PREFACE

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Understanding the relevance of this book, produced by the Navigating Peace Initiative, requires relating a bit of personal history. At the first inter-governmental world conference on water at Mar del Plata, Argentina in 1977, the represented governments adopted a Plan of Action recommending a large number of national and international actions on water. In 1978, after returning to the State Department after a four-year tour with the International Labor Organization, I read the plan for the first time. Water had fascinated me since my service in the Middle East and I was familiar with water-related problems facing developing countries, especially those suffered by the rural poor.

One recommendation stood out: a call for the United Nations to designate a decade focused solely on the problems of drinking water and sanitation. I decided to make that recommendation a reality. I drafted a UN resolution designed to launch the Water Decade, and over the next 18 months, pushed it until it was adopted by four different UN bodies and, on November 10, 1980, by the entire General Assembly. By 1990, the end of the Decade, the World Health Organization reported that 1.1 billion people received safe drinking water for the first time in their lives and 769 million people gained access to sanitary facilities.

Unfortunately, these impressive figures did not prevent water from falling off government radar screens at the end of the Decade. Little happened for the next 10 years. But finally, in 2000, the UN established the Millennium Development Goals (MDGs). Goal 7 called for reducing by half the number of people in the world without safe water by 2015. At the third world conference on the environment in Johannesburg in 2002, "sanitation" was added to Goal 7.

But how would we reach these lofty goals? I began promoting a second water decade at a meeting at the Wilson Center in early 2002, and drafted a UN Resolution calling for a second UN Water Decade designed to achieve the water MDG by 2015. Finally, with the government of Tajikistan taking the lead, the resolution was adopted by the UN General Assembly in 2003, and scheduled to launch on World Water Day, March 22, 2005.

The United States has now stepped up to the plate. Thanks to the combined efforts of Congressman Earl Blumenauer and Senator Bill Frist, on December 1, 2005, President George W. Bush signed into law the Senator Paul Simon Water for the Poor Act, which directs the secretary of State to develop a detailed strategy for integrating water and sanitation programs into U.S. foreign policy. The law also calls upon the United States to fulfill its commitment to Goal 7—the first time that a MDG has been adopted as part of U.S. law. This landmark bipartisan legislation puts the United States on the front lines of the fight to bring clean water and sanitation to those without it.

But high-level political attention alone will not be enough to meet this goal. The Navigating Peace Initiative, in the series of papers gathered here, calls not only for global action at the highest levels, but also at the lowest: By reporting and evaluating small-scale opportunities to expand water and sanitation, the authors show that we will not win this fight without unglamorous but effective solutions like ceramic filters and pit latrines. All of these efforts demonstrate that the United States is taking a global—as well as a local—leadership role in addressing one of the most critical issues the world is currently facing.

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FIGURE 2:

people without sustainable access to safe water and sanitation vary from US$9 billion to US$30 billion (Toubkiss, 2006). A comparative analysis prepared by the World Water Council in preparation for the 4th World Water Forum found that the estimates are actually quite similar if analyzed on comparable bases,[4] and that current investment must be roughly doubled to reach the MDG target (Toubkiss, 2006). Reaching the sanitation target will require 2–5 times the expenditure necessary to meet the water targets (Toubkiss, 2006). In addition, 48 percent of the world's projected population growth is expected to occur in areas already experiencing, or expected to experience, water stress, raising the stakes even higher (Revenga, 2000). Within the last few years, donors and NGOs have begun to explore options that will stretch their funding further, and many argue that low-cost, community-based approaches should play a larger role in efforts to meet the MDG.

EXPANDING OPPORTUNITIES FOR SMALL-SCALE WATER AND SANITATION

Given the magnitude of the problem and the disturbing aid trends, we must re-evaluate traditional approaches. "Financing Water and Environmental Infrastructure for All," a background paper prepared for the Commission on Sustainable Development, states that "the most successful programs are those that respond to local demand, with heavy local participation, using low-cost local technology, and without any public subsidy" (OECD Global Forum on Sustainable Development, 2004, page 16).

Water Stories: Expanding Opportunities in Small-Scale Water and Sanitation Projects seeks to move past technical "hardware" evaluations by incorporating "software" issues. To ensure the effectiveness and sustainability of water and sanitation projects, the users must support them. Project designers thus must understand how culture and gender issues affect demand and acceptance by the community. As John Oldfield notes in his chapter, "breakthrough practices in [the water and sanitation sector] are rarely new technological solutions," but are instead those that innovatively and cooperatively apply current technology to meet local needs. Beginning with J. Carl Ganter's photo essay, this publication focuses on this nexus of hardware choices and software understanding, along with a look at the media channels that frame the larger debate.

In "Household Water Treatment and Safe Storage Options in Developing Countries: A Review of Current Implementation Practices," Daniele S. Lantagne, Robert Quick, and Eric D. Mintz summarize five of the most common household water treatment and safe storage (HWTS) options—chlorination, filtration (biosand and ceramic), solar disinfection, combined filtration/chlorination, and combined flocculation/chlorination—and describe implementation strategies for each. They identify implementing organizations and the successes, challenges, and obstacles projects have encountered. They also consider sources of funding and the potential for large-scale distribution and sustainability of each option, and propose future research and implementation goals. They find that "HWTS systems are proven, low-cost interventions that have the potential to

4. Reasons include different assessment scopes, understandings of infrastructure and level of service, and calculation methods (Toubkis, 2006).

provide safe water to those who will not have access to safe water sources in the near term, and thus significantly reduce morbidity due to water-borne diseases and improve the quality of life."

John Oldfield provides a ground-level review of small-scale and rural projects in his chapter, "Community-Based Approaches to Water and Sanitation: A Survey of Best, Worst, and Emerging

Affairs and Forestry of South Africa, observes, "it is an unfortunate aspect of the nature of water that it flows toward power," and therefore the power to make decisions about water and sanitation rarely trickles down to those most in need. This publication hopes to redirect this flow by demonstrating that decisions made by the least powerful can be the most effective. The spectrum of water and sanitation projects is broad enough to allow innovative techniques and collaboration to flourish. By expanding the opportunities for small-scale projects to reach communities in need, we could potentially save some of the 3 million people lost each year to waterborne disease, and help restore water to its rightful place as the giver—not taker—of life.

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