

World Water Week Stockholm, Sweden, September 2010

Healthier Water, Healthier People: An Approach to Improving Water Quality
Sunday, 5 September, 2010
14h00 – 18h30

Summary Report for Members of the *International Network to Promote Household Water Treatment and Safe Storage*

Content Prepared by: Megan Wilson, *Population Services International*



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International Network to Promote Household Water Treatment and Safe Storage

1. Background

The 2010 World Water Week was held in Stockholm between 5-11 September and brought together 2,500 leading water experts from around the globe to discuss critical global water challenges. This year's theme was centered on water quality and nearly 100 seminars, plenaries, workshops and other events took place during the week to discuss challenges, ideas and solutions.

The International Network to Promote Household Water Treatment and Safe Storage ("HWTS Network"), along with a number of its members and partners, collaborated to deliver a seminar on household water treatment and safe storage ("HWTS") at the start of the World Water Week in Stockholm.

The objective of the seminar was to discuss issues around increasing access to water supply, water quality and household treatment options. In particular, presenters discussed experiences from three countries (Rwanda, Kenya and Indonesia) and round-table sessions were held. Broad messages and conclusions were drawn out from the session and are summarized in Section 3 of this document.

The seminar was led and organized by Population Services International and other contributing organizations included the United States Agency for International Development, UNICEF, PATH, Abt Associates, US Centers for Disease Control, WHO and the HWTS Network. For the programme overview, please refer to Annex I.

Nearly 100 individuals from 24 countries attended the session. For a full list of participants, please refer to Annex V.

2. Event description

Providing safe, reliable, piped-in water to every household is an important goal that yields optimal health gains, while also contributing to Millennium Development Goal targets. However, these investments in water supply infrastructure are expensive and implemented in a longer timeframe. Meanwhile, simple and inexpensive techniques exist for treating drinking water in the home and storing it in safe containers. These household water treatment and safe storage interventions (HWTS) can be implemented rapidly, with typical reductions of diarrhoea from 30-50%.¹

Data from the WHO's report on costs vs. impact of various water and sanitation program strategies shows that combining HWTS with universal coverage of basic, Millennium Development Goal-standard water and sanitation infrastructure will result in a large public health benefit to those most at risk, with only small incremental increase in cost.²

The keynote speaker will frame the issues around increasing access to water supply, water quality, and household water treatment options. There will be three presentations on developing country HWTS programs, sharing perspectives and experiences with integration and the potential to complement water supply with HWTS. This will be followed by roundtable discussions on key topics related to water supply and HWTS. The event will conclude with a reception.

¹ Fewtrell, L., Kaufmann, R.B., Kay, D., Enanoria, W., Haller, L., & Colford, J.M. Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis. *Lancet Infectious Diseases*. 2005;5:42-52.

² Hutton, G. & Haller, L. Evaluation of the Costs and Benefits of Water and Sanitation Improvements at the Global Level. Available at http://www.who.int/water_sanitation_health/wsh0404.pdf.

3. Seminar conclusions

Household water treatment is an important complement to the suite of broader water, sanitation, and hygiene interventions. Providing safe, reliable, piped-in water to every household is an important goal that yields optimal health gains. However the majority of people in the developing world still lack access to piped water. These investments in water supply infrastructure are expensive and implemented in a longer timeframe. Meanwhile, simple, safe, and inexpensive techniques have been proven to effectively treat drinking water in the home and store it in safe containers. These household water treatment and safe storage interventions (HWTS) can be implemented rapidly, with typical reductions of diarrhea from 30-50%, and are an important complement to the suite of broader water, sanitation and hygiene interventions.

National policy plays a critical role in the introduction of HWTS. It was recommended that WHO expand technical (what works and what doesn't, when, where) and policy guidance on how governments can best support the implementation of HWTS within their broader water strategy. Standards are needed to inform intervention choice and ensure product quality. Country level strategies would seek to address challenges within the national context. Given the proliferation of agencies and bureaucracies dealing with water and health, countries should consider using the SWAP process to reduce debate and harmonize efforts.

Each country context is different and needs to be taken into consideration when deciding on the set of interventions (e.g. boiling, SODIS, chlorine, and filters) and how to deliver these interventions. However experience has shown that leveraging different delivery channels can increase access, availability, awareness of and use of HWTS. Potential delivery channels include: public sector channels (health clinics, schools, etc.), commercial sector channels (pharmaceutical and retail sales), community based distribution (community health workers and NGOs); and emergency relief. A major challenge is to move from the "project-level" successes to national scale up.

Education is a critical component to any water, sanitation and hygiene program. HWTS is no different. Encouraging uptake of key behaviors can be a major challenge. Therefore it is important to identify the "key determinants" of behavior change and use this culturally specific information as the foundation for development of key messages. Successful behavior change campaigns often leverage multiple communication channels (radio, television, community events, community health workers, etc) and approaches (community mobilization and peer to peer communication) to educate people (mothers, local leaders, spiritual leaders etc) on what HWTS is, why they use it, and how to use it. In order to increase campaign sustainability, the local capacity to execute message development research needs to be cultivated at a national level.

Healthier Water, Healthier People: An Approach to Improving Water Quality

Sunday, September 5, 2010
Stockholm Exhibition and Congress Center
Room T6

- 14:00 Welcome**, Megan Wilson, Program Manager, PSI
- 14:05 Healthier Water, Healthier People: Water Supply, Water Quality, and the Role of Household Water Treatment**, Clarissa Brocklehurst, Chief of Water, Sanitation and Hygiene, UNICEF
- 14:20 Rwanda**, Megan Wilson, Program Manager, PSI
- 14:35 Kenya**, John Kariuki, Deputy Chief Public Health Officer, Ministry of Public Health and Sanitation, Kenya.
- 14:50 Indonesia**, Rob Ainslie, Chief of Party, Commit Project, John Hopkins University Center for Communication programs
- 15:05 Questions and Comments**, Peter Harvey, UNICEF
- 15:30** Coffee Break
- 15:45 Roundtable Breakout Discussions**
- 1. Development of an Enabling Policy Framework for Water Quality: The Role of Water Safety Plans**, moderated by Bruce Gordon, Technical Officer, Water, Sanitation, Hygiene and Health, WHO
 - 2. Diverse Household Water Treatment and Safe Storage (HWTS) Products: How to Choose Between Different Options**, moderated by Pat Lennon, Technology Portfolio Leader, PATH
 - 3. Importance of Behavior Change Communication: Challenges and Lessons Learned**, moderated by Jay Graham, Environmental Health Advisor, USAID Bureau for Global Health
 - 4. How do different delivery channels contribute to scaling up HWTS?** moderated by Megan Wilson, Program Manager, PSI
- 16:45 Discussion and Report Out**, moderated by Susan Mitchell, Program Director, Abt Associates
- 17:10 Summary and Future Directions: International Network to Promote Household Water Treatment**, Bruce Gordon, Technical Officer, Water, Sanitation, Hygiene and Health, WHO
- 17:30** Reception



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Annex II – Round-table discussions

Round-table 1: Development of an Enabling Policy Framework for Water Quality: the Role of Water Safety Plans.

Moderated by: Bruce Gordon, Technical Officer, Water, Sanitation, Hygiene and Health, WHO

Overview and Round of Introductions (15 minutes)

Lead off summary (5 minutes):

- Drinking-water quality is long-standing pillar for public health - can be achieved at municipal, community and household-level (HWTS)
- Government support for HWTS critical to ensure effective implementation, sustainability, monitoring, quality control
- Many governments have show interest in HWTS, and taken steps to develop HWTS action plans, including the creation of government-led multi-stakeholder working groups (reference presentations),
- There is a lack of existing policy models or case studies about taking pilot HWTS interventions to scale

Discussion Critical questions (30 minutes):

- How does a government effectively integrate HWTS into national health or water supply strategies (e.g. as an interim measure to complement infrastructure expansion or to safeguard water quality in situations of high-risk water delivery)
- How does a country develop national specifications on HWTS technologies or guidance on how to select technologies.
- How to develop scale up of effective water quality risk management plans ("Water Safety Plans") - and what is the role of HWTS?

Identification of consensus key "take home" messages for report back (5 minutes)

Round-table 2: Diverse HWTS Products: Different Options for Different Contexts

Moderated by: Pat Lennon, Technology Portfolio Leader, PATH, support from Peter Harvey, UNICEF and Lorelei Goodyear, PATH

Intro to the session (2 minutes): Quick overview of the session to allow attendees to self-select.

People introductions (15 minutes): Call out facilitators or special guests first then around the room.

Overview (5 minutes):

- No single solution is appropriate for all HWTS situations. No silver bullet
- We are limiting the discussion to non-plumbed, non-electric options.
- Safe storage is assumed for FMCG products.
- Handouts: Wolfe chart overview of technology classes, PATH product summary sheets.

Discussion questions (30 minutes):

- Who are the choosers of the interventions? This is intended to adapt to the background of the attendees.
- How do they choose? What info do they need?
- Capture the selection criteria and allow each attendee to vote to see which criteria rank highest.
- Are multiple options better than just one?

Report out to larger group (5 minutes):

- Summarize the questions, key insights and vote results.

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Round-table 3: Importance of Behavior Change Communication: Challenges and Lessons Learned

Moderated by: Jay Graham, Environmental Health Advisor, USAID Bureau for Global Health

Overview (5 minutes):

- Recognize challenges to both uptake and correct and consistent use of HWTS methods
- Program implementers often design behavior change interventions based on flawed assumptions about what motivates changes in behavior. For example, although knowledge is necessary, it is usually not sufficient to motivate behavior change
- Importance of drilling down in each country context to identify the “key determinants” of behavior change BEFORE identifying behavior change methods and channels (provide example from Madagascar)
For example, PSI has been engaged in promoting HWTS in Madagascar for several years. They have done baseline surveys every two years since 2006 to determine number of people that are familiar with Sur Eau and how many use it. They noticed in 2008 that nothing had changed. They had been using cartoon characters to describe rationale for product use and how to use it correctly. Then they drilled into the data to investigate the real issues that motivating or posing barriers to product use. Key determinants discovered were:
 - *Women didn't feel empowered to treat their water- they thought it was too hard*
 - *Women didn't think that household water treatment was something that their friends did- not a social norm*
 - *Women didn't think there was a risk from not treating their water (low risk perception)*
- Design of BC strategy is based on key determinants
 - *Created a simple poster and communication materials highlighting how easy it was to treat household water- just like 1-2-3*
 - *Replaced cartoon characters with a woman surrounded by her friends watching her treat her water*
 - *Created women's groups- like tupperware parties – where HWTS was demonstrated and sold*

Discussion questions (30 minutes):

- What do you think are the biggest barriers to correct and consistent use of HWTS?
- What behavior change strategies have you used or heard of that seem to be effective- and that are based on key determinants of behavior in a particular context?
- What lessons have you learned in your efforts to promote the use of HWTS? What worked, what didn't and why?
- Optional: Once people have begun to use HWTS, how do you promote correct and consistent use over time?

Round-table 4: How do different delivery channels contribute to scaling up HWTS?

Moderated by Megan Wilson, Program Manager, PSI

Intro to the session (2 minutes): Quick overview of the session to allow attendees to self-select.

People introductions (15 minutes): Introduce facilitators and then go around the table and introduce each participant.

Overview (5 minutes):

- Each Context is different and needs to be taken into consideration when developing a program
- However experience has shown that leveraging different delivery channels can increase access, availability, awareness of and use of HWTS
- Potential Delivery channels include:
 - Public Sector channels (Health Clinics, Schools, etc..)
 - Private Sector Channels (Commercial and pharmaceutical retail)

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- Community based distribution (CHWs and NGOs)
- Emergency Relief
- Each of these have advantages and disadvantages but if combined they can be most effective.

Discussion questions (30 minutes):

- Who is our target audience?
- What distribution channels are/could be used? What are the challenges? (supervision/ support, sustainability, reaching rural audiences, supply chain logistics)
- Are multiple channels better than just one? Why or what not?
- Offer the example of Rwanda and/or Benin. Discuss the benefits and disadvantages of using public and private sector as well as community-based distribution
- How do you overcome them?
- Who are your partners?

Report out to larger group: (5 minutes)

- What are the three key take-away points that we want to offer to the group.

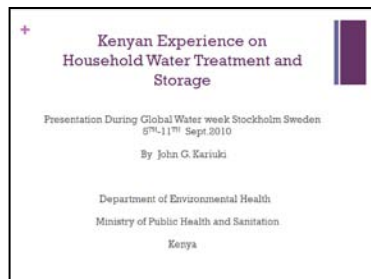
Annex III – Presentation materials



Presenter: Megan Wilson, Population Services International

Title: Household Water Treatment working to save lives in Rwanda

Summary: Rwandan WASH sector, role of household water treatment, PSI's intervention strategy, and lessons learned.



Presenter: John Kariuki, Deputy Chief Public Health Officer, Ministry of Public Health and Sanitation, Kenya

Title: Kenyan Experience on Household Water Treatment and Storage

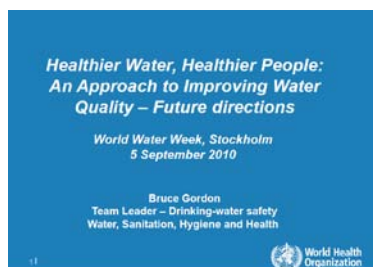
Summary: Kenyan WASH sector, role of household water treatment, regulatory context, national action plan, key challenges and lessons learned.



Presenter: Rob Ainslie, Chief of Party, COMMIT Project, Johns Hopkins University Center for Communication Programs

Title: Practice, Policy and Integration – The Indonesian Experience with Household Water Treatment and Safe Storage

Summary: Indonesian WASH sector, role of household water treatment, regulatory context, JHUCCP partnership strategy for national HWTS roll-out and replication.



Presenter: Bruce Gordon, Technical Officer - Water, Sanitation, Hygiene and Health, WHO

Title: Summary and Future Directions: International Network to Promote Household Water Treatment

Summary: Key targets for scaling up HWTS, Network strategy components, special considerations and governance.

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Annex IV – Speaker biographies

Ms. CLARISSA BROCKLEHURST assumed her duties as UNICEF's Chief, Water and Environmental Sanitation in the Programme Division on 1 April 2007. Since April 2007, Ms. Clarissa Brocklehurst has been providing professional leadership as the Chief of UNICEF's Water, Sanitation and Hygiene Section. In this role she serves as the organisation's focal point for knowledge and exchange on issues relating to water, sanitation and hygiene. She develops and maintains advocacy links with all major development agencies, academic institutions and NGOs active in this field. She advises and provides technical support at global, regional and country level for the development and implementation of strategies. Prior to this appointment, Ms. Brocklehurst was a consultant in water and sanitation based in Ottawa, Canada. She has worked for a variety of clients including the World Bank, the Water and Sanitation Program (WSP), the Canadian International Development Agency (CIDA) Building Partnerships for Development (BPD) and WaterAid. Ms. Brocklehurst started her career with research into the water and sanitation needs of aboriginal communities in Canada. She was a public health engineering consultant with Cowater International Inc. in Ottawa, Canada between 1986 and 1987 and then worked overseas as a Technical Adviser for Small Sanitation Projects on a CIDA-financed rural water and sanitation project in Togo from 1987 to 1989. She returned to Cowater International between 1989 and 1996, and during that time was posted to Sri Lanka for two years on a project to plan rural water and sanitation investments. In 1997 she was appointed the Country Representative for WaterAid in Bangladesh, serving in that country for two and a half years, working on a mix of rural and urban programmes. Ms. Brocklehurst then became the Regional Urban Specialist for the Water and Sanitation Program (WSP) at their Regional Office for South Asia in New Delhi, India, returning to Canada in August 2001. Ms. Brocklehurst is a national of Canada and Great Britain. She studied Civil Engineering at the University of Toronto (1979-1985) where she received her Bachelor's Degree in 1983 and Master's Degree in 1985.

ROBERT AINSLIE: Mr. Ainslie, through Johns Hopkins Bloomberg School of Public Health/ Center for Communication Program implemented a safe water program in Indonesia. This was 5 year program that worked through a private public partnership to ensure access to water treatment products as well as an advocacy/policy component with the Ministry of Health and related ministries. Mr. Ainslie has more than 20 years experience working in development focusing on behavior change communication and development. He has worked on projects Latin America, Asia and Africa in safe water and sanitation, malaria, reproductive health and maternal and child health. He is currently working on malaria BCC program in Tanzania.

MERRI WEINGER has over 30 years experience in public health and development, with a special focus on environmental and occupational health. She currently manages hygiene improvement in the Maternal Child Health Division of USAID's Bureau for Global Health. Prior to joining USAID, she worked with the World Health Organization in Geneva for 10 years in the Offices of Environmental Health, Health Promotion and Communicable Diseases (Roll Back Malaria Initiative). In the international arena, she has also provided consultation to the Pan American Health Organization, International Labour Organization, non-governmental organizations, academic institutions and community organizations with emphasis on health promotion, human resources development and training. In addition to her international experience, she worked for over 10 years with the City and State Health Departments in northern California in environmental and occupational health promotion. Ms. Weinger holds a Bachelor's Degree from Barnard College in Latin American Studies and anthropology and a Master's in Public Health from the University of California at Berkeley.

BRUCE GORDON leads a drinking-water safety team at the World Health Organization. His responsibilities include coordinating the revision of the WHO Guidelines for Drinking-water Quality, together with a library of technical "supporting" documents. His work is increasingly focused on promoting the application of good risk management practices among regulators and water suppliers in developed and developing countries, ranging from development and application of water safety planning in larger utilities to simple, point-of-use treatment and safe storage at household level. Prior to joining the Water, Sanitation, Hygiene and Health, he worked on children's health and environment and sustainable development issues at

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WHO. He comes from a background of biochemistry and environmental management, with a focus on issues in developing countries.

PAT LENNON: Technology Portfolio Leader, Safe Water Project, PATH

Pat Lennon leads the technology and product development activities for the Safe Water Project in PATH's Technology Solutions Global Program. In that capacity, he manages a portfolio of research and development projects with a total budget of \$7 million over three years and a four-person staff. His activities include management of the administrative, financial, contractual, and logistical requirements of the project and liaison work with funding agencies. Before joining PATH, Mr. Lennon managed a multinational engineering team for Microsoft's Hardware Group. He has a Bachelor of Science degree from the University of Washington. His areas of interest and expertise are leadership, team and program management, and business strategy and implementation.

LORELEI GOODYEAR: Household Research and Evaluation Team Leader, Safe Water Project, PATH
Lorelei Goodyear manages international public health programs, and research and evaluation of safe water and reproductive health efforts. On the Safe Water Project, she is responsible for all research conducted with end users for market, consumer, and product analysis and development. She manages the development of data collection instruments and protocols for household research to be conducted by the PATH team and subgrantees. The results of this research are used to inform product development and demand generation activities to ensure that sustained use of health products leads to desired health outcomes. Ms. Goodyear has experience as a senior program manager, reproductive health program officer, researcher, lecturer at several universities, and deputy field officer for the United Nations High Commissioner for Refugees, and other organizations.

MEGAN WILSON: As Population Service International's Program Manager for Child Survival, Megan works to support PSI's diarrheal disease, pneumonia treatment, and nutrition programs in Africa, Asia, and Latin America. PSI's diarrheal disease programs promotes healthy behaviors by educating individuals about purifying drinking water in the home, practicing improved hygiene and offering treatment for diarrheal disease if a child falls ill. Megan's career was launched as a Peace Corps Volunteer in Guinea, West Africa, and was further enriched by working with US EPA, USAID, and the US State Department. Ms. Wilson has a Masters Degree in International Development from Princeton University's Woodrow Wilson School and she speaks fluent English, French and Dutch.

JOHN KARIUKI: Deputy Chief Public Health Officer, Ministry of Public Health and Sanitation, Kenya. Mr. Kariuki has over thirty years of experience working in the field of public health. In addition to his current role as Deputy Chief Public Health Officer for the Ministry of Public Health and Sanitation, Mr. Kariuki is Head of the Division of Sanitation and Hygiene. He is also currently the coordinator of all technical working groups established under the Inter-Ministerial Coordination Committee for Sanitation and Hygiene and is the coordinator and desk officer for the UNICEF supported WASH Programme. During his career he has been involved in the development of policy, strategy, education programmes, regulations, and guidelines in areas such as water, sanitation, waste management, hygiene, air pollution, environmental health and development. Mr. Kariuki holds an MPH from Kenyatta University, and is currently pursuing a PhD in Public Health and Sanitation at Jomo Kenyatta University.

JAY GRAHAM: Environmental Health Advisor, USAID Bureau for Global Health

Jay is an environmental health professional specializing in international water, sanitation, and hygiene development and has over ten years of experience focusing on: program design, policy development, monitoring and evaluation, community participation, program management and sustainability issues. He has worked in a wide range of countries in Latin America, Asia and Africa, including long-term positions in Ecuador between 1994 and 1995 and Bolivia from 1996 to 1997, where he conducted environmental impact studies and due diligence assessments. Jay worked for five years on the US-México border developing, managing and evaluating environmental health research and outreach projects – conducted mainly in informal settlements of Ciudad Juárez, MX. Jay currently serves as the lead technical advisor on sanitation for the Environmental Health Team within the Bureau for Global Health at the United States Agency for International Development (USAID).

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SUSAN MITCHELL: Project Director – POUZN, Abt Associates

Susan Mitchell is a Principal Associate at Abt Associates. She has 20 years of experience in the management and technical oversight of USAID-funded private sector health projects. She is currently the Director of the Point-of-Use Water Disinfection and Zinc Treatment Project (POUZN) a USAID funded global project working to improve access to and demand for household water treatment and zinc/ORS products with the aim of reducing morbidity and mortality from diarrhea among children under five. She has also served in senior management positions for two USAID private sector flagship Office of Population and Reproductive Health projects: Commercial Market Strategies (CMS) and PROFIT. In addition, Ms. Mitchell has served as a consultant to USAID, UNFPA and the Asian Development Bank in developing public-private partnerships for health. She has an MBA from New York University Stern School of Business.

Annex V - Participant List

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	Family Name	First Name	Organization	Country
1	Abraham	Belinda	GTZ	Germany
2	Abu Sultan	Sami	Austrian Development Agency	Palestinian Territory
3	Ahmed	Modawi	Public Water Cooperation-Sudan	Sudan
4	Ainslie	Rob	Johns Hopkins University Center for Communication Programs	United States
5	Aleu Ngong	Abraham	State Ministry of Physical Infrastructure - NWBS	Sudan
6	Alkhalifa	Yahia	UNICEF	Sudan
7	Arfeen	Shamim	An Organization for Socio-Economic Development	
8	Aslam	Muhammad	Punjab Irrigation and Power Department	Pakistan
9	Avendaño	Rubén Dario	EPM Empresas Públicas de Medellín	Colombia
10	Bhavsar	Dhruv	CEPT University	
11	Bliss	Katherine	Center for Strategic and International Studies	United States
12	Bognäs	Desiree	WWW assistant	Sweden
13	Bomela	Lungile	Bloem Water	South Africa
14	Breslin	Edward D.	Water For People	United States
15	Brocklehurst	Clarissa	United Nations Children's Fund (UNICEF)	United States
16	Burroughs	David	Cascade Designs, Inc.	United States
17	Campos	Claudia	Javeriana University	Colombia
18	Caplan	Ken	Building Partnerships for Development in Water and Sanitation	
19	Carroll	Kathryn	The Global Public-Private Partnership for Handwash	United States
20	Casey	Vincent	WaterAid	United Kingdom
21	Castro Zuniga	Aracely	Centro Internacional de Agricultura Tropical	
22	Chizuma	Opara		
23	Clemmer	Ron	World Vision International Programs Group	
24	Curry	Shauna	CAWST	Canada
25	Cuthbert	Neil	World Vision	United States
26	Davidson	Isobel	Water Supply & Sanitation Collaborative Council	
27	De Bazignan	Carole	Antenna Technologies	Switzerland
28	De Vera	Sydney	Embassy of the Philippines	Sweden
29	Delepiere	Antoine	TERRE DES HOMMES	Switzerland
30	Derby	Anne	Plan USA	
31	Dillon	Peter	CSIRO	
32	Dumas	Gerald	Johannesburg Water	South Africa
33	Erues	Sief	Aqua for All	
34	Fogde	Madeleine	Stockholm Environment Institute	
35	Gichere	Samuel	EAST AFRICAN COMMUNITY	Kenya
36	Gordon	Bruce	World Health Organization	Switzerland
37	Graham	Jay	USAID	United States
38	Harner-Jay	Claudia	PATH	United States
39	Harvey	Peter	UNICEF	United States

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	Family Name	First Name	Organization	Country
40	Heierli	Urs	Antenna Technologies	Switzerland
41	Hellen Samuel	Akurut	State Ministry of Physical Infrastructure - EES	Sudan
42	Holtslag	Henk	Connect International	Netherlands
43	Ibrahim	Madawi	PWC/WES/Sudan	
44	Idrakua	Lillian	Ministry of Water and Environment	Uganda
45	Jackson	Rod	World Vision International, Kenya	Kenya
46	Johnston	Richard	Water and Sanitation in Developing Countries	
47	Jones	Stephen	A Child's Right	United States
48	Jurga	Ina	Water Supply and Sanitation Collaborative Council	Switzerland
49	Kamundi	Edith	Nairobi Water Company	Kenya
50	Kannappan	C	India – Pwd	India
51	Kariuki	John	Ministry of Public Health and Sanitation	Kenya
52	Kassim	Bello	FMWR Abiye Nig.	
53	Khayat	Yarub		
54	Kome	Antoinette	SNV	Nepal
55	Lapegue	Jean	Action Contre la Faim	
56	Lennon	Pat	PATH	United States
57	Malakoane	Benjamin	Bloem Water	
58	Makuac Magol Aliet	Barnaba	State Ministry of Physical Infrastructure - LS	Sudan
59	Manara	Marc	Acumen Fund	United States
60	Martin	Randolph	Mercy Corps	
61	McKinley	Lindsay	Edelman	
62	Mclaughlin	Laura	Cascade Designs, Inc.	United States
63	Meegasmullage	Sirisena	Ministry Of Irrigation And Water Management	Sri Lanka
64	Milanesi	Mario	ACRA - Associazione di Cooperazione Rurale in Africa	Tanzania
65	Mitchell	Susan	Abt Associates	
66	Mommen	Brecht	SNV Netherlands Development Agency	Uganda
67	Ngubeni	Themba	Bloem Water	South Africa
68	Nijhof	Saskia	RAIN Foundation	Netherlands
69	Nsrim	Ogonwa Rosemary	Rivers State Ministry of Water Resources, Nigeria	Nigeria
70	Nunoo	David	WORLD VISION GHANA	Ghana
71	O'Callaghan	Kevin	Aquatabs	Ireland
72	Obaid	Basheer	Johannes Gutenberg-Universität Mainz-Deutschland	Germany
73	Obiero	Mary	CWS	Kenya
74	Oriard	Tim	Cascade Designs, Inc.	United States
75	Osman	Kere Mumuni	WORLD VISION GHANA	Ghana
76	Oti	Ayodele	City College of New York	United States
77	Parsons	Brian	ASCE	
78	Qinghong	Zhang	Ministry of Environmental Protection, China	China

Annex V - Participant List

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	Family Name	First Name	Organization	Country
79	Rengan	Er. S. R.	Water Resources Department, India	India
80	Reuter	Stefan	BORDA	Germany
81	Richard	Johnston	Eawag	Switzerland
82	Roose	Sharon	Plan Netherlands	Netherlands
83	Sahin	Murat	UNICEF	United States
84	Schwab	Kellogg	Johns Hopkins University Bloomberg School of Public Health	United States
85	Sigel	Richard	Ministry of Environment	
86	Specht	Ingrid	United States Department of State	United States
87	Stordal	Lars Onsager	UN-Habitat	Kenya
88	Sturma	Aude	CNRS	France
89	Subir	Paul	Eco Group, India	
90	Toa-Kwapony	Daniel	Red Cross Nordic United World College	
91	Treaster	Joseph	University of Miami, School of Communication	
92	Tuladhar	Bhushen	ENPHO, Nepal	
93	Ture	Burcu	Coca Cola Company	Turkey
94	Walter	Elynn	Water Advocates	United States
95	Wilson	Megan	Population Services International	United States
96	Van Der Linde	Peter	Akvo	Netherlands
97	Vousvouras	Christian	300in6 Initiative	Switzerland