This gap in coverage has led to recurring cholera outbreaks in recent years. Ghana is now tackling its sanitation challenges with renewed vigor, and intensifying efforts to scale up sanitation improvements nationwide with the help of the USAID-funded WASH for Health initiative.

Opportunity

WASH for Health works in coordination with local partners across the country to educate the public about the benefits of eliminating open defecation, fostering community involvement in identifying and implementing sustainable sanitation solutions, and promoting mutual accountability for maintaining sanitation-related behavior change.

To prevent the spread of disease, Wash for Health intensified the distribution of point-of-use water treatment tablets (Aquatabs). In collaboration with the Ministry of Local Government and Rural Development and the National Disaster Management Organization, USAID also supported Health Keeper’s Network, a local organization, to distribute 260,400 water purification tablets enabling purification of more than 5.2 million liters of water. Health Keeper’s Network also educated communities on regular handwashing with soap and water to prevent illness.

USAID/Ghana continues to work with local and international development partners Coca-Cola and Rotary International, who together have contributed \$2.6 million to WASH for Health. Engaging with the private sector has played a significant role in strengthening the project, allowing staff and beneficiaries to leverage considerable financial and technological resources to more effectively address the country’s chronic sanitation challenges.

“This is very important because the ultimate goal is to improve the health status of the people we serve,” said Nora Maresh, USAID/Ghana’s family health team leader, “and in our most recent analysis, this is being achieved.”

SOUTHERN AFRICA: CONSERVATION UPSTREAM HELPS FEED USERS DOWNSTREAM

Resilience in the Limpopo Basin (RESILIM)

Funding Level: \$14.6 million

Duration: 2012–2017

Challenge

The Lowveld region of Zimbabwe sits in a high mountain catchment, serving as a virtual “water tower” for communities downstream along the Limpopo River. The Limpopo River Basin—consisting of four countries and more than 18 million people—is a critical lifeline in this water-strapped region. It includes two national capitals and important industrial, commercial, and agricultural sites, such as the world-famous Kruger and Matopos national parks.

Through the RESILIM (Resilience in the Limpopo Basin) program, USAID is helping villagers in the Gulati communal lands around Matopos restore community wetlands. During the 2015–2016 El Niño climate cycle, which resulted in the worst drought the region has seen in decades, these wetlands were critically degraded.

Opportunity

To restore the natural pulse of the waterway, USAID worked with the community and other donors in the region to add fencing around the wetland to prevent livestock access to the rehabilitation area and to limit groundwater pumping from the wetland area to allow water levels within the wetland to be restored.

Following the wetlands restoration, Mrs. Nkomo, the director of the community’s wetlands restoration project, commented, “We’ve seen more water in the wetlands than I remember seeing for years. The water is cleaner, and we’ve seen fish, bees, and other insects that we have not seen for a long time.”

High mountain catchment areas play a critical role in ensuring water supply, particularly as water storage declines during dry months, which represent the majority of the year in southern Africa. Because of their role in storing and distributing water, it is estimated that high mountain catchments supply 100 times more water per unit area than equivalent low-lying areas.

“Our crops have done better this year,” continued Mrs. Nkomo, a fact she credits to the revitalized bee and insect populations as a result of the wetlands restoration. Nearby villages, where the crops fared worse, are now considering wetlands restoration projects of their own.

Such impacts confirm the importance of water resource management. By investing in community wetlands in these high mountain catchment areas, local villagers benefit from restored ecosystems while communities, both in the immediate



A female pump mechanic helps repair a borehole in Jebel, South Sudan. The borehole was brought to her community through the USAID PROPEL project. Photo credit: USAID PROPEL Project

surrounding area and thousands of kilometers downstream, enjoy increased food security, more sustainable water supply, and expanded community resilience to climate challenges.

WASH RESPONSE HELPS STABILIZE FRAGILE REGIONS IN AFRICA

Emergency WASH Response in Africa with the Office of U.S. Foreign Disaster Assistance

Funding Level: \$103 million in FY 2016 to support WASH programs in 23 countries

Duration: Ongoing

Challenge

In times of crisis, whether natural or conflict-induced, affected communities are more susceptible to illness and death from waterborne diseases, such as diarrhea and cholera, caused by a lack of safe drinking water, inadequate sanitation, and poor hygiene. USAID's Office of U.S. Foreign Disaster Assistance (OFDA), which responds to slow- and rapid-onset disasters and complex emergencies, invested more than \$103 million in FY 2016 for WASH programs aimed at helping vulnerable populations in 23 countries worldwide, the majority of which are in Africa.

Opportunity

Prolonged conflict in South Sudan has resulted in large settlements of internally displaced people. WASH interventions implemented by USAID/OFDA partners, such as Samaritan's

Purse and UNICEF, are helping to alleviate public health risks in these settlements by improving access to safe drinking water, promoting better sanitation and hygiene, and building much needed waste management facilities. Many of USAID/OFDA's partners integrate WASH and nutrition activities to more effectively treat malnourished children. In addition to aiding those living in settlement camps, USAID is supporting WASH activities designed to stop the spread of cholera in Juba, the capital of South Sudan.

USAID/OFDA partners also implement emergency WASH activities in response to drought. Below-average rainfall, exacerbated by the 2015–2016 El Niño climatic event, resulted in drought conditions throughout much of southern Africa beginning in 2015, causing poor harvests, food insecurity, livestock deaths, severe shortages of safe drinking water, and significant sanitation and hygiene problems. In 2016, USAID/OFDA partners responded to drought in Lesotho, Madagascar, Malawi, Mozambique, Swaziland, and Zimbabwe. WASH interventions included increasing access to safe drinking water for vulnerable households and livestock through the rehabilitation of boreholes, installation of community water tanks, and restoration of other water sources. USAID/OFDA partners also promoted health and hygiene education campaigns and distributed critical WASH items, including water treatment tablets, water storage containers, and soap.

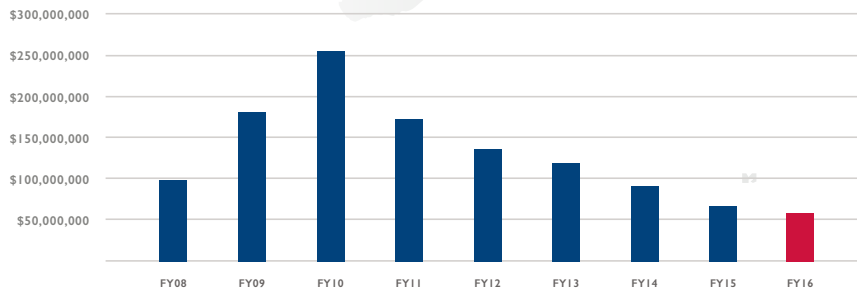
“No matter what the cause of a disaster or crisis, responding to the water, sanitation, and hygiene needs of those affected is critical to saving lives,” said USAID/OFDA Senior WASH Sector Advisor Melissa Opryszko.

ASIA

FY 2008 to FY 2016



ALLOCATED FUNDING BY YEAR



- HIGH-PRIORITY COUNTRIES
- STRATEGY-ALIGNED COUNTRIES

Priority	2016 Country/Operating Unit	WASH (Health and Development)	All Other Water Programming
High-Priority	Afghanistan	\$10,000,000	\$3,000,000
High-Priority	Indonesia	\$9,190,000	\$450,937
Strategy-Aligned	Bangladesh	\$4,000,000	\$4,750,000
Strategy-Aligned	Burma	\$-	\$460,356
Strategy-Aligned	Cambodia	\$3,000,000	\$-
Strategy-Aligned	India	\$8,700,000	\$-
Strategy-Aligned	Maldives	\$-	\$400,000
Strategy-Aligned	Nepal	\$2,500,000	\$3,392,000
Strategy-Aligned	Pakistan	\$8,000,000	\$268,924
Strategy-Aligned	Philippines	\$3,500,000	\$-
Strategy-Aligned	Republic of the Marshall Islands	\$-	\$184,418
Strategy-Aligned	Solomon Islands	\$-	\$50,000
Strategy-Aligned	Tajikistan	\$200,000	\$-
Strategy-Aligned	Vanuatu	\$-	\$50,145
Strategy-Aligned	Vietnam	\$-	\$475,000
Regional Programs	-	\$-	\$243,650
	Total	\$49,090,000	\$13,725,430

ASIA

Providing Tools and Innovative Approaches to Build Resilience

Currently, nearly 200 million people in southern and eastern Asia lack access to an improved drinking water source, and close to 1.5 billion people in the region lack access to sanitation. The status of WASH is difficult to generalize in this rapidly growing region of the world. Some countries struggle to mitigate the practice of open defecation. Others have adequate sanitation at the household level but no systems in place to safely transport and process the volume of waste produced. In some areas, the problem is what to do with too much water, not too little, and how to make water enterprises profitable when less safe sources of water are so readily available. In other areas, every drop of water needs to count and public awareness campaigns, utility reforms, and water metering are critical for conservation. Women are being called upon to give voice to the growing need for improved water and sanitation options—in cities, schools, and homes. And all countries in the region are adjusting to the “new normal” of less predictable and more extreme weather cycles.

USAID works in all these arenas with national and local governments, private-sector partners, utilities, and vulnerable communities to rethink old practices, promote equity, innovate, mitigate, adjust, and adapt. These alliances work to keep the water flowing, the supplies safe, and Asian economies strong. In FY 2016, USAID’s water programming funding in Asia was more than \$62.8 million in 15 countries. Under the new Global Water Strategy the following countries have been designated as high-priority recipients of USAID’s water and sanitation assistance in Asia: Afghanistan and Indonesia.

The programs highlighted here are illustrative of the work and accomplishments in the region.

PHILIPPINES: SEPTAGE MANAGEMENT CONTRIBUTES TO WATER SECURITY

Water Security for Resilient Economic Growth and Stability (Be Secure)

Funding Level: \$18.7 million

Duration: 2012–2017

Challenge

Adequate and safe water resources are vital to water security. In rapidly growing cities in the Philippines—where less than 10 percent of the population is connected to sewage systems—water resources are under threat from huge volumes of untreated waste. Outside of Manila, the connection rate is even lower—only 3 percent. Untreated wastewater is alarmingly

discharged into bodies of water, polluting streams, lakes, rivers and even aquifers. Clean water is becoming scarce and highly valued especially in times of drought.

Opportunity

To address these challenges and increase access to improved sanitation facilities, USAID launched the Water Security for Resilient Economic Growth and Stability (Be Secure) Project in 2013 to work with local governments and water utilities in six cities across the Philippines. The project bolstered the capacity of cities to treat household septic waste using a three-pronged approach to technical assistance: providing policy support and training; designing appropriate infrastructure; and mobilizing public support for sanitation programs. USAID also worked with cities to better appreciate how septage treatment can preserve the limited freshwater supplies so they are available for drinking and future household use.



Be Secure trained local governments in the Philippines to write and implement Operations and Maintenance Health and Safety Plans. Among the recommendations: septage handlers need to wear personal protective equipment. Photo credit: USAID Be Secure

In Tacloban City, one of the areas in Leyte Province severely damaged by Typhoon Haiyan in 2013, USAID, in partnership with UNICEF, constructed a septage treatment plant that replaced the city’s temporary emergency facility. Working with USAID, the cities of Ormoc and Zamboanga also invested significant funds to construct their own septage treatment facilities. As a result of USAID’s assistance, approximately 450,000 people now have access to better sanitation services.

Complementing its work in sanitation, USAID also supported cities to effectively manage their water resources with one goal in mind: making water available to every family in every home. In Cagayan de Oro City in Mindanao, USAID partnered with the Coca-Cola Foundation and the local water district to implement a non-revenue water program. Water savings from this program

helped expand service delivery and extend service hours. In the conflict-affected province of Basilan, USAID built two ground wells to supply water to 4,000 residents of Malamawi Island, who previously relied on fresh water delivered by boat. Support in these cities, combined with USAID's assistance to improve water systems in Leyte and Maguindanao provinces, enabled more than 900,000 people to access safe drinking water.

NEPAL: CREATING NEW TRADITIONS

Safe WASH II

Funding Level: \$4.8 million

Duration: 2014–2019

Challenge

Chhaupadi is an ancient system of taboos surrounding menstruating women in Nepal. In several districts in rural Nepal, tradition holds that if *chhaupadi* is not observed, crops will wither, wells will dry up, and illness will strike the family. Even though the more stringent practices of *chhaupadi* were outlawed in 2005, they persist in the far west of the country. Under these practices, women and girls must sleep in a *chhau goth* or menstrual hut during menses where they are exposed to cold in the winter and snakebites in the summer. Because they are considered unclean, they are also forbidden from using the family toilet during their period so they have to defecate in the open.



USAID's Safe WASH II activity works in Nepal to transform the meaning of menstrual taboos that prevent women and girls from using the family toilet or sleeping in the family home during their menstrual period. Photo credit: USAID/Nepal

Opportunity

USAID's Safe WASH II project has a broad goal of improving sanitation and hygiene behaviors in four western districts—Kailali, Kanchanpur, Darchula, and Achham—including reducing the negative aspects of *chhaupadi*. One new approach the project is implementing is working with Nepalese religious leaders. These religious leaders searched Hindu holy texts and found nothing negative about menstruation. They did find, on the other hand, support for the protection of women, which the project plans to build upon as it engages with religious leaders as well as traditional healers.

The project is also working closely with traditional healers. “Traditional healers have a dual role,” explains USAID Environmental Health Specialist Pragma Shrestha. “As the keepers of tradition they enforce *chhaupadi*; as healers they want to lead their communities to health.” USAID works with progressive healers to encourage families to allow their menstruating girls and women to use their family latrine.

The project team anticipates that this approach will result in at least 11 village communities allowing their women and girls to use their family latrines during menstruation, and thereby removing a major reason for open defecation in those communities. There are other districts where girls and women are currently denied use of their family toilet during menstruation, and hopefully this model will be replicated in those areas as well.

INDIA: TAKING ON THE WORLD'S LARGEST SANITATION PROBLEM

Clean India Campaign

Funding Level: \$10 million

Duration: 2015–2020

Challenge

Currently more than 377 million people live in India's urban areas, a number that continues to increase rapidly. India's urbanization puts tremendous stress on already struggling drinking water and sanitation services. For example, more than 148 million people in India's cities lack access to basic sanitation, which increases the instances of waterborne diseases. To address these daunting challenges, the Government of India made improving water and sanitation a national priority in 2014 with the launch of the Swachh Bharat Mission (Clean India Campaign).

Opportunity

In 2016, USAID helped India drive changes in water and sanitation that make cities cleaner, healthier, and more prosperous for millions of people by harnessing expertise and innovation. For example, through a partnership with India's Ministry of Housing and Urban Affairs and the Bill and Melinda Gates Foundation, USAID supports building the government's water and sanitation WASH capacity at the national, state, and city levels to achieve India's ambitious sanitation targets for the Swachh Bharat Mission.

USAID and the Gates Foundation launched a project management unit (PMU) within the ministry to provide technical services. The PMU works with the ministry to find ways to more effectively reach India's sanitation targets and to objectively rate cities on their progress. It launched an online training course for city officials, convenes technical experts, and leverages significant financial and human resources. The PMU also helps identify innovative pilot projects that could be scaled up nationally,



SWFF Grand Challenge Innovator aQysta's Barsha Pump runs on river currents alone and is, therefore, an environmentally friendly, low maintenance irrigation solution. Photo credit: aQysta

including technology with the potential to turn human waste into energy.

As a result of these activities, 141 cities have been certified as open defecation free (ODF), helping to make living conditions more sanitary and healthy for more than 150 million people. In FY 2016, USAID's \$4 million investment in this project guided \$100 million in Indian Government resources.

The next step is to make more than 4,000 cities nationwide ODF and to support city managers in their efforts to sustain these sanitation improvements. USAID/India and the PMU will also partner with Google to monitor the usage and maintenance of public sanitation facilities.

NEPAL AND INDONESIA: HARNESSING NATURE TO BRING WATER WHERE IT'S NEEDED

Securing Water for Food (SWFF) Grand Challenge Innovator aQysta, Barsha Pump

Funding Level: \$498,260

Duration: 2014–2017

Challenge

Barsha means rain in Nepalese. Nepal is a country with more than 6,000 rivers, but its smallholder farmers often lack access to water for irrigation. SWFF Grand Challenge Innovator aQysta invented the Barsha Pump, a low-cost, innovative solution for farmers to irrigate their fields without using fuel or electricity. Its floating water wheel design (and innovative spiraling bodies) rely on river currents to pump water through a hose to fields,

eliminating the time-consuming and back-breaking work of hauling water by the bucketful.

“Before the installation of the Barsha Pump, we used to carry the water buckets for almost six hours a day and still we couldn't fulfill the water demands of the crop,” says farmer Ashuk Prasad Chaudhary.

Opportunity

After a four-month pilot period, aQysta began selling its pumps in Nepal in 2016, and with help from SWFF it now has a local manufacturer and distributor. The distributor negotiated a deal with the Nepalese government to subsidize the purchase of as many as 200 aQysta Barsha pumps by smallholder farmers. The increase in demand has been accompanied by economies of scale, with production costs dropping by 53 percent since the start of the project. A corresponding drop in the price of a pump makes it accessible to even more customers. Twenty pumps were sold in Indonesia this year. aQysta also is expanding to new markets, including Guatemala, Colombia, and Ghana.

aQysta is most proud of the impact it has had on a village that had farmed the same crops for 400 years. Because the Barsha Pump provides access to a year-round water source, the village has diversified to multiple vegetable crops that grow throughout the year rather than just during the monsoon season. This has allowed some of the younger men to stay and farm rather than migrate to cities looking for work. And when the young men stay to farm, the women are freed up to pursue other activities. The village is both able to produce vegetables for their own use and for sale, generating additional income.



USAID works on the ground with the NGO ACTED in Kunduz, Afghanistan, to distribute hygiene and water kits to conflict-affected families. Photo credit: USAID/Afghanistan

AFGHANISTAN: SAVING LIVES AND PREPARING COMMUNITIES FOR FUTURE DISASTERS THROUGH EMERGENCY PLANNING

Emergency Water Grants in Afghanistan

Funding Level: \$6.5 million
Duration: 2015–2017

Challenge

In April and May of 2014, 17 provinces in northern Afghanistan experienced the worst seasonal flooding the country has suffered in 100 years. The floods killed more than 200 people, wiped out homes, and destroyed or contaminated sources of safe water. Some of the most severely affected communities were also the most remote, making them hard to reach during times of crisis. Heavy rain and snowfall in 2015 compounded the disaster, resulting in almost 300 additional fatalities. Making matters worse, the ongoing armed conflict in Afghanistan has created a growing population of internally displaced persons—civilians who have fled their homes to escape the violence.

Afghanistan is extremely prone to disasters, both natural and man-made. When disaster strikes, one of the most urgent tasks for emergency responders is to restore access to safe drinking water. Clean water staves off waterborne disease outbreaks, such as cholera, that often follow crises.

Opportunity

To help those living in vulnerable conditions affected by the unprecedented flooding between 2014 and 2015, USAID partnered with UNICEF, the French NGO ACTED, and the Dutch relief organization ZOA to provide emergency water, hygiene, and sanitation in the hardest hit areas. Together the partners rehabilitated damaged wells, constructed new wells, erected latrines, and provided instruction on proper hygiene. To prepare communities for the future, emergency supplies were prepositioned in areas where future emergencies were likely to occur.

Abdul, a 37-year-old farmer in Balkh Province in northern Afghanistan, says he and his neighbors did not have access to safe drinking water after severe floods in the region. “My children were getting sick frequently because they had to drink contaminated water and lacked a latrine,” he said. With the help of USAID and its partners, Abdul says his family now has a toilet, the rate of diarrhea in the village has been reduced, and people practice better hygiene.

USAID’s partnership with UNICEF, ACTED, and ZOA saved lives, prevented disease from spreading, and helped communities prepare for future disasters. All three partners continue to reach out to those in need; to finish the construction of water and hygiene facilities; and to stockpile emergency aid supplies. Emergency planning will remain critical for Afghanistan, a country that continues to suffer from natural and man-made disasters that destroy homes and lives.



In India as well as in other Asian countries such as Indonesia and Nepal, USAID is supporting efforts to provide community WASH solutions such as these public latrines, when household sanitation is not always feasible or sufficient. In FY 2016 USAID provided 273 basic sanitation facilities in institutional settings. Photo credit: USAID/India

LOCAL VOICES



AFRICA



“The nearest river is almost 4 km away from here, so people are depending on this commodity from us. We are having a big, big number of people drawing water from us. They are paying; our tariffs are very low. Instead of wasting a lot of time fetching water, they just get it from us. We intend to increase the water points that means a bigger number of people will be drawing water from the kiosks rather than going to the river. Our water is safer than it is in the rivers.”

KIWASH is supporting water business owners like Titus Musyoki, chair of the Kithambangii Project in Kenya, to improve access to safe water for thousands of others.

Photo credit: USAID KIWASH



ASIA



“Earlier I had only one source of income from motor repairing. But currently I have some other alternatives. I have two shallow pumps with motors for irrigation of pumpkins and other seasonal crops at the sandbar and other fertile land. Since I have skills operating shallow machines, I was selected as a water entrepreneur for irrigation at sandbar cropping. We also produce squash that has very good return in a short time. Irrigation is very profitable since we could provide it to our own field and the neighbors’ at the same time. ... We bought a piece of land for a home, a cow, a goat, and have an electric connection from the profit of the last two years.”

Sabbir, a former motor and bicycle repairman in the Rangpur region, dreams of providing a better education for his children with income he is earning from growing and harvesting pumpkins on a sandbar and serving as an irrigation entrepreneur. He is one of 3,000 landless families in Bangladesh diversifying his income by growing pumpkins on previously barren land with technical support and supplies from Securing Water for Food Innovator Practical Action.*

Photo credit: Practical Action

*Name changed to protect privacy.



MIDDLE EAST



“We all know that natural water resources are dwindling all over the world, not just in Lebanon. When LWP [Lebanon Water Project] proposed to collaborate with [the Association of Lebanese Industrialists] to help recycle and reuse the water used in the manufacturing process to save water, we found that the granite and marble industry uses lots of water. And with a small cost, a short period of time, and a small investment, we can treat the water and reuse it. In this way we would be saving money for industrialists...while reducing the amount of water used in this sector.”

Ibrahim Mallah, head of Energy and Environment Committee, Association of Lebanese Industrialists.

Photo credit: USAID Lebanon Water Project



LATIN AMERICA AND THE CARIBBEAN



“Until we felt the situation of water crisis, we did not value water. Now that we have had situations of scarcity, of droughts and now that we are ironically, with plenty of water, we are beginning to evaluate how we should act.”

Gladys Navarro Palacios, dean, Departmental Council of the College of Journalists in Piura, Peru, and participant in PARA-Agua’s professional communicators education training program. Conducted jointly with the Peruvian National Water Authority and the local Technical Secretariat for the Piura Water Resources Council, the program trained a body of communication professionals to develop radio spots, television ads, and print media to communicate good water practices; disseminate information regarding water management decisions for the community; promote the empowerment of women in non-traditional roles; motivate women to take decision-making roles within their communities; and use gender-inclusive language to shift prevailing norms and thus create a new, gender-sensitive culture of water for the watershed.

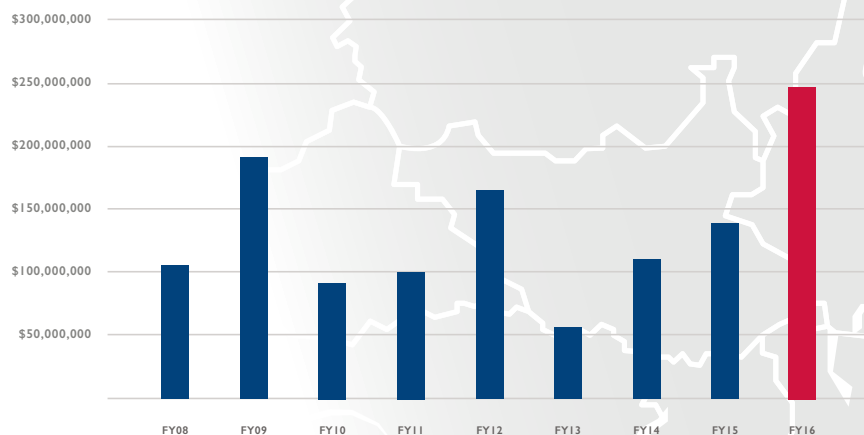
Photo credit: M. Rodríguez/PARA-Agua

MIDDLE EAST

FY 2008 to FY 2016



ALLOCATED FUNDING BY YEAR



- HIGH-PRIORITY COUNTRIES
- STRATEGY-ALIGNED COUNTRIES

Priority	2016 Country/Operating Unit	WASH (Health and Development)	All Other Water Programming
High-Priority	Jordan	\$27,500,000	\$100,000,000
High-Priority	Lebanon	\$25,000,000	\$-
High-Priority	West Bank and Gaza	\$50,000,000	\$-
Strategy-Aligned	Egypt	\$37,114,959	\$-
Strategy-Aligned	Middle East Multilaterals (MEM)	\$-	\$875,000
Strategy-Aligned	Yemen	\$500,000	\$875,000
Strategy-Aligned	USAID Middle East Regional (MER)	\$7,300,000	\$323,781
	Total	\$147,414,959	\$101,198,781

MIDDLE EAST

Identifying Lasting Solutions for a Water-Scarce Region in Flux

USAID has a history going back more than 50 years of strengthening water and sanitation infrastructure in the Middle East. The region has the distinction of having more of the world's water scarce countries than anywhere else on the planet. In many cases, the Middle Eastern countries that USAID supports have made significant strides in providing improved water and sanitation coverage. But these systems are fragile and often unreliable. Local governments that manage these systems are not well equipped to handle repairs, ensure water quality, and update their systems to manage customer feedback. This presents many challenges under normal circumstances, but all of Syria's neighbors are absorbing refugees in numbers that exacerbate the challenges that accompany water scarcity.

USAID funding helps ensure the health and well-being of permanent and new residents alike through attention to drinking water and sanitation services. Its activities are encouraging governments to work with private sector partners in industry and agriculture (the biggest water users) to develop water-saving plans that are data-driven, tackle issues of over-extraction, develop a new generation of women water professionals, and harness technical innovations to improve conservation. In FY 2016, water programming in the region totaled \$248.6 million. Under the new Global Water Strategy the following countries/territories have been designated as high-priority recipients of USAID's water and sanitation assistance in the Middle East: Jordan, Lebanon, and West Bank/Gaza.

The programs highlighted here are illustrative of the work and accomplishments in the region.

LEBANON: FINDING WAYS TO EASE WATER PRESSURE

Lebanon Water Project

Funding Level: \$65.2 million

Duration: 2015–2020

Challenge

Strengthening water services has been a priority in this water-scarce region since USAID began its partnership with Lebanon in the 1950s. Lebanon's water supply and systems are under greater strain than ever before as it absorbs a massive influx of Syrian refugees. On average, water is available intermittently for just eight hours a day, and only 8 percent of the population is connected to a central sewage system.

Opportunity

To address these stresses, USAID is assisting public utilities—the four regional water establishments and the Litani Water Authority—that are entrusted to provide water (potable, wastewater, and irrigation) services in Lebanon under the Lebanon Water Project (LWP).



LWP supports water network upgrades to improve water service delivery to Lebanese citizens and enhance the efficiency and sustainability of its public water utilities. Photo credit: USAID Lebanon Water Project

Conservation is a necessary emphasis. Agriculture and industry are by far the biggest users of water in Lebanon, so LWP is partnering with the private sector to create incentives for adopting water-saving technologies on the farm and in the factories. Farmers Field Days are planned to showcase water-conserving technologies in agriculture, and grants will help farmers convert their irrigation systems to more efficient drip technologies. Working with the marble and granite industry, LWP is identifying cost-effective ways to reduce and reuse the large amounts of water required in the manufacturing process.

The Litani River is the primary water source for irrigation in the Beqaa Valley. LWP is empowering municipalities along the Litani Basin to develop plans to protect the river by completing sewage system networks and treatment plants, collecting and properly disposing of solid waste, and reducing pollution from the overuse of pesticides and herbicides.

LWP is training water operators to treat water and distribute it safely with the potential of improving water quality for up to 700,000 inhabitants. Through citizen engagement and robust communications channels, LWP is engaging citizens to help them better understand the roles of the utilities and their work to improve water services. When water customers have an easier time getting their problems addressed, they have more incentive to pay their bills. When bills are paid on time, water service providers have a much easier time keeping the water flowing.



USAID celebrated 60 years of cooperation with Jordan's water sector. Over the years USAID water programs have focused on infrastructure and on expanding and rehabilitating the water supply systems, as well as training hundreds of water experts. Photo credit: USAID/Jordan

JORDAN: BUILDING A MODERN, RESPONSIVE WATER AND WASTEWATER SYSTEM

Jordan Institutional Support and Strengthening Program (ISSP)

Funding Level: \$16.1 million

Duration: 2010–2015

Challenge

Jordan is one of the world's most water-poor countries, but it still manages to provide drinking water access to 98 percent of its population. Despite the high rate of access, water supply is under great strain—coverage is intermittent and its population has grown greatly in the last three years, due to an influx of Syrian refugees. Further compounding the problem are challenges that the water sector institutions face relating to financing, governance, sector structure, technical and planning capacity, infrastructure repair, and debt.

Opportunity

From 2010–2015, USAID's Jordan Institutional Support and Strengthening Program (ISSP) worked closely with the Ministry of Water and Irrigation, Water Authority of Jordan (WAJ), Jordan Valley Authority, and several water utilities to initiate reforms that would allow for the restructuring of the sector. Key activities under the project included strengthening and consolidating the authority for water planning and management

to address the over-utilization of groundwater; improving water sector planning; and ensuring availability and better data quality management to be used in decision-making.

Twenty-six new wastewater projects are now underway to help meet the goal of wastewater service coverage for more than 86 percent of the total population.

One major achievement for ISSP was the development of the National Strategic Wastewater Master Capital Investment Plan in close collaboration with WAJ. This plan updated the comprehensive national records for the existing wastewater systems, identified critical capital investment planning needs through 2035 based on population numbers, and projected population growth and current system capacities, all while taking into consideration urgent needs to address groundwater contamination risks. As a result, more than \$200 million in donor funding has been mobilized for the water sector, and 26 new wastewater projects are now underway to help meet the goal of wastewater service coverage for more than 86 percent of the total population. The remaining 14 percent will be served through small-scale decentralized treatment.



USAID has helped to bring potable water and sanitation to nearly one-third of Egypt's population, directly improving their health and environmental conditions. Photo credit: USAID/Egypt

EGYPT: PROVIDING CLEAN WATER TO UNDERSERVED COMMUNITIES

Egypt Utilities Management Program

Funding Level: \$30 million

Duration: 2014–2019

North Sinai Initiative

Funding Level: \$50 million

Duration: 2014–2019

Challenge

Egypt's population is rapidly growing, and its infrastructure needs to keep pace. In both urban and rural areas, population growth has led to an expansion of communities, placing a strain on current water and wastewater systems. In rural areas, communities are often built close to unsanitary waterways, posing a public health threat by carrying the risk of waterborne disease.

Opportunity

USAID is working with local water companies to increase access to safe water and sanitation services. In underserved communities of rural Upper Egypt, USAID is constructing wastewater facilities for basic sanitation and connecting households to those facilities by installing pipelines for potable water and sanitation services.

In the North Sinai, USAID and the Government of Egypt are improving the lives of the local Bedouin population with 16 projects targeting water access and infrastructure in the isolated region. Projects include the drilling of deep wells; the construction of desalination plants, distribution lines, and water reservoirs; and the procurement of trucks for water distribution and wastewater removal.

Since 1978, USAID has invested more than \$3.5 billion on a broad range of projects to improve water and sanitation services

The safe drinking water is 100 times better than the water that came from the ground.

for more than 25 million Egyptians, directly improving their health and environmental conditions.

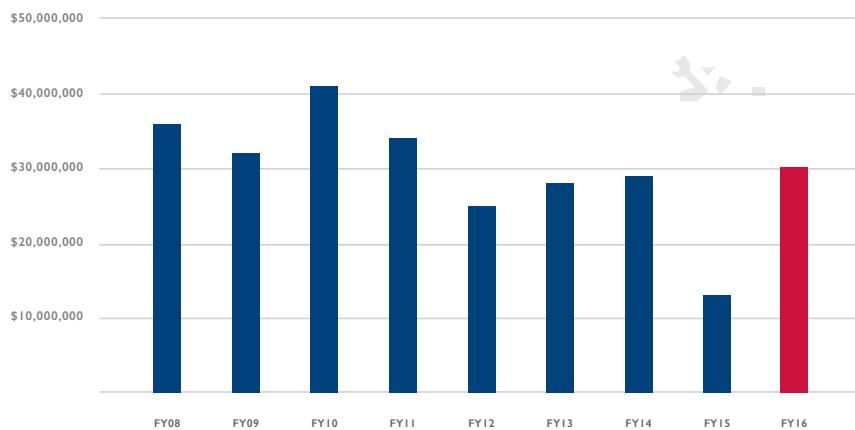
“We used to have to take our children to the doctor. We washed our clothes in the canal or in the sewage water and our kids got sick from this bad water,” says Om Taha, a resident of Awlad Suweilem village in Minya governorate. Om Taha says that since the water company connected their home to the potable water pipeline, her family's health has improved, exclaiming that the safe drinking water is 100 times better than the water that came from the ground.

LATIN AMERICA AND THE CARIBBEAN

FY 2008 to FY 2016



ALLOCATED FUNDING BY YEAR



- HIGH-PRIORITY COUNTRIES
- STRATEGY-ALIGNED COUNTRIES

Priority	2016 Country/Operating Unit	WASH (Health and Development)	All Other Water Programming
High-Priority	Haiti	\$16,500,000	\$6,630,000
Strategy-Aligned	Dominican Republic	\$-	\$125,000
Strategy-Aligned	Ecuador	\$-	\$150,958
Strategy-Aligned	Guatemala	\$4,440,443	\$1,200,000
Strategy-Aligned	Jamaica	\$-	\$500,000
Regional Programs		\$-	\$803,968
	Total	\$20,940,443	\$9,409,926

LATIN AMERICA AND THE CARIBBEAN

Responding to Emergencies and Preparing for Contingencies

Cyclical disasters and weather-related risks impact fragile populations in the Latin America and the Caribbean region. USAID brings its agility and experience to emergency response in countries like Haiti, working with on-the-ground partners to deliver WASH services in the face of El Niño droughts, earthquakes, hurricanes, and cholera epidemics. Looking for ways to help countries in the region build resilience in the face of changing environmental realities—uncontrolled flooding downstream from glacier melt and water scarcity due to low rainfall and poorly regulated extractive industries and agriculture practices—USAID is collecting data to guide future water planning. The Agency is also bringing together stakeholders, empowering women to participate in non-traditional roles, and developing funding mechanisms to prepare Latin America and the Caribbean countries for the impacts of a more water scarce future. In FY 2016, water programming in the region totaled more than \$30.3 million in five countries. Under the new Global Water Strategy Haiti has been designated as a high-priority recipient of USAID’s water and sanitation assistance.

COLOMBIA AND PERU: BUILDING BRIDGES ACROSS THE WATERSHED, UPSTREAM AND DOWNSTREAM

Partnering for Adaptation and Resilience (PARA-Agua)

Funding Level: \$8 million
Duration: 2013–2017

Challenge

Rising temperatures and changes in the amount, timing, and intensity of precipitation throughout Latin America and the Caribbean are impacting water resources and affecting crop productivity and biodiversity. In Colombia and Peru, shrinking Andean glaciers and extreme drought and floods threaten the water supply for millions of people living in downstream communities, impacting drinking water, agriculture, and hydropower. But there is no scientific consensus on downstream impacts. Policymakers, researchers, and water resource managers across the Latin America and the Caribbean region urgently need help informing water management decisions with data and science.

Opportunity

USAID established the Partnering for Adaptation and Resilience (PARA-Agua) initiative to help governments and communities address these challenges. PARA-Agua is a multi-year collaboration that brings together scientists, decision-makers, and stakeholders from across the region to help communities adapt and become more resilient in the face of a changing ecosystem. PARA-Agua is helping researchers generate policy-oriented data on watershed management for integration into decision-making processes, establishing new regional networks across watersheds, and creating linkages between national agencies and their regional counterparts. Through PARA-Agua.net—an online community of practice—PARA-Agua has engaged key researchers, governments, local stakeholders, and community members in conversation and action. With more than 1,500 registered members, PARA-Agua.net serves as a hub for research, trainings and webinars, discussion forums, and other updates from the regional water sector.



Local women representing the Chancay-Lambayeque board of water users tour the Bocatomá Racarumi intake on the Chancay River.
Photo credit: Caty Quiroz/PARA-Agua

This engagement and outreach has yielded results such as the creation of a regional water fund in northern Peru for the Chira-Piura watershed that commits all key water users to the integrated management of water resources throughout the length of the watershed. The fund relies on contributions from the private and public sectors to support actions upstream that improve water management, creating a shared sense of responsibility among those using water resources in the middle and lower basin and those who live near the headwaters.



Since 2011, USAID has pre-positioned emergency relief supplies in the event of disasters in Haiti such as hygiene kits and water containers. Photo credit: USAID/Haiti

HAITI: PARTNERING ON THE GROUND TO BRING DROUGHT RELIEF

UNICEF/Responding to Critical Water Needs for People

Funding Level: \$3.6 million

Duration: 2015–2017

Challenge

In early 2016, Haiti was suffering from a three-year El Niño-induced drought, along with related food insecurity and malnutrition, and infant morbidity and mortality. In May 2016, heavy rains brought an increase in cholera cases.

Opportunity

USAID is responding to critical water needs for people at risk of drought-induced hunger—as well as waterborne illness—by providing emergency water for drinking, hygiene, and sanitation, especially in the areas hardest hit by drought. These efforts include assessing and better understanding water availability

at the household level; ensuring proper protection and use of water resources, including emergency action plans; and upgrading wastewater treatment systems in two hospitals in alignment with the Government of Haiti's plan to eliminate cholera in Haiti by 2022.

These efforts continue into FY 2017, but the priorities have changed to assist not only those areas most affected by drought, but also those devastated by Hurricane Matthew in October 2016.

USAID WATER AND SANITATION RESULTS BY COUNTRY FY 2016

USAID operating units reporting results in FY 2016

Priority	2016 Country/Operating Unit	Number of People Gaining Access to Improved Drinking Water Services	Number of People Gaining Access to Improved Sanitation Services	Number of People Benefiting from Improved Agricultural Water Management
Africa				
High-Priority	Democratic Republic of Congo	547,646	408,055	-
High-Priority	Ethiopia	169,428	810	-
High-Priority	Kenya	142,052	393,950	582,850
High-Priority	South Sudan	209,910	116,881	-
Strategy-Aligned	Ghana	10,500	8,866	-
Strategy-Aligned	Liberia	1,823	-	-
Strategy-Aligned	Madagascar	10,592	171,048	-
Strategy-Aligned	Malawi	-	-	79,000
Strategy-Aligned	Mali	49,180	164,535	-
Strategy-Aligned	Niger	88,030	17,657	-
Strategy-Aligned	Senegal	31,816	3,110	-
Strategy-Aligned	Tanzania	15,038	1,049	174,242
Regional Programs	-	74,829	479,096	-
Asia				
High-Priority	Afghanistan	82,098	-	-
High-Priority	Indonesia	262,595	47,227	-
Strategy-Aligned	Bangladesh	-	401	2,360,543
Strategy-Aligned	India	175,000	557,021	-
Strategy-Aligned	Nepal	2,230	-	387,084
Strategy-Aligned	Philippines	968,550	454,351	-
Strategy-Aligned	Tajikistan	15,107	-	-
Middle East				
High-Priority	Jordan	-	42,800	-
High-Priority	West Bank and Gaza	82,523	58,920	-
Strategy-Aligned	Egypt	179,387	78,220	-
Latin America and the Caribbean				
High-Priority	Haiti	-	3,300	-
Total		3,118,334	3,007,297	3,583,719

ACRONYMS

FY	Fiscal Year	PARA-Agua	Partnering for Adaptation and Resilience-Agua
ISSP	Institutional Support and Strengthening Program	PMU	Project Management Unit
KIWASH	Kenya Integrated Water, Sanitation, and Hygiene Project	RESILIM	Resilience in the Limpopo Basin
LWP	Lebanon Water Project	SWFF	Securing Water for Food
NGO	Nongovernmental Organization	USAID	United States Agency for International Development
ODF	Open Defecation Free	USG	U.S. Government
OFDA	Office of U.S. Foreign Disaster Assistance	WAJ	Water Authority of Jordan
		WASH	Water, Sanitation, and Hygiene

DEFINITIONS

High-Priority Country: Designated under the criteria of the Water for the World Act of 2014 as a high priority for water, sanitation, and hygiene assistance based on needs, opportunities, and strategic considerations. Countries highlighted in this report as high-priority were designated in FY 2018.

Strategy-Aligned Country: In addition to high-priority countries, USAID will address water and sanitation needs and opportunities in other countries through development assistance programs aligned with the Congressional Water Directive and the Agency's strategic objectives.



Water operators from the Beqaa Water Establishment tour a water treatment plant as part of a training offered by the USAID-funded Lebanon Water Project on water treatment, including disinfection and lab testing. The 10-day training falls within USAID's main goals of ensuring clean, reliable, and sustainable sources of drinking water. Photo credit: USAID Lebanon Water Project

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