



Supportive Environments for Healthy Communities

Issue 31 November 4, 2011 | Focus on Water Point Mapping

This *WASHplus Weekly* contains information about Water Point Mapping (WPM). WPM is a tool for monitoring the distribution and status of water supplies. WPM helps to visualize the spatial distribution of water supply coverage and can be used to highlight equity issues. The resources below include a review of WPM technologies by the Water and Sanitation for the Urban Poor project and a WaterAid review in four countries that discusses the technological and operational challenges of institutionalizing WPM. Also included are two videos from the recent WATERHACKATHON competition, a USAID/Liberia study and other resources. Please contact WASHplus if you have additional resources to add to this or other topics, or to suggest a topic for future issues of the *Weekly*.

REPORTS/VIDEO PRESENTATIONS

- **GIS & Mapping Tools for Water and Sanitation Infrastructure**, 2011. Water and Sanitation for the Urban Poor (WSUP). ([Full-text](#))
Continuing developments in geographic information system (GIS) software are opening up a number of possibilities for capturing and processing geographical data, and then presenting it via the Internet. The ability to manage information on water and sanitation services, and then overlay it onto Google Earth images, has wide-ranging benefits for project planning and design, and for monitoring, advocacy and accountability. This practice note introduces three tools of this type – Google Fusion Tables as used by WSUP, WaterAid’s WaterPoint Mapper and Water For People’s FLOW – and briefly discusses the advantages and disadvantages of each.
- **Liberia: Rural Water Point Mapping, Preliminary Analysis and Verification Brief**, 2011. WSP, UNICEF, USAID. ([Full-text](#))
The purpose of this analysis and verification brief is to disseminate preliminary findings of the rural water point mapping project and to verify the collected information and to keep the new database up-to-date. This first phase of the mapping exercise took stock of all improved water points in rural Liberia, as well as collecting data on sanitation in nearby schools.

- **Mobile Phones and Water Point Mapping**, 2011. World Bank. ([Full-text](#))
Several software applications incorporate recent advances in information and communication technology to improve information-gathering about water points. Among these applications, FLOW (Field Level Operations Watch) is notable because it was developed specifically for water point mapping. With FLOW, enumerators use Android phones to enter data about each water point, and take its picture and global positioning system coordinates. The data can be analyzed and visualized using additional capabilities of FLOW. Another software option is EpiSurveyor. It is easy to use and the free online version is adequate for most data collection needs. The data could then be imported into FLOW, which has better analysis and visualization capabilities, or into another specialized application such as SPSS or Tableau.
- **Waterpoint Mapping in Liberia Using FLOW Technology: Project Summary**, 2011. Water and Sanitation Program (WSP). ([Full-text](#))
The project has created a digital map and inventory of all safe water points in Liberia using a new mapping and survey technology called FLOW. The resulting map and inventory not only shows the location of every safe water point, but also provides detailed information on each, such as functionality status, type of water point, age, management, and so on. The map is now becoming the basis for a detailed atlas and investment plan of the Liberian government to increase safe water coverage. (See related video below.)
- **WATERHACKATHON - National Water Point Mapping in Liberia**, 2011. Water and Sanitation Program. ([Full-text/Video](#))
The Liberian government is now moving to consolidate and expand interventions in the rural water sector, but the prerequisite for doing so in an effective, targeted manner is a detailed map and inventory of the existing safe water points: their location, functionality, type, construction date, water quality and so on. The World Bank's Water and Sanitation Program went to Liberia to support the Ministry of Public Works in creating such a map. The activity adapted the new, innovative open-source FLOW software for this purpose.
- **WATERHACKATHON - Water Point Mapper**, 2011. WaterAid. ([Full-text/Video](#))
Water Point Mapper was developed by WaterAid based on experiences in Southern and East Africa. It is a free and effective means of mapping water data, covering a wide range of the type of information that can be mapped and displayed, including: functionality maps, acceptable access distance maps, water source type maps and water quality maps.
- **Water Point Mapping in East Africa: Based on a Strategic Review of Ethiopia, Tanzania, Kenya and Uganda**, 2010. K Welle, WaterAid. ([Full-text](#))
This review found that all four country programs are facing similar difficulties in institutionalizing water point mapping within routine local and national government

planning and monitoring processes, and in establishing sustainable mechanisms for regular updating of WPM data. The major ongoing challenges to WPM can be broadly categorized as follows: i) technological, mainly related to the use of GIS, ii) operational, namely procedures for regularly updating and reporting WPM information; and iii) governance-related, namely wider challenges associated with sector performance monitoring.

- **Water Point Mapping: The Experience of SNV Tanzania**, 2010. SNV. ([Full-text](#))
Water Point Mapping is a useful survey tool to collect accurate data on the existence and functionality of water points. The information obtained from WPM can be analyzed and utilized at different levels for different purposes. WPM has a huge potential as an effective planning, monitoring and management tool that can facilitate evidence-based planning and decision-making processes. However, this potential can only be realized if mechanisms are in place to collect and regularly update the data and if there is willingness from the government to use WPM as a tool for more transparent and equitable resource allocation.

WEBSITES/FORUMS

- **h2.0 – Monitoring Services to Inform and Empower** - ([Website](#))
The h2.0 Initiative is testing innovations in water and sanitation monitoring and seeking to put in place powerful and effective monitoring systems on a global scale. The vision guiding h2.0 is that access to reliable, specific and well-presented visual information on water and sanitation services can improve sector advocacy and accountability between service providers and consumers.
- **WaterAid - Water Point Mapper** - ([Website](#))
The Water Point Mapper is a free tool for producing maps showing the status of water supply services. It is aimed at water, sanitation, hygiene practitioners as well as local governments working at the district and sub-district levels in sub-Saharan Africa. The Mapper has been designed for use in situations where there is no Internet connectivity.
- **Water For People – Field Level Operations Watch (FLOW)** - ([Website](#))
Combining Android cell phone technology and Google Earth software, FLOW lets field workers, volunteers, our partners and others record data from tens of thousands of water points around the world. That information is then displayed on our online global map to signal whether a project is up and running, broken, or on the verge of disrepair and needs quick action.
- **Water Point Mapping in a Mali Village: Who Drinks from Where?** 2011. S Jones. - ([Website](#))
This research contains information and data on understanding where people choose to drink from when they live in a village with multiple water sources. The researcher is

using simple household surveys and the Water Point Mapper tool developed by WaterAid.

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 pollution (IAP). 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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