



Issue 161 | Sept 12, 2014 | Focus on Rural Water Supply

This issue features new reports, blogs posts, and events on rural water supply. Included are a grant opportunity from USAID/Ghana; a webinar series on rainwater harvesting, water point mapping, and groundwater research; and studies on community management, hand pumps, and other rural water supply issues.

GRANT OPPORTUNITIES

USAID/Ghana WASH for Health – [\(Link\)](#)

The purpose of the USAID/WASH for Health Project (W4H) is to accelerate sustainable improvement in water and sanitation access and improve hygiene behaviors in the target districts that complement USAID/Ghana’s other health investments to execute activities through six distinct components: Component 1: Increase use of improved household sanitation; Component 2: Improve community water supply services; Component 3: Improve sector governance and policies; Component 4: Expand key hygiene behaviors; Component 5: Leverage public/private partnerships to magnify the impact of USG investments; and Component 6: Improve water supply and sanitation infrastructure for health facilities.

WEBINARS

Sept.-Dec. 2014 – Webinars by RAIN, UPGro, WaterAid, IRC, and RWSN. [\(Link\)](#)

A consortium of organizations, including the Rural Water Supply Network, will host a series of 11 webinars on rainwater harvesting, groundwater research, and water point mapping. The 2014 rainwater webinars are central in building a community of practice where ideas and experiences can be shared.

COURSES

UNC Water Institute: Monitoring, Evaluation and Learning (MEL) for WaSH: An Online Distance Learning Program. [\(Link\)](#)

This self-paced online training course is delivered through 10 modules. The course is designed to be flexible, so participants can register for individual modules or complete the entire training. Modules are released monthly accompanied by online discussions with colleagues and subject matter experts.

UNC Water Institute: Water Safety Plans: An Online Distance Learning

Program Risk-Management for Drinking Water Supplies, Fall Course September 29, 2014 –December 7, 2014. ([Link](#))

The Water Institute has developed a distance learning course on Water Safety Plans (WSPs) aimed at those in the water industry with management, engineering, or operational responsibilities. Water Safety Plans represent a new approach to managing risks of water system failure that was developed by the World Health Organization.

REPORTS/BLOG POSTS

Self-Supply at Scale: Lessons from Rural Bangladesh. *RWSN Blog*, Aug 2014. J Annis, WASHplus. ([Link](#))

An estimated 70 percent of Bangladesh's 150 million rural inhabitants use groundwater for drinking. Rural Bangladesh has an estimated 10 million shallow and deep tubewells. WaterAid estimates more than 80 percent of these have been installed by households without government subsidy.

Musings from Mopti, Mali. *RWSN Blog*, Mar 2014. J Annis, WASHplus. ([Link](#))

On a trip to assess water points in rural Mali the author sees a pattern emerge after the third or fourth visit; all of the hand pumps were abandoned, while the hand-dug wells continued to be used. An older gentleman who worked with the Ministry of Health for many years mentioned that rural communities are not interested in repairing hand pumps if the alternative of a "free" hand-dug well exists. Which raised the question, why did anyone ever install hand pumps in these communities?

Priceless! Uncovering the Real Costs of Water and Sanitation, 2014. P McIntyre, IRC. ([Link](#))

The new e-book *Priceless!* describes how the IRC-led project WASHCost worked in four countries with local partners and governments to uncover the real costs of services that last. It presents practical challenges of working in a sector that has a collective loss of memory about the money it spends, and reveals the tensions of being accountable to country governments and to a grant donor.

Summary and Lessons Learned - Seminar on Monitoring Decentralised Water Sanitation in Africa, 2014. IRC. ([Link](#))

In April 2014, more than 200 people from around 30 countries met in Ouagadougou, Burkina Faso, to share experiences and ideas on the monitoring and evaluation of local water and sanitation services in rural areas and small towns in West Africa. This report presents the main findings and lessons learned from the event.

4 Lessons about Handpump Sustainability in Ghana. *RWSN Blog*, June 2014. S Marks. ([Link](#))

This blog post discusses a recent study of 200 rural communities with hand pumps in Ghana that investigates the key activities during planning and construction that are associated with better project outcomes. The study highlights four main findings that are applicable to rural water supply planning.

Handpumps: Where Now? A Synthesis of Online Discussions (2012-2014). S Furey. ([Link](#))

In 2012, RWSN established Dgroups.org as its online electronic platform for membership and discussion. The groundwater and hand pump groups have been among the most active

communities.

Simulating Large-Scale Change Interventions for WASH Services Using Agent-Based Modelling, 2014. IRC. ([Link](#))

IRC, together with TU Delft, has developed two agent-based models for exploration of policy and implementation issues related to the delivery of sustainable rural water services. Both models represent rural water service delivery areas, one in the context of Uganda and the other a generic rural setting.

Searching for Success in Community Management for Rural Water Supplies Over 30 Years, 2014. B Mesa. ([Link](#))

This study contributes to the Community Water Plus project funded by Australian Aid, which aims to determine how “plus factors” ensure success. The aim of this study is to critically review and analyze the development pattern of successful community-managed rural water supplies over the past three decades. Two research questions were addressed: What Plus Factors are associated with successful community-managed rural water supplies? Is the socio-economic setting indicative of the likely success of a community-managed rural water supply?

Can Mobile Data Improve Rural Water Institutions in Africa? *Global Water Forum*, Apr 2014. P Thomson. ([Link](#))

In 2013 Oxford University conducted a 12-month “smart hand pump” trial in rural Kenya which tested a new pump maintenance service model. The trial in Kyuso District in eastern Kenya, covering 66 hand pumps (corresponding to around 15,000 water users, depending on season) showed that near real-time, mobile-enabled data significantly improve operational performance. They also have the potential to promote financial sustainability, and are a mechanism that can enable institutional redesign of rural water services.

Is Country-system-based Aid Really Better than Project-based Aid? Evidence from Rural Water Supply Management in Uganda, 2014. M Furukawa, JICA. ([Link](#))

The adoption by donors of the recipient country’s system, rather than a parallel donor system, in implementing aid projects has been highly recommended within the aid community in recent years. However, the assumption behind this policy that using a country’s own system would enhance the recipient’s bureaucratic capability and result in improved public service delivery has yet to be verified. This paper shows that this expectation does not necessarily fit with the reality, taking the Ugandan rural water supply sector as an example.

JOURNAL ARTICLES

Diarrhoea Prevalence in Children Under Five Years of Age in Rural Burundi: An Assessment of Social and Behavioural Factors at the Household Level. *Global Health Action*, Aug 2014. K Diouf. ([Link](#))

Diarrhea prevalence can be reduced through hygiene education and point-of-use household water treatment such as boiling. To maximize the impact on children’s health in the given rural setting, future interventions must ensure systematic and regular hygiene education at the household and community level.

The Limitations of Roofwater Harvesting in Developing Countries. *Waterlines*, Apr 2014. T Thomas. ([Abstract](#))

Domestic roofwater harvesting (DRWH) is a promising alternative self-supply technology and is supported by many agencies and associations. However, take-up of DRWH has been very

limited due to the six constraints discussed in this article: inadequacy of annual roof run-off volume; excessive cost; difficulty of water management; uncertain water quality; poor installation/maintenance/longevity; and ugliness. While these constraints rule against DRWH becoming a universal first choice for less economically developed countries' domestic water supply, there are many specific scenarios where it outperforms, or is cheaper than, the alternatives. The paper identifies some of these scenarios and also how the constraints can be minimized by prudent application and ongoing R&D.

Preliminary Studies on Membrane Filtration for the Production of Potable Water: A Case of Tshaanda Rural Village in South Africa. *PLoS One*, Aug 2014. G Molelekwa. ([Link](#))

Ultrafiltration (UF) systems have been used globally for treating water from resources including rivers, reservoirs, and lakes for the production of potable water in the past decade. UF membranes with a pore size of between 0.1 and 0.01 micrometers provide an effective barrier for bacteria, viruses, suspended particles, and colloids.

Water, Sanitation and Hygiene Conditions in Kenyan Rural Schools: Are Schools Meeting the Needs of Menstruating Girls? *Water*, 6(5) 2014. K Alexander. ([Link](#))

This study was conducted prior to a menstrual feasibility study in rural Kenya, to examine current WASH in primary schools and the resources available for menstruating schoolgirls. Schools receiving WASH interventions were more likely to have: cleaner latrines, hand washing facilities, hand washing water, and water in girls' latrines. Schools continue to lack essential WASH facilities for menstruating girls.

WEBSITES

Rural Water Supply Network – ([Link](#))

The Rural Water Supply Network is the global network of professionals and practitioners working to raise standards of knowledge and evidence, technical and professional competence, practice and policy in rural water supply and so fulfil the vision of sustainable rural water services for all.

WASHtech – ([Link](#))

The WASHTech project (2011-2013) is involving local partners in Burkina Faso, Ghana, and Uganda to introduce a robust Technology Applicability Framework that will assess the potential of new innovative technologies which may be used at decentralized level.

Technology Applicability Framework (TAF) – ([Link](#))

The Technology Applicability Framework provides a neutral approach for investigation of WASH technological innovation.

South African Water Research Commission (WRC) – ([Link](#))

The WRC was established under the Water Research Act, following a period of serious water shortage. It was deemed to be of national importance to generate new knowledge and to promote the country's water research purposefully, given that water will be one of South Africa's most limiting factors in the 21st century.

WASHplus Weeklies highlight 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, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and indoor air pollution (IAP). WASHplus uses at-scale, targeted as well as integrated approaches 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.