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WASH at Work

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Real Impact



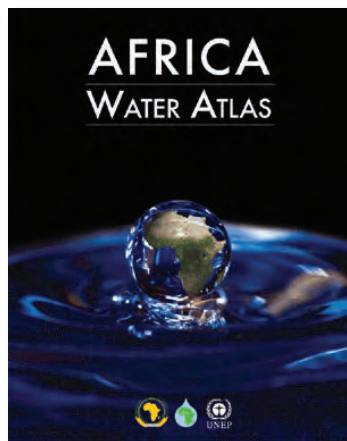
WaterSHED-Asia Delivers Health and Wealth Through Entrepreneurship

NEWS FROM THE FIELD

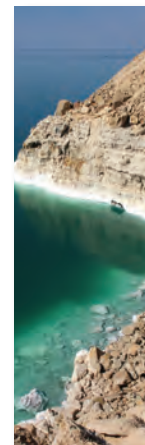


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Perspectives

WASH at Work



Photo Credit: Elizabeth Barnhart, MPH, USAID Pakistan

READY TO GO! Trainees ready to head home with new supplies and proper instruction in flood-ravaged Pakistan.

Describing the problems of continuing gaps in access to safe drinking water supply, sanitation, and hygiene (WASH) is a well-worn track. With over 2-1/2 billion people without access to means of safe sanitation, and more than 800 million people without access to an improved drinking water source, it is easy to believe that these problems will be with us for generations to come, even in the unlikely event that U.N. Millennium Development Goal 2015 targets for water supply and sanitation are met everywhere. The current cholera outbreak in Haiti reminds us that poor conditions for WASH can lead to a resurgence of infectious diseases previously thought to have been brought under control. But this issue of *Global Waters* points to a way forward, or more accurately, multiple ways forward, to move us closer to the long-term goal of universal coverage with quality services. It is clear that the WASH sector is evolving and innovative approaches give hope that dramatically accelerated gains will be possible over the next decade.

For USAID, a multiple sector development agency, WASH touches on many key objectives - such as those in health, education, livelihoods, economic development, democracy

and governance, environmental protection, and gender equity. WASH is also set within the broader context of water security, which includes water resources management and productive uses of water. The multiple uses of water by consumers (for domestic water needs, animal husbandry, crop irrigation, etc.) make integrated water resources management at various levels an important consideration for WASH, especially where water supply and wastewater management are concerned.

WASH issues are strongly linked to the three major presidential initiatives in which USAID plays a leading role – the Global Health Initiative (GHI), Feed the Future (FTF), and the Global Climate Change (GCC) Initiative.

A central focus of the GHI, is inadequate access to water for household needs, both in quantity and quality. That issue, coupled with unsafe sanitation and hygiene, is responsible for an estimated 90% of the burden of diarrhea among young children, killing 1.5 million children less than five years of age each year. It is estimated that between one-third and one-half of these deaths could be prevented by known, targeted interventions, such as those being promoted through enterprise

development for point-of-use water treatment, improved sanitation access, and the facilitation of handwashing, as evidenced in our article on WaterSHED-Asia. The benefits do not accrue to children alone, but also to better health and productivity for all members of a household. Indeed, the World Health Organization estimates that the single largest cost benefit of improved rural drinking water supply is the reduction in time that women need to spend gathering water. Finally, beyond cholera and infectious disease risk mitigation, improved WASH has enormous benefits for the care and support of people living with HIV/AIDS.

Feed the Future (FTF) has multiple water links, particularly through water productivity. The major connection for WASH, however, is through improved nutrition and food utilization, one of the major objectives of FTF. The role of WASH in improved nutritional status is well documented, especially for young children, whose repeated bouts of diarrhea can cause stunted growth and brain development, as well as lowering resistance to other diseases. If the child does not die from acute diarrhea, s/he may well die from pneumonia as a consequence of chronic malnutrition.

Global climate change, associated with increased floods and droughts, threatens to negatively impact existing water and sanitation services and reduce future gains in access and service quality. Climate change is best understood as an additional factor in a complex network of interactions. Major changes

“It is clear that the WASH sector is evolving and innovative approaches give hope that dramatically accelerated gains will be possible over the next decade.”

in policy and planning are needed to safeguard future investments. Adaptation measures will need to be implemented now to avoid severe service disruptions in the future. Resilience to future variability depends

upon drinking water and sanitation management changes for the highest risk regions.

Beyond the initiatives, WASH cuts across other development sectors, as already noted. But a common thread across all WASH activities is the need for the effective application of technology and hardware, behavior change and promotion, and an enabling environment (including policy, governance, and financing) that allows these efforts to be sustained. How these are blended for different objectives depends on a given setting. For example, the article in this issue on the West African Water Initiative (WAWI) highlights the important progress being made in Community-Led Total Sanitation, an approach to sanitation improvement that relies much less on subsidized construction and much more on triggering fundamental shifts in normative behavior away from open defecation. The role of partnerships - with local government, national governments, utilities, the commercial private sector, and philanthropic organizations - is also critical, since donors' resources will most often be inadequate in any given setting to do all that is required. This issue of *Global Waters* highlights several different ways in which partnerships like WAWI and the Sustainable Water and Sanitation in Africa (SUWASA) project promote both synergy and sustainability.

WASH has received renewed attention by the current U.S. Administration. Secretary of State Clinton's World Water Day speech in March 2010 kicked off efforts to more clearly define our short and long-term objectives and goals for WASH. Work is underway to describe these within a forthcoming comprehensive USAID water strategy, which was clearly requested under the Paul Simon Water for the Poor Act. We welcome your continued interest in WASH and your feedback on our work.

**Jim Franckiewicz, Water Team Leader
Bureau for Economic Growth, Agriculture, and Trade, USAID**

**John Borrazzo, Maternal and Child Health Division Chief
Bureau for Global Health, USAID**

Photo Credit: D. Powell



FREE ENTERPRISE IN ACTION: WaterSHED brings entrepreneurship to the WASH sector in Asia.



In Focus

USAID Provides Safe Drinking Water to Pakistan Flood Victims

Photo Credit: Elizabeth Barnhart, MPH, USAID Pakistan



A LONG WALK HOME: Carrying turbid water back to the shelter.

In July 2010, heavy monsoon rains began falling across Pakistan and flooded the entire Indus River basin. By early August, approximately one-fifth of Pakistan lay under water. The floods killed nearly 2,000 people and directly affected the lives of about 20 million others as they destroyed property and livelihoods and left people without food, shelter, or safe drinking water. After viewing the scene in August, USAID Administrator, Rajiv Shah, pointed out that “...more than nine million people are in need of immediate support, whether it is food, clean drinking water, medicines, a safe place to stay, or shelter for children and families.”

Working closely with the USAID/Pakistan mission, USAID’s Office of U.S. Foreign Disaster Assistance (OFDA) responded to the crisis with more than \$400 million in disaster assistance including emergency food, shelter, sanitation, drinking water, and other supplies. The mission also re-focused pre-flood, long-term development projects to respond to the challenge and programmed additional funding provided by the State Department.

In the water sector, flood waters swamped wells, destroyed pipes and taps, and contaminated rivers and ponds with bacteria and sediments. To address the resulting drinking water and sanitation

“...more than nine million people are in need of immediate support, whether it is food, clean drinking water, medicines, a safe place to stay, or shelter for children and families.”

crisis, USAID and its implementing partners rehabilitated pumps and wells, provided emergency water supplies, and distributed point-of-use disinfection products to thousands of families. The effort produced millions of liters of clean water for flood victims across the entire nation and limited the impacts of waterborne diseases. By November, USAID had provided 13 mobile water treatment units capable of supplying 220,000 people with five liters of clean water each day. It also provided twelve 10,000-liter water bladders and more than 388,000 ten-liter water containers for safe water storage and transport. In partnership with the United Nations Children’s Fund (UNICEF) and local non-government organizations (NGOs), the Agency distributed 15 million chlorine tablets and 12 million combined flocculation and disinfection sachets, each able to treat ten liters of water in a single application. To address sanitation needs and minimize outbreaks of waterborne diseases such as diarrhea and cholera, USAID provided latrines for more than 600,000 people. The Agency also plans to distribute 625,000 bars of soap along with related education materials and methods to improve hygiene practices.

USAID/Pakistan was able to respond quickly to the crisis based on years of experience delivering water and sanitation and hygiene programs, such as the Pakistan Safe Drinking Water and Hygiene Promotion Project implemented by Abt Associates. With key resources in place, the mission restored many pre-existing water sources that had been damaged or destroyed by flood waters. But in remote areas without water treatment systems, flood survivors and refugees were forced to drink surface water polluted with sediments and bacteria. To address their immediate needs, the mission distributed point-of-use treatment products such as chlorine-based Aquatabs and a



two-stage, flocculation and disinfection product, known as PUR® Purifier of Water, to remove both sediments and bacteria.

To improve the widespread acceptance and use of PUR, USAID/Pakistan developed an innovative training methodology to accompany distribution of the two-stage product. In partnership with local NGOs, the mission trained trainers and sent out five-member teams to visit selected areas. The training teams demonstrated the use of PUR and discussed proper storage of water, safe handling of purified water, and other improved hygiene practices.

They also distributed PUR sachets and associated supplies to registered participants. After several days, teams went back to each family to verify the proper use of PUR, reiterate the key messages and answer any questions. At this second visit, NGOs found that about 97% of trained families had tried using PUR at home. Those who had not used the product, or reported problems with use, tried it again when the team returned for additional household visits.

Project implementers stress the importance of training and effective methods of social marketing to accompany household point-of-use treatment products. "We have evidence that without training and support, people don't use water treatment products properly," said Elizabeth Barnhart of USAID/Pakistan. "With a combined distribution and training methodology, we have seen greater acceptance and proper use of the products," she said. When asked how they felt about using PUR, some women said they were proud to help their families in this



WATER TREATMENT TRAINING: Trainer adding PUR during demonstration to local women.

way. Others said the product wasn't difficult to prepare and that they enjoyed mixing the powder into water and seeing it change color. By such remarks, USAID staff measure progress in behavior change and improved attitudes related to public health.

The rapid acceptance of PUR has resulted in greater demand for the product and a shortage of supplies. Proctor and Gamble manufactures PUR in Pakistan and USAID hopes to continue the successful public-private partnership that responded to the crisis. In addition, the mission plans future cooperation with UNICEF and local NGOs to address continuing drinking water problems and sanitation issues.

Project implementers will continue product distribution along with training and follow-up visits through the end of January 2011, especially for families in Punjab and Sindh where floodwaters remain. In these ways, USAID has helped millions of Pakistanis and continues to work alongside them in a time of unprecedented natural disaster. *S. Nelson*



WEATHERING THE STORM: A child waits in a tented refuge area.

Photo Credit: Elizabeth Barnhart, MPH, USAID Pakistan

Photo Credit: Elizabeth Barnhart, MPH, USAID Pakistan

For more information, visit:

<http://www.usaid.gov/pk/>

<http://www.usaid.gov/pk/downloads/da/11.30.10-USAID-DCHAPakistanFloodsFactSheet7-FY2011.pdf>

<http://www.usaid.gov/locations/asia/countries/pakistan/pakistan.html>

www.csdw.org



In Focus

Innovative Approaches for Safe Water and Sanitation Delivery in Sub Saharan Africa



Photo Credit: Andrea Kummacher

MAJOR IMPROVEMENT: ACTED Staff and community working on water pump in Alale, Kenya.

Since the early 1990s, many countries in Sub Saharan Africa have implemented water sector reforms geared towards improving access to safe and affordable water and sanitation for their people. Statistics however show that this region still lags behind others in terms of access to improved water services and is unlikely to meet the United Nations Millennium Development Goals (MDGs) target on water and sanitation. Only 60% of the population uses improved sources of drinking water, while as low as 31% use improved sanitation facilities.

Meanwhile, the region has experienced rapid population

growth and rampant urbanization, exceeding the capacity of water supply and sanitation service provision. Most of this population growth has occurred in peri-urban areas, slums and informal settlements where piped water coverage remains low or is nonexistent. On the other hand, the quality of policy and institutional reforms undertaken is reflected by the poor performance of utilities, old and inadequate infrastructure, lack of connection networks and intermittent water delivery.

To improve access to safe, affordable and reliable water and sanitation services, USAID is supporting innovative reforms in the sector through a regional initiative,

“By employing a multi-sectoral approach, the program is implementing reform projects that demonstrate success in alleviating a wide range of problems in the delivery of water and sanitation services to a rapidly growing population.”



Sustainable Water and Sanitation in Africa (SUWASA). The approach, through SUWASA, is to identify and implement reform initiatives that will stimulate a financially viable and sustainable environment for improved quality of services to all and infrastructure expansion in urban and peri-urban areas.

By employing a multi-sectoral approach, the program is implementing reform projects that demonstrate success in alleviating a wide range of problems in the delivery of water and sanitation services to a rapidly growing population. These reform projects will introduce improved institutional frameworks that lead to increased autonomy, accountability, and customer orientation; support performance and operating contracts between utilities and public agencies; facilitate service providers' access to capital markets and debt financing; and assist in designing micro-finance approaches as a strategy for increasing household connections to the urban poor.

In its first year of operation, the SUWASA program has selected an initial set of reform projects in six countries - Ethiopia, Kenya, Mozambique, Nigeria, Sudan and Uganda. Ultimately, the program will implement at least 15 projects that have the greatest potential to demonstrate best practices in water and sanitation service delivery in urban areas. Response to the program from stakeholders has been positive, to the level that the second round of project selection comprises a list of 27 projects proposed by key players in the sector.

Each reform project selected is unique in the context of the opportunities and challenges they present. The projects in Uganda will focus on creating a framework for innovative financing for private water operators that provide water services to small and medium size towns, while the Kenya project seeks to create an opportunity for urban poor customers to access microfinance loans to help pay for connections in one installment. For both projects, the program will work with a broad range of partners including stakeholders in the Design-Build-Operate - Output-Based Aid framework, government ministries, water service providers, micro finance institutions and local banks. For a majority of the local banks, lending money to the water sector is a fairly new phenomenon, but both projects have the potential to demonstrate how up-scaling of services can be achieved through innovative financing.

For the Ethiopian and Nigerian projects, broad sweeping institutional and policy reforms will be implemented. In Ethiopia, the selected utility in Hawassa Town is a perfect candidate for



Photo Credit: USAID/WASH

QUENCHING WATERS: Students at a WASH-friendly school in Madagascar enjoy clean drinking water.

modernization and may well be the catalyst for institutional transformation of the Ethiopian water and sanitation sub-sector toward effective delivery of water and sanitation. In Nigeria's Bauchi State, the program will implement reforms to address constraints in the operating environment as well as internal operating problems of the state water board. The Mozambique and Sudan projects will benefit from technical assistance in enhancing and standardizing service provision especially for the small-scale providers.

To ensure future success, the program is working with technical experts and promoting the sharing of knowledge in the sector, building on already existing partnerships and actively seeking various forms of cooperation.

Success of the SUWASA program, will not only contribute to improved access to water and sanitation services for many more people, especially the poor and disadvantaged, but will also transform the delivery of services in Africa.
C. Mitchell

For more information, visit:

<http://www.usaid-suwasa.org/>



Real Impact

WaterSHED

Entrepreneurship and Collaboration for Health and Wealth in Southeast Asia



Photo Credit: D. Powell

INNOVATING PRODUCTS AND PROCESSES: WaterSHED-Asia Chief of Party, Tom Outlaw, and USAID-RDMA's (Regional Development Mission for Asia) Saengroj Srisawakraisorn inspect a new water filter facility launched recently in Cambodia with USAID investment.



Photo Credit: T. Outlaw

"S" IS FOR SANITATION: WaterSHED's Country Coordinator, Geoff Revell, works with local latrine producers in Cambodia.



Photo Credit: D. Powell

HYGIENE FOR HEALTH AND DEVELOPMENT: Tim Meinke (USAID-Viet Nam) inspects WaterSHED's latest innovation, the Happy Tap handwashing station, unveiled in late-2010 and expected to make handwashing easier, affordable, and more convenient.

Asia's Lower Mekong region ranks among the worst in the world in terms of disease, morbidity, and premature death due to deficiencies in safe water, sanitation, and hygiene, collectively referred to as WASH. Fortunately, a USAID-sponsored public-private partnership that focuses on bringing affordable water and sanitation products to market in Southeast Asia is showing that market-based approaches can improve access to affordable WASH products and services and, at the same time, generate new economic prospects for local people and businesses.

Launched in 2009, WaterSHED-Asia (Water, Sanitation and Hygiene Enterprise Development) is a USAID collaboration with the University of North Carolina (UNC), and links UNC's technical experts to development entrepreneurs across Cambodia, Laos, and Vietnam. In addition to focusing on WASH services and products, WaterSHED proactively helps local businesses explore innovative solutions to these health issues and links lenders to borrowers both at regional and local levels. "Delivering public goods through private enterprise, that is the ultimate good," said Tom Outlaw, WaterSHED's Chief of

"Delivering public goods through private enterprise, that is the ultimate good."

Party. "One of the most effective ways to attain scale and sustainability for WASH in Southeast Asia is through a market-based approach."

Start-ups and Linkages

WaterSHED's tangible results in just two years are impressive, with more than 50,000 water filters and 5,000 latrines sold. According to Outlaw, "The program is providing clean water and improved sanitation to over 275,000 people."

A specific WaterSHED entrepreneurial success is Hydrologic Inc., a social enterprise in Cambodia that produces ceramic household water filters for safe drinking water.



WaterSHED played a pivotal role in spinning off Hydrologic from its NGO parent, International Development Enterprises (IDE). WaterSHED also invested in Hydrologic's new filter factory, doubling manufacturing capacity and creating new jobs.

Outlaw and Geoff Revell, WaterSHED's Country Coordinator for Cambodia, both emphasized how local beneficiaries take pride in purchasing WASH products like the Hydrologic water filter. "The beneficiaries love it. They are treated as customers instead of aid recipients," Outlaw explained.

WaterSHED also focuses on innovative financing options for both consumers and businesses.

In November 2010, WaterSHED organized a financing and networking forum in Cambodia for water supply entrepreneurs, lending institutions, and government regulators. According to Revell, the meeting greatly increased the entrepreneurs' awareness of affordable financing.

In fact, "no stone left unturned" might be the motto for WaterSHED's financing focus. For example, Hydrologic has applied to receive carbon credits from future sales. Using a ceramic filter instead of boiling water reduces greenhouse gas emissions, while also saving fuel and improving indoor air quality. "Carbon finance is the type of process innovation that could ultimately wean all of our WASH enterprises off of aid forever," Outlaw said.



Photo Credit: D. Powell

WORKING WITH PARTNERS: Rochelle Rainey, USAID Technical Advisor for Water, speaks with Sim Sopheak of WaterSHED's regional partner, Lien Aid, about its water treatment enterprise.



Photo Credit: D. Powell

INNOVATIVE FINANCING FOR SAFE WATER: The ceramic water purifier combines WaterSHED innovations in design and financing, including carbon credits in 2011.

Aun Hengly: Entrepreneurship in Action

Changing individual lives and prospects is the bottom line for WaterSHED, and in Cambodia Aun Hengly works hard to realize this objective. The native Cambodian joined the staff of WaterSHED full time in 2010 and works with all levels of government, NGOs, entrepreneurs, and consumers to generate new WASH services, products, and entrepreneurship in Cambodia.

Hengly is, in fact, a prime example of a local person whose creativity and resourcefulness is making a difference with WASH. "With WaterSHED, I have the opportunity to show what I can do," said Hengly. Revell described Hengly as "a get it done kind of guy." Hengly, who comes from an NGO background, said his work with WASH complements his personal outlook: "I like to see good things happen."

Photo Credit: D. Powell



NEW ENTERPRISE DEVELOPMENT: USAID-Cambodia mission director, Flynn Fuller, cuts the ceremonial opening ribbon at Hydrologic's new water filter facility in Cambodia.



MAKING THINGS HAPPEN: WaterSHED entrepreneur, Aun Hengly (left), leads the way for new WaSH partnerships, and here consults with USAID Sanitation Technical Advisor, Jay Graham.

Photo Credit: T. Outlaw



Photo Credit: D. Powell

MICROCREDIT MAKES SANITATION AFFORDABLE: WaterSHED helps, not only entrepreneurs with financing, but also less-affluent consumers with microloans for latrine purchases.

Among Hengly’s notable successes is helping to develop a latrine-manufacturing sector in Cambodia, which he considers “an emergency need.”

Revell explained that success with latrines and other WASH products often depends on identifying existing manufacturers and pointing out WASH business potential. “Hengly is the one who makes that pitch.” Hengly is also quick to point out that “with latrine production, businesses can build up other product lines, such as household building materials.”

For these prospective suppliers, Hengly said it was critical to approach them with a market perspective. “Normally when you do business in Cambodia you sell just what people want to buy. You don’t look at the market. We looked at sanitation as the best product for human beings. We explained this to the businesses here.” Cambodia’s latrine sector now has approximately 19 new suppliers, largely due to Hengly’s work.

For Hengly, entrepreneurship has the greatest potential for addressing the WASH needs in Cambodia. He credits WaterSHED with being “very flexible” in its approach. “The businesses know the ground and each other. We show them

the potential of the markets.”

When asked about the impact WaterSHED has had on him personally, Hengly said he has become “much more confident with business” and is even considering establishing a company of his own some day, “maybe in agriculture.” He also said that WaterSHED is distinct from other development efforts in Cambodia for its commitment “and for thinking deeply about what we can do” in Cambodia.

WaterSHED’s early successes in the Lower Mekong underscore the real potential for sustainable health improvements matched with new economic opportunities. The local business involvement in WASH significantly helps with distributing essential services and products, and “also unleashes the productivity of local people,” said Revell. “The real story here,” Outlaw summarized, “is how WaterSHED is bringing the power of entrepreneurship and innovation to the WASH sector. It’s a fresh approach to the way development goals can be achieved, and it’s very exciting to see USAID leading the charge.”

R. Blaustein

For more information, visit:

<http://www.watershedasia.org/>



News from the Field

In Senegal, USAID's Water Program Contributes To Participatory Governance

As in many West Africa countries, the availability of water governs the conditions of life for Senegal's rural population. A harsh climate and uncertain rainfall threaten food security and drive rural-urban migration, which further decreases food production while overburdening water and sanitation infrastructure and worsening social conditions. For years, these conditions have trapped the population in a cycle of poverty and disease. This has been particularly true in the Casamance region, in the southwest corner of the country, where a longstanding, low-level conflict has resulted in the destruction of the rural water and sanitation infrastructure and left the population dependent on scarce and unsafe water sources and few improved sanitation facilities.

Recognizing that inadequate water and sanitation are major barriers to growth, the Government of Senegal is focusing on meeting the Millennium Development Goals for water and sanitation as a key part of its poverty reduction and economic development plan. In 2005, the government decreed a \$1 billion program, which is known by its French acronym PEPAM.

"When you're trying to address water and sanitation in rural areas," said Aaron Brownell, who manages USAID's water sector activities in Senegal, "you're looking at a lot of interrelated issues. The most serious challenges," he stated, "include sector governance and ones related to the sustainability of access."

"Governance in the rural sector is fragmented," Brownell noted, "and the population has little to say about how services are allocated." PEPAM is building the population's capacity for participatory governance by empowering women to take leadership roles in community life; strengthening communities' capacity to cooperatively manage water resources and sanitation systems; and developing shared information systems. The creation of these shared systems is also supporting efforts to reduce the risk of water-related conflict.

Rural water and sanitation systems tend to deteriorate after a few years because of the lack of maintenance. To ensure sustainable access, the population needs to have the training,



Photo Credit: J. Graham USAID

MAKING PROGRESS: A new village water pump.

"Recognizing that inadequate water and sanitation are major barriers to growth, the Government of Senegal is focusing on meeting the Millennium Development Goals for water and sanitation as a key part of its poverty reduction and economic development plan."



resources, and organization of responsibilities to keep the systems working on a permanent basis.

USAID is supporting Senegal's water sector reforms through its 5-year (2009-2014), \$21 million USAID/PEPAM program, which Brownell manages, as well as through several smaller programs.

According to Dean Swerdlin, Chief of Party for RTI International, USAID/PEPAM's main implementing partner, "the innovation of USAID/PEPAM is its integrated, holistic approach." The program is based on four interrelated and mutually reinforcing principles:

- Strengthen participatory governance and support community-level infrastructure planning, management, installation, and maintenance;
- Increase the demand for sustainable water sanitation and hygiene services and products by promoting appropriate low-cost systems that ensure a hygienic environment, and improving the sanitary and hygiene behaviors identified as critical by the community;
- Strengthen the capacity of small-scale service providers and water users associations (WUAs) to respond to the demand for improved water and sanitation services;
- Encourage private sector involvement in the installation and rehabilitation of water and sanitation infrastructure.

These principles are aligned with the Government of Senegal's goal of achieving sustainable water and sanitation access through participatory planning. As Senegal's former Minister of Health, Issa Mbaye Samb, explained at the 4th World Water Forum in 2006, "Our policy emphasizes participatory planning through the PLHA [local water and sanitation plan] along with the legal



Photo Credit: A. Brownell, PEPAM/USAID

CAUSE FOR CELEBRATION: Women dancing and singing in rural Senegal to express their appreciation and engagement in water and sanitation activities funded by USAID.

recognition and strengthening of the water users associations to manage rural multi-village systems." As of October 2010, 12 PLHAs were finalized in a region of the Casamance known as Ziguinchor, and are awaiting validation by the Ziguinchor Regional Council. With USAID support, Ziguinchor will soon be the first region in Senegal to have local water and sanitation plans for all of its rural communities.

USAID's emphasis on participatory governance of the water and sanitation sector, as well as sustainable access, has helped the people of the Casamance believe their situation is improving. The openings of new water points and sanitation facilities in their conflict-ridden communities were once an occasion for skepticism. They are now an occasion for dancing. *D. Davis*

For more information, visit:

www.rti.org

www.enewsbuilder.net/whatworks

http://www.usaid.gov/locations/sub-saharan_africa/countries/senegal/

www.pepam.gouv.sn



News from the Field

DWASH Improves Water Project Sustainability in Timor-Leste

Photo Credit: CDM DWASH Project



In the tiny country of Timor-Leste in the Indonesian Archipelago, only 60% of the population has access to safe water and a mere 40% to sanitation services. In some rural areas of the country, access to sanitation can be lower than 30%, open defecation is prevalent, and people travel extraordinarily long distances to gather water. Since poor access to water and sanitation results in serious health problems—including water borne illnesses and stunted growth—there is a pressing need to improve access to water, sanitation, and hygiene (WASH) services.

Although there is a strong NGO presence and bilateral aid in Timor-Leste, a large proportion of WASH investments throughout the country are non-functional. This is due to many reasons, including poor district-level systems maintenance capacity, unclear roles and responsibilities, resistance to service charges, budget constraints, limited capacity at all levels, and insufficient national budgetary support for district level operations. As a result, water and sanitation systems fail to serve the populations they were built to support, and health consequences persist.

Photo Credit: CDM DWASH Project



Photo Credit: CDM DWASH Project



According to Peter Cloutier, USAID Timor-Leste Governance and Health Program Director, “Conflict and lack of sharing between communities, lack of a sense of ‘facility ownership’, and unclear district official responsibilities threaten the viability of Timor-Leste’s rural community development model.”

In order to improve the sustainability of WASH interventions in Timor-Leste, USAID introduced District Water Sanitation and Hygiene (DWASH), a project that trains district government and water agencies, community-level water user groups, community health volunteers, and natural resources management groups to more efficiently operate their water resources and delivery systems. Training has improved stakeholders’ understanding of their responsibilities, facilitating a better sense of stewardship and reducing conflict.

In Manatuto and Oecusse Districts, participation in sanitation strategy development, construction training, and implementation is part of an overall plan to instill sustainable management of the facilities.

WATER IS FOR MORE THAN JUST DRINKING: [Top] Woman Using DWASH Water Supply Facility, Laclubar, Manatuto District, Timor-Leste.

FACILITATING INNOVATION: [Bottom Left] Latrine with Creative Handwashing Facilities, Oecusse District, Timor-Leste.

USING LOCAL MATERIALS: [Bottom Right] Handwashing Facilities Made from Bamboo, Passabe Oecusse District, Timor-Leste.



The DWASH community-based management framework promotes decentralized decision-making for all program service areas. Water Management Groups (GMFs) are established to manage newly rehabilitated water systems. To sustain the local structures, the project is training district and sub-district level government institutions responsible for community water supply and sanitation services (called *Servisu de Agua no Saniamento*, or SAS), in facilitation and monitoring skills. As a result GMFs and SAS have established permanent relationships through sub-district facilitators. Facilitation and maintenance of these relationships is critical for sustainability of WASH interventions.

Photo Credit: CDM DWASH Project



ENSURING QUALITY CONSTRUCTION: Monitoring of latrine improvements, Diric'un, Manatuto District, Timor-Leste.

Also in Manatuto District, where there is a 70% water systems failure rate, the GMF for Marmer Water System gained support from traditional leadership to set a monthly family contribution of one US dollar. So far, the group has earned over \$100 in cash from 25 benefiting families in just four months. With support from the program, government facilitators are helping communities establish rules and

regulations for running their water systems, such as opening and closing times of tap stands and penalties for encroaching on water catchment areas.

Overall, the DWASH project has succeeded in providing:

- 20,014 additional people in Manatuto and Oecusse districts with improved water supply;
- 58% of assisted communities with hand washing stations;
- 55 WASH and natural resources management committees;
- 42 hectares of land under improved management;
- 59% of households without visible open defecation; and
- 7,038 stakeholders trained.



Photo Credit: CDM DWASH Project

PROMOTING SANITARY BEHAVIORS: Child gives handwashing demonstration, Passabe, Oecusse District, Timor-Leste.

“The DWASH community-based management framework promotes decentralized decision-making for all program service areas.”

DWASH still faces many challenges, among them: the need for more capacity building; community cohesiveness and conflict resolution; increased clarity of roles in operation and maintenance; improved financial and cost-recovery mechanisms; hygiene behaviour change; and finding affordable ways to scale-up service delivery in remote areas. Nevertheless, the substantial strides the project has made in these areas increase the likelihood that WASH interventions will provide long-lasting improvements in access and associated health benefits to a population that urgently needs that support.
E. Bourque

For more information, visit:

<http://www.adb.org/Documents/PPARs/TIM/ppa-tim-81890/ppar-water.pdf>

<http://www.ode.usaid.gov.au/publications/pdf/ODEWATSANEastTimorWorkingPaper.pdf>



News from the Field

Community-Led Total Sanitation

Making Sanitation a Community Priority in West Africa

Sustainable access to improved sanitation has long been a challenge in the developing world, but mere access to sanitation is not the whole story. USAID's West Africa Water Initiative (WAWI) Global Development Alliance is piloting an innovative sanitation intervention that goes beyond providing latrines and instead uses participatory activities to motivate entire communities to decide to build and use them.

In 2008, 224 million people in Sub-Saharan Africa (about one-quarter of the population) practiced open defecation, drastically increasing rates of intestinal disease and polluting drinking water sources. To combat this health threat, WAWI partners decided to test Community-Led Total Sanitation (CLTS) programs in Mali, Ghana, and Burkina Faso.

Traditional sanitation programs that focus on building latrines have proven both too expensive to cover the two-thirds of the population in Sub-Saharan Africa without access to improved sanitation, and ineffective in changing behaviors so that sanitation facilities are actually used over time. Pure CLTS programs, developed in 1999 by Dr. Kamal Kar in Bangladesh, are low-cost because they provide no subsidies to build latrines, and focus on achieving sustained sanitation demand and behavior change. CLTS instead relies on highly trained facilitators to help communities analyze their current sanitation practices through a series of participatory exercises that help community members confront the reality of negative impacts of mass open defecation, including demonstrating how people are consuming each other's feces in unsanitary environments. The approach



Photo Credit: B. YANAGIWA, Tetra Tech ARD

SCHOOL LED TOTAL SANITATION: Hygiene club meeting at Shia Primary School, Talensi-Nabdam District of Ghana (WAWI partner: Rural Aid Ghana).

works to trigger feelings of disgust and shame that lead to rapid collective behavior change. As a result, “communities are motivated to spend their own money to build latrines themselves,” according to Sean Cantella, Chief of Party for the WAWI program, not because they have been given the money to do so, but because they want to use them.

In 2008, 224 million people in Sub-Saharan Africa (about one-quarter of the population) practiced open defecation, drastically increasing rates of intestinal disease and polluting drinking water sources.



Photo Credit: B. TANIGARA, Tetra Tech AID



NEW LATRINE CONSTRUCTION: Cement slab production in Socourani, Mali (WAWI partners: SNV and Peace Corps).

USAID is working with WAWI partners, UNICEF and WaterAid, to test several modified CLTS approaches to find more effective ways to improve sanitation in West Africa. The pilot efforts include both “pure” CLTS as well as methodologies hybridized with traditional sanitation promotion approaches. All the interventions work towards communities achieving Open Defecation Free (ODF) status. Once local officials formally “certify” a community as ODF, WAWI partners erect an ODF sign and host a celebration.

WAWI is currently piloting CLTS efforts in three countries:

- Only 36% of Mali’s rural communities have access to improved sanitation facilities. In association with UNICEF Mali, Plan Mali and SNV conducted pure CLTS projects targeting 70,800 people in 120 villages. Every one of the villages received ODF certification.
- Today, 13% of Ghana’s rural population has access to improved sanitation. Rural Aid worked with 6,700 people in ten communities that fed into five different schools in Northern Ghana. The hybrid CLTS initiative conducted traditional community motivation, complemented by subsidized school latrines, water catchment systems, and potable water wells at area schools. Ghana’s Government has now officially adopted the CLTS approach to scale up

rural sanitation to meet its goal of 56.5% rural coverage.

- With 11% rural access to improved sanitation in Burkina Faso, WaterAid Burkina Faso is implementing hybrid CLTS initiatives with approximately 9,000 people in eight communities and providing water wells and pumps as incentives to those who follow through on pledges to build latrines to all targeted CLTS communities.

The success of CLTS programs largely depends on facilitators who can successfully carry out the graphic triggering process, and is also linked to community structure and cohesion. According to Sean Cantella, “CLTS seems most effective in rural areas, given the power of

peer pressure in small community settings. Communities have to be willing to go all in or it won’t have the desired effects.” Partners have found that programs have less impact in peri-urban situations due to weaker community ties.

WAWI partners have found an effective way to trigger rapid changes in sanitation behavior through CLTS. Now they are exploring options for expanding the program, including integrating CLTS with sanitation marketing and credit programs to help communities meet the increased demand for household latrines. Partners are also drawing on social marketing principles to build demand for better sanitation options and increase local capacity to supply improved latrines. These and other innovations will allow CLTS programs to improve sanitation on a larger scale, a goal the partners are dedicated to achieving.
A. Gambrill

For more information, visit:

<http://www.communityledtotalsanitation.org/>
[http://www.wateraid.org/uk/what_we_do/how_we_work/
community_led_total_sanitation/default.asp](http://www.wateraid.org/uk/what_we_do/how_we_work/community_led_total_sanitation/default.asp)



Just Published

The Africa Water Atlas

Mapping Water Opportunities and Existing Challenges

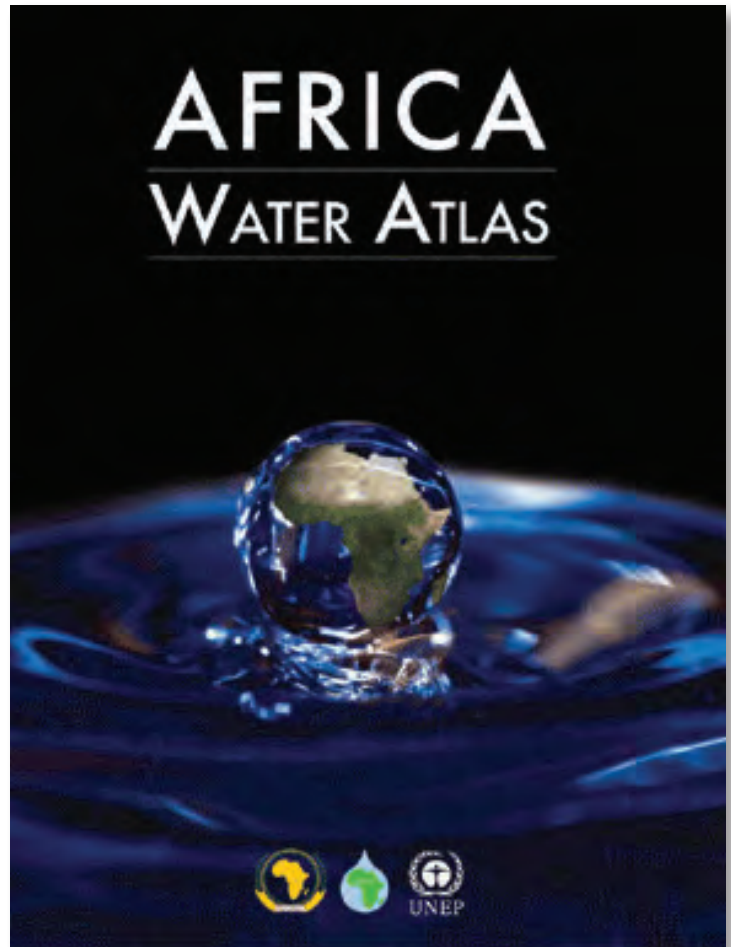
The *Africa Water Atlas*, compiled by the United Nations Environment Program (UNEP), includes more than 224 maps and 104 satellite images. Hundreds of ‘before and after’ images, spanning as many as 35 years, carefully detail Africa’s major water resource challenges to include not only the drying of Lake Chad and declining water levels of Lake Victoria, but oil spill pollution in Nigeria.

Only 26 of Africa’s 53 countries are on track to achieve the Millennium Development Goal (MDG) 2015 target to reduce by half the proportion of the population without sustainable access to drinking water. Only nine countries in Africa are expected to meet this goal for sustainable access to basic sanitation.

With about 100 million people experiencing water-constrained, rain-fed agriculture and climate driven food insecurity, Africa is known as a global “hotspot”. But the Atlas, overlays for the first time, “hospots” on maps to reflect, for example, the positive effect in the Horn of Plenty of harvesting rainwater to mitigate risks to farmers and food security. The Atlas also cites positive water management action taken to protect against, and reverse, degradation. Despite these gains, Atlas research indicates that Africa’s available water-per-person allotment is far below the global average and declining.

This 326-page resource, compiled at the request of the African Minister’s Council on Water in cooperation with the African Union, European Union, U.S. Department of State, and United States Geological Survey, shows how Africa’s water scarcity challenges are compounded by high population growth, socioeconomic and climate change, and policy choices. Other findings indicate that Africa has under-utilized aquifer resources that could meet water needs during drought, and, with 63 shared water basins, has successfully negotiated 94 international water agreements to cooperatively manage shared water, despite the potential for conflict that shared transboundary water resources present.

Authors of the *Atlas* state: “Africa faces a situation of economic water scarcity, and [Africa’s] current institutional, financial, and



human capacities for managing water are inadequate.” The Atlas uses the latest remote sensing technology to carefully examine and detail each country’s MDG water-target progress, citing both challenges and accomplishment. UNEP officials hope that this type of analysis will provide the kind of “hard, evidence-based data that will support political decisions aimed at improving management of Africa’s surface basin and aquifer resources.”
S. Gudnitz, M. Davis

The Atlas, along with its summary for Decision Makers, is available for purchase in hardback or for free download at:

<http://na.unep.net/atlas/africaWater/book.php>

Click on “downloads” to access the free download.



Recent & Upcoming Events



East Africa Practitioners Workshop on Urban Sanitation and Hygiene

March 2011 | Kigali, Rwanda

UNICEF, GTZ, WSSCC, WaterAid and IRC International Water and Sanitation Centre, as part of a longer term regional sharing and learning process, are organizing a workshop for East African practitioners on pro-poor urban sanitation and hygiene. There will be an emphasis on learning and innovation in the sector, identification of proven good practices, and lessons from failure. The forum will be hosted by the Rwandan Ministry of Health.

<http://www.irc.nl/page/39588>

6th IWA Specialist Conference on Efficient Use and Management of Water with a Focus on Water Demand Management: Challenges & Opportunities

March 29 - April 2, 2011 | Dead Sea, Jordan

USAID and the International Water Association (IWA), in cooperation with Jordan's Ministry of Water and Irrigation, will provide a forum that will present global experiences in water demand management and water efficiency. The agenda will include topics such as efficiency technologies, best management practices, policies and regulations, planning, public participation, climate change and drought adaptation, alternative water resources, and the water/energy nexus.

<http://www.efficient2011.com>

The 2nd Istanbul International Water Forum

May 3 - 5 2011 | Haliç Congress and Cultural Centre, Istanbul, Turkey

As a follow-up to the first Istanbul International Water Forum (February 2009), the General Directorate of State Hydraulic Works (GSI) of Turkey will be hosting the 2nd Istanbul International Water Forum. The Forum will primarily focus on water-related problems in the Middle East and North Africa, Central Asia, and Eastern Europe and will serve as an opportunity to revisit the Istanbul Water Consensus, Istanbul Water Guide, and other documents of the 5th World Water Forum in the *Global Water Framework* report (http://www.worldwaterforum5.org/fileadmin/WWF5/Final_Report/GWF.pdf).

<http://www.5thworldwaterforum.org/Participation/>

8th IWA Leading-Edge Conference on Water and Wastewater Technologies

June 6 - 10 2011 | Amsterdam, The Netherlands

The International Water Association, PWN Water Supply Company North-Holland, and Waternet will hold a forum to discuss water and wastewater technologies. The drinking water track focuses on technology developments that relate to water scarcity and improved efficiency. The wastewater track will focus on the primary drivers for technology development: better economy and performance of systems, and adaptation or mitigation of climate change effects.

<http://www.let2011.org/>