

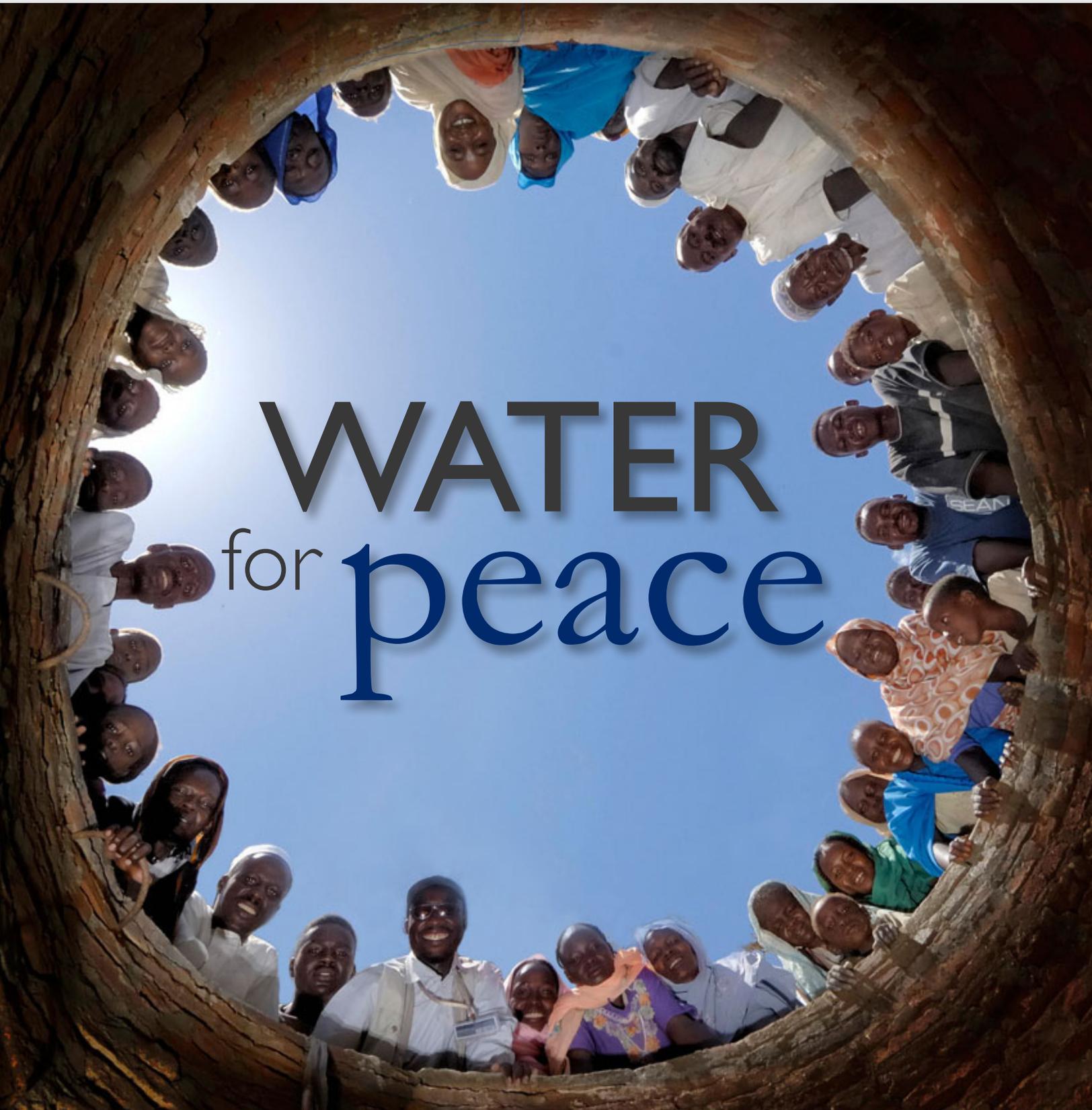


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# GLOBALWATERS

VOLUME V ISSUE 2 JULY 2014



WATER  
for peace



**USAID**  
FROM THE AMERICAN PEOPLE

At USAID we not only work to increase water security, but also to mitigate the negative impacts of water stress. One of the most pernicious of these effects is conflict over water resources. USAID works with communities around the world to allocate scarce water resources peaceably, so all people have the opportunity to thrive.

In this issue, we hear from staff at USAID's Office of Conflict Management and Mitigation and Woodrow Wilson Center's Environmental Change and Security Program, who recently developed a water and conflict toolkit to guide USAID staff in the field. They argue that we will not reach our water and sanitation goals unless we carefully consider the dynamics of local and regional conflicts around the world. Our cover story looks at the some of the ways we are implementing a conflict-sensitive approach in sub-Saharan Africa, one of the most water-stressed regions in the world. We take you to Liberia, where a shared commitment to stamping out open defecation is bringing together formerly warring people; to Nigeria, where good governance and improved water and sanitation services go hand-in-hand; and to Kenya, where USAID is mediating resource-related disputes between pastoralists in arid areas while increasing their resilience to climate change.

Another approach that is making waves is integrated water resource management (IWRM), which integrates

management of water, land, and other natural resources in a socially responsible and environmentally sustainable way. Our In Focus feature highlights the IWRM work of the Global Water for Sustainability (GLOWS) program. GLOWS has had great success around the world letting communities take the lead. In Georgia, community members have laid the pipe for a clean water system, while in West Africa, farmers have collaborated to improve agricultural water management. By engaging communities, the program is ensuring that the positive impacts of IWRM endure long after the program ends.

Indeed, a key to our success has been not just settling for present development gains, but also fostering the next generation of development leaders. In our Real Impact story, you will learn how USAID is working in Paraguay and Rwanda to nurture female agriculture experts to lead their countries in increasing water productivity, adapting to climate change, and ushering in a more sustainable, prosperous future.

We hope you enjoy this edition and that you will engage with us on these and other challenges.

*The Water Office*  
waterteam@usaid.gov



**FOUNDATION FOR COOPERATION:** After school, children work together to collect water from the central pump in South Africa.

Photo Credit: Melissa May, Courtesy of Photoshare

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Cover Photo: **WATER FOR PEACE:** In West Darfur, Sudan, internally displaced families look down a well they worked together to construct. Photo Credit: Paul Jeffrey, Courtesy of Photoshare  
Back Cover Photo Credit: Neil Palmer, CIAT



**THE NEXT GENERATION:** Young environmentalists in Morocco work together to clean up litter as part of a USAID water resource management project.

Photo Credit: Karima Rhanem, USAID

# Tools *for* Peace

By USAID's Office of Conflict Management and Mitigation and Woodrow Wilson International Center for Scholars' Environmental Change and Security Program

**W**ith almost 800 million people currently lacking access to clean water and two-thirds of the world's population projected to face conditions of severe water stress by 2025, competition over water is a growing global concern. While disputes over increasingly strained freshwater supplies sharpen our focus on conflict risks, the opportunities for peacebuilding presented by improving resource governance and managing shared waters should not be overlooked.

As a critical and shared resource, water can be a powerful connector, encouraging cooperation and negotiation in lieu of competition or violence. At the same time, water-related projects that are not carefully implemented with an understanding of the local dynamics of conflict can exacerbate rather than mitigate tensions.

In order to guide those working on water programs in conflict-affected areas, USAID's Office of Conflict Management and Mitigation (CMM) released the Water & Conflict Toolkit in February 2014.

The Toolkit, which is the most recent in CMM's flagship series of toolkits on conflict and development, builds upon

USAID's Water and Development Strategy. The Strategy aims, by 2018, to provide an additional 10 million people with access to improved water supply services, 6 million people with access to improved sanitation services, and 2 million people with more efficient use of water for food production. To focus its efforts, USAID has designated approximately 30 countries as priorities for programming under the Strategy.

These targets will remain elusive without a thorough understanding of the relationship between water, conflict, cooperation, and peacebuilding. More than 90 percent of the Strategy's priority countries exhibit a significant level of fragility and approximately two thirds are considered conflict-affected.

The trouble is, few people are experts on both water and conflict. While water specialists focus on the hydrologic features that unite river basins, political scientists tend to focus on the human features that divide them, like state borders. The challenge is to manage water in the most effective technical ways possible while taking into account the ways that water projects can influence – both positively and negatively – a community's, country's, or region's stability.

The Toolkit addresses this challenge by promoting cross-sectoral collaboration among development practitioners – a critical goal given the scope and complexity of the issues at stake. Through a series of lessons learned, intervention examples, and guidance on assessing conflict risk and peacebuilding potential, the toolkit encourages development practitioners to think broadly about how their efforts interact with water and conflict. The lessons learned section showcases development-focused water projects that have demonstrated conflict sensitivity and, in many cases, strengthened governance, promoted cooperation between adversaries, addressed core grievances, and ultimately contributed to the prevention or mitigation of violence.

For example, in 2010, when Ethiopia faced its worst drought in 60 years, USAID's Strengthening Institutions for Peace and Development (SIPED) project defused water-related conflicts between groups of pastoralists by facilitating community dialogues about natural resources, forming peace committees, establishing agreements that regulated the use of scarce resources, and mediating disputes. By 2011, households in communities where the project was implemented were half as likely to face conflict-related barriers to water access.

Water-related conflict remains a key development challenge, particularly in the face of growing water scarcity. The shared challenge of water resource management can encourage collaborative solutions, opening up opportunities for conflict resolution and peacebuilding in the water sector and beyond. Disentangling the complex relationship between water, conflict, and peace, as the Toolkit helps to do, offers reason for optimism and helps identify creative entry points for development practitioners to change the



**A FRUITFUL PEACE:** USAID helped broker peace between four pastoralist clans in Ethiopia's Somali Regional State.

Photo Credit: Nena Terrell, USAID



**COMMUNITIES STEP UP:** A Gari woman speaks at a USAID facilitated community consultation on a draft peace accord in Ethiopia's Somali Regional State.

Photo Credit: Mercy Corps

dynamics of conflict into dynamics of peace. By working together and engaging in dialogue on our shared water resources we can usher in a more peaceful, healthy, and secure world.

*This piece was adapted from the New Security Beat blog of the Woodrow Wilson Center. Written by Moses Jackson and edited by Schuyler Null. Read more at [www.newsecuritybeat.org](http://www.newsecuritybeat.org).*

*USAID's Office of Conflict Management and Mitigation and the Woodrow Wilson Center's Environmental Change and Security Program collaborated to produce the Water & Conflict Toolkit under the auspices of the Resources for Peace Project (RFPP). RFPP explores the nexus of climate change, natural resources, conflict, and peacebuilding.*

# WATER for Peace



**CELEBRATING COMMUNITY:** Women in conflict-affected North Darfur celebrate when they receive water rollers, which ease the burden of collecting water.

*Photo Credit: Olivier Chassot, UNAMID*

**F**rom the congested, chaotic cities of Nigeria to the dusty pastoral villages of Kenya, lack of water can often lead to violent conflicts between ethnic, religious, and economic groups. Without mechanisms in place to peacefully and equitably allocate scarce resources, these conflicts lead to damaged water infrastructure and weakened management institutions, inhibiting access to water for sanitation, health, and livelihoods.

But peaceful, collaborative water management is possible. In war-scarred Liberia, villages are banding together to upgrade and maintain water points, build latrines, and improve community hygiene with USAID support.

“Water resources are often shared across cultural and political borders and between communities,” explained Mary Ackley, a conflict and natural resources specialist at USAID’s Office of Conflict Management and Mitigation (CMM). “But when water is viewed as a shared interest, management of scarce water resources can lead to cooperation rather than conflict.”

USAID works with conflict-affected populations to improve water security while facilitating cooperation and coexistence. “We strive to help people improve their ability to manage water together in a peaceful way that also maximizes the utility and sustainability of the resource,” said Cynthia Brady, senior conflict advisor at CMM.

“It’s a two-way street,” she continued. “We recognize that improving environmental governance can



**WATER FOR HOPE:** Girls work together in the Kibati refugee camp in the Democratic Republic of Congo.

*Photo Credit: Julien Harneis*

fundamentally reduce unhealthy competition over resources that can otherwise lead to conflict and, at the same time, strengthening mechanisms for conflict resolution can actually facilitate more thoughtful and strategic decisions around water resource management resulting in improved sectoral outcomes.”

This is particularly urgent in sub-Saharan Africa, a region with more water-stressed countries than any other. According to current projections, up to 250 million people in Africa could be living in areas of high water stress by 2030. The United Nations has cautioned that climate change, coupled with population

growth and weak governance, could lead to increased conflict over resources in parts of Africa in the future. A number of USAID's sub-Saharan programs are looking to forestall disaster by addressing water issues in an equitable, sustainable, and conflict-sensitive way.

## WATER FOR RECONCILIATION

In Liberia, successive civil wars between 1989 and 2003 wreaked havoc on WASH infrastructure. Eleven years after the war ended, the country is still reeling from its impacts. The majority of the population lacks access to safe WASH facilities, and seven percent of children die before their 5th birthday. USAID's five-year, \$10 million Improved Water Sanitation and Hygiene (iWASH) program is bringing communities there together to address these issues and make public health a dividend of peace.

The core of iWASH's approach is community-led total sanitation (CLTS), a collective behavior change methodology in which community leaders visually demonstrate the proximity of fecal matter to food and water sources to other community members, invoking feelings of shame and disgust and spurring them to work together to build latrines, educate each other about hygiene and sanitation, and achieve open defecation-free status.

These influential, motivated community members are called "natural leaders." "These natural leaders are the

point people for encouraging their communities to build latrines and clean up their environment," said Pieter DeVries, chief of party for iWASH. "Once they have been successful in their own communities, they move to a neighboring community and repeat the process."

When this happens, communities hold celebrations and are rewarded with rakes, cutlasses, shovels, wheelbarrows, and other tools to help them continue to build latrines. These celebrations help communities reinforce their commitment to improved sanitation and hygiene, and even aid with the process of reconciliation. "Natural leaders from historically conflicting communities have joined together in networks and performed joint celebrations of attaining open defecation-free status. Through these interactions the communities have become closer," said Mr. DeVries.

After years of war, the country is enjoying the benefits of peace. More than 200 communities have been verified open defecation-free, 364 natural leaders have joined networks, and 112 natural leaders have successfully helped neighboring communities achieve open defecation-free status.

## WATER FOR STABILITY

In Nigeria, corruption is rampant, service delivery is weak, and some areas of the country, particularly northern Bauchi State, are plagued by periodic violence



**PEACE FOR PASTORALISTS:** USAID/Kenya's REGAL-IR program helps to improve natural resource management, promote resiliency, and peacefully resolve disputes between Kenyan pastoralists, like this one.

Photo Credit: Martin Kuvat

between ethnic and religious groups over political power, cattle, land, and natural resources. Weak, unresponsive governance exacerbates these conflicts. USAID is thus working in Nigeria to strengthen civil society's ability to advocate for their needs and improve the government's ability to meet these needs.

Increasing the government's ability to provide water to its citizens is central to these efforts. "The ability of government to provide basic services such as water and sanitation very directly relates to economic growth, public confidences, and stability efforts," said Nene Sobande, WASH program manager at USAID/Nigeria.

In Bauchi State, where just 36 percent of the population has access to water and just 22 percent has access to sanitation, USAID's Sustainable Water and Sanitation in Africa (SUWASA) program is working to make the urban water and sanitation provider more effective, efficient, and financially viable. The program is a crucial part of USAID's work to improve public services, increase legitimacy, and boost stability in the fragile, impoverished region. It does so by engaging and building the capacity of water sector stakeholders there with workshops, meetings, and study tours.

It is also training employees of the state-owned Bauchi State Water Board utility to improve revenue collection. This will help improve the quality and

sustainability of services. Currently, only one-third of customers even receive a bill, and then only five percent of those end up paying for the service.

In order to further increase sustainability, SUWASA worked to encourage the government to implement wide-ranging water sector reforms. But frequent changes in senior personnel at the State Ministry of Water Resources made this a long and difficult process. Over the past year and a half, SUWASA dealt with two different permanent secretaries and commissioners. This delayed key decisions in the reform agenda due to the time required by the new office holders to learn about previous processes.

Months of capacity building and lobbying finally paid off in April 2014, when the Bauchi State parliament approved a law that will set up a regulatory framework for the water sector. This will lead to the adoption of a more commercial approach and the provision of better customer service. The law will also create an autonomous utility that will provide institutional stability for improved water and sanitation service delivery.



Many hope these developments will increase trust and reduce the likelihood of conflict. “Strengthening institutions and clarifying sector operations under a transparent regulatory regime provide a solid foundation for good governance, improved service delivery performance, and stable operations,” Ms. Sobande said.

## WATER FOR RESILIENCE

Water resource management impacts stability in urban and rural areas alike. In Kenya, disputes between pastoralists over scarce natural resources in drought-prone rural northern areas sometimes turn violent. USAID works with pastoralists there to constructively and peacefully settle these disputes.

“Violent conflicts in pastoralist communities are often caused by unregulated competition over declining availability of pasture and water,” said USAID/Kenya Mission Director Karen Freeman. “Loss of life, destruction of property, internal displacements, and disruption of livelihoods are among the high costs of violent conflict associated with resource scarcity.”

The Feed the Future Resistance and Economic Growth in Arid Lands-Improving Resilience (REGAL-IR) project, which is implemented by USAID in partnership

with African Development Solutions (ADESO), is addressing these issues by helping pastoralists there work together to diversify their livelihoods, prepare for climate change, improve natural resource management, and peacefully resolve disputes. Ms. Freeman said that REGAL-IR works to show pastoralists “that competition over common pool resources is normal and if channeled properly through peaceful mechanisms, can significantly mitigate conflict.”

It does so by encouraging cooperation in culturally relevant ways. The project revitalized the Borana *dedha*, a centuries-old customary governance system, which plans grazing systems and helps allocate natural resources. When disputes do arise, REGAL-IR staff employ conflict resolution mechanisms rooted in the pastoralists’ culture and history. “As facilitators, coaches, and mentors, REGAL-IR staff advise and inspire individuals, families, and communities to take command of their development, become more self-reliant, and break the cycle of dependency,” said Ms. Freeman.

This hands-on approach means project staff have faced the grim realities of conflict firsthand. “Banditry and insecurity have raised the costs of doing business. Activity staff cannot travel so freely



**MITIGATING CONFLICT:** Pastoralists in Turkana County in northwestern Kenya work on a USAID-supported irrigation scheme that will improve their food security and livelihoods.

*Photo Credit: Ric Francis, USAID/Kenya*



**ESSENTIAL INGREDIENT:** USAID works across Nigeria to improve water supply services and boost stability.

*Photo Credit: Kim Blessing/JHU CCP, Courtesy of Photoshare*

in insecure areas. They have been twice ambushed at gunpoint recently, and now must move with costly and cumbersome armed escorts,” explained Ms. Freeman.

However, their efforts are paying off and pastoralists are increasingly working to collaboratively manage water resources and boost their livelihoods on their own. More than 20,000 community members have joined together to articulate their needs and shared goals through what the project calls the Participatory Learning, Planning, and Action process. Ms. Freeman said that through this process, pastoralists are “creating positive energy and momentum for change.”

With this newfound momentum, they are drafting Community Development Action Plans for sharing natural resources and working with neighboring communities to implement them. In addition, nearly 2,600 people have joined 86 self-help groups in which they work together to save money, increase livelihoods, and improve agricultural efficiency.

This institutionalized collaboration around peaceful water management will improve communities’ ability to face unanticipated stresses like natural disasters and economic shocks, increase their overall resilience, and reduce the likelihood of violent conflict. Locals

are now eager to continue engaging with each other over these issues. Logetei Adir, a grazing elder from Turkana, summed it up when he said, “We cannot keep organizing our grazing plans without engaging those of our neighbors.”

*C. Zeilberger*

## More Information

**USAID Water & Conflict Toolkit**

**Watch the Water & Conflict Toolkit launch on YouTube**

**USAID Office of Conflict Management and Mitigation Website**

# Farming a New Future

## WOMAN to WOMAN

**EDUCATION AND EXPERIENCE:** The Women's Leadership Program trains female agriculture leaders to meet their country's food security challenges.

*Photo Credit: Neil Palmer, CIAT*

**U**niversity and high school women are discussing everything from female empowerment to farming methods at Centro Educativo Mbaracayú agricultural high school in Paraguay. The students – many of whom are extremely poor, single mothers, or members of local indigenous groups – meet regularly for mentorship and group activities. Both mentors and mentees say they are growing as a result.



**HARVEST OF HOPE:** USAID's partnerships prepare women to tackle local development challenges.

Photo Credit: Neil Palmer, CIAT

“It might seem odd, but by being a mentor I was able to improve my own academic performance,” said Alida Benítez, an Environmental Sciences major at the National University of Asunción (UNA) in Paraguay and a peer mentor. “I increased my commitment to all my endeavors, including my courses, by keeping my mind constantly working.”

The mentorship program is part of USAID’s Women’s Leadership Program, managed by Higher Education for Development (HED), which facilitates partnerships between U.S. and developing country universities. These partnerships focus on preparing talented women from disadvantaged backgrounds to tackle local development challenges.

“We are developing more employable students who can contribute to society in meaningful ways,” said Diana Páez-Cook, a program officer at HED.

Two of these partnerships, in Paraguay and Rwanda, focus on agriculture. While these countries may seem quite different, both experience largely inefficient agriculture sectors, face high levels of rural poverty, and are prone to natural disasters. In both places, female-headed households bear the brunt of these challenges, making it all the more important that these partnerships are cultivating capable, conscientious female leaders.

### **A Mentoring Approach**

The U.S.-Paraguay partnership, between the University of Florida and UNA, focuses on strengthening UNA’s School of Agricultural Sciences’ capacity to produce

**“We are developing more employable students who can contribute to society in meaningful ways.”**

**Diana Páez-Cook, program officer at HED**

strong female leaders. In addition to studying topics like rural development, hydrology, irrigation, and watershed management, the women receive career counseling and professional development, are mentored by faculty members, agricultural professionals, and their peers, and mentor each other and at-risk agricultural high school students.

“We encourage women’s participation in the development of their communities,” said Dr. Marta Hartmann, the U.S. Director of the Women’s Leadership Program in Paraguay.

The approach seems to be working. “I believe all the knowledge acquired during my academic education plus the experience gained outside the classroom will help me to be a better person and a better professional,” said Ms. Benítez.

### **A New Kind of Agribusiness Professional**

The USAID-facilitated partnership between Michigan State University and University of Rwanda also aims to train female leaders to address development challenges. In Rwanda, these challenges are especially formidable.



**WOMAN TO WOMAN:** Students from Mbaracayu Agricultural High School receive gender and self-esteem training through the Women's Leadership Program. *Photo Credit: Veronica Rivas Poletti*

**MAKING A DIFFERENCE:** (bottom image) In Rwanda, women comprise the majority of people working in agriculture. *Photo Credit: Neil Palmer, CIAT*

In 1994, hundreds of thousands died in the Rwandan genocide, which also led to demolished infrastructure and loss of livelihoods. Twenty years later, the majority of the population still lives below the poverty line.

Because the country needs highly specialized experts to boost sources of income, health, and food security, the partnership is targeting graduate students and mid-career professionals. Curricula will focus on increasing agricultural efficiency, sustainably transitioning from subsistence to commercial agriculture, natural resource management, and climate impact forecasting.

Dr. Gretchen Neisler, the U.S. director of the Rwanda partnership, said that the women trained will be uniquely qualified to meet the country's social, environmental, humanitarian, and economic needs. "Studies show that the presence of

women up and down the decision-making chain makes policy more responsive to the most basic level of society, the home," she said. "This program seeks to allow Rwandan society to take a new approach to balancing those needs through a new kind of agribusiness professional."

### Overturing Biases

These alliances are not without their challenges. In both countries the partnerships have had to overcome biases and work hard to forge connections between stakeholders.

In Paraguay, overcoming sexism has been a struggle. "Traditional societal processes underlying sexism in Paraguay have contributed to an unconscious patriarchy that leads decision makers to visualize males as more important than females. This challenge is being addressed

mainly through educational efforts, open discussions, socio-cultural activities, professional development and engagement of key stakeholders," Dr. Hartmann said. She acknowledged that overturning years of ingrained biases is never easy, but said it is beneficial to the entire society.

In Rwanda, facilitating connections between the university, non-governmental organizations, the private sector, and other community groups has been a particular challenge. "Communication, understanding, and cultural accommodation all take time and trust," explained Dr. Neisler. But by "bringing a mindset of cooperation, integration, and synergistic collaboration between traditionally competing sectors," she said, the program has had "surprisingly pleasant results."



In addition to creating this network, the Rwanda program is now building the capacity of faculty and administrators and preparing to welcome their first cohort of students in the fall.

Paraguay's UNA is already seeing the potential of motivated female students. The first class of students is finishing up their first year of studies, and they are already itching to make a difference. Agronomic Engineering student Julieta Acosta said she is now guided by this mantra: "Not only to be the best in the world, but also to be the best for the world."

*C. Zeilberger*



## More Information

[Rwanda's Women's Leadership Program Website](#)

[Dr. Marta Hartmann on the Paraguay Women's Leadership Program](#)

[University of Rwanda Website](#)

# CURRENTS

Water and sanitation professionals work tirelessly to improve health, promote food security, and boost livelihoods. To further USAID's knowledge sharing goals, the Water Office holds learning events that present solutions and challenges common to water programs. In Currents, we share the solutions discussed at the events and other venues. Email us at [waterteam@usaid.gov](mailto:waterteam@usaid.gov) if you would like your project to be considered for *Global Waters*.

## PINNACLE AWARDS TO RECOGNIZE URBAN WASH INNOVATIONS

Globally, nearly 140 million people in urban areas lack access to an improved water source. Urbanization, overpopulation, and inadequate infrastructure make providing clean water and basic sanitation services in cities particularly challenging.

Water & Sanitation for the Urban Poor (WSUP) and the Global Water Challenge (GWC) have together launched the Pinnacle Awards, which will recognize innovative efforts by cities around the world to provide their residents with clean water and improved sanitation services. They are presenting awards in two categories: water and sanitation. Both the Pinnacle Award for Water and the Pinnacle Award for Sanitation will recognize service providers who have come up with unique and effective ways to provide services to low-income communities. Entrants will showcase their innovations to an international jury of their peers at WSUP's Master Class in Water and Sanitation for Low Income Consumers in Kampala, Uganda in December 2014, at which time the winners will be announced.

The Pinnacle Award winners will get the opportunity to attend an international WASH conference and to discuss their experiences, findings, and lessons learned through WSUP's and GWC's extensive communications networks.

To learn more, [visit](#) the Water & Sanitation for the Urban Poor website and the Global Water Challenge [website](#).



Photo Credit: Esther Havens

## U.S. TECH H2.O SHOWCASES WASH TECHNOLOGY

USAID's Water and Development Strategy calls for increased leveraging of science and technology to solve global water challenges. On the eve of World Water Day on March 21, 2014, the U.S. Department of State showcased American ingenuity in the water sector at "U.S. Tech H2.O." The half-day event unveiled 28 up-and-coming technologies that solve WASH challenges. The showcased innovations address issues like water treatment, purification, pumping, monitoring, testing, energy and nutrient recovery, and water plant design.

At the event, USAID Global Water Coordinator Christian Holmes unveiled the "Securing Water for Food Grand Challenge for Development" semi-finalists and announced the launch of the Desal Prize competition, which will offer a \$500,000 grand prize to organizations that develop desalination technologies that provide safe water for drinking and agricultural use.

To learn more, [visit](#) the U.S. Department of State's website or [watch](#) footage of the event on YouTube.

## SID ENVIRONMENT WORKGROUP FOCUSES ON WATER & DEVELOPMENT

As part of a series focused on water, USAID Global Water Coordinator Christian Holmes gave a presentation entitled "Managing Water to Support Sustainable Development" at a learning event in April at the Society for International Development (SID) in Washington D.C.

A not-for-profit global forum of individuals and institutions concerned with sustainable economic, social, and political development, SID has over 3,000 members in 80 countries. SID's Environment Workgroup coordinated the event.

The Environment Workgroup is one of 18 topic areas managed by development professionals who volunteer their expertise to present cutting edge topics for application in the field. The water series is an outgrowth of a water sub-group formed in 2013 in response to interest expressed in a survey last summer.

Environment Workgroup Co-chair Charlotte Moser coordinates the water sub-group. "Water scarcity is a global issue that is increasingly impacting sustainable development



Photo Credit: Anouk Delafortrie, EC/ECHO

and human well-being," she said. "SID members want to be current about how it is being addressed."

SID's Energy & Infrastructure Workgroup co-hosted a 2014 World Water Day program on water and energy which included representatives from the United Nations Environment Programme, USAID's Powering Agriculture program, the International Finance Corporation, and Winrock International. Sustainable water and sanitation services was a breakout session topic in May at the SID Annual Conference in Washington DC, where USAID Administrator Dr. Rajiv Shah was the keynote speaker. To learn more, [visit](#) the SID Environment Workgroup website.



Photo Credit: Kibae Park, UN

# INTEGRATING WATER MANAGEMENT FROM

## East to West

This March, residents of the Kayonza District gathered with national and USAID officials to celebrate Rwanda's National Water Week by breaking ground for the Miger Water System. The project will supply water for small-scale irrigation of crops in about 30 communities and will provide safe, sustainable drinking water to 30,000 people. It is designed to take into account the health, social, and economic needs of the community and is part of the innovative work done by USAID's Global Water for Sustainability (GLOWS) Program at Florida International University.

After attending the ceremony, Alphonse Kampire, mother of four, said the system will change her family's lives. "We have only one public water tap used by more than 200 households. We have always had no alternative

but to fetch and use dirty water from streams," she said. "But all this will become history once the new water supply system is completed."

The new system is funded by USAID's Rwanda Integrated Water Security Program, which is implemented by the GLOWS consortium under the lead of Florida International University, with the participation of CARE, WaterAid America, Winrock International, World Wildlife Fund, and World Vision. GLOWS has been working since 2006 on various locally tailored integrated water resources management (IWRM) programs in Georgia and across Africa. While the program's lead award will end in September 2014, several of the projects under GLOWS will continue through 2015.

The program is currently developing a tool for measuring the sustainability of water resources management programs that include sector services and governance, which will be finalized and field tested by September. By integrating management of water, land, and other natural resources in an equitable, socially responsible, and environmentally sustainable way, IWRM is already transforming lives around the world.

### Engaging Communities

In Georgia, GLOWS' Integrated Natural Resources Management in Watersheds (INRMW) program found success by involving communities. INRMW launched a small grants program, which invited 60 communities to compete for 40 small grants for water projects. The grants required cost-share contributions from the communities, either in-kind or monetary. GLOWS Deputy Director Ryan Stoa said this has led to an increase in engagement at all levels. "This is something you don't always see in development," he said.

Through the grant program, residents in the Tusheti region of the Caucasus Mountains were able to create a water line to help a community that has suffered from water access problems since the fall of the Soviet Union. Community members dug and laid the pipe, which now provides the area with clean drinking water.



**PEDALING FOR SOLUTIONS:** WA-WASH employs innovative water solutions in West Africa, such as this rope pump with foot pedals for gardening.

Photo Credit: WA-WASH

Other grants are funding the construction or rehabilitation of rural water supply systems that now provide 10,741 people with improved quality drinking water. Local community-based organizations are responsible for maintaining this key infrastructure for the long term.

### Partnering for Sustainability

GLOWS has also found that forging innovative partnerships makes IWRM more sustainable. In Tanzania, the GLOWS Tanzania Integrated Water, Sanitation, and Hygiene (iWASH) Program is partnering with the Water and Development Alliance, a public-private partnership between USAID and the Coca-Cola Foundation, to bring first-time access to clean, safe drinking water to some of the country's poorest communities. To date, the iWASH Program has helped provide water to more than 130,000 people, 55 percent of whom are women. The program has also taught more than 170,000 people about hygiene and sanitation, and provided nearly 30,000 with access to improved sanitation

facilities, mostly through the construction and rehabilitation of school latrines. In addition, it is training water users to improve their management of water resources and to use water more efficiently, thereby enabling them to improve their livelihoods.

Helping public and private stakeholders to work together has been key to the success of GLOWS programs, but it can present challenges. Mr. Stoa said IWRM requires countries to look at water resources as cross-sectoral, but ministries and government agencies in some countries are highly segmented and not equipped to approach water issues in this way. This can lead to disputes between energy, agriculture, environment, and health agencies. GLOWS is addressing this by working with governments to create a framework for cooperation that engages all stakeholders. While challenging, these efforts will ultimately lead to increased social and environmental sustainability.

In Burkina Faso, Ghana, and Niger, the GLOWS West Africa Water Supply, Sanitation and Hygiene Program

(WA-WASH) is developing improved models for sustainable rural and peri-urban WASH services that can be replicated throughout the region. Since its start in 2011, the program has helped more than 39,000 people gain access to improved drinking water and more than 3,000 gain access to improved sanitation. WA-WASH has also trained more than 2,100 people on improving water management and agricultural productivity. With their new knowledge, these pioneers will be able to train their families and neighbors to adapt to climate change and improve food security, livelihoods, and health through IWRM in the long term.

*S. Hoye*

### More Information

[GLOWS Website](#)

[GLOWS on Facebook](#)

[GLOWS Blog](#)



**WATER PARTNERSHIPS:** USAID is partnering with Coca-Cola in Tanzania to bring first-time water access to 48,000 people, the majority of whom are women.

Photo Credit: Julien Harneis



**U.S. Agency for International Development**

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