



# A Review of U.S. Efforts in Water and Sanitation

Cheryl Choge\*  
Courtney Harrison†  
Peter McCornick‡  
Ryan Bartlett§



\* *Water Policy Associate, Nicholas Institute for Environmental Policy Solutions, Duke University*

† *Water Policy Assistant, Nicholas Institute*

‡ *Director of Water Policy, Nicholas Institute*

§ *Water Policy Associate, Nicholas Institute*

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Cheryl Choge<sup>\*</sup>  
Courtney Harrison<sup>†</sup>  
Peter McCornick<sup>‡</sup>  
Ryan Bartlett<sup>§</sup>

*<sup>\*</sup>Water Policy Associate, Nicholas Institute for Environmental Policy Solutions, Duke University*

*<sup>†</sup>Water Policy Assistant, Nicholas Institute*

*<sup>‡</sup>Director of Water Policy, Nicholas Institute*

*<sup>§</sup>Water Policy Associate, Nicholas Institute*

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## Acronyms and Abbreviations

ADB – Asian Development Bank
AfBG – African Bank Group
AfDB – African Development Bank
BMGF – Bill and Melinda Gates Foundation
BWF – Better World Fund
CRS – Catholic Relief Services
DOS – Department of State
EBRD – European Bank for Reconstruction and Development
EU – European Union
FTF – Feed the Future
GCCI – Global Climate Change Initiative
GDP – gross domestic product
GEF – Global Environment Facility
GETF – Global Environment and Technology Foundation
GHI – Global Health Initiative
GLAAS – Global Annual Assessment of Sanitation and Drinking Water
GWC – Global Water Challenge
GWI – Global Water Initiative
GAO – Government Accountability Office
IDA – International Development Association
IDB – Inter-American Development Bank
IIED – International Institute for Environment and Development
IUCN – International Union for the Conservation of Nature
JMP – Joint Monitoring Program
MCC – Millennium Challenge Corporation
MDG – Millennium Development Goal
MENA – Middle East and North Africa
MWA – Millennium Water Alliance
NADB – North American Development Bank
NGO – nongovernmental organization
ODA – Official Development Assistance
OECD – Organisation for Economic Co-operation and Development
RAIN – Replenish Africa Initiative
SWAp – sector-wide approach
U.N. – United Nations
UNICEF – United Nations Children’s Fund
USG – United States Government
USAID – United States Agency for International Development
WADA – Water and Development Alliance
WASH – water, sanitation and hygiene
WHO – World Health Organization
WP – water productivity
WPA – Water for the Poor Act
WRM – water resources management
WSP – Water and Sanitation Program
WSSCC – Water Supply & Sanitation Collaborative Council

## Executive Summary

Access to safe water and sanitation has expanded significantly around the world in recent years, in part because of efforts by the United States, which has been increasingly active in the water, sanitation, and hygiene (WASH) sector through engagement by the government, foundations, NGOs, faith-based organizations, academia, and the private sector. The Nicholas Institute for Environmental Policy Solutions at Duke University has assessed the momentum, funding, and effectiveness of this engagement since 2005, when the Nicholas Institute and the Aspen Institute held a forum on WASH challenges. This report references recommendations from that forum and presents the results of recent structured interviews with over 45 stakeholders active in the WASH sector. These stakeholders provided invaluable insights on what has been achieved, what has changed, and what requires attention. Particular consideration was given to the efforts of the U.S. government (USG).

Globally, progress is evident: many countries are on target to meet the water Millennium Development Goal (MDG). Awareness of needs and benefits across a spectrum of interests is growing, and funding from all sources, but especially from governments and foundations, is rising. Innovation, including market- and community-based approaches to service delivery, is spreading, thanks to efforts by local and international nongovernmental organizations (NGOs). Also increasing is university interest in providing education, training, and capacity building. The USG is increasing WASH capacity at both the Department of State (DOS) and U.S. Agency for International Development (USAID). Drinking water and sanitation are increasingly viewed as a critical part of the broader water resources agenda.

Interviewees confirmed expansion of WASH services since 2005. They cited evidence of an increase in the number of people with access to sanitation and water; an increase in the number of new WASH institutions and staff; increased awareness, attention, and funding from the USG; and an increase in partnerships, especially among NGOs with foundations, faith-based organizations, and the private sector. Additionally, interviewees cited increased dialogue and advocacy for WASH in the United States and the implementation of legislation focused on water and sanitation internationally: the Senator Paul Simon Water for the Poor Act of 2005. A new act, the Senator Paul Simon Water for the World Act, has been introduced to the Senate and would fortify existing efforts.

Unlike the MDG target for water, progress towards the sanitation target is lagging. Africa is the only region in the world which is off-track for both the water and sanitation targets, and it has made minimal progress when compared to the rest of the developing world. Concern is growing about continued support for overseas development assistance at needed levels in these challenging economic and political times, and the political will of domestic governments to take on responsibility of providing water and sanitation lacks consistency. Better monitoring and evaluation is needed to document the value of those interventions, especially economic impacts. Currently, results are not reaching the broad audiences who make financial and investment decisions in developing countries. This can be improved with more strategic communication efforts. Potential adverse effects of climate change will make the drinking water and sanitation agenda even more challenging. Almost all those who were interviewed for this paper wondered if expansion of services could have been more efficient and effective, resulting in even more people receiving access to improved water and sanitation services. They generally agreed that programming should focus on long-term commitments to capacity and institutional development, rather than on immediate outputs.

The extent to which funding by U.S. entities is responsible for the decrease in the numbers of people without access to safe water and sanitation is unclear. Detailed information on WASH expenditures proved difficult to obtain, and although it is clear that funding in the WASH sector has increased, assessing what has actually been expended in the sector and for what purpose is difficult. Metrics of outputs and outcomes are less than ideal. Beneficiaries are imputed based on access to infrastructure, rather than to the services that infrastructure may deliver; thus counts are based on ratios to a particular service within a certain geographic proximity, a metric that fails to account for facility functionality, i.e., reliable flows, water quality, latrine cleanliness and maintenance, and availability of soap and water for hand-washing. Aside from a World Health Organization (WHO)/Joint Monitoring Program (JMP) report issued every two years, little information about global expansion of water and sanitation is shared. Increased transparency is needed to promote understanding of the effectiveness and impact of programs funded by U.S. actors.

Consensus was broadest on the following points, which provide a basis for discussion about a coordinated approach by U.S. entities to improve the impact and effectiveness of U.S. WASH programs internationally.

1. Existing funds need to be leveraged more wisely and efficiently to maximize impact.
2. Use of existing institutions, frameworks, and capacity will promote sustainability and increase impact; however, opinion is divided on whether delivery of foreign assistance is best channeled through NGOs or developing country governments.
3. Funding for the Water for the Poor Act continues to be primarily directed to countries that the United States considers to be political priorities. Funding should be allocated to countries with the greatest need, and need should be more transparently defined.
4. Sustainability should be reflected in the design of projects through the inclusion of monitoring and evaluation components (including establishment of reliable baseline information), participation of local communities in the decision-making process, and sufficient local capacity building.
5. The sector should better measure the return on investment (benefit versus cost), effectiveness, and impact of WASH interventions and should better communicate what is working through a focus on solutions and solvability of the crisis.
6. More focus on sanitation is needed, but existing commitments to water quality and access must be maintained.
7. The U.S. administration has the opportunity to take a greater leadership role in WASH activities.
8. Integration of WASH activities into other development/presidential initiatives was viewed as key, but should not detract from the continuing need to prioritize WASH in development assistance.
9. WASH efforts should be focused on sub-Saharan Africa, where water and sanitation needs are greatest.

With less than five years to attain the MDGs for water and sanitation, renewed efforts must be made to provide sustainable basic services to those without them. Momentum must be sustained to ensure impact. A focus on areas of greatest need, increased transparency, improved communication, increased coordination with other donors internationally, and further engagement with local actors—through funding of government plans, project implementation through local NGOs, or utilization and expansion of existing capacity—would greatly improve the impact of interventions and ensure that expenditures provide maximum benefits.



## 1. Introduction

Significant progress has been made in provision of basic water access, but nearly one billion people, most of them in sub-Saharan Africa and South and East Asia, continue to lack convenient access to safe water (WHO and UNICEF 2010). Furthermore, more than two and a half billion people in the world lack access to adequate sanitation. Even if the Millennium Development Goals (MDGs) were met, the number of people without access to water and sanitation would only be halved. The absence of access to WASH has implications for economic development, disease burden, and gender equity. Compounding the problem are increased demand for water for agricultural and industrial purposes, the effects of climate change, deteriorating water quality, and the inherent interconnectivity of water resources. Lack of clearly identified institutional roles within governments makes it challenging to prioritize water, sanitation, and hygiene (WASH) efforts, and even when policies do exist, lack of leadership often undermines the effectiveness of their implementation.

In 2005, the Aspen Institute and the Nicholas Institute for Environmental Policy Solutions at Duke University organized a multi-stakeholder forum to highlight the importance of issues relating to access to clean drinking water and sanitation. Statistics confirmed the critical need for the focus on this issue: nations were barely on target to meet the MDG for water and were off-track on the MDG for sanitation. In the United States, the Water for the Poor Act had already been introduced in Congress, but had passed neither the Senate nor the House.

Forum participants discussed and reported on steps to provide water and sanitation services more rapidly and effectively and to identify and draw attention to constructive ways that the U.S. government (USG) and other U.S.-based entities could help advance the WASH agenda. Key stakeholders included representatives from Congress, government agencies, the academic world, NGOs (including field providers), and the private sector. The forum's report, *A Silent Tsunami* (Reilly and Babbitt 2005) captured the deliberations and was directed at policy makers in Congress and the executive branch.

Five years later, in 2010, all the world's regions, with the exception of sub-Saharan Africa, were on target to halve the number of people without access to safe drinking water, but they remained off-track in halving the number of people without access to adequate sanitation (WHO and UNICEF 2010). Awareness of WASH problems had spread within the United States. In his Inaugural Address in 2009, President Obama pledged to "let clean waters flow." On World Water Day 2010, Secretary Clinton indicated that the State Department was "going to elevate water issues," and she tasked Under Secretary Maria Otero and USAID Administrator Rajiv Shah to lead the work on them. The Paul Simon Water for the Poor Act had passed Congress, and in 2009, Senator Dick Durbin introduced the Water for the World Act, which passed the Senate but failed to pass the House in 2010. The bill was recently re-introduced in the Senate by senators Corker and Durbin in March 2011. In July 2010, water was declared a human right by the United Nations. The U.S. Agency for International Development (USAID) and the Department of State (DOS) were working on a "results framework," which outlined a strategy for engagement of the USG on water issues internationally, and had increased training to improve their internal WASH capacity. The Millennium Challenge Corporation (MCC) had made substantial investments in water and sanitation in partner countries, at the countries' request.

The target date for meeting the MDG of halving the number of people without access to safe water and sanitation is 2015. At the midway point between that date and the date of the 2005 Silent Tsunami forum, the Nicholas Institute has undertaken a review of the progress and challenges remaining within the WASH sector. The Nicholas Institute conducted an extensive literature review and interviewed approximately 45 key stakeholders. The stakeholders included representatives from Congress, government agencies, academia, NGOs (including field providers), and the private sector, as well as specialists and government agency representatives in recipient countries (see Appendix 2).

This working paper synthesizes the key findings from the interviews and conveys insights on how to increase momentum, achieve the greatest impact, and ensure progress beyond 2015.

The initial research questions included the following:

- Has water and sanitation provision expanded globally?

- To what extent have U.S. efforts, including those through the USG, contributed to any increase?
- Where should U.S. participants (public and private) expand their WASH work abroad?
- Though U.S. official assistance to the WASH sector has increased over the past five years, is the priority afforded the sector sufficient?
- Has the Obama administration's indication of commitment to the sector been matched with effective action?
- Is WASH adequately recognized as essential to the sustainability of other key development activities?
- What results have been achieved?

## 2. Literature Review

In 2000, water was distinguished as a key component for development when it was included as a target in the Millennium Development Goals; sanitation was included in 2002. Since then, policy makers and implementers have increasingly recognized that WASH improvements greatly enhance the outcomes of other development efforts, such as child and maternal health, HIV/AIDS relief, education, food security, and climate change adaptation. The intent of this literature review is to survey the body of documents that evaluate the state of water and sanitation development at a global scale and report on the participation of the United States in this arena. Because the focus of this paper is on the efforts undertaken by U.S. entities, the greatest proportion of this overview covers U.S. documents. These include the 2005 Water for the Poor Act and subsequent yearly reports, responses to these reports by NGOs, and the 2010 U.S. Government Accountability Office (GAO) report, *U.S. Water and Sanitation Aid*. The paper also looks at the efforts of U.S. foundations, NGOs, and corporations, largely relying on publicly available documents and material made available on the entities' websites. To place the efforts made by all U.S. entities in the global context, the paper briefly reviews information made available by global institutions, including the World Health Organization (WHO)/United Nations Children's Fund (UNICEF) Joint Monitoring Program (JMP) reports, the Global Annual Assessment of Sanitation and Drinking-Water (GLAAS) report jointly published by the U.N. and WHO,<sup>1</sup> and Organisation for Economic Co-operation and Development (OECD) data.

### Funding Trends since 2005

Trends in funding by the wide range of U.S. actors engaged in the WASH sector are summarized below, as are resource flows from multilateral agencies.

#### *Donors and development agencies are spending more on water and sanitation*

A 2009–2010 survey of external support agencies found that the water and sanitation sector ranked sixth among stated priorities for aid, though as a percentage of official development assistance (ODA) funding, the sector ranks 12th among development priorities in terms of dollars expended. This discrepancy indicates that more aid was given to sectors that were considered less of a priority than water and sanitation (WHO 2010). On a global scale, the contribution of all foreign aid to water and sanitation, as a percentage of ODA spending, peaked in 1997 at 8% and tapered off to approximately 3% in 2002. Since then, that contribution has increased and leveled off at 5% (WHO 2010). Between 2001 and 2006, donors who extended the highest proportion of their aid to the water and sanitation sector were Japan, Denmark, the Netherlands, and regional development banks (OECD 2009). Between 2006 and 2008, the USG was the third-largest funder of water and sanitation aid, behind Japan and the International Development Association (IDA) at the World Bank. Only 25% of all donor funding during the 2006–2008 period was targeted to basic systems, i.e., drinking-water supply through low-cost technologies (e.g., hand pumps, spring catchments, gravity-fed systems, rainwater collection, storage tanks, and small distribution systems) and basic sanitation systems, defined as latrines, small-bore sewers, and on-site disposal. The USG is the fifth-biggest funder of basic systems in absolute dollar terms (OECD 2009), despite the fact that the greatest portion of USG investment funds large systems, i.e., drinking-water treatment, conveyance, and distribution; sanitation sewerage collection systems; and wastewater treatment plants (WHO 2010).

1. The WHO/UNICEF Joint Monitoring Program (JMP) reports assess the progress being made in reaching the MDG water and sanitation targets. The GLAAS reports on the capacity of countries to make progress toward the MDG water and sanitation targets and on the effectiveness of external support agencies to facilitate this process.

Considerable U.S. funding is channeled through multilateral agencies. The United States actively participates in the following organizations, which provide significant funding for water and sanitation projects: African Bank Group (AfBG), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), Global Environmental Facility (GEF), Inter-American Development Bank (IDB), North American Development Bank (NADB), UNICEF, and the World Bank.

**Table 1. Multilateral institutions' funding of water and sanitation, FY 2005–2009 (millions of U.S. dollars, except where noted).**

Institution	2005	2006	2007	2008	2009
AfBG <sup>a</sup>	UA 199.1	UA 227.7	UA 211.5	UA 236.8	UA 297.4
% total	11%	10%	8%	7%	4%
ADB <sup>b, c, d</sup>	646.0	638.8	415.7	933.5	918.9
% total	9%	8%	4%	9%	6%
EBRD <sup>e</sup>	—	—	—	—	—
% total	—	—	—	—	—
GEF <sup>f</sup>	—	—	—	—	—
% total	—	—	—	—	—
IDB <sup>g</sup>	340.0	370.0	443.7	797.2 <sup>h</sup>	1,808.8
% total	5%	6%	5%	7%	12%
NADB <sup>i</sup>	—	—	—	—	—
% total	—	—	—	—	—
UNICEF <sup>j</sup>	254.0	245.0	287.0	311.0	354.0
% total	12%	10%	10%	10%	11%
World Bank <sup>k</sup>	2,180.3	1,721.0	3,059.4	2,359.9	4,364.9
% total	10%	7%	12%	10%	9%

Source: Financial statements and annual reports of each institution over the five-year period.

Note: % total is the approximate proportion of all funding within the institution that is spent on the water and sanitation sector.

UA=unit of account as defined in accordance with the basket of currencies equal to the special drawing rights of the International Monetary Fund. The daily exchange rate of 1 UA can be found on the IMF website [http://www.imf.org/external/np/fin/data/rms\\_sdrv.aspx](http://www.imf.org/external/np/fin/data/rms_sdrv.aspx). On March 15, 2011, SDR1(UA) = US\$1.57390.

<sup>a</sup> Figures for the African Bank Group are taken from the 2009 annual report of the African Development Bank Group (AfBG 2009). This report includes the independent audited reports for all of these groups and reflects loans and grants made for water supply and sanitation, which is defined as "production, treatment and distribution of potable water, and development of sewerage systems."

<sup>b</sup> ADB reports disaggregate funding for loans versus grants. FY 2005 included loans for \$618 million and grants for \$28 million. FY 2006 included loans for \$638.82 million and \$0 grants (as reported in the 2007 ADB annual report). The 2006 report for FY 2007 included loans for \$408.2 million and grants for \$7.5 million. FY 2008 included loans for \$873.6 million and grants for \$59.9 million. FY 2009 included loans for \$808.5 million and grants for \$110.4 million. Of note, the significant increase in grants made in FY 2008 and FY 2009.

<sup>c</sup> By the end of 2009 ADB had processed more than \$8 billion in water investments. Approvals for water loans in 2009 amounted to \$1.6 billion. ADB's Water Financing Partnership Facility registered total of \$48 million in confirmed commitments from financing partners by the end of 2009 (ADB 2009).

<sup>d</sup> Figures reflect loans and grants made for water supply, sanitation, and waste management (ADB 2006, 2007, 2009). No grants were made in this sector in 2006.

<sup>e</sup> The European Bank for Reconstruction and Development does not disaggregate data on WASH in its financial statements or annual reports. Sustainability reports for 2005, 2006, and 2007 WASH amounts are mentioned separately; they are not clearly delineated in the 2008 and 2009 sustainability reports. Amounts reported for FY 2005, FY 2006, and FY 2007 were €120€132.8 and €212, respectively. Whether these figures reflect all the money EBRD spent on water and sanitation is unclear. Therefore, no EBRD numbers are included in this table. For report archives, see <http://www.ebrd.com/pages/research/publications/flagships/annual/archive.shtml>.

<sup>f</sup> Because Global Environmental Facility funding is not included in WASH activities, GEF amounts are included in the table. GEF funding to the water sector was \$68 million in 2005, \$126.3 million combined in years 2006 and 2007, \$93.5 million in 2008, and \$84.4 million in 2009 (GEF 2005, 2006–2007, 2008, 2009).

<sup>g</sup> Figures include both distribution of loans and guarantees (IDB 2005, 2006, 2007, 2008, 2009).

<sup>h</sup> This sizeable increase in funds followed the launch of the IDB's Water and Sanitation Initiative in 2007. In 2008 IDB launched Aqua Fund, a multi-donor fund that provides grants for technical cooperation and project preparation. The IDB also leveraged partnerships with donors and organizations such as the Water Operator Partnership program with the United Nations and the Cooperation Fund for Water and Sanitation. Spanish initiative provides \$1.5 billion in grants for the sector in the region from 2008 to 2012.

<sup>i</sup> The North American Development Bank does invest in water and sanitation but does not disaggregate this spending from other sector investment.

<sup>j</sup> The total WASH expenditures are from the UNICEF-WASH annual reports. UNICEF-WASH 2006, 2007, 2008, and 2009. To calculate the percentage of total UNICEF expenditure was taken from the UNICEF annual reports (UNICEF 2006, 2007, 2008, 2009). In FY 2005, total expenditure was \$2,197 million; in FY 2006, \$2,343 million; in FY 2007, \$2,782 million; in FY 2008, \$3,081 million; and in FY 2009, \$3,298 million.

<sup>k</sup> These figures reflect IB lending to water, sanitation, and flood protection and include both International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) lending and guarantees (World Bank 2009).

### USG efforts moving ahead, but strategy incomplete

The USG has a history of being a global leader in water and sanitation development. By the end of the 1990s, however, capacity in USAID concentrated in politically important countries in the Middle East and North Africa (MENA). Other development initiatives gained priority, and existing water and sanitation expertise in USAID generally diminished. The USG re-proclaimed its interest in participating in the global water and sanitation development arena in 2005 with the passage of the Paul Simon Water for the Poor Act (WPA), which addressed the first of three objectives of a larger USG water strategy:

- increase access to safe drinking water and sanitation and promote hygiene;
- improve water resource management and increase water productivity; and,
- improve water security by strengthening cooperation on shared waters.

The intention of the WPA was to make access to safe water and sanitation a pillar of U.S. foreign assistance programs. The act mandated that USAID and the Department of State jointly establish a water and sanitation development strategy and submit annual reports to Congress. The strategy was to designate high-priority countries, identified on the basis of level of need and potential to promote socioeconomic development.<sup>2</sup>

Five years later, a complete USG strategy is still being developed. Though a comprehensive strategy<sup>3</sup> has yet to be unveiled, portions have been outlined in reports to Congress. The first was framed in an annex of the 2008 WPA report to Congress (USAID 2009), and the second was described in the 2009 *Senator Paul Simon Water for the Poor Act Report to Congress* (Bureau of Oceans, Environment, and Science, U.S. DOS 2009). Criticisms of these included lack of "strategic coherence in an overall USG WASH strategy" and lack of transparency in decision making required by the WPA (CARE, Natural Resources Defense Council, and WaterAid America 2009). Funding for USAID water and sanitation projects continues to be allocated at the discretion of Congress through single-year appropriations, compounding the unpredictability of USG funding. Although funds are generally multi-year, uncertainty about whether appropriations will go up or down has been identified as a barrier to the development of the strategy called for in the WPA (CARE, Natural Resources Defense Council, and WaterAid America 2009).

### Countries that receive the bulk of U.S. aid reflect foreign policy priorities

The list of countries identified as priorities for WPA appropriations has varied over the years. It included as few as 20 countries in 2006 and as many as 36 in 2008. The same 31 countries were selected in 2009 and 2010 (see Table 1 in Appendix 3). Unweighted criteria for designation as a priority country include:

- level of need,
- enabling environment,
- U.S. comparative advantage,
- opportunities to leverage foreign assistance through partnerships,
- consistency with U.S. foreign policy priorities, and
- compliance with statutory directives that affect foreign assistance allocations (Bureau of Oceans, Environment, and Science, U.S. DOS 2010).

The lack of transparency in the selection process—which has resulted in poor understanding of the associated weight of each factor—has been a major critique by NGOs and the U.S. Government Accountability Office (GAO). Furthermore, the practical implication of priority designation remains unclear. The GAO found that missions were frequently unaware of their status, and the portion of the mission's budget allocated to WASH activities did not reflect priority status. In high-priority countries, 3.2% of mission budgets were spent on WASH; in other countries, this figure is 3.1% (U.S. GAO 2010). Such discrepancies are not unique to the USG. In a survey administered by WHO and the U.N., donors reported that the leading criteria used to prioritize aid were need based on coverage and need based on poverty (WHO 2010, 22). However, in terms of dollars spent, the relationship between the level of donor aid and the level of country coverage was weak. This finding indicated that governments, too, relied on multiple criteria to determine aid distribution and that the use of these criteria was not necessarily transparent (WHO 2010, 33).

Though reports containing accounts of aggregate expenditure have consistently been submitted to Congress, they provide no detailed breakdown of how money has been spent. Uncertainty is compounded when comparisons are made over time because of changes in the definition of which funds count. For example, in 2008, funding to projects from the Water Resource Management (WRM) and Water Productivity (WP) sectors counted if the activity had an explicit link to WASH outcomes, and only the portion of the budget that was spent on WASH was included. In 2009, the definition broadened, and funding for all water projects was counted.

2. The list of sectors to be benefited are "good health, economic development, poverty reduction, women's empowerment, conflict prevention, and environmental sustainability" (H.R. 1973(6)(f)(2)).

3. The act required that the strategy include an assessment of activities, goals and indicators, estimates of funding necessary to achieve goals, methods to integrate programs with other development assistance programs, mechanisms to partner with other donors, and an assessment of recipient countries' political will to develop policies that support affordable and equitable access (H.R. 1973(6)(e)(1-6)).



Not until 2008 did the Water for the Poor Act receive guaranteed funding through the 2008 Consolidated Appropriations Act, which required the allocation of \$300 million for water and sanitation projects. This development did not mean that additional funding was made available to the DOS and USAID, which are the agencies responsible for implementing the WPA. Rather, funds had to be secured by re-prioritizing programs, either by redeployment or by attribution, i.e., double-counting to fulfill the mandate. Included in the appropriations act was a provision that \$125 million of the allotted \$300 million be spent in sub-Saharan Africa. This provision was included in 2009 but not in 2010. Specification of the allocation to sub-Saharan Africa was deemed necessary because otherwise, the majority of the overall target could be met by targeting WASH funding to a few political priority countries, including Afghanistan and several countries in the Middle East, where overall development assistance from the USG is considerably higher.

From 2005 to 2009, the USG invested more than \$3.4 billion in country-led water-sector and sanitation-related activities; of this figure, the Millennium Challenge Corporation (MCC) invested \$1.3 billion, and USAID invested \$2.1 billion (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 16).<sup>4</sup> In FY 2009, USAID and MCC collectively invested \$513.7 million in WASH activities, more than doubling investment prior to implementation of the WPA (see Table 2).

**Table 2. USAID and MCC obligations to water and sanitation in developing countries, FY 2003–2009 (millions of U.S. dollars).**

	FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009	
	Water	WSH	Water	WSH	Water	WSH	Water	WSH	Water	WSH	Water	WSH	Water	WSH
USAID	401.7	159.8	400.7	239.8	329.8	216.9	349.3	265.0	263.7	213.2	489.6	389.9	598.8	481.9
MCC <sup>a</sup>	—	—	—	—	41.6 <sup>b</sup>	0	196.8	64.5 <sup>c</sup>	215.7	36.7 <sup>d</sup>	544.2	429.0 <sup>e</sup>	121.3	31.9 <sup>f</sup>
Total	401.7	159.8	400.7	239.8	371.4	216.9	546.1	329.5	479.4	249.9	1,033.8	818.9	720.1	513.8

Sources: Bureau of Oceans, Environment, and Science, U.S. DOS (2008, 2009, 2010).

Note: Water funding for projects that support water and sanitation-related activities including water productivity and water resource management in developing countries. Drinking water supply, sanitation, and hygiene (WSH) funding is for projects that support drinking water supply, sanitation, and hygiene.

a. MCC Compact funding is committed when compact is signed and obligated when compact is entered into force (Bureau of Oceans, Environment, and Science, U.S. DOS 2009, 20). The 2008 report to Congress on the MPAdelineated both commitments and obligations of MCC, whereas the 2009 WPA report delineated only obligations. Compact entry into force, budget allocations, and scoping and 609 pre-compact obligations and threshold obligations (Bureau of Oceans, Environment, and Science, U.S. DOS 2009, 19). The figures for water represent the total pre-compact and compact funding obligation made by the MCC in 2006 to WSH (water resource management and water productivity). b. In this year, all funding for water-related activities was made to improve water productivity (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 20). c. The entire \$64.5 million was obligated to Georgia and included \$12 million of irrigation as part of the Regional Infrastructure Development project as of March 15, 2010 (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 20). d. The \$36.7 million was for Ghana (\$13.4 million) and El Salvador (\$23.3 million) (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 20). e. According to the 2008 report (Bureau of Oceans, Environment, and Science, U.S. DOS 2008, 16) the MCC obligated \$407.7 million to water.

f. The \$429 million was for Mozambique (\$203.6 million), Lesotho (\$159.1 million), and Tanzania (\$66.3 million) (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 20). According to the 2009 report (Bureau of Oceans, Environment, and Science, U.S. DOS 2009, 6), the MCC obligated \$546.9 million to water.

g. The \$31.9 million was reported in subtotal by category (Bureau of Oceans, Environment, and Science, U.S. DOS 2010, 19). In the 2010 report, Table 10 MCC's cumulative water obligations by signing date as of September 30, 2009, indicates total funding for water as \$127.94; of this amount, \$0 is for WSH.

### Country-led investments are made through the MCC

The USG created the Millennium Challenge Corporation in 2004 to aid countries that were making strides on governance issues. It manages foreign assistance by applying private-sector models to the public sector. It focuses on poverty reduction through economic development. Choice of sectors for investment is based on requests from recipient countries and a broad consultative process, which includes civil society. Countries prepare a proposal, which undergoes rigorous review by MCC before a bilateral agreement, referred to as a Compact, is negotiated. These countries manage procurement and project implementation; the MCC provides oversight, including technical assistance and capacity building. The majority of procurements are based on open international tender following MCC's procurement guidelines and under MCC's oversight, which reduces the risk of investing and contracting in countries that are potential emerging markets. The MCC receives funding through the appropriation process for five-year programs, at the beginning of the funding cycle. Thus, unlike USAID, which is subject to annual appropriations, the MCC has longer-term funding, which is delivered to the agency up front. This funding allows the MCC to finance large-scale infrastructure, which requires longer-term programming.

The MCC has signed Compacts with 23 countries as of April 2011, designed to address constraints to economic development and to obtain returns on investments (MCC 2011). Half of the partner countries have identified water as a primary constraint to economic development (Fine 2011). The MCC requires that national governments have sufficient

4. According to Table 2, created from data from WPA reports, USAID has obligated \$2.031 billion, and the MCC has obligated \$1.112 billion to water projects.

governance capacity before it allocates funds to them. This capacity is determined on the basis of 17 indicators of enabling environment, which are split into three categories:

- “Ruling justly,” an indicator of access to civil liberties and democratic political rights, government effectiveness, and control of corruption;
- “Encouraging economic freedom,” an indicator of inflation and fiscal policy and of enablement of business, trade policy, and land rights and access; and
- “Investing in people,” an indicator of health, education (including girls’ primary completion rate), and natural resource management (MCC 2010).

This approach appears consistent with broader discussions on how best to invest in developing countries and engage with local governments; however, comparing the impact of efforts across federal agencies is difficult, because the MCC focuses on economic rates of return on investment as well as other factors such as beneficiary analysis, rather than on social impacts.

### Private philanthropy is playing a larger role

Foundations play a dominant role in the U.S. philanthropic community. A comparative advantage of foundations and philanthropists is that they are not accountable to a public constituency, which enables them to take risks (although they are accountable to their boards of directors). Philanthropists can more readily use their capital to tap into innovative ideas and to adjust to lessons than governments, who are more risk-averse. However, governments can access a more extensive reach and thus have the potential to scale up successful programs easily.

Historically, the Conrad N. Hilton Foundation has been the major funder of water and sanitation activities. During the past two decades, it has disbursed \$80 million in grants and enabled an estimated two million people to access water (Conrad N. Hilton Foundation 2010). It plans to focus its support on the safe water access component of WASH programs in targeted countries, giving priority to the poorest and hardest-to-reach populations.

Other major and minor foundations have also engaged. The Bill and Melinda Gates Foundation (BMGF) recently refocused its efforts on improving on-site sanitation coverage globally. It has made 36 grants since 2006 for WASH projects. These grants totaled \$219 million.<sup>5</sup> Some organizations that have received funding from BMGF include the Water Supply & Sanitation Collaborative Council (WSSCC), the IRC International Water and Sanitation Centre, Water and Sanitation Program (WSP), and universities.

The Howard G. Buffet Foundation supports the Global Water Initiative (GWI), which convenes a consortium of seven NGOs, who focus on governance, policy, transboundary issues, watershed protection, conflict, and water delivery. The GWI began in 2007 and receives \$15 million every year from the Buffet Foundation (CARE 2007).

### NGOs are expanding activities

Since 2005, foundations, NGOs, and the private sector have increased their involvement in WASH. Table 3 outlines funding expended on water and WASH projects by prominent U.S. NGOs active in the sector, although it does not include all U.S. NGO activities. The numbers presented in the table are aggregated from publicly available resources. A number of key NGOs are not included in Table 1, as data on WASH expenditures are unavailable.

Some of the funds outlined below come from USG, foundations, and corporation investments discussed elsewhere in this paper, resulting in double-counting of overall water and sanitation funding.

5. The number of grants and the total amount (\$219,979,911) were calculated on the Gates Foundation website on February 24, 2011. <http://www.gatesfoundation.org/grants/Pages/search.aspx>.

**Table 3. U.S. NGOs' funding of water and sanitation, FY 2005–2009 (millions of U.S. dollars).**

	2005	2006	2007	2008	2009	Total
CARE <sup>a</sup>	17.9	17.7	23.1	25.9	-	84.6
charity: water <sup>b</sup>	—	0.1	1.1	4.5	5.9	11.6
Living Water International <sup>c</sup>	4.7	4.5	7.6	11.2	11.5	39.5
MWA <sup>d</sup>	1.0	1.7	1.1	2.3	1.6	7.7
water.org <sup>e</sup>	0.9	1.2	2.5	2.5	4.2	11.3
WaterAid in America <sup>f</sup>	0.1	0.5	1.2	3.2	2.1	7.1
Water for People <sup>g</sup>	2.4	3.3	4.4	6.5	7.6	24.2

Sources: Financial statements and annual reports of each NGO over the five-year period.  
 Note: Several key NGOs whose WASH data were not disaggregated from other water spending in publicly available documents are not been included in this table.  
 a. WASH figures for CARE include but are not limited to access to water supplies, local management of watersheds, hygiene education, sanitation, solid waste management and drip irrigation. CARE WASH figures are combination of figures for emergency, rehabilitation and development projects (CARE 2008, 7, 29). The Consolidated Financial Statements for 2009 did not include notes that had been included in prior financial reports, ie, program expenses by sector and type. Thus, WASH expenditure for 2009 was not outlined separately in the financial statements. The 2009 annual report did include this information. It stated that CARE's water and sanitation projects increased access to safe water and improved health and hygiene practices for over 5 million people (CARE 2009, 21). 2005 (CARE 2005, 47); 2006 (CARE 2006, 45); 2007 (CARE 2007, 27); 2008 (CARE 2008, 29).  
 b. 2006 (Charity Global 2006, 4); 2007 (Charity Global 2007, 4); 2008 (Charity Global 2008, 4); 2009 (Charity Global 2009, 4).  
 c. The LWI figures reflect expenditures for medical ministries, water well programs, and training and hygiene. 2005 (LWI 2006, 4); 2006 (LWI 2006, 3); 2007 (LWI 2007, 3); 2008 (LWI 2008, 3); 2009 (LWI 2009, 3).  
 d. 2005, 2006, 2007 (MWA 2007, 6); 2008, 2009 (MWA 2009, 5).  
 e. 2005 (Waterpartners International Inc 2005, 3); 2006 (Waterpartners International Inc 2006, 3); 2007 (Waterpartners International Inc 2007, 3); 2008 (Waterpartners International Inc 2008, 3); 2009 (Water.org Inc 2009, 3).  
 f. WaterAid's website contains financial statements from 2008 onward though the 2008 statements contained comparative figures for expenditures for 2007, 2005 and 2006 (WaterAid America Inc 2006, 3); 2007 and 2008 (WaterAid America, Inc. 2008, 3); 2009 (WaterAid America, Inc. 2009, 3).  
 g. 2006 (Water for People 2006, 3); 2007 (Water for People 2007, 3); 2008 (Water for People 2008, 3); 2009 (Water for People 2009, 3).

**Contributions from corporations are hard to track**

Corporations also contribute financial assistance. According to the *Chronicle of Philanthropy*, in 2009, U.S. corporate giving, across all sectors, amounted to \$12.8 billion. Its website identifies corporate philanthropic priorities in given fiscal years, but neither “water” nor “sanitation” are among the 45 designated sectors. Funding to these areas are likely subsumed under “agriculture and food,” “health,” “environment and conservation,” and “international relief and development” (*Chronicle of Philanthropy* nd). In the private sector, prominent funders of water and sanitation include The Coca-Cola Company, PepsiCo, ITT Watermark, and Procter & Gamble.

- The Coca-Cola Company (TCCC) partnered with USAID to form the Water and Development Alliance (WADA), which received \$20.4 million dollars from 2005 to 2011, \$10.6 million of which was from TCCC (WADA 2008). Beginning in 2009, the Replenish Africa Initiative (RAIN) was started, with a pledge from TCCC to give \$30 million from 2009 to 2015 (Coca-Cola Company 2009).
- PepsiCo Foundation has given \$15 million dollars since 2005. Of this amount, \$6 million went to Columbia's Earth Institute (2008–2010), \$4.1 million was granted to water.org (2008), \$3.5 million to Safe Water Network, and \$2.5 to PepsiCo China for WASH projects focused in rural communities (PepsiCo 2010).
- ITT Watermark funded \$4 million from 2008 to 2010, partnering with Water for People, Mercy Corps, and China Women's Development Foundation (ITT Watermark 2009). ITT has pledged \$10.5 million to WASH between 2011 and 2013 (WASH News Finance 2011).
- Procter & Gamble's 2010 sustainability report states that the company has provided 2.2 billion liters of clean water since 2004 and has raised awareness of the need for clean water (Procter & Gamble 2010). Much of their efforts are through donations of PUR—a powdered water clarification and disinfectant technology that comes in small, easy-to-use packets.

The actual amount expended on WASH by U.S. corporations might be higher than stated here. However, for the purpose of consistency, all figures in this report have been cited from publicly available materials.

**Outputs and Outcomes since 2005**

The targets set forth by the U.N. for the MDGs, though pivotal in generating interest and funding, were rather simplistically defined. “Access” to safe water and adequate sanitation fails to account for reliability of water flow and water quality, sustainability, and facility cleanliness and working condition. As a result, the sector has moved away from an output-based approach focused on, for example, the number of wells drilled or toilets built, toward a “service delivery

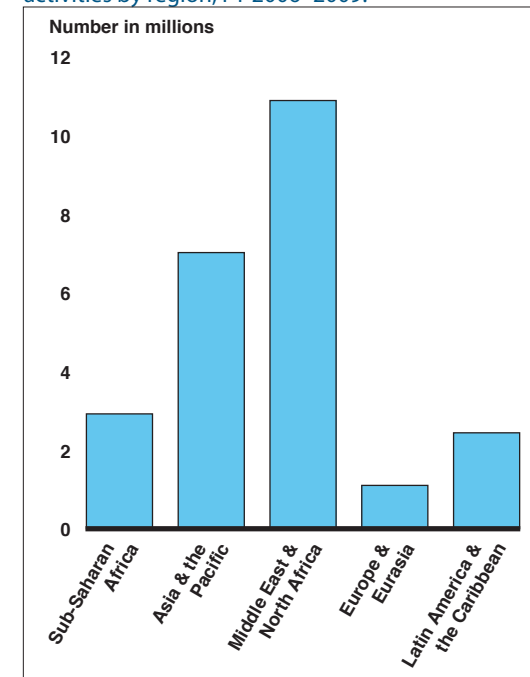
approach” with a focus on sustained use of a water point or toilet. There have been efforts by stakeholders to ensure transparency and accountability, and capture new research to provide rigorous data supporting investment in WASH. Increased dialogues about WASH in the United States attests to the importance of focusing on outcomes rather than outputs alone. A draft “WASH Sustainability Charter” aimed at unifying the WASH sector “around a common vision and definition for WASH sustainability,” is currently being reviewed by stakeholders in the United States to ensure that sustainable services are implemented globally (GWC 2011).

U.S. entities often determine the impact of interventions by imputing the number of beneficiaries who gained access to safe water or sanitation, or the number of liters of clean water. It is anticipated that outcomes would include tracking reduction in incidences of diarrheal diseases and reduction in mortality rates of under-five-year-old children, although it is uncertain if this data is measured rigorously. Outputs such as wells or boreholes dug and latrines built in a given year are also often measured. However, as previously noted, NGOs are beginning to evaluate the sustainability of services. Water for People has recently committed to monitoring all projects for 10 years post-intervention, and has introduced the use of smart phones to track the status of hardware in real time. Rather than counting beneficiaries, it is focusing on achieving full coverage in each of the communities in which it works.

MCC-funded projects examine not only the direct impact of improved water and sanitation in terms of time savings, reduced illness, or both, but also the broader impact of these interventions on productivity and poverty reduction. By studying the effectiveness of a variety of water and sanitation interventions within and across countries, the MCC can obtain useful information for future investments and contribute to knowledge creation in the sector (MCC 2011).

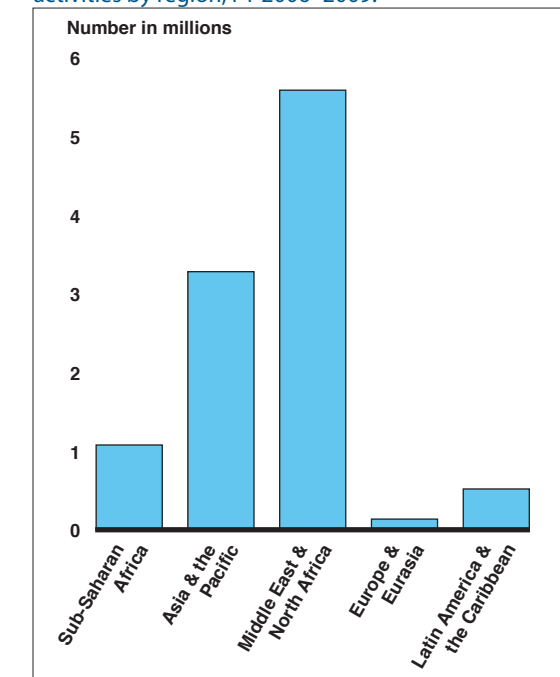
The impact of USAID programs is generally measured in terms of the number of beneficiaries receiving first-time access to an improved source. A beneficiary is counted in the year that he or she received access, not in the year that the project started or received the most funding. Therefore, the yearly reporting of dollars spent is disconnected from the results tallied. From FY 2006 to FY 2009, USAID reported 24.3 million beneficiaries of USAID water activities and 10.6 million beneficiaries of USAID sanitation activities (U.S. GAO 2010, 14). The most beneficiaries were in the Middle East and Asia (see Figures 1 and 2).

**Figure 1. Total beneficiaries of USAID water activities by region, FY 2006–2009.**



Source: GAO 2010, 12.

**Figure 2. Total beneficiaries of USAID sanitation activities by region, FY 2006–2009.**



Source: GAO 2010, 13.



### 3. Challenges, Opportunities, and Creative Funding Sources

Survey respondents were asked to identify key challenges and opportunities for continued U.S. engagement in the WASH sector as well as creative sources of funding.

#### Challenges for the Sector

- Given the current economic and political climate, a reduction in government funds for foreign assistance programs is anticipated. Because the American public remains generally unaware of the importance of supporting WASH in the developing world, interviewees called for enhancing advocacy and communication as a tool to increase program funding.
- Achievement of the MDGs appears unlikely, especially with regard to sanitation. Some interviewees posited that the missed targets could be used to sustain commitments if WASH practitioners engaged the media in covering the issue.
- To make a case for continued investment, the sector needs to demonstrate economic payoffs for WASH interventions. Interviewees called for more rigor in measuring benefits.
- Need for increased harmonization and alignment among many federal agencies to better understand the extent of WASH activities and funding.
- WASH programs require long-term planning. Medium-term planning is also effective because it promotes accountability.
- Impacts of climate change, and the link to conflicts over water resources. Several interviewees suggested that this problem could be mitigated by making WASH central to adaptation funding.

#### Opportunities for U.S. Leadership

- The United States could recapture the leadership mantle in the WASH sector by continuing to vocalize and support the Sanitation and Water for All (SWA) initiative. USG could also use its role as a member of WHO Board to elevate WASH as a health priority. One interviewee emphasized the problem of the United States asking national governments to prioritize WASH within the SWA without increasing its funding for basic systems in a commensurate fashion. It could set an example for other donors by increasing its development assistance for these systems. The potential for U.S. leadership increases as academic engagement expands, as evidenced by the emergence of new water institutes and interest in developing research opportunities. Several respondents from academia mentioned the lack of funding for research as an obstacle to increased engagement internationally, and they discussed the necessity of funding longer-term research to enhance capacity building and maximize impact.
- The United States should increase its engagement with local institutions and frameworks like the African Union and its African Water Vision Framework 2025.
- Although not silver bullets, new approaches in community-led total sanitation, multiple-use systems, and behavior change related to hand washing and sanitation will help sustain progress.
- Several respondents from developing countries and multilateral banks stated that funding should be channeled through pooled resources, e.g., SWAps (sector-wide approaches), regional agencies, and development banks.

#### Importance of Tapping Private Sources, both External and Internal

- Funding sources identified by interviewees included foundations (predominantly the Bill and Melinda Gates Foundation, whose main foci are service delivery, sustainability, and sanitation), the private sector, development banks, households, and national governments.
- A few interviewees, primarily from developing nations, mentioned climate change funds and adaptation funding. U.S.-based interviewees discussed the incorporation of WASH components in presidential initiatives; the Global Health Initiative (GHI), Feed the Future (FTF), and Global Climate Change Initiative (GCCCI).
- Two interviewees suggested that philanthropists from the developing world are a potential new funding source.

- Little mention of finding and funding local entrepreneurs was made, but interviewees endorsed the efforts of some entrepreneurial NGOs like Water for People, water.org, and Acumen, which focus on business models for sanitation, microfinance, and loan guarantees, respectively. Others attested to the need for increased innovation and development of market-based approaches, like those undertaken by WaterHealth International.
- One interviewee outlined the potential role for commercial banks as providers of loans to medium-size country-level firms that can help develop an entrepreneur base.
- Several stakeholders stressed the importance of leveraging donor money as a catalyst for additional funding, both from local governments through cost-sharing and from NGOs and the private sector in matching schemes.
- Public-private partnerships (PPPs) featured prominently, although these were not defined clearly, and little distinction was made between private investments and grants. Increasing the ambiguity is the widespread phenomenon of relabeling public-sector initiatives with private-sector terminologies. Thus, in some circles, investment in WASH means providing grants, whereas in others, it means providing loans, which must be repaid with interest. Notwithstanding, there have been several new alliances, including the Water and Development Alliance (WADA), a partnership between USAID and the Coca-Cola Company that “will have committed a total of \$28.1 million since 2005 to support 32 projects in 22 countries worldwide in Africa, Latin America, the Middle East, and Southeast Asia” (USAID 2010).
- Some interviewees pointed to the health sector for potential models for innovative funding. They mentioned the Global Alliance for Vaccines and Immunization’s tiered system of costs for products purchased by high-income and low-income countries. In this system, high-income countries’ pricing covers most of the production costs (GAVI 2002).
- There is an opportunity to expand awareness, through an increased focus on women and water.
- Several U.S.-based interviewees called for funds from the defense budget to be reallocated to water and sanitation.

### 4. Discussion of Key Findings

#### 1. Existing funds need to be leveraged more wisely and efficiently to maximize impact.

A key recommendation from 2005 that resonates today is the need to replicate and scale up promising partnerships among governments, not-for-profits, and community and faith-based organizations. A positive movement in the United States is the creation of coalitions like the Millennium Water Alliance and the Global Water Challenge, in 2005 and 2006, respectively. But as the literature review revealed, collecting and interpreting data on how much money has been spent within WASH by U.S. entities is difficult. Likewise, determining what activities have been funded, how funding has been delivered, which regions received funding, and what objectives were prioritized is challenging. Measuring effectiveness and impact of funding is harder still. To augment partnerships and better assess programs, the sector as a whole needs to be more transparent. This task would entail greater sharing of information about both successes and failures, thereby enhancing learning and minimizing repetition of mistakes.

One opportunity to leverage significant funds is through *partnerships with recipient governments*. According to the United Nations Development Programme’s *Human Development Report 2006*, “Governments should aim at a minimum of 1% of GDP for water and sanitation spending” (UNDP 2006, 18). Many developing countries do not dedicate this portion of funds to WASH. An increase in donor funding through matching in-country component schemes could effectively encourage countries to, at a minimum, reach the 1% target.

*Capital from households* has proven to be another extensive resource base for funding water and sanitation services. Programs are currently assessing whether households can afford to pay for services over time and what financial mechanisms might be used to increase local investment. To expand service provisions there is a push for up-front capital cost contributions, although the issue of who would bear this cost is far from being resolved. Incorporating household resources serves the additional benefit of treating households as participatory actors, not passive beneficiaries, and gives people level-of-service options, thus fostering ownership. Local buy-in is a critical component for a sustainable project, and payment for services is thought to foster a sense of ownership. Ideally, building an expectation of reliable service

would spur households to pay a regular fee, with which providers could maintain and operate the service. Whereas a donor will likely withdraw from the project on completion and may provide, at best, limited monitoring, a household will be around to “monitor” the project for life.

Issues of equity remain a concern, as the poor often pay more for water in urban areas than the wealthier. When households do not have access to the capital necessary to secure water and sanitation services, *subsidies* should be used to ensure that they receive the services. The challenge is to properly identify and target people who genuinely need the subsidies. Sustaining cost-recovery systems once infrastructure has been built remains a problem: because end users often assume that water is free and that payment is for the delivery system, they think that payment should cease once the infrastructure is built. Given the recent declaration of water as a human right, this problem may increase. Regardless, household dollars, along with proper targeting of subsidies, are needed to extend the sustained reach of water and sanitation services.

**2. Use of existing institutions, frameworks, and capacity will promote sustainability and improve impact; however, opinion is divided over whether delivery of foreign assistance is best channeled through NGOs or developing country governments.**

As the literature review reveals, funding for WASH activities has increased since 2005. A *Silent Tsunami* recommended that development assistance emphasize “building local capacity, creating legal frameworks for managing water and building local sources of funding” (Reilly and Babbitt 2005). Interviewees agreed, and they articulated the need to leverage more in-kind funding from recipient country governments and to recover some costs from local beneficiaries. These tasks would require that funding cycles become less volatile, thereby helping ensure that commitments to a particular country can be delivered on with certainty. Interviewees also agreed that stable funding and in-country matching were critical to promote sustainable programming.

The USG channels 26% of its drinking water and sanitation aid through NGOs, 17% through the private sector and consultants, 2% through pooled funds, 1% through training institutes, and 53% through other methods (WHO 2010, 59). Despite the Paris Declaration and Accra Accord, which made *country ownership* a priority and which called for “increasing alignment of aid with partner countries’ priorities, systems, and procedures and helping to strengthen their capacities” (OECD 2008), the USG has continued to deliver considerable amounts of aid through NGOs, rather than through existing recipient country institutions. This practice elicited criticism from multiple interviewees, who suggested that improvements needed to be made in the horizontal linkages among donor governments and between donor and recipient governments. Interviewees from the multilateral banks, academia, and recipient countries of aid stressed the need for external funding to be aligned with local government and national priorities and to be channeled through existing delivery mechanisms.

Delivery of aid to a government that has expressed interest in WASH provides an opportunity for donors to coordinate funds, thereby increasing government ownership, aligning donor activities with comprehensive government plans, and enhancing transparency, predictability, and harmonization (OECD 2008). Good governance within the host country is critical, and appropriate mechanisms to deter the misuse of funds are vital. The MCC operates on this premise. Several interviewees discussed the effectiveness of funding through pooled funds or through existing mechanisms like SWAs, where “donors give significant funding to a government’s comprehensive sector policy and expenditure program (for example, on health or education), consistent with a sound macro-economic framework” (DFID 2009). However, such mechanisms are not without their challenges and critiques.

In the 2010 *U.N.-Water Global Annual Assessment of Sanitation and Drinking-Water (GLAAS)* report, 28 of 38 developing countries reported that sanitation and drinking water targets are included in their poverty reduction strategy or national development plans (WHO 2010, 40). But translating policies into results requires sustained momentum and funding. Several stakeholders mentioned the need for U.S. entities to operate with a *long-term programming approach* aligned with the strategic objectives of recipient countries and existing donor mechanisms, thereby minimizing duplication of resources and promoting the sharing of ideas and information.

NGOs frequently play a critical role in development, both in programming and in advocating for greater funds for foreign assistance. Several interviewees from recipient countries called on *NGOs to participate in country-led WASH*

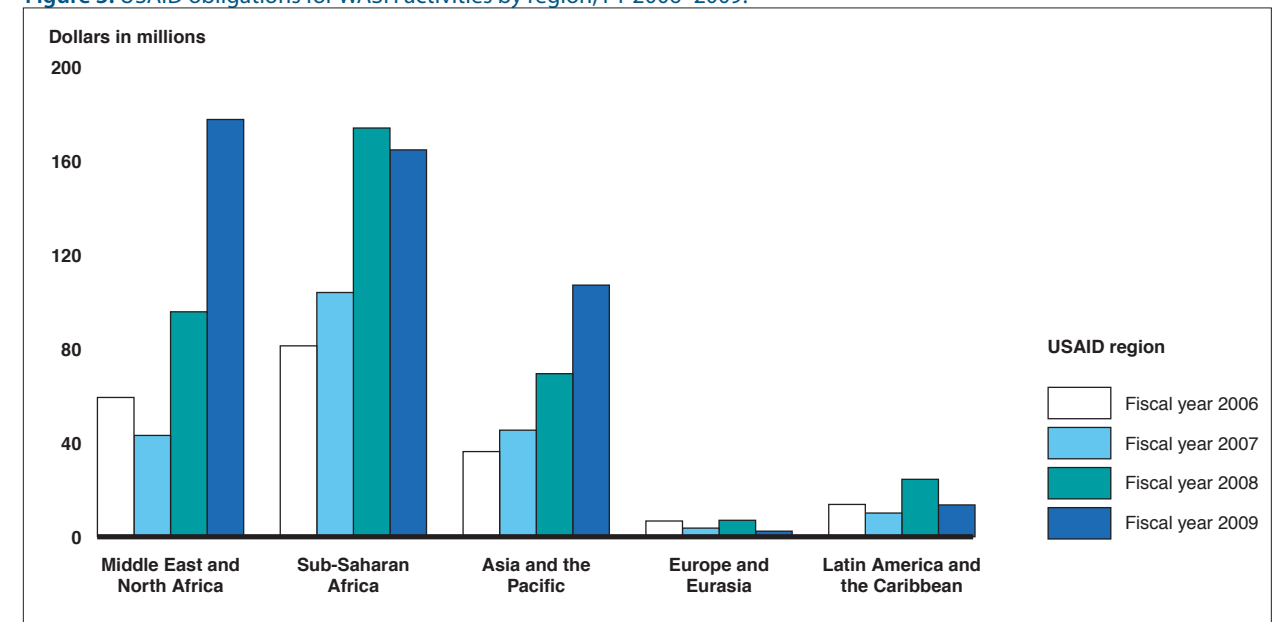
*working groups* to ensure a harmonized approach to programming interventions nationally. Some interviewees called for *NGOs to better understand existing local policy and institutional frameworks* before engaging in a country, thereby minimizing duplication of resources. They also called for international NGOs to partner with capable local counterparts before initiating a project on the ground.

**3. Water for the Poor Act funding continues to be primarily directed to countries that the USG considers to be political priorities. Funding should be allocated to countries with the greatest need, and need should be more transparently defined.**

A recent global assessment of progress in meeting water and sanitation goals found that although poverty levels and lack of coverage are the determining factors for the prioritization of a country for external support, only 42% of existing investments are made in the least developed and other low-income countries (WHO 2010, 7).

In fiscal year 2009, the bulk of funding for the Water for the Poor Act—55% of \$481.850 million—was obligated to five countries: the West Bank and Gaza (\$102.2 million), Jordan (\$53.5 million), Pakistan (\$48.0 million), Sudan (\$38.9 million), and Afghanistan (\$22.6 million) (Bureau of Oceans, Environment, and Science, U.S. DOS, 18–20).<sup>6</sup> Of these, only Sudan would fall under the JMP/WHO category of “off-track” in terms of levels of coverage for water and sanitation; Afghanistan and Pakistan would be deemed off-track for sanitation. Both *the West Bank and Gaza and Jordan have high coverage ratios, yet they alone were obligated one-third of total funding in fiscal year 2009* from USAID. A recent report by the GAO unequivocally stated that these five countries received the majority of funding because of their “strategic importance in relation to U.S. foreign policy” and because of the relatively high amounts of overall foreign assistance funding allocated to them (U.S. GAO 2010, 20). The same report included DOS officials’ responses, which cited Jordan’s low per capita water availability (as opposed to the more conventional coverage ratio) as a basis for “need” intervention (U.S. GAO, 36).

**Figure 3. USAID obligations for WASH activities by region, FY 2006–2009.**



Source: U.S. GAO 2010, 23.

Interviewees’ dissatisfaction with current expenditures stems primarily from unfulfilled legal obligations outlined in the Water for the Poor Act, which specifically calls for a focus on the countries with greatest need. Without increased transparency, the spirit and intent of the act will remain unfulfilled. Several interviewees called for the separation

6. See 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.



of resources for political funding from those for need-based interventions and also called for improved targeting of resources.

**Interviewee:** “*Not a matter of more money; a matter of targeting water and sanitation better. De-politicize the money.*”

Selection of priority countries by USAID is based on several criteria, as previously outlined in the literature review. Interviewees generally agreed that foreign policy interests far outweigh need or enabling environment, as evidenced by the amount of funding flowing to the Middle East. Some commented that the criteria were broad enough that any country could be considered to have met them. Furthermore, what it means to be designated a priority country remains opaque, and priority does not necessarily translate into greater resources. A 2010 GAO report found that most USAID missions were unaware that WASH was a priority in their country of operations. In interviews, developing country representatives also indicated that they were unaware that their country had preferred status for WASH investments from the U.S. government. Two new criteria were recommended for consideration: experience in using money well and consideration of country dynamics, i.e., forecasting potential challenges like rate of urbanization and pro-actively addressing them.

Some interviewees argued that focusing on the countries of most need promoted fundamental human security. Adding nuance to this issue is variability in countries’ capacity to absorb and implement programs with funding that they may receive. Enabling environment is a critical factor to ensure successful programming and outcomes. NGO respondents repeatedly articulated the need to ensure that investments were made in countries with both high need and an enabling environment. But some cautioned that too great a focus on enabling environment often comes at the cost of ignoring the most vulnerable countries, with the greatest need.

**4. Sustainability should be reflected in the design of projects through the inclusion of monitoring and evaluation components (including establishment of reliable baseline information), participation of local communities in the decision-making process, and sufficient local capacity building.**

Without *adequate baseline information*, evaluating progress is difficult. But baseline data—perhaps the most critical data for measuring the impact and improving transparency of program activities—is difficult to obtain during a project’s inception. To address this problem, one interviewee recommended allotting a percentage of funds to independent evaluations and impact measurement in the program budget from the inception phase, which would allow for findings to factor into project design.<sup>7</sup>

**Interviewee:** “*Sustainability hinges on ownership.*”

The 2005 forum stressed the importance of *community participation*: “Decisions about covering the costs of clean water and sanitation should be decided through a participatory process that ensures the needs of the poor are met and provides sufficient funds for maintenance.” Community involvement in the decision-making process remains critical to the long-term sustainability of programs, because it promotes local ownership and enhances adoption and sustained use of technologies. But designing interventions that will be used by the intended beneficiaries is not always easy. Ample evidence points to non-adoption of improved technologies simply because community members were not consulted before the infrastructure was built (Jenkins and Sugden 2006). This view was articulated consistently by interviewees from developing countries, who also discussed the need to increase contributions from beneficiaries to improve sustainability.

**Interviewee:** “*Community contributions should increase from the current 15% levels to about 25% levels.*”

Though amassing the high capital costs associated with developing water and sanitation facilities is challenging, leveraging resources to sustain such facilities is even more so. In Africa, 30% of water and sanitation facilities do not function properly (WHO and UNICEF 2005), and the *operation and maintenance* problem remains a key challenge to provision

7. The MCC has a policy for monitoring and evaluation that is aligned with this recommendation. M&E “is integrated into the entire life cycle of a Compact from concept through implementation and beyond.” All compacts must have a M&E plan which includes, among other requirements, a strategy, indicators, implementation plan, and M&E budget. Reports on the indicators are required on a quarterly basis (MCC 2009).

of sustainable services. Responsibility for post-construction support has been a source of debate; there is no clear consensus on whether the burden should lie with the beneficiaries, the local government, or with the implementing NGO. Communities often do not distinguish between NGOs and government, lumping them all as “government.” Underlying the importance attached to engaging with local communities and governments and of sharing project responsibility is the tacit assumption that domestic entities should be responsible for the maintenance of existing facilities. However, all parties share responsibility for ensuring that their projects are sustainable and implementing institutions should include operation and maintenance as a budgetary line.

Sustaining and maintaining facilities requires significant investment in *capacity building*, which is often thought to be the realm of USAID, universities, and research institutions. Since 2005, new water institutes have emerged around the world. Within U.S. universities, water programs have been made more relevant to developing country needs. These institutions have increased collaboration on WASH issues through a new University/WASH Consortium.

The 2005 forum convened by the Aspen Institute and the Nicholas Institute called for an *increased role in decision making by women*. In its recognition that the “lack of access to safe water and sanitation disproportionately affects women and limits women’s opportunities,” the Water for the Poor Act acknowledges the critical role of women within WASH and seeks to promote women’s empowerment. Subsequent reports to Congress have continued to highlight the importance of engaging women. Country reports frequently call for involvement of women from the onset of project planning and implementation. Several interviewees mentioned that focusing on women and water could potentially increase awareness around WASH issues, and galvanize bilateral support in the United States. Efforts to increase women’s participation in WASH-related decision making should be undertaken at the district, regional, and ministerial levels.

**5. The sector should better measure return on investment (benefit versus cost), effectiveness, and impact of WASH interventions and should better communicate what is working through a focus on solutions and solvability of the crisis.**

**Interviewee:** “*Organizations have been in water for a long time, but have no model of how their projects have worked in the long run...no data snapshot on how much money has been spent and how it changed the world.*”

WASH practitioners are well aware of the cost-effectiveness of investing in WASH interventions, the benefits of which include aversion of deaths, health care cost and time savings, increases in productive and school attendance days, and return on investment (ROI). In 2005, a key recommendation to governments was to invest more in water infrastructure “for reasons of health, the economy, and environmental sustainability.” Why then, has the WASH sector been so hard to finance? Though the numbers show an upward trend since 2005, the sector remains inadequately funded to address the scale of the problem. Hundreds of good programs work with communities to provide reliable access to safe drinking water and adequate sanitation facilities—progress that should be *broadcast and communicated in a way that reaches a wide audience*, particularly new investors. Interviewees indicated that stimulating investment requires both better evidence about the returns on WASH investments and effective communication of benefits to national and local decision makers and the wider public. This task includes building a case that “the cost of doing nothing is more than the cost of doing something,” as articulated in a draft summary from a meeting held by Sanitation and Water for All in November 2010 (Sanitation and Water for All 2010).

National governments are *more likely to respond to economic development arguments* than to rights-based arguments. When asked whether the recent declaration on the *human right to water* would bring about increased prioritization of, and hence investment in, the sector, interviewees’ responses were mixed. Although many acknowledged its symbolism and its potential to influence attitudes and raise the priority within national governments, they were skeptical about whether it would have any impact, especially considering the difficulty of enforcement and cost recovery. Some also cautioned that the human right to water often comes with slogans of “anti-privatization,” which can alienate corporate actors who have been increasingly active in the field. Ultimately, respondents agreed that the declaration would not affect the U.S. approach or investment policies.

**Interviewee:** “*Politically, a good move. But programmatically, what does it mean? With rights come responsibilities. Look at combination of the two. The fact that water was named a right does not necessarily translate into new funding or greater awareness.*”



Thus, education is needed to raise awareness of ROI in WASH—\$8 for every \$1 spent, according to WHO—among ministers and political leaders of recipient countries and funders and policy makers of donor countries. To present a coherent case, the sector must have a complete understanding of the costs and benefits of solving WASH problems and must be able to skillfully communicate them to the public. A tremendous strength of the Water for the World Act, which did not pass the House in 2010, is the provision of an estimate of the amount of funding necessary to solve these problems. The bill was re-introduced in the Senate in March 2011.

Additionally, WASH experts recognize that the *dialogue needs to shift from poverty to empowerment*. To maintain and build momentum, the sector must focus on achievements and solutions, not only on needs and problems. Although the level of awareness of WASH issues by the general public is low, 47% of the Americans who responded to a recent U.N. Foundation poll—people who are presumably representative of members of civil society aware of the challenges in international development—identified access to safe drinking water as the most important MDG to accomplish.<sup>8</sup> The WASH sector must capitalize on this awareness by shifting the narrative and highlighting the sector’s successes. Interviewees reiterated that a coherent message can only be achieved through better coordination and information sharing.

The WASH sector has attempted to facilitate better information sharing by NGOs (through the holding of sustainability fora), universities (through the creation of the University/WASH Consortium), and the private sector (through the holding of briefings and workshops). How these different information sources and stakeholders can *coordinate and contribute to more effective communication* remains to be seen. A recent positive development occurred at a meeting convened in April 2010 in Washington, D.C., by the Sanitation and Water for All Initiative (SWA), “a global partnership working together to achieve universal and sustainable access to sanitation and drinking water, with an immediate focus on achieving the Millennium Development Goals in the most off-track countries.” The meeting brought donors together with ministers of finance and ministers of water from developing countries to talk through the case of investing in WASH and prioritizing it within national plans. Afterward, the minister of finance for Ghana prioritized WASH within the Ghanaian national budget, leading to increases in WASH programming activity in that country. The idea that “communicating the evidence is as important as having the evidence” (Sanitation and Water for All 2010) is increasingly gaining traction.

#### 6. More focus on sanitation is needed, but existing commitments to water quality and access must be maintained.

Water treatment has been shown to have significant health benefits at relatively low costs (Zwane et al. 2009). For this reason, the 2005 report of the forum organized by the Aspen Institute and the Nicholas Institute emphasized point-of-use (POU) treatments and hygiene education. Though both remain mainstays of USAID programs, demand for a focus on sanitation is increasing, primarily because *the world is not on track to meet the sanitation MDG* (WHO and UNICEF 2010), whereas it is on track to meet the water MDG.

According to the most recent data, 2.5 billion people are still without improved sanitation, while 884 million people lack safe drinking water. A consistent concern expressed in the interviews was that expansion in sanitation lagged far behind MDG targets and was neglected in comparison to efforts and progress in drinking-water delivery. Thus, a concerted effort is required to increase access to improved sanitation services.

To explain the discrepancy in achievements, interviewees referred to fundamental differences between the two services. Water-delivery service is more attractive to local investors, who can utilize proven business models with embedded cost-recovery schemes. Sanitation projects, on the other hand, are often dependent on donor dollars; consumers have little incentive to pay for the construction and maintenance of facilities. Several actors are working on developing business models for sanitation, and the sanitation sector is seeking ways in which investments can promote sanitation development.

8. When U.S. citizens were asked to estimate how much of the federal budget goes to foreign aid, the median estimate was 25%. When asked how much they thought would be an “appropriate” percentage, the median response was 10%. The report goes on to state that only 1% of the federal budget goes to foreign aid (WorldPublicOpinion.org/Knowledge Networks 2010). Setting budget needs was a requirement of the 2005 Water for the Poor Act; however, overall need and funding requirements were never estimated.

Sanitation improvements are critical to personal health, dignity, school attendance, and safety. A key component is education on proper hygiene and promotion of behavioral change. Without the benefits of improved sanitation services, improved drinking-water access can lead to adverse unintended consequences, such as the spread of disease due to increased use of water without adequate wastewater disposal mechanisms. Improvements in sanitation have also proven to be one of the most cost-effective development strategies.

Considering the above factors, the vast majority of interviewees expressed desire for a greater focus on sanitation. However, several interviewees *argued that achievements in water have been overstated*. They called for a reevaluation of the basic assumptions used to determine benchmarking data.

As outlined in the literature review, reliance on access figures as measures of improvement are dependent on the definition of what counts as “improved.” The increase in numbers of people with access to water masks variances in water flow reliability and quality. Without including water reliability and quality as indicators of water access improvements, achievements will be overstated.

In a similar vein, the definition for what counts as acceptable sanitation varies widely among nations (WHO and UNICEF 2010). National governments are more likely to consider the use of shared latrines as improved services (United Nations 2003), but the WHO and UNICEF Joint Monitoring Program (JMP), the sole tracker of progress within WASH globally, does not consider shared or public latrines to be improved facilities. If it did, the sanitation gap would further decrease.<sup>9</sup> Furthermore, the latest JMP report does not yet capture data for 2008, the International Year of Sanitation, during which resource flows to sanitation undoubtedly increased and likely reduced the numbers of people without access to sanitation.

These observations are not arguments against increasing resources for sanitation. But given the current focus by major institutions on sanitation, the WASH sector must consider whether achievements in water are overly inflated and how best to ensure that improvements in both water and sanitation continue.

#### 7. The U.S. administration has the opportunity to take a greater leadership role in WASH activities.

**Interviewee:** *Water has proven to be a “truly bipartisan issue, even in the most partisan of times.”*

Two key recommendations from the 2005 forum convened by the Aspen Institute and the Nicholas Institute were to make clean water and sanitation a higher priority and to develop a strategy to mobilize American resources and institutions internationally. Interviewees agreed that *water and sanitation have become a higher priority* within the United States, as evidenced by increased activity in the WASH sector, including passage of the Senator Paul Simon Water for the Poor Act in 2005 and appropriations to implement that legislation; growing DOS, USAID, and MCC support for water as a USG diplomatic and development priority; and higher levels of support for international WASH by Americans through individual donations, foundations, corporations, and civic and faith-based organizations. As previously noted, the strategy called for in both the 2005 forum and the Water for the Poor Act is still being developed. The recent passage of the Water for the World Act in the Senate is testament to the importance of this issue. Though the act did not pass in the House of Representatives, a Congressional interviewee suggested that had there been more time to educate more people on the issue within the House, it might have passed. Since that interview, the bill has been re-introduced in the Senate.

USAID is “mission driven,” i.e., decentralized “missions” have the ultimate responsibility for managing multiple priorities, often with insufficient resources or technical expertise. To date, many USAID missions lack WASH expertise and depend on support from Washington, D.C., to develop programs. Interviewees were unconvinced that the capacity enhancements envisioned under the as-yet-unsuccessful Water for the World Act would be realized at the relevant missions, especially if increased funding levels were short-lived. Though there was general agreement that WASH-related

9. According an Ethiopian news source, the Ethiopian government opposes the JMP data that defines Ethiopia as off-track for meeting the sanitation target because the JMP does not count shared facilities; the Ethiopian Government does. “If shared facilities in Ethiopia were counted, a further 34 percent of the urban population would be classified as covered, and Ethiopia would have achieved the MDG sanitation target in urban areas” (Yewondwossen 2010).

capacity within USAID is a constraint, many interviewees felt that USAID has made a genuine effort to address the gap, and they cited the appointment of a Senior Advisor of Water in USAID, the appointment and training of foreign service officers, and discussion of a “results framework” as steps in the right direction. The results framework, which is under development by USAID and the Department of State, likely has elements that will define the long-awaited strategy called for in the 2005 legislation. Unclear is whether this strategy will provide the basis for additional WASH-focused full-time employees and locally employed staff, a recommendation of the interviewees.

The amount of funding that USG allocates for water, though modest when compared with that for other sectors like AIDS and malaria, nonetheless makes the United States a *significant contributor to water internationally*. In terms of absolute foreign aid dollars, the USG spent close to \$29 billion in 2009 on all ODA. However, some critics have pointed out that if contributions were counted on a proportionate basis, e.g., funding for WASH on a per capita basis, the United States would fall far behind countries like the Netherlands. In addition to directly funding water and sanitation, the United States is a donor to, and exercises leadership in, seven multilateral development banks that finance billions of dollars for water-sector and sanitation projects (Bureau of Oceans, Environment, and Science, U.S. DOS 2010). However, in an era of fiscal deficits and freezes on federal spending, the sustainability of funding for the WASH sector from U.S. entities is uncertain. Further dampening prospects for increased engagement are the 2012 presidential election and the belief by the majority of U.S. citizens that the government spends significantly more on ODA than it actually does (Hart Research Associates 2010). Several interviewees cautioned that the United States would have to maintain these contributions to achieve projects’ full potential, especially in sub-Saharan Africa, where the necessary USG programming capacity has just begun to be implemented.

Interviewees pointed to lack of coordination among U.S. entities, and cited the need for harmonized data, which would greatly facilitate quantification of impact and minimize duplication of efforts. The USG is in a unique position to meet this need. Leveraging of USG funds for WASH could attract resources from foundations and the private sector within the United States as well as from national governments and international donor organizations. But political pressure to focus scarce USG aid dollars on those countries critical to U.S. foreign policy has highlighted the tension between allocating by need and allocating by priority.

#### 8. Integration of WASH into other development/presidential initiatives was viewed as key, but should not detract from the continuing need to prioritize WASH in development assistance.

Only recently have WASH activities straddled the environment and health sectors. *Previously, water and sanitation development were ensconced in the environment sector*, as evidenced by the inclusion of water and sanitation targets under the MDG to ensure environmental sustainability. (Given the benefits of improved access to water and sanitation, WASH targets could have been included under the first six of the eight MDGs.) According to a 2009 CSIS report, environmental health professionals have been segregated from the rest of the health community, a 20-year phenomenon that “limits other health professionals’ advocacy for work on water supply and sanitation” (Bliss 2009). The report proceeds to link water and sanitation with the health sector, making recommendations on how the USG can elevate and engage WASH in the health arena.

Two recommendations emerging from the 2005 forum acknowledge the cross-sector benefits of WASH activities. The first was to implement clean water, sanitation, and hygiene education by 2015 in all schools and orphanages. The second was to ensure that decisions about managing water resources involve all stakeholders, reflect all relevant supply-and-demand factors, and be aimed at efficient water use and ecosystem protection.

A “WASH in schools” movement involving more than 30 organizations from water, health, education, and other sectors has recently emerged in the United States. Several interviewees mentioned that a focus on community-level interventions was more appropriate than focusing on “WASH in schools” programs as it increased the number of positive externalities and ensured longer-term health gains. However, respondents also acknowledged that these programs offer a comparatively easy way to promote conversation among ministries of health, education, and finance. The thinking is that WASH efforts increase child health, which increases the number of educated people in the work force, which increases the potential for economic growth. Interviewees made no mention of an increase in WASH services within orphanages in the last five years, and few, if any, studies indicate that these institutions are the focus of WASH efforts.

Surprisingly, few interviewees *mentioned the environment, protection of ecosystems, or efficient water use* (climate change came up sporadically). The lack of discussion of these topics could reflect the fact that stakeholders were queried primarily about WASH. Although one question regarded integration of WASH with other development initiatives, selection of specific sectors was left to the interviewee’s discretion to outline. Few mentioned the shift in resources from water resource management and water productivity to WASH, and one interviewee suggested that USAID could make tangible impacts if it stayed focused on WASH, rather than spreading its efforts across the entire water agenda. Some interviewees cited the success of multiple-use systems in tangibly improving livelihoods as well as bringing about WASH-related health benefits.

Beyond the environment and health sectors, several interviewees recommended the potential *incorporation of WASH into three U.S. presidential initiatives*: the Global Health Initiative (GHI), Feed the Future (FTF), and Global Climate Change Initiative (GCCCI). These initiatives, which are the focus of the Obama administration development assistance goals, provide a natural nexus for WASH activity, although this is not adequately outlined within the text of the initiatives. Diarrhea kills more children than HIV/AIDS, tuberculosis, and malaria combined (Bartram and Cairncross 2010), and without access to clean water, medications are not as potent. Hunger initiatives, such as Feed the Future, benefit from WASH from both environmental and health perspectives. Better sanitation improves water sources, the major input to agriculture production, and better WASH conditions reduce diseases that impair nutrition absorption. Increased access to water supply and sanitation will be an inherent part of enhancing resilience and reducing vulnerability to climate change (Bartlett et al. 2010).

Though improvements in WASH have been recognized as integral to the overall success of development aid outcomes, *respondents disagreed on whether integration is an appropriate mechanism by which to expand WASH outcomes*. Several interviewees suggested that incorporation of WASH components in other development objectives was crucial, as it extended the reach of WASH and magnified benefits. They believed that WASH could remain a focus while integrating and that fostered collaboration was preferable to competition. Other interviewees expressed concern that WASH would be subsumed under other priorities and would remain inadequately addressed. They cautioned that integration of WASH programming into other activities might undermine the momentum that the sector has recently gained and limit the sector’s overall results.

#### 9. WASH efforts should be focused on sub-Saharan Africa, where needs are greatest.

Since 1990, 285 million people have gained access to an improved drinking water source, while 173 million people have gained access to an improved sanitation facility in Africa (AMCOW 2010). But in 2008, some 344 million people in Africa were without an improved drinking water source, and 584 million people were without an improved sanitation facility (AMCOW 2010). Nearly all interviewees concurred that far more resources are needed to address the gaps in sub-Saharan Africa, which is the *only region in the world that is anticipated to miss both MDG water and sanitation targets* (WHO and UNICEF 2010).

Obligations for sub-Saharan Africa increased by nearly 104%, from \$81 million in FY 2006 to \$165 million in FY 2009.<sup>10</sup> Obligations for the region, identified by the World Bank as the Middle East and North Africa, increased by about 200 percent, from \$59 million in FY 2006 to \$177 million in FY 2009. As previously noted, this jump reflects political priorities. It occurred despite the linking of appropriations to the Water for the Poor Act in FY 2008 and FY 2009 and the requirement that \$125 million be allocated to sub-Saharan Africa (U.S. GAO 2010, 16), a requirement not included in FY 2010.

One way to ensure that the focus is kept on the region is to obligate a certain amount of funding for African countries, as was done in 2008 and 2009. Several African stakeholders recommended a holistic approach to activities in Africa and referred to the framework outlined in “Africa Water Vision 2025,” a document created and endorsed by African stakeholders over a two-year period. It calls for strengthening governance of water resources, improving water wisdom, meeting urgent water needs, and strengthening the financial base for the desired water future (Economic Commission for Africa, African Union, and African Development Bank 2000). One institution working to promote harmonization and coherence of policy messages regarding water and sanitation in Africa is the African Ministers Council on Water

10. All other regions are anticipated to reach their drinking water targets, although sanitation targets will be missed in all regions.

(AMCOW). The Department of State and USAID have recently provided funding for two staff members, enhancing the council's capacity. That action is an example of what can be done to *promote fragile locally led institutions rather than creating new ones*.

Many U.S.-based interviewees recommended *increased engagement in Latin America*, citing the comparative advantage argument, i.e., greater potential for transformative change. Some highlighted the fact that the high coverage figures in Latin America mask rural/urban inequities, while others mentioned geographical proximity to the United States as a reason for increased engagement. It should be noted that no interviewees emphasized comparative advantage during discussions of Water for the Poor Act criteria as a basis for identifying priority countries. Need and enabling environment were consistently articulated as the top two priorities to consider in allocating funds for water and sanitation programs.

Arguably, regions of comparative advantage are precisely those in which the private sector is willing to invest. Interviewees from the private sector indicated a need to focus on China and India, citing the absolute numbers of people in both countries who do not have access to safe water and sanitation. However, the same individuals were candid in articulating their desire to open new markets for their products in conjunction with their efforts in corporate philanthropy. Ironically, several interviewees from the developing world cited China and India as potential new funders for water and sanitation internationally.

## 5. Conclusion

Since 2005, U.S. entities have increased WASH funding, the U.S. administration has shown greater awareness of WASH challenges, more people have gained access to safe water and sanitation, and dialogue and advocacy for WASH efforts has grown in the United States. At the USG level, new legislation—the WPA—has been introduced and implemented, and a new act that would fortify existing efforts—the Water for the World Act—is under consideration in Congress. USAID capacity has increased, and new partnerships among donors, philanthropists, NGOs, and the private sector have been forged. Most encouraging, the numbers of people without access to safe water and sanitation have dropped. The exact amount of reduction that is due to U.S. investment, however, is unknown.

Given the diversity of players, accessing and comprehending information on U.S. funding is inherently difficult. Program effectiveness and impact remain the purview of the implementing organization and the donors to it. Aside from WHO/JMP assessment reports, issued every two years, little information about global expansion of water and sanitation services is shared. Increased transparency is necessary to promote greater understanding of the effectiveness and impact of efforts supported by the United States.

Just as capacity and programs are advancing, many programs funded by the USG are subject to the unpredictability of funding cycles, and the risk that budgets will decrease makes for an uncertain future. WASH must be firmly established as a high priority for U.S. development assistance and appropriately integrated with other relevant aspects of development strategy. Success should be determined by the metric of reaching those of greatest need on a sustained basis.

More can be done. A promising example of resource leveraging is the signing of a memorandum of understanding by the World Bank and USG on World Water Day 2011. The World Bank will gain “access to experts in 17 USG agencies and departments to address issues such as lack of safe drinking water and sanitation, diminishing aquifers, drought, flooding, and climate change impacts” (World Bank 2011). With less than five years to attain the MDGs for water and sanitation, renewed efforts must be made to provide sustainable basic services to those without them. Momentum must be sustained to ensure impact. A focus on areas of greatest need, increased transparency, improved communication, increased coordination with other donors internationally, and further engagement with local actors—through funding of government plans, project implementation by local NGOs, or utilization and expansion of existing capacity—would greatly improve the impact of interventions and ensure that expenditures provide maximum benefits for unserved populations.

## Appendices

### Appendix 1: Recommendations from *A Silent Tsunami: The Urgent Need for Clean Water and Sanitation*

1. Clean water and sanitation must become a higher priority because they are fundamental to human health and reducing poverty.
2. All schools and orphanages should have clean water, sanitation, and hygiene education by 2015.
3. The President of the United States and his administration should develop a strategy to mobilize American resources and institutions to become more involved in water internationally.
4. For reasons of health, the economy, and environmental sustainability, governments must invest more in water infrastructure.
5. Decisions about covering the costs of clean water and sanitation should be decided through a participatory process that ensures the needs of the poor are met and that provides sufficient funds for maintenance.
6. Because water and sanitation are often the responsibility of women in much of the developing world, they should become more directly involved in managing water resources and making water-related decisions.
7. Development assistance should emphasize building local capacity, creating legal frameworks for managing water, and building local sources of funding.
8. Promising partnerships among governments, not-for-profits, community and faith-based organizations, and businesses should be replicated and scaled up.
9. Decentralized water treatment systems or point-of-use household treatment, coupled with sustained hygiene education, should be deployed more widely, especially where they can reduce water-related disease immediately.
10. Decisions about managing water resources must involve all stakeholders and all relevant factors in supply and demand, with efficient water use and protection of ecosystems as central goals.



## Appendix 2: Institutions with Interviewed Individuals

1. Africa Water Facility
2. CARE
3. Colorado State University
4. Congress
5. ConservationStrategy LLC
6. CREPA
7. Catholic Relief Services
8. Center for Strategic and International Studies
9. Duke University
10. Economic Commission for Africa
11. Embassy of Finland – Ethiopia
12. Emory University
13. Ethiopia
14. Bill and Melinda Gates Foundation
15. Ghana
16. Global Water Challenge
17. Conrad N. Hilton Foundation
18. Inter-American Development Bank
19. ITT
20. International Water Management Institute
21. Johns Hopkins University
22. Millennium Challenge Corporation
23. Massachusetts Institute of Technology
24. Millennium Water Alliance
25. Procter & Gamble
26. PATH
27. Pan American Health Organization
28. University of North Carolina
29. UNICEF
30. USAID
31. Water Advocates
32. Water for People
33. water.org
34. WaterAid
35. Winrock International
36. World Bank
37. Water and Sanitation Program (WSP)

## Appendix 3: Questionnaires

### Questionnaire for U.S.-based Interviewees

1. Do you think that there has been an expansion of water and sanitation provision globally, and has the U.S. (all entities, i.e., USG, foundations, private sector, NGOs, academia) done enough to promote expansion of WASH services globally?
2. Do you think the recent declaration of water as a human right (July 2010) will change the landscape? If so, in what way?
3. What are your thoughts regarding the incorporation of WASH into other development programs/initiatives? Does this happen already? How could programming for WASH integrate with other sectors?
4. Do you think that WASH has been receiving sufficient funding from U.S. entities (i.e., USG, foundations, private sector, NGOs)? If not, what needs to be done with respect to increasing funding?
5. These are priority countries that the United States Government (USG) funds.
  - a. Are there any regions you think need more attention, and why?
  - b. According to the USG, criteria for selection of priority countries include: level of need; the enabling environment; U.S. comparative advantage; opportunities to leverage foreign assistance through partnerships; consistency with foreign policy priorities; and compliance with statutory directives that affect foreign assistance allocations. (WPA 2010, 3). What do you think?

**Table 1. 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			

6. There's been increased interest in the water and sanitation sector, by many parties, including the administration. How do you think this is translated into action?
7. The Water for the Poor Act was passed in 2005. How effective do you think the legislation has been? How do you think we can improve impact?
8. In responses to Water for the Poor Act reports, it has been stated that lack of capacity in USAID has hindered the ability to fully implement the WPA. What are your thoughts? How can we address this?
9. Given deficits in budget, major increases in funding from the USG are unlikely. What creative resources do you see out there for additional funding?
10. What do you see as the key opportunities and challenges for the U.S. to support WASH through 2015 and beyond?

### Questionnaire for non-U.S.-based Interviewees

1. Do you think that there has been an expansion of water and sanitation provision globally, and has the U.S. (all entities, i.e., USG, foundations, private sector, NGOs, academia) done enough to promote expansion of WASH services globally?
2. Do you think the recent declaration of water as a human right (July 2010) will change the landscape? If so, in what way?

3. What are your thoughts regarding the incorporation of WASH into other development programs/initiatives? Does this happen already? How could programming for WASH integrate with other sectors?
4. What do you think are the three or four main priorities in your country to expand clean water and sanitation?
5. Has there been increased funding in your country/mission/bureau in water-related investments in the last five years? If so, what type of activities, have been funded, and how sustainable have these programs been? What can be done to improve impact?
6. What, in your opinion, should the role of U.S. entities be (i.e., USG, foundations, private sector, NGOs, academia)?
7. What support/interest has there been by the U.S. (i.e., USG, foundations, private sector, NGOs, academia) for development bank/local water networks/centers of excellence water initiatives?
8. Are you aware of country/regional priorities within the USG programs? Which regions do you think need more attention and why?
9. Are you aware of how many WASH specialists are in the USAID missions in your region/country?
10. Given deficits in budget, major increases in funding from the USG are unlikely. What creative resources do you see out there for additional funding?
11. What do you see as the key opportunities and challenges for the U.S. to support WASH through 2015 and beyond?

## Appendix 4: Methodology

A list of 90 stakeholders from across the globe was created and vetted by three external partners. All stakeholders were approached over the course of three months, and approximately 45 responded to hour-long structured interviews. To elicit candid responses, the Nicholas Institute assured interviewees of non-attribution of remarks, hence a list of organizations rather than stakeholder names in Appendix 2.

Each interview report was independently reviewed by four members of the Nicholas Institute's water team, and lessons and emerging themes were captured separately. Intensive discussions ensued, and key findings were selected on the basis of prevailing views. Cogent arguments against these views were also included in the paper.

A draft version of the paper was shared with all interviewees for feedback, and responses incorporated in the final document. Several key recommendations will be discussed by key U.S. stakeholders at a forum to be held in early 2011.

## Appendix 5: Multilateral WASH Funders

### *African Bank Group*

The AfBG is comprised of the African Development Bank (AfDB), the African Development Fund, and the Nigeria Trust Fund. The two latter funds are special funds that operate within the AfDB.

### *African Development Bank*

The AfDB places a premium on helping its regional member countries to meet the MDG water and sanitation targets. AfDB support is channeled through its normal operational windows and through three complementary water initiatives: the Rural Water Supply and Sanitation Initiative (RWSSI), the Multi-Donor Water Partnership Program (MDWPP), and the African Water Facility (AWF). At the end of 2009 the Bank's water portfolio comprised 65 water and sanitation interventions in 35 African countries, totaling about UA 1.56 billion, from AfDB, the African Development Fund, and the RWSSI Trust Fund, and 57 projects for UA 56.6 million coming from the AWF (AfBG 2009).

### *Asian Development Bank*

ADB's Water Financing Program was launched in 2006 and promotes increased investment in the water sector.

### *Global Environment Facility*

GEF funding aims to manage transboundary surface water basins, groundwater basins, and coastal and marine systems.

### *Inter-American Development Bank*

The IDB Group is composed of the Inter-American Development Bank (IDB), the Inter-American Investment Corporation (IIC), and the Multilateral Investment Fund (MIF). The IDB, the oldest and largest regional multilateral development bank, is the main source of multilateral financing for economic, social, and institutional development in Latin America and the Caribbean. The IIC focuses on support for small and medium-sized businesses; the MIF promotes private-sector growth through grants and investments.

### *North American Development Bank*

The NADB is a binational financial institution capitalized and governed equally by the United States and Mexico to develop and finance infrastructure necessary for a healthy environment on the border. In addition to its loan program, NADB provides and administers grant financing to help make municipal infrastructure projects more affordable for border communities, where debt-financing options are limited (NADB 2009).

## Appendix 6: U.S. NGOs Involved in WASH Activities

### *CARE*

"CARE helps communities build and maintain clean water systems and latrines. Both directly and through local organizations, CARE provides training and subsidizes construction, but communities make significant contributions in cash and labor. ... Projects also include educating people about good hygiene" (CARE, nd).

### *charity: water*

"Through the funding of freshwater wells, spring protections, rainwater harvesting schemes, biosand filters and other water solutions, charity: water brings clean, safe drinking water and basic sanitation to people in developing nations" (Charity Global 2007, 7). charity: water gives 100% of public donations to direct project costs. A group of private donors, foundations, and sponsors help pay for the everyday costs of running the organization (charity: water 2007, 35).

### *Millennium Water Alliance*

MWA is dedicated to providing clean water and sanitation worldwide (MWA 2009, 7).

### *Living Water International*

LWI provides clean water and health and hygiene training in developing countries (LWI 2009, 8).

### *Water.org*

Water.org's "primary purpose is to provide technical and financial support for implementing water supply and sanitation projects in developing countries, and to raise awareness of the drinking water and sanitation crisis in the developing world" (Water.org 2009, 8).

### *WaterAid*

WaterAid's mission is to ensure the provision of water, sanitation, and hygiene education to the world's poorest people; to do this it supports partner organizations in low-income countries to deliver water and sanitation services and educates the U.S. public about this issue. WaterAid America was incorporated under the laws of Delaware on January 9, 2003 (WaterAid America, Inc. 2009, 6).

### *Water for People*

"Water for Peoples' purpose is to help people in developing countries improve their quality of life by supporting the development of locally sustainable drinking water resources, sanitation facilities, and health and hygiene education programs" (Water for People 2009, 6). Water for People has recently committed to monitoring its programmatic investments for at least 10 years and has introduced use of smart phones to track water and sanitation functionality in real time. It is moving away from counting beneficiaries and toward tracking whether full coverage is sustained in the areas where it works.



## References

- ADB (Asian Development Bank). 2006. *Annual Report 2006*. [http://www.adb.org/documents/reports/annual\\_report/2006/default.asp](http://www.adb.org/documents/reports/annual_report/2006/default.asp).
- . 2007. *Annual Report 2007*. [http://www.adb.org/Documents/Reports/Annual\\_Report/2007/default.asp](http://www.adb.org/Documents/Reports/Annual_Report/2007/default.asp).
- . 2008. *Annual Report 2008*. [http://www.adb.org/Documents/Reports/Annual\\_Report/2008/default.asp](http://www.adb.org/Documents/Reports/Annual_Report/2008/default.asp).
- . 2009. *Annual Report 2009*. [http://www.adb.org/Documents/Reports/Annual\\_Report/2009/default.asp](http://www.adb.org/Documents/Reports/Annual_Report/2009/default.asp).
- AfBG (African Development Bank Group). 2009. *2009 Annual Report*. <http://www.afdb.org/en/documents/publications/annual-report/>.
- AMCOW (African Ministers' Council on Water). 2010. *A Snapshot of Drinking Water and Sanitation in Africa – 2010 Update*. [http://www.childinfo.org/files/Africa\\_AMCOW\\_Snapshot\\_2010\\_English\\_final.pdf](http://www.childinfo.org/files/Africa_AMCOW_Snapshot_2010_English_final.pdf).
- Bartlett, R., Bharati, L., Pant, D., Hosterman, H., and McCornick, P. 2010. "Climate change impacts and adaptation in Nepal." IWMI Working Paper 139. Colombo, Sri Lanka: International Water Management Institute. doi:10.5337/2010.227.
- Bartram, J., and Cairncross, S. 2010. "Hygiene, Sanitation, and Water: Forgotten Foundations of Health." *PLoS Med* 7(11): e1000367. doi:10.1371/journal.pmed.1000367.
- Bliss, Katherine. 2009. "Enhancing U.S. Leadership on Drinking Water and Sanitation." [http://csis.org/files/publication/090924\\_Bliss\\_WaterHealth\\_Web.pdf](http://csis.org/files/publication/090924_Bliss_WaterHealth_Web.pdf).
- Bureau of Oceans, Environment, and Science, U.S. Department of State. 2009. *Senator Paul Simon Water for the Poor Act Report to Congress, 2009*. <http://www.state.gov/g/oes/water/>.
- CARE. 2005. *CARE USA Annual Report 2005*. <http://www.care.org/newsroom/publications/annualreports/index.asp>.
- . 2006. *CARE USA Annual Report 2006*. <http://www.care.org/newsroom/publications/annualreports/index.asp>.
- . 2007a. *CARE USA Annual Report 2007*. <http://www.care.org/newsroom/publications/annualreports/index.asp>.
- . 2007b. "Global Water Initiative Created in Response to World Water Crisis." [http://www.care.org/newsroom/articles/2007/10/20071023\\_globalwaterinitiative.asp](http://www.care.org/newsroom/articles/2007/10/20071023_globalwaterinitiative.asp). Accessed February 25, 2011.
- . 2008. *CARE USA Annual Report 2008*. <http://www.care.org/newsroom/publications/annualreports/index.asp>.
- . 2009. *CARE USA Annual Report 2009*. <http://www.care.org/newsroom/publications/annualreports/index.asp>.
- CARE. nd. What We Do. <http://www.care.org/careswork/whatwedo/index.asp>. Accessed February 25, 2011.
- CARE, Natural Resources Defense Council, and WaterAid America. 2009. *Time for Bold U.S. Action on Drinking Water, Sanitation and Hygiene for the Poor*. [http://www.care.org/careswork/whatwedo/health/downloads/water\\_for\\_poor\\_act\\_2009\\_report.pdf](http://www.care.org/careswork/whatwedo/health/downloads/water_for_poor_act_2009_report.pdf).
- Charity Global, Inc. 2006. *Financial Statement and Auditors Report Year Ended December 31, 2006*. <http://www.charitywater.org/about/financials.php>.
- Charity Global, Inc. and Affiliate. 2007. *Consolidated Financial Statement and Auditor's Report Year Ended December 31, 2007*. <http://www.charitywater.org/about/financials.php>.
- . 2008. *Consolidated Financial Statement and Auditor's Report Year Ended December 31, 2008*. <http://www.charitywater.org/about/financials.php>.
- . 2009. *Consolidated Financial Statement and Auditor's Report Year Ended December 31, 2009*. <http://www.charitywater.org/about/financials.php>.
- charity: water. 2007. *Annual Report 2007*. <http://www.charitywater.org/about/financials.php>.
- The Chronicle of Philanthropy*. <http://philanthropy.com/premium/stats/corpgiving/index.php?keyword=Search+for+a+specific+corporation&state=&year=2010&category=All+industries&grant=All+grant-making+priorities>. Accessed February 14, 2011.

- Coca-Cola Company. 2009. "The Coca-Cola Company Commits U.S. \$30 Million to Clean Water Projects Across Africa." [http://www.thecoca-colacompany.com/dynamic/press\\_center/2009/03/the-coca-cola-company-commits-us30-million-to-clean-water-projects-across-africa-1.html](http://www.thecoca-colacompany.com/dynamic/press_center/2009/03/the-coca-cola-company-commits-us30-million-to-clean-water-projects-across-africa-1.html). Accessed Feb. 14, 2011.
- Conrad N. Hilton Foundation. 2010. *Strategy for Sustainable Safe Water Access*. [http://www.hiltonfoundation.org/images/stories/Downloads/Conrad\\_N\\_Hilton\\_Foundation\\_WASH\\_Strategy\\_Summary\\_3-19-2010.pdf](http://www.hiltonfoundation.org/images/stories/Downloads/Conrad_N_Hilton_Foundation_WASH_Strategy_Summary_3-19-2010.pdf). Accessed February 24, 2011.
- DFID (UK Department for International Development). 2009. Sector-wide approaches. <http://webarchive.nationalarchives.gov.uk/+http://www.dfid.gov.uk/mdg/aid-effectiveness/swaps.asp>. Accessed February 17, 2011.
- Economic Commission for Africa, African Union, and African Development Bank. DATE. *The Africa Water Vision for 2025: Equitable and Sustainable Use of Water for Socioeconomic Development*. <http://www.icp-confluence-sadc.org/documents/africa-water-vision-2025-equitable-and-sustainable-use-water-socio-economic-development>.
- Fine, Patrick. 2011. Remarks by Vice President Patrick Fine to the International Summit on Water in Developing Countries. Rotary Conference, Washington D.C., April 15. <http://www.mcc.gov/pages/press/speech/remarks-by-vice-president-patrick-fine-to-the-international-summit-on-water>.
- GAVI (Global Alliance for Vaccines and Immunisation). 2002. "Lessons Learned: New Procurement Strategies for Vaccines: Summary of Findings. Paper #2a Lessons Learned Executive Summary." [http://search.gavialliance.org/search?q=tiered&output=xml\\_no\\_dtd&client=GAVI\\_Alliance&proxystylesheet=GAVI\\_Alliance&site=GAVI\\_Alliance](http://search.gavialliance.org/search?q=tiered&output=xml_no_dtd&client=GAVI_Alliance&proxystylesheet=GAVI_Alliance&site=GAVI_Alliance). Accessed January 11, 2011.
- GEF (Global Environmental Facility) 2005. *GEF Annual Report 2005*. <http://www.thegef.org/gef/node/2495>.
- . 2007. *GEF Annual Report, 2006–07*. <http://www.thegef.org/gef/node/1545>.
- . 2008. *GEF 2008 Annual Report*. <http://www.thegef.org/gef/node/1537>.
- . 2009. *GEF 2009 Annual Report*. [http://www.thegef.org/gef/pubs/annual\\_report\\_2009](http://www.thegef.org/gef/pubs/annual_report_2009).
- GWC (Global Water Challenge). 2011. WASH Sustainability Charter. <http://globalwaterchallenge.org/downloads/documents/WASHSustainabilityCharter.pdf>. Accessed April 14, 2011.
- Hart Research Associates. 2010. "United Nations Foundation—Index of Public Opinion on International Assistance and the Millennium Development Goals." [http://www.globalproblems-globalsolutions-files.org/pdfs/BWC\\_1005\\_UNF\\_Survey\\_Results\\_Press\\_Memo.pdf](http://www.globalproblems-globalsolutions-files.org/pdfs/BWC_1005_UNF_Survey_Results_Press_Memo.pdf).
- IDB (Inter-American Development Bank) 2005. *IDB Annual Report 2005*. <http://www.iadb.org/exr/ar2005/>.
- . 2006. *IDB Annual Report 2006*. <http://www.iadb.org/exr/ar2006/>.
- . 2007. *IDB Annual Report 2007*. <http://www.iadb.org/EXR/AR2007/>.
- ITT Watermark. 2009. Program Summary. [http://www.ittwatermark.com/media/resource\\_center\\_new/general\\_info/ITT\\_Watermark\\_Program\\_Summary\\_EN.doc](http://www.ittwatermark.com/media/resource_center_new/general_info/ITT_Watermark_Program_Summary_EN.doc). Accessed February 14, 2011.
- Jenkins, M., and Sugden, S. 2006. "Rethinking Sanitation: Lessons and Innovation for Sustainability and Success in the New Millennium." London School of Hygiene and Tropical Medicine. <http://hdr.undp.org/en/reports/global/hdr2006/papers/jenkins%20and%20sugden.pdf>.
- LWI (Living Water International). 2006. *Financial Statements and Independent Auditors' Report for the Years Ended December 31, 2006 and 2005*. <http://www.water.cc/about-lwi/financials/>.
- . 2007. *Financial Statements and Independent Auditors' Report for the Years Ended December 31, 2007 and 2006*. <http://www.water.cc/about-lwi/financials/>.
- . 2008. *Financial Statements and Independent Auditors' Report for the years ended December 31, 2008 and 2007*. <http://www.water.cc/about-lwi/financials/>.
- . 2009. *Financial Statements and Independent Auditors' Report for the Years Ended December 31, 2009 and 2008*. <http://www.water.cc/about-lwi/financials/>.
- MCC (Millennium Challenge Corporation). 2011. *MCC and Africa: A Growing Partnership for Success Fact Sheet*.
- . 2010. *Report on the Criteria and Methodology for Determining the Eligibility of Candidate Countries for Millennium Challenge Account Assistance in Fiscal Year 2011*. <http://www.mcc.gov/documents/reports/report-2010001039502-selection-criteria-and-methodology.pdf>.

- . 2009. *Policy for Monitoring and Evaluation of Compacts and Threshold Programs*. <http://www.mcc.gov/documents/guidance/policy-051209-mande.pdf>.
- . nd. *Water and Sanitation: Impact Evaluations*. <http://www.mcc.gov/pages/sectors/impact/water-and-sanitation/water-and-sanitation>. Accessed April 19, 2011.
- MWA (Millennium Water Alliance). 2007. *Audited Financial Statements, September 30, 2007*. <http://www.mwawater.org/about-us/financial-information/>.
- . 2009. *Audited Financial Statements, September 30, 2009*. <http://www.mwawater.org/about-us/financial-information/>.
- NADB (North American Development Bank) 2009. *Annual Report 2009*. <http://www.nadbank.org/publications.html#publications>.
- OECD (Organisation for Economic Co-operation and Development). Nd. *The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action 2005/2008*. <http://www.oecd.org/dataoecd/11/41/34428351.pdf>. Accessed January 17, 2011.
- . 2009. *Measuring Aid to Water Supply and Sanitation*. <http://www.oecd.org/dataoecd/2/60/42265683.pdf>.
- . 2010. *Development Aid: Net Official Development Assistance*. [http://www.oecd-ilibrary.org/development/development-aid-net-official-development-assistance-oda\\_20743866-table1](http://www.oecd-ilibrary.org/development/development-aid-net-official-development-assistance-oda_20743866-table1). Accessed January 31, 2011.
- PepsiCo. 2010. *Water Stewardship*. [http://www.pepsico.com/Download/PepsiCo\\_Water\\_Report\\_FNL.pdf](http://www.pepsico.com/Download/PepsiCo_Water_Report_FNL.pdf). Accessed Feb. 7, 2011.
- Procter & Gamble. 2010. *2010 Sustainability Report*. [http://www.pg.com/en\\_US/downloads/sustainability/reports/PG\\_2010\\_Sustainability\\_Report.pdf](http://www.pg.com/en_US/downloads/sustainability/reports/PG_2010_Sustainability_Report.pdf). Accessed March 23, 2011.
- Reilly, W.K., and Babbitt, H.C., eds. 2005. *A Silent Tsunami: The Urgent Need for Clean Water and Sanitation*. Washington, D.C.: The Aspen Institute. <http://nicholasinstitute.duke.edu/water/health/a-silent-tsunami>.
- SWA (Sanitation and Water for All). Nd. <http://www.sanitationandwaterforall.org/aboutswa.html>.
- . 2010. Steering Committee Open Consultative Session Summary, Addis Ababa, Ethiopia: November 20–21, 2010. <http://www.sanitationandwaterforall.org/steeringcommittee.html>.
- United Nations. 2003. *Indicators for Monitoring the Millennium Development Goals: Definitions, Rationale, Concepts, and Sources*. <http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/Handbook.htm>.
- UNDP (U.N. Development Programme). 2006. *Summary Human Development Report 2006: Beyond Scarcity*. [http://hdr.undp.org/en/media/HDR2006\\_English\\_Summary.pdf](http://hdr.undp.org/en/media/HDR2006_English_Summary.pdf). Accessed January 17, 2011.
- . 2006. *Annual Report 2006*. <http://www.undp.org/publications/annualreport2006/index.shtml>.
- . 2008. *Annual Report 2008*. <http://www.undp.org/publications/annualreport2008/index.shtml>.
- . 2009. *Annual Report 2009*. <http://www.undp.org/publications/annualreport2009/>.
- UNICEF. 2006. *Water, Sanitation and Hygiene Annual Report 2006*. [http://www.unicef.org/wash/files/UNICEF\\_WASH\\_2006\\_annual\\_report\\_FINAL\\_Sept\\_07.pdf](http://www.unicef.org/wash/files/UNICEF_WASH_2006_annual_report_FINAL_Sept_07.pdf).
- . 2007. *Water, Sanitation and Hygiene Annual Report 2007*. [http://www.unicef.org/wash/files/UNICEF\\_WASH\\_2007\\_Annual\\_Report\\_18\\_June.pdf](http://www.unicef.org/wash/files/UNICEF_WASH_2007_Annual_Report_18_June.pdf).
- . 2009. *Water, Sanitation and Hygiene Annual Report 2009*. <http://www.water-technology.net/downloads/whitepapers/monitoring/file1650/>.
- USAID (U.S. Agency for International Development). 2009. *Addressing Water Challenges in the Developing World: A Framework for Action. An Annex of the 2008 Report to Congress for the Senator Paul Simon Water for the Poor Act*. Washington, D.C.: USAID.
- USAID. 2010. “The Coca-Cola Company and USAID Expand Global Water Partnership.” <http://www.usaid.gov/press/releases/2010/pr100322.html>. Accessed March 22, 2011.
- U.S. GAO (Government Accountability Office). 2010. *U.S. Water and Sanitation Aid: Millions of Beneficiaries Reported in Developing Countries, but Department of State Needs to Strengthen Strategic Approach*. <http://gao.gov/products/GAO-10-957>.

- WADA (Water and Development Alliance). 2008. *Coca-Cola and USAID: A Global Partnership on Water*. [http://www.thecoca-colacompany.com/citizenship/community\\_initiatives/Partnership\\_Overview\\_103108.pdf](http://www.thecoca-colacompany.com/citizenship/community_initiatives/Partnership_Overview_103108.pdf).
- WASH News Finance. 2011. “ITT Pledges U.S. \$10.5 Million for Safe Water and Sanitation.” <http://washfinance.wordpress.com/category/organisation-types/ngos/>. Accessed February 14, 2011.
- Water for People. 2006. *Financial Statements, Years Ended December 31, 2006 and 2005*. <http://www.waterforpeople.org/about/financials/>.
- . 2007. *Financial Statements, Years Ended December 31, 2007 and 2006*. <http://www.waterforpeople.org/about/financials/>.
- . 2008. *Financial Statements, Years Ended December 31, 2008 and 2007*. <http://www.waterforpeople.org/about/financials/>.
- . 2009. *Financial Statements, Year Ended December 31, 2009*. <http://www.waterforpeople.org/about/financials/>.
- WaterAid America, Inc. 2006. *Financial Statements (With Independent Auditors Report) for the Year Ended March 31, 2006 (with Comparative Totals for 2005)*.
- . 2008. *Financial Statements (With Independent Auditors Report) for the Year Ended March 31, 2008 (with Comparative Totals for 2009)*.
- . 2009. *Financial Statements (With Independent Auditors Report) for the Year Ended March 31, 2009 (with Comparative Totals for 2008)*.
- Water.org Inc. 2009. *Financial Statements for the Years Ended September 30, 2009 and 2008, and Independent Auditors' Report*. [http://static.water.org/pdfs/2009\\_audited.pdf](http://static.water.org/pdfs/2009_audited.pdf).
- Waterpartners International, Inc. 2005. *Financial Statements for the year ended September 30, 2005 and Independent Auditors' Report*. <http://water.org/about/finance/>.
- . 2006. *Financial Statements for the Year Ended September 30, 2006 and 2005 and Independent Auditors' Report*. <http://water.org/about/finance/>.
- . 2007. *Financial Statements for the Year Ended September 30, 2007 and 2006 and Independent Auditors' Report*. <http://water.org/about/finance/>.
- . 2008. *Financial Statements for the Year Ended September 30, 2008 and 2007 and Independent Auditors' Report*. <http://water.org/about/finance/>.
- WHO (World Health Organization). 2010. *U.N.-Water Global Annual Assessment of Sanitation and Drinking-Water (GLAAS)*. [http://www.who.int/water\\_sanitation\\_health/glaas/en/](http://www.who.int/water_sanitation_health/glaas/en/).
- WHO and UNICEF (United Nations Children's Fund). 2010. *Progress on Sanitation and Drinking-Water, 2010 Update. Joint Monitoring Programme for Water Supply and Sanitation*. [http://www.who.int/water\\_sanitation\\_health/publications/9789241563956/en/index.html](http://www.who.int/water_sanitation_health/publications/9789241563956/en/index.html).
- . 2005. *Water for Life: Making It Happen*. [http://www.who.int/water\\_sanitation\\_health/monitoring/jmp2005/en/index.html](http://www.who.int/water_sanitation_health/monitoring/jmp2005/en/index.html).
- . 2010. *Progress on Sanitation and Drinking Water, 2010 Update*. [http://www.who.int/water\\_sanitation\\_health/publications/9789241563956/en/index.html](http://www.who.int/water_sanitation_health/publications/9789241563956/en/index.html).
- World Bank. 2009. *Annual Report 2009*. Washington, D.C.: World Bank. <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/EXTANNREP/EXTAR2009/0,,menuPK:6224043~pagePK:64168427~piPK:64168435~theSitePK:6223978,00.html>.
- WorldPublicOpinion.org/Knowledge Networks. 2010. “American Public Vastly Overestimates Amount of U.S. Foreign Aid.” <http://www.worldpublicopinion.org/pipa/articles/brunitedstatescanadara/670.php?nid=&id=&pnt=670&lb>. Accessed March 3, 2011.
- WSP (Water and Sanitation Program). 2011. “World Bank, U.S. to Reaffirm Commitment to Global Water Issues on World Water Day (2011).” <http://www.wsp.org/wsp/FeaturesEvents/Features/world-bank-us-reaffirm-commitment-global-water-issues-world-water-day>. Accessed April 14, 2011.

Yewondwossen, M. 2010. "Government defends its sanitation record." *Capital* 13 (646). [http://www.capitalethiopia.com/index.php?option=com\\_content&view=article&id=12741:govt-defends-its-sanitation-record&catid=12:local-news&Itemid=4](http://www.capitalethiopia.com/index.php?option=com_content&view=article&id=12741:govt-defends-its-sanitation-record&catid=12:local-news&Itemid=4).

Zwane, A.P., Kremer, M., and Meeks, R. 2009. "Water and Human Well Being: An Executive Session on Grand Challenges of the Sustainability Transition." Center for International Development Working Paper No. 188.



## *the Nicholas Institute*

The Nicholas Institute for Environmental Policy Solutions at Duke University is a nonpartisan institute founded in 2005 to help decision makers in government, the private sector, and the nonprofit community address critical environmental challenges. The Institute responds to the demand for high-quality and timely data and acts as an "honest broker" in policy debates by convening and fostering open, ongoing dialogue between stakeholders on all sides of the issues and providing policy-relevant analysis based on academic research. The Institute's leadership and staff leverage the broad expertise of Duke University as well as public and private partners worldwide. Since its inception, the Institute has earned a distinguished reputation for its innovative approach to developing multilateral, nonpartisan, and economically viable solutions to pressing environmental challenges.

*for more information please contact:*

Nicholas Institute for Environmental Policy Solutions  
Duke University  
Box 90335  
Durham, North Carolina 27708  
919.613.8709  
919.613.8712 fax  
nicholasinstitute@duke.edu  
nicholasinstitute.duke.edu

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