U.S. International Water and Sanitation Assistance

Strategy and Assessment

WATER RESOURCE PLANNING, DEVELOPMENT AND MANAGEMENT

Constance Alvarado
Editor

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PREFACE

Water is a foundational element of development and by its nature, a basic and essential resource. A great challenge confronts certain regions, nations and individuals in the world in the form of having enough sustainable water. As discussed in this book, the US Agency for International Development's (USAID) strategy presents a guide to investments in water programming and sanitation efforts, informs country development strategies, guides decision making on budgeting and resource allocation, and highlights priority regions and areas for water programs. The book describes recent activities and funding, assesses USAID missions' efforts to plan and implement activities, and assesses USAID's monitoring of activities.

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Chapter 1

USAID WATER AND DEVELOPMENT STRATEGY 2013-2018*

U.S. Agency for International Development

LIST OF ACRONYMS

BFS	Bureau for Food Security
BRM	Office of Budget and Resource Management
CATS	Community Approaches to Total Sanitation
CDCS	Country Development Cooperation Strategy
CGIAR	Consultative Group on International Agricultural Research
CLTS	Community-Led Total Sanitation
CMM	Conflict Management and Mitigation
DA	Development Assistance
DCA	Development Credit Authority
DCHA	Bureau for Democracy, Conflict and Humanitarian Assistance
DIV	Development Innovation Ventures
DRR	Disaster Risk Reduction
E3	Bureau for Economic Growth, Education and Environment
E3/W	Office of Water in E3 Bureau
ESF	Economic Support Funds

* This is an edited, reformatted and augmented version of a document issued by USAID, May 2013.

ESP	Environmental Services Program
EXIM	Export-Import Bank
FTF	Feed the Future
FY	Fiscal Year
GH	Bureau for Global Health
HIP	Hygiene Improvement Project
IDA	International Disaster Assistance
IR	Intermediate Results
IWRM	Integrated Water Resource Management
JMP	Joint Monitoring Program
MDG	Millennium Development Goal
NEAT	Nepal Economic Agriculture and Trade
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmosphere Administration
OFDA	Office of U.S. Foreign Disaster Assistance
OPIC	Overseas Private Investment Corporation
PPD-6	Presidential Policy Directive on Global Development
PPL	Bureau for Policy, Planning, and Learning
PWRF	Philippines Water Revolving Fund
QDDR	Quadrennial Diplomacy and Development Review
RANET	Radio and Internet Technologies for the Communication of Weather and Climate Information for Rural Development
SCADA	Supervisory Control and Data Acquisition
SEEDS	School Environment and Education Development for Somalia
SO	Strategic Objective
SPLASH	Schools Promoting Learning Achievement through Sanitation and Hygiene
SWSS	Sustainable Water Supply and Sanitation
WASH	Water Supply, Sanitation and Hygiene
WATER	Water, Sanitation, and Hygiene Transformations for Enhanced Resilience

EXECUTIVE SUMMARY

This is the US Agency for International Development's (USAID) first global Water and Development Strategy. It is intended to provide a clear

understanding of USAID's approach to water programming. This Strategy emphasizes how sustainable use of water is critical to save lives, promote sustainable development, and achieve humanitarian goals.

Projections are that by 2025, two-thirds of the world's population could be living in severe water stress conditions. This stress adversely affects individuals, communities, economies, and ecosystems around the world, especially in developing countries. Ensuring the availability of safe water to sustain natural systems and human life is integral to the success of the development objectives, foreign policy goals, and national security interests of the United States.

To address global water-related development needs, this Strategy provides an increased focus for USAID's water programs that is sustainable, works through host country systems, uses emerging science and technology, and learns from past efforts.

The goal of this Strategy is: To save lives and advance development through improvements in water supply, sanitation, and hygiene (WASH) programs, and through sound management and use of water for food security. To achieve this goal, the Strategy sets two strategic objectives (SOs):

SO1) Improve health outcomes through the provision of sustainable WASH. This will be achieved through a continued focus on providing safe water, an increased emphasis on sanitation, and support for programs that can be brought to scale and be sustained. Based on previously requested funding levels, USAID projects providing a minimum of 10 million persons with sustainable access to improved water supply and 6 million persons with sustainable access to improved sanitation over the next five years.

SO2) Manage water for agriculture sustainably and more productively to enhance food security. This will be achieved through increased emphasis on more efficient use of rainfall and improved efficiency and management of existing irrigation systems including private and farmer-owned micro-irrigation systems. The Strategy recognizes that the greatest and most cost-effective potential for crop yield increases are in rainfed areas. USAID will focus on increasing irrigated agriculture in select countries, including expanding irrigation in a responsible, sustainable, and climate-resilient way.

Historically, USAID budget allocations for water programs have been made in four thematic areas: (1) WASH; (2) Water Resources Management; (3) Water Productivity; and (4) Disaster Risk Reduction. Between Fiscal Years 2003-2011, USAID annually allocated an average of $452M to water

activities. Over this time period, USAID annually programmed an average of $318M to WASH, $61M to Water Resources Management, $57M to Water Productivty, and $16M to Disaster Risk Reduction.

Beginning in Fiscal Year (FY) 2014, the Strategy calls for all new USAID water programs to fully align with the two SOs of the USAID Water and Development Strategy.

Strategic Approach

To achieve these objectives, this Strategy:

- Furthers the strategic approach to water and development put forward by the Secretary of State in 2010 by emphasizing five 'streams of action' to address water issues.
- Advances activities consistent with the Senator Paul Simon Water for the Poor Act of 2005 including establishing criteria to designate high priority countries for increased investments to support access to safe water and sanitation.
- Addresses the impact of water problems for countries important to U.S. national security interests.
- Builds on the joint USAID and U.S. Department of State's 2008 Framework for Action, which called for improving access to water supply and sanitation, promoting better hygiene, improving water resources management, and improving water productivity in agriculture.
- Draws on USAID Forward and the USAID Policy Framework 2011-2015 by supporting host country systems, emphasizing an integrated approach to development, focusing where resources will be invested, programming resources selectively to ensure meaningful impact, leveraging science, technology, and innovation, promoting gender equality and female empowerment, and increasing partnerships.
- Gives priority to supporting the Presidential Initiatives of Global Health and Feed the Future, and supports other development objectives such as resilience, natural resource and coastal zone management, climate change efforts, humanitarian assistance, increasing access to education, and gender equality efforts.

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- Will seek investments in longer-term monitoring and evaluation of its water activities in order to assess sustainability beyond the typical USAID Program Cycle and to enable reasonable support to issues that arise subsequent to post-completion of project implementation.
- Emphasizes an integrated water resources management approach to development.
- Increases attention to sanitation in WASH programs and encourages multiple use systems of water for agriculture.
- Builds on USAID's comparative advantage in capacity building and governance by emphasizing policy reform, strengthened enabling environments and institutions, participatory governance, and innovative financing.
- Links humanitarian and development efforts more effectively by supporting programming of WASH funds in emergency situations.
- Applies the USAID Gender Equality and Female Empowerment Policy by supporting gender sensitive approaches to empower women in the development and implementation of water-related programs.

USAID intends to address the global challenges of water in close cooperation with non-governmental and civil society organizations that undertake the critical front-line responsibility of developing and implementing water programs. This includes working with advocacy groups that bring both knowledge and passion to the challenge, with governments that are dedicated to providing a better life for their citizens, with communities that best understand the challenges and solutions, with universities that are creating innovative solutions today, with the private sector that can build a new global economy while supporting sustainable development, and with international development and financial institutions which provide essential program development implementation and financial support.

USAID seeks to be both a leader and a partner in the global effort to elevate the importance of water across all development objectives.

1. INTRODUCTION

Achieving water security for regions, nations, and individuals is one of the greatest development challenges confronting the world today. By its nature, as

a basic and essential resource, water considerations cut across nearly every aspect of USAID programming.

The purpose of the Strategy is to guide USAID investments in water programming, to inform the development of Country Development Cooperation Strategies (CDCS), to guide decision-making on budgeting and resource allocation, and to highlight priority regions and program areas for water programs. Over the duration of the Strategy there will be greater focus and selectivity among USAID water programs leading to greater development impact.

Strategic Focus

USAID has three overarching development objectives that address the Presidential Initiatives of Climate Change, Food Security, and Global Health. This Strategy focuses on two key development objectives related to effective and multiple uses of water resources: water for health and water for food. USAID addresses the climate change and water linkage in its Climate Change and Development Strategy (2012-2016).[1] This Strategy responds to the need for USAID to focus investments and identify priorities within the wider role that water and watershed management play toward energy, conflict, climate change, education, bio-diversity, ecosystems, and economic growth. This Strategy specifically endorses the principles and proven approaches of integrated water resources management (IWRM) and encourages the use of all appropriate technologies and tools in achieving those objectives.

Key Development Challenges

Population growth, increased demand for and rising cost of energy, increased urbanization, watershed and environmental degradation, natural disasters, conflict, climate change, and weak water governance are putting water resources under increasing pressure. Projections are that by 2025, two-thirds of the world's population could be living in severe water stress conditions.[2]

This stress adversely affects individuals, communities, economies, and ecosystems around the world, especially in developing countries. It also underscores why it is so critical to properly manage the scarce freshwater resources upon which human life depends.

Inadequate Access to Safe Drinking Water and Sanitation

Millennium Development Goal (MDG) 7C calls to halve by 2015 the proportion of the population without sustainable access to safe drinking water and basic sanitation. While the safe drinking water target was met in 2010, 783 million people still do not have access to safe drinking water, and major issues related to equity of access, water quality, and sustainability of water supplies remain.[3] In addition, the world is not on track to meet the sanitation target as approximately 2.5 billion people still lack access to improved sanitation.[4]The challenges and solutions vary significantly by region; for example, sub-Saharan Africa has the highest proportion of people without sufficient sanitation facilities, while South Asia has the largest number of people practicing open defecation.

Often the burden of inadequate access to water and sanitation falls heavily on women and girls. Examples of this are evident throughout the developing world. Two concerns of particular importance are reducing the many hours women and girls spend seeking water for their families which often put their safety at risk and addressing the different sanitation needs of women and adolescent girls which have direct impacts on maternal mortality and morbidity.

Lack of access to safe water and sanitation services has direct health implications as nearly two million people – the vast majority of whom are children under five – die from diarrhea each year. Nearly 88 percent of diarrhea is attributed to unsafe drinking water, inadequate sanitation, and poor hygiene, and is preventable by known interventions.[5]

The Importance of Meeting Sanitation Goals

Conventional sanitation, a flush toilet connected to a centralized sewer system, is available for only a small fraction of people in developing nations. Forty percent of the world's population use unsafe toilets or practice open defecation. The consequences of unsafe sanitation can be devastating and last a lifetime. Every year, food and water tainted with fecal matter cause up to 2.5 billion cases of diarrhea among children under five, resulting in 1.5 million child deaths. Chronic diarrhea can hinder child development by impeding the uptake of essential nutrients that are critical to the development of children's minds, bodies, and immune systems. Studies show that hand washing, improved sanitation, and improvements in household water quality significantly reduce the risk of diarrhea.[6]

The impact that clean and safe sanitation can deliver is transformational. The economic benefits of improved sanitation can increase productivity,

reduce healthcare costs, and prevent illness, disability, and early death. People who have access to clean, safe, and convenient sanitation services also experience greater dignity, privacy, and security. This is especially important for women and girls, who may miss work or school when they are menstruating or risk sexual assault when they do not have access to safe sanitation facilities. This importance extends not just to the existence of sanitation facilities, but also to the physical location and design in a school/workplace that has an impact on safety, security, and use.

Limited Access to Fresh Water for Food Security

The interdependence between food security and sustainable water resource management is significant. Globally, agriculture consumes 70 percent of available freshwater resources and is often used in irrigated systems that are inefficient and environmentally unsustainable.[7] Global population growth projections of two to three billion people over the next 40 years, combined with changing diets, are expected to increase food demand 70 percent by 2050.[8] However, as the largest user of water, food production also represents the largest unknown factor of future water use in terms of future global water demand. Significant efficiency gains are possible. Based on current use patterns, agricultural water consumption will increase by approximately 19 percent to feed a larger and richer global population of 9.1 billion people.[9]

The Impact of Climate Change on Water Resources

The impacts of climate change can be seen from oceans to mountain tops. Rapid glacier melt and decreased snowpack will increase variability of stream flows and may contribute to a long term decline in supplies. Rising sea levels will exacerbate saltwater intrusion into many river deltas, salinizing productive/cultivatable land and impacting drinking water. Stronger storm surges could flood large tracts of coastal areas, where a significant number of people and critical infrastructure are located. The effects of climate change in combination with other drivers of stress on water resources will increasingly restrict access to safe water and sanitation and make food security even harder to achieve.

The risks of climate change to rainfed agriculture could be particularly acute. Increased rainfall variability and reduced natural storage will likely reduce crop yields by producing higher rates of run-off, escalate soil desiccation at critical times, and shift rainfall patterns and the timing of rainy seasons. Resilience to climate change and other pressures is an emergent property of a functioning ecosystem, and water programs need to consider

climate impacts. This Strategy seeks to strengthen adaptation and resilience to climate change, in accordance with the USAID Climate Change and Development Strategy, through increased efforts to support integrated water and watershed management practices. The USAID resiliency policy will further guide Agency programming and development approach.[10]

The Significant Energy Requirements for Water

Every drop of water that has to be pumped, moved, or treated to meet health and food needs requires energy. Inefficiency and waste in the use of water for industrial production increases energy demands and raises emissions. Effective co-management of water and energy, including the integration of water, food and energy programs, as well as support for and development of technology, can lead to significant returns on investment.

Water as a Potential Source of Conflict

As indicated by the 2012 Intelligence Community Assessment on Global Water Security, water problems will contribute to instability in countries important to U.S. security interests.[11] Water security is an increasingly important component of the U.S. Government's diplomatic and development efforts to promote peace and security within and between key countries and around trans-boundary river basins. Growing demands on limited fresh water, degradation of fresh water quality, and greater variability in rainfall patterns are potential drivers of tension. Competition and disputes over water and watersheds exist in many places around the world. The causes and nature of these disputes vary widely; from small-scale clashes over pasture and water, to urban protests over changes in water pricing schemes, to sub-regional disputes between provinces over water for agriculture or hydropower, to upstream/downstream countries competing for a share of an increasingly limited water supply.

As water becomes scarcer at community water points, women and children who gather the water may find themselves at the forefront of inter- and intra-community based conflict as they compete against each other for access to scarce water resources. The U.S. National Action Plan on Women, Peace and Security, for instance, calls for building resilience through assistance that supports women's roles in the management of natural resources, mitigation of resource related conflict, and adaptation to climate change in fragile and conflict-affected states.

2. Strategy Context

USAID supports integrated water resource management as a vital approach to achieve global development objectives. USAID's engagement in the water sector will continue to reflect the Senator Paul Simon Water for the Poor Act of 2005, annual appropriations directives, the Presidential Policy Directive on Global Development (PPD-6), the Quadrennial Diplomacy and Development Review (QDDR), USAID Forward, and the USAID Policy Framework 2011-2015, as well as global targets such as the Millennium Development Goals (MDG). The Strategy raises the importance of water programming across the Presidential Initiatives of Global Health, Feed the Future, and Global Climate Change.[14]

With limited resources in the face of significant challenges, the Strategy responds to PPD-6's call for selectivity and focus by prioritizing the water needs for health and food security. USAID's resources are most effective by leveraging resources at the country level, and by using emerging science and technology to promote innovation. As such, the Strategy emphasizes sustainable solutions that work through host country systems.

The Strategy applies selectivity by focusing resources in fewer countries, sub-national regions, sectors or programs so that USAID can have the greatest possible development impact. In addition, the Strategy encourages shifts in program emphasis to include increasing attention to sanitation in WASH programs, supporting multiple use systems of water supply for agriculture and, when appropriate, integrating water programming with multiple development objectives.

The Strategy builds on the joint USAID and U.S. Department of State's 2008 Framework for Action, which called for improving access to water supply and sanitation, promoting better hygiene, improving water resources management, and improving water productivity in agriculture.[15] The Strategy furthers the strategic approach to water and development put forward by the Secretary of State in 2010 by emphasizing five' streams of action' to address water issues. These streams include building capacity at the local, national, and regional levels, elevating our diplomatic efforts, mobilizing financial support, harnessing the power of science and technology, and broadening the scope of our partnerships to leverage our efforts against the work of others.[16]

The Strategy also draws upon the extensive experience of public and private sector partners that are engaged in the financing, development, and support of USAID programs and development objectives. Among others, this

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