



Supportive Environments for Healthy Communities

Issue 28 October 14, 2011 | Focus on WASH and Climate Change

Climate change is expected to affect the capacity and operations of existing water and sanitation infrastructure and services. This issue of the *WASHplus Weekly* contains 2010 and 2011 reports and journal articles from the Overseas Development Institute (ODI), USAID, and others on health and other impacts of climate change on the water, sanitation, and hygiene (WASH) sector. An ODI report states, "It is important to note the marked absence of literature on climate change and sanitation. A key conclusion is that more research is required to better understand the impacts of climate change on existing sanitation systems." Please contact WASHplus if you have other information resources on climate change or other topics that could be featured in future issues.

CONFERENCES

- **United Nations Climate Change Conference, Durban, South Africa, November 28 – December 9, 2011.** ([Website](#))

Since the UN Convention on Climate Change (UNFCCC) entered into force in 1995, the Conference of the Parties (COP) to the UNFCCC has been meeting annually to assess progress in dealing with climate change. The COP adopts decisions and resolutions that are published in reports of the COP. Successive decisions taken by the COP make up a detailed set of rules for practical and effective implementation of the convention.

FEATURED PUBLICATION

- **Climate Change: Lessons from the Developing World**, *USAID Global Water Newsletter*, August 2011. ([Full-text](#))

This edition of the newsletter explores the unique and multilayered challenges that climate change brings to the water sector and reports on USAID's efforts to affect collaboration and cooperation among governments, NGOs, communities, scientists, and individuals to work toward long-term solutions.

REPORTS

- **Accounting for Health Impacts of Climate Change**, 2011. Asian Development Bank. ([Full-text](#))

Asia and the Pacific host the greatest number of people vulnerable to the projected adverse impacts of climate change. Climate change is expected to modify and often to magnify the current burden of diseases in the region. This study aims to improve the understanding of the human health dimensions of climate change and how projects in sectors other than health, such as agriculture, water financing, and disaster risk reduction need to account explicitly for the health impacts of their interventions.

- **Adaptation of WASH Services Delivery to Climate Change and Other Sources of Risk and Uncertainty**, 2010. C Batchelor, IRC. ([Full-text](#))

This briefing note is targeted at WASH professionals and practitioners who recognize the need for climate change adaptation but are not sure what to do or how to plan for this and may already be struggling with major challenges of improving or maintaining current WASH services. More specifically this briefing note recommends that WASH practitioners use a range of practical and well-proven methods and tools for dealing with uncertainty, which is not necessarily caused by climate change, to identify and prioritize viable adaptation strategies.

- **Climate Change, Water Resources, and WASH: A Scoping Study**, 2011. R Calow, Overseas Development Institute. ([Full-text](#))

This report aims to fill in some of the gaps regarding climate change and water resources. No new research is presented; rather the aim is to pull together what is known about the links between climate change and water. Commissioned by WaterAid, the report summarizes current understanding of climate change projections and scenarios, and the impacts climate change may have on water resources and WASH in sub-Saharan Africa and South Asia.

- **How to Climate Proof Water & Sanitation Services for the Urban Poor**, 2010. Water and Sanitation for the Urban Poor. ([Full-text](#))

This report is based upon a ten-month project assessing the vulnerability of Water and Sanitation for the Urban Poor (WSUP) projects to climate change. The findings are based on a literature review and field work in Kenya, Madagascar, and Zambia. The majority of reports and forums on climate change and water have a regional and national focus while a few address the project level or specific water and sanitation services. This report examines the aspects of an assessment of resilience and adaptation for water, sanitation, and hygiene services delivery that are relevant to water and climate change.

- **The “Mainstreaming” Approach to Climate Change Adaptation: Insights from Ethiopia's Water Sector**, 2011. N Oates, Overseas Development Institute. ([Full-text](#))

Using Ethiopia and its water sector as a case study, this background note highlights challenges and opportunities in mainstreaming climate change adaptation in development policy and practice. “Mainstreaming” is one development-orientated

approach to climate change adaptation. It has become increasingly popular in international donor circles over the past five to ten years and is being adopted by developing country governments for long-term strategic planning.

- **The Resilience of Water Supply and Sanitation in the Face of Climate Change**, 2010. World Health Organization, (WHO). ([Full-text](#))

Climate change is expected to affect the capacity and operations of existing water and sanitation infrastructure and services. These services have to prepare for the widely anticipated consequences of floods and droughts, or risk compromising access to safe drinking water and adequate sanitation for substantial numbers of people in developing and developed countries, with cascading effects on human health and development. These impacts will also have to be taken into account in the design and construction of new systems. This WHO Vision 2030 study aims to increase understanding of how anticipated climate change may affect drinking water and sanitation systems and what can be done to optimize resilience of infrastructure and services.

- **Technologies for Climate Change Adaptation: The Water Sector**, 2011. M Elliott, The Water Institute. ([Full-text](#))

Water resources and supplies will become increasingly pressing issues in the face of climate change. This book is a guide to the most relevant adaptation climate change technologies and practices for the water sector in developing countries. In addition to descriptions and explanations, the guidebook outlines practical steps for implementing these technologies, illustrated with case studies. It not only lays out institutional and capacity-building requirements, but also explores costs and other potential barriers to getting projects off the ground.

JOURNAL ARTICLES

- **Drinking Water Salinity and Maternal Health in Coastal Bangladesh: Implications of Climate Change**, *Environmental Health Perspectives*, September 2011. A Khan, Medical Research Council. ([Full-text](#))

Drinking water from natural sources in coastal Bangladesh has become contaminated by varying degrees of salinity due to saltwater intrusion from rising sea levels, cyclone and storm surges, and upstream withdrawal of freshwater. The objective of this study was to estimate salt intake from drinking water sources and examine environmental factors that may explain a seasonal excess of hypertension in pregnancy.

- **Urban Growth, Climate Change, and Freshwater Availability**, *PNAS* April 2011. R McDonald, Nature Conservancy. ([Full-text](#))

Nearly 3 billion additional urban dwellers are forecasted by 2050, an unprecedented wave of urban growth. While cities struggle to provide water to these new residents, they will also face equally unprecedented hydrologic changes due to global climate change. This article discusses a detailed hydrologic model, demographic projections, and climate change scenarios to estimate per-capita water availability for major cities

in the developing world, where urban growth is the fastest.

- **Securing 2020 Vision for 2030: Climate Change and Ensuring Resilience in Water and Sanitation Services**, *Journal of Water and Climate Change* 1(1) 2010. G Howard. ([Full-text](#))

Drinking water supply and sanitation services are essential for human health, but their technologies and management systems are potentially vulnerable to climate change. An assessment was made of the resilience of water supply and sanitation systems against forecast climate changes by 2020 and 2030. The results showed very few technologies are resilient to climate change, and the sustainability of the current progress towards the Millennium Development Goals may be significantly undermined. Management approaches are more important than technology in building resilience for water supply, but the reverse is true for sanitation.

Each *WASHplus Weekly* highlights topics such as Urban WASH, Indoor Air Pollution, Innovation, Household Water Treatment and Storage, Hand Washing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus knowledge resources specialist, at dacampbell@fhi360.org.



About WASHplus - WASHplus, a five-year project funded through USAID's Bureau for Global Health, creates supportive environments for healthy households and communities by delivering high-impact interventions in water, sanitation, hygiene (WASH) and indoor air quality (IAQ). WASHplus uses proven, at-scale interventions to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.

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