

WASH POST-2015: proposed targets and indicators for drinking-water, sanitation and hygiene



Photo: World Bank

International consultations to date

In May 2011, anticipating the debate that would inevitably arise about what should succeed the Millennium Development Goals (MDGs), the World Health Organization (WHO) and UNICEF convened a global stakeholder meeting to consider which targets and indicators would be appropriate for drinking-water, sanitation and hygiene (WASH) post-2015. The WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation (JMP) agreed to facilitate technical consultations and established four working groups (Water, Sanitation, Hygiene, and Equity and Non-Discrimination) comprising experts from around the world. To date, the consultative process has involved over 70 leading organizations in the sector and proposals have been updated to reflect ongoing debate, and feedback received from experts and member states involved in developing the post-2015 agenda. This document summarizes the latest proposals for post-2015 targets developed by global WASH stakeholders. The JMP will be hosting further technical consultations to refine the corresponding definitions and indicators for the purpose of global monitoring.

A shared vision

'Universal access to safe drinking water, sanitation and hygiene' is a long-standing development goal and the linkages between improvements in WASH and the achievement of targets relating to poverty, health, nutrition, education, gender equality

and sustainable economic growth are well established. There is also broad and growing support for the **Human Right to Water and Sanitation** among UN member states. International consultations reaffirmed the long term vision of universal access and highlighted a number of priorities to be addressed in order to promote progressive realization during the post-2015 era.

Building on experience

There is broad consensus that post-2015 targets for WASH should build on the MDGs and address **'unfinished business'** as a first priority, including the shortfall in progress on sanitation. They should also seek to address the shortcomings of existing targets while maintaining an appropriate balance between ambition, achievability and measurability. The following were identified as important considerations in formulating targets:

Including hygiene

The benefits associated with improved hygiene are well established but it was not included in the MDGs. Post-2015 targets should adopt an integrated approach to drinking water, sanitation and hygiene (WASH) in order to maximize positive impacts on the health, welfare and productivity of populations.

Eliminating inequalities

National averages do not take account of inequalities in access within the population. Future targets should aim to progressively eliminate inequalities between population sub-groups. Intra group inequalities related to individual status based on gender, disability, age and chronic illness should also be eliminated.

'Universal'
*access to basic
water, sanitation
and hygiene is
within reach*

Photo: Katherine Anderson/WSSCC

When the family's basic latrine was destroyed by a cyclone, Fazia's father built an improved latrine in its place.



1 billion
*people still defecate
in the open*

Improving service levels

In addition to increasing the number of people with access and eliminating inequalities, future targets should promote progressive improvements in the quality of services based on the normative criteria of the human right to water and sanitation i.e. accessibility, quantity, quality and affordability.

Going beyond the household

Household access remains the primary concern but future targets should also prioritize settings beyond the household where lack of access to WASH significantly impacts on the health, welfare and productivity of populations.

Addressing sustainability of services

In addition to extending access to unserved populations, targets should address the challenge of sustaining services to ensure lasting benefits. Thus targets should address growing challenges relating to providing reliable supplies of safe water and safely managing human waste.

Proposed target

The four working groups consulted widely and developed a series of sequential targets for drinking water, sanitation, hygiene and the elimination of inequalities. These were subsequently consolidated into a single composite target.

By 2030:

- to eliminate open defecation;
- to achieve universal access to basic drinking water, sanitation and hygiene for households, schools and health facilities;
- to halve the proportion of the population without access at home to safely managed drinking water and sanitation services; and
- to progressively eliminate inequalities in access

Target elements

Open defecation – 1 billion people still defecate in the open, presenting significant risks to personal security and public health. The problem disproportionately affects poor and marginalized groups and is closely correlated with extreme poverty. In 2013 the UN Deputy Secretary-General launched a 'Call to Action' on sanitation which prioritizes the elimination of open defecation by 2025.

Universal basic access – there is growing consensus that 'universal' access to basic water, sanitation and hygiene is within reach, but history shows that the last 3-5% are likely to be hard to reach. Universal access to basic sanitation will be a major challenge given that it lags behind drinking water globally and the existing MDG target will not be met at current rates of progress.

Hygiene – of the range of hygiene behaviours considered important for health, **handwashing** with soap is a top priority in all settings. Monitoring actual behaviour is difficult but the presence of soap and water at a designated place can be measured through household surveys and has been shown to be a robust proxy indicator. Access to basic facilities for **menstrual hygiene management** is critically important for women’s health, safety and dignity and can be monitored in institutional settings.

Schools and health facilities – a wide range of different settings were considered, including ‘high use’ (schools, workplaces, markets, transit hubs), ‘high risk’ (health facilities, detention centres), and ‘special case’ (mass gatherings, pilgrimage, refugee camps). It was agreed that schools and health facilities should be the top priority on the basis of health and non-health benefits and that these are also currently the most viable settings for global monitoring, although workplaces, markets, transit hubs and other settings should also be considered in future as data sources emerge.

Safely managed services – in addition to achieving basic access, there is a need to improve service levels and ensure services are sustainable. The term ‘safely managed’ is proposed to describe a higher threshold of service. For sanitation this includes measures for safe management of excreta, especially for the urban poor living in densely populated slums, whereas for water this includes measures for protecting supplies and ensuring water is safe to drink. This target is applicable to all countries post-2015.

Elimination of inequalities – in order to measure the progressive elimination of inequalities, all indicators must be disaggregated by rural and urban, by wealth quintiles, by slums and formal urban settlements, and by disadvantaged groups and the general population. Disadvantaged groups must be identified through participatory national processes taking into account prohibited grounds of discrimination.

By 2030:

eliminate open defecation;

achieve universal access to basic drinking water, sanitation and hygiene for households, schools and health facilities;

halve the proportion of the population without access at home to safely managed drinking water and sanitation services; and

progressively eliminate inequalities in access



Photo: World Bank

Handwashing

with soap is a top priority in all settings

Supporting indicators

1. To eliminate open defecation;

INDICATOR

1.1 Percentage of population practicing open defecation

- Percentage of population that practices open defecation.
- Percentage of households in which no one practices open defecation.
- Percentage of children under 5 whose stools are hygienically disposed of.

2. To achieve universal access to basic drinking water, sanitation and hygiene for households, schools and health facilities;

INDICATORS

2.1 Percentage of population using 'basic' drinking-water

- Percentage of population using an improved source with a total collection time of 30 minutes or less for a roundtrip including queuing.

2.2 Percentage of population using 'basic' sanitation

- Percentage of population using a basic sanitation facility shared among no more than five families.
- Percentage of households in which the sanitation facility is used by all members of household (including men and women, boys and girls, elderly, people with disabilities) whenever needed.



Photo: Katherine Anderson/WSSCC

2.3 Percentage of population with 'basic' handwashing facilities with soap and water at home

- Percentage of households with soap and water at a handwashing facility commonly used by family members.
- Percentage of households with soap and water at a handwashing facility in or near sanitation facilities.
- Percentage of households with soap and water at a handwashing facility in or near the food preparation area.

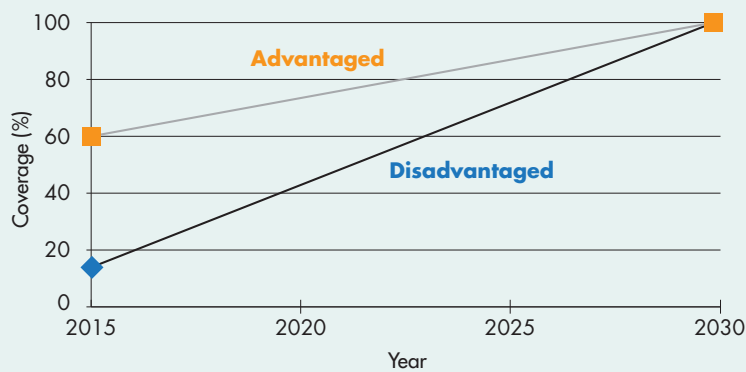
2.4 Percentage of pupils enrolled in primary and secondary schools providing basic drinking water, basic sanitation, handwashing facilities with soap and water, and menstrual hygiene management facilities

- Percentage of primary and secondary schools with an improved source on or near premises and water points accessible to all users during school hours.
- Percentage of primary and secondary schools with basic separated sanitation facilities for males and females on or near premises (at least one toilet for every 25 girls, at least one toilet for female school staff, a minimum of one toilet and one urinal for every 50 boys and at least one toilet for male school staff).
- Percentage of primary and secondary schools with a handwashing facility with soap and water in or near sanitation facilities.
- Percentage of primary and secondary schools with a handwashing facility with soap and water near food preparation areas.
- Percentage of primary and secondary schools with basic separated sanitation facilities for females that provide privacy; soap, water and space for washing hands, private parts and clothes; and places for changing and disposing of materials used for managing menstruation.

2.5 Percentage of beneficiaries using health facilities providing basic drinking-water, basic sanitation, handwashing facilities with soap and water, and menstrual hygiene management facilities

- Percentage of health facilities with an improved source on premises and water points accessible to all users at all times.
- Percentage of health facilities with basic separated sanitation facilities for males and females on or near premises (at least one toilet for every 20 users at inpatient centres, at least four toilets – one each for staff, female, male and child patients – at outpatient centres).

Progressive reduction of inequalities



- Three levels of assessment are essential:
- Progress towards meeting the target
 - Rate of progress as set according to the target for each population group
 - Reduction of inequalities

- Percentage of health facilities with a handwashing facility with soap and water in or near sanitation facilities, food preparation areas and patient care areas.
- Percentage of health facilities with basic separated sanitation facilities for females that provide privacy; soap, water and space for washing hands, private parts and clothes; and places for changing and disposing of materials used for managing menstruation.

3. To halve the proportion of the population without access at home to safely managed drinking water and sanitation services;

INDICATORS

3.1 Percentage of population using a 'safely managed' drinking water service

- Percentage of population using an improved drinking water source on premises accessible to all members of the household, which delivers sufficient water to meet domestic needs (non-functional ≤ 2 days in the last 2 weeks), meets WHO guideline values for *E.coli*, fluoride and arsenic, and is subject to a verified risk management plan.

3.2 Percentage of population using a 'safely managed' sanitation service

- The percentage of people who (1) use an adequate sanitation facility and (2) whose excreta is safely transported to a designated disposal/treatment site, or treated in situ before being re-used or returned to the environment.

4. To progressively eliminate inequalities in access

Data will be **disaggregated on four dimensions** (rich and poor, urban and rural, slums and formal urban settlements,

disadvantaged groups and the general population). Building on these disaggregated data, the **measurement of progressive elimination of inequalities** can be determined through the following steps:

1. Determine the **necessary rate of progress** for both worst-off and better-off groups in order to meet each target by 2030 (see Figure 1, above).
2. Compare the percentage of the worst-off population who practice a certain behaviour, or use or have access to certain services under each target with percentage of the better-off population to establish the disparity in use.
3. If the progress of both the worst-off and better-off groups follows or exceeds the set rate of progress, and if the disparity between the two population groups narrows accordingly, the country is considered "on-track". By measuring the rate of progress for both the worst-off and better-off and comparing these, various elements can be assessed: 1) progress required to meet the target; 2) the reduction in inequalities; and 3) the necessary rate of progress to meet the target. These three conditions must be met to be considered 'progressive elimination of inequality'. This comparison will also indicate if inequalities are increasing.
4. A **Traffic Lights System** could serve for the overall assessment of the progressive elimination of inequalities under each target, combining the four comparisons (poorest vs. richest wealth quintile, rural vs. urban, slum vs. formal urban settlement, and disadvantaged groups vs. general population). Green would imply "on-track", yellow would show that there is some progress, but that it is insufficient, and red would mean "off-track". An overall progress indicator could also be developed so that: if 3 or 4 out of 4 disaggregated groups are on-track, the overall rating would be green; 2 out of 4 yellow; and 0 or 1 out of 4 red.

Figure 1. Determining the rate of progress needed to reduce inequalities

Disadvantaged groups must be identified



Supporting definitions

Basic drinking-water: Households are considered to have a basic drinking water service when they use water from an 'improved' source with a total collection time of 30 minutes or less for a roundtrip, including queuing.

Basic sanitation: Basic sanitation facilities are those that effectively separate excreta from human contact, and ensure that excreta do not re-enter the immediate household environment. Each of the following sanitation facility types is considered as basic sanitation for monitoring progress toward the household sanitation targets, if the facility is shared among no more than 5 families or 30 persons, whichever is fewer, and if the users know each other:

- A pit latrine with a superstructure, and a platform or squatting slab constructed of durable material. A variety of latrine types can fall under this category, including composting latrines, pour-flush latrines, and ventilation improved pit latrines (VIPs).
- A flush toilet connected to a septic tank or a sewer (small bore or conventional).

Household access to basic sanitation facilities alone is not sufficient for safe management of excreta. Each of the above is only considered to be safely managed where excreta is safely transported to a designated disposal/treatment site, or treated in situ before being re-used or returned to the environment.

Basic handwashing facilities: are those where handwashing facilities, with soap and water, are available in or near sanitation facilities and where food is prepared or consumed.

Basic drinking-water service in schools: Water from an 'improved' source (MDG classification) on or near premises capable of delivering sufficient water at all times for drinking, personal hygiene and, where appropriate, food preparation, cleaning and laundry. Five litres per capita per day (lpcpd) are available for non-residential schoolchildren and staff in non-residential and day schools; and 20 lpcpd are available for all residential schoolchildren and staff in boarding schools. Additional quantities of water may be required depending on sanitation facilities (e.g. pour flush or flush toilets). Drinking water points are accessible to all users, including those with disabilities, throughout the school day.

Basic drinking-water service in health facilities: From an 'improved' source (MDG classification) on premises capable of delivering the minimum quantity of water that is required for different situations in the health care setting as defined by WHO¹. Drinking-water points are accessible to all users, including those with disabilities, throughout the school day.

Basic sanitation in schools and health facilities: are those that effectively separate excreta from human contact, and ensure that excreta do not re-enter the immediate environment. An adequate school or health centre sanitation facility:

- is located in close proximity to the school or health facility;
- is accessible to all users, including adults and children, the elderly, and those with physical disabilities;



Schools and health facilities

should be a top priority

Photo: Katherine Anderson/WSSCC

1. The WHO Essential Environmental Health Standards recommend the following minimum quantities of water per person in each setting type: Outpatients: 5 L/consultation; Inpatients: 40-60 L/patient/day; Operating theatre or maternity unit: 100 L/intervention; Dry or supplementary feeding center: 0.5 - 5 L/consultation (depending on wait time); Wet supplementary feeding center: 15 L/consultation; Inpatient therapeutic feeding center: 30 L/patient/day; Cholera treatment center: 60 L/patient/day; Severe acute respiratory diseases isolation center: 100 L/patient/day; Viral haemorrhagic fever isolation center: 300-400 L/patient/day. Adams J et al., eds. *Essential environmental health standards in health care*. Geneva. World Health Organization, 2008.



There is a need to improve service levels and ensure services are sustainable

- provides separate facilities for males and females (boys and girls at school), and for adults and children;
- is equipped with hand washing stations that include soap and water and are in or near the sanitation facility;
- provides basic menstrual management facilities in sanitation facilities that are used by women and girls of menstruating age;
- at schools, provides at least one toilet per 25 girls and at least one toilet for female school staff, as well as a minimum of one toilet plus one urinal (or 50 centimeters of urinal wall) per 50 boys, and at least one toilet for male school staff;
- At in-patient health centres, includes at least one toilet per 20 users;
- At out-patient health centres, includes at least four toilets - one each for staff, female patients, male patients, and child patients.

Basic handwashing facilities in schools and health facilities: Handwashing facilities, with soap and water, available in or near sanitation facilities, where food is prepared or consumed, and in patient care areas.

Basic menstrual hygiene management facilities in schools and health facilities: Separate sanitation facilities for females that provide privacy; soap, water and space for washing hands, private parts and clothes; and places for changing and disposing of materials used for managing menstruation.

Safely managed drinking water services: Safely managed drinking water services reliably deliver water that is sufficient to meet domestic needs and does not represent a significant risk to health. This implies a system that delivers water to the household or plot and includes measures to prevent risks and to verify water quality through compliance monitoring. The proposed indicator for global monitoring of access to safely managed drinking water services is: use of a water source at the household or plot which reliably delivers enough water to meet domestic needs, complies with WHO Guideline Values for *E. coli*, arsenic and fluoride, and is subject to a verified risk management plan.

An improved water source (piped water, public tap/standpost, tubewell/borehole, protected dug well, protected spring, rainwater) can be safely managed. Unimproved sources (unprotected dug well, unprotected spring, surface water) are by definition not safely managed. Delivered water (e.g. through trucks, carts, sachets, or bottles) can potentially be safely managed, but if these are the primary drinking water sources, other improved sources of water must be accessible at the household or plot for other domestic uses (e.g. washing, bathing).

Safely managed sanitation services: Safely managed sanitation services include the regular use of a basic sanitation facility

at the household level, as well as the safe management of faecal sludge in the household, neighborhood, community and city level through the proper sludge emptying of on-site cess pits or septic tanks, transport of the sludge to a designated disposal/ treatment site, and/or re-use of excreta as needed and as appropriate to the local context. The percentage of population with safely managed sanitation services is defined as the fraction of households using a basic sanitation service whose excreta:

- Are carried through a sewer network to a designated location (e.g. treatment facility);
- Are hygienically collected from septic tanks or latrine pits by a suction truck (or similar equipment that limits human contact) and transported to a designated location (e.g. treatment facility or solid waste collection site); or
- Are stored on site (e.g. in a sealed latrine pit) until they are safe to handle and re-use (e.g. as an agricultural input).

The proposed indicator for global monitoring of access to safely managed sanitation services is: the percentage of people who (1) use a basic sanitation facility and (2) whose excreta is safely transported to a designated disposal/ treatment site, or treated in situ before being re-used or returned to the environment.



Global monitoring of access to safely managed sanitation services must engage both at the household and community level. Households can provide information on the types of sanitation facilities they use, as well as any treatment and re-use of excreta they undertake. In communities where excreta are transported away from households, information is required from service providers and/or regulatory institutions regarding the transport, treatment, and discharge of wastes into the environment².

Open defecation: Defecation in which excreta of adults or children are deposited (directly or after being covered by a layer of earth) in the bush, a field, a beach, or other open area; are discharged into a drainage channel, river, sea, or other water body; or are wrapped in temporary material and discarded.

Drinking water: Water used, or intended to be available for use, by humans for drinking, cooking, food preparation, personal hygiene and other essential domestic purposes.

Sanitation: The provision of facilities and services for the safe management and disposal of human urine and faeces³.

Excreta: Human faeces and urine.

Hygiene: Refers to conditions and practices that help maintain health and prevent the spread of disease⁴.

Handwashing facility: A handwashing facility is a device to contain, transport or regulate the flow of water to facilitate handwashing. It may be fixed or movable.

Menstrual hygiene management: Various components are considered essential to menstrual hygiene management. The first is that women and adolescent girls use clean materials to absorb or collect menstrual blood, and are able to change them in privacy as often as necessary for the duration of their menstrual period. It also involves using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. Further, women and girls need access to basic information about the menstrual cycle and how to manage it with dignity and without discomfort or fear.

Photo: Katherine Anderson/WSSCC

2. The target for safe management of human excreta complements proposed environmental targets for reducing untreated domestic, industrial and agricultural wastewater, increasing wastewater reuse and reducing nutrient pollution. *A Post-2015 Global Goal for Water: Synthesis of key findings and recommendations from UN-Water*. UN-Water. 2014
 3. Sanitation. World Health Organization (<http://www.who.int/topics/sanitation/en/>, accessed March 2014).
 4. Hygiene. World Health Organization (<http://www.who.int/topics/hygiene/en/>, accessed March 2014).

Menstrual hygiene management facilities:

Provide privacy; soap, water and space for washing hands, private parts and clothes; and places for changing and disposing of materials used for managing menstruation.

Schools: primary and secondary schools, boarding and day schools, rural and urban schools, and public and private schools⁵, as well as day-care centres, nurseries and kindergartens.

Health facilities: includes all the places WHO defines as health centres: hospitals, clinics, health posts, dental surgeries, general practitioner settings, and home-based care.⁶

Disadvantaged groups: The most common disparities are between rich and poor, between urban and rural, and between formal urban settlements and slums. Other disadvantaged groups are found in specific contexts and should be identified through a participatory national process taking into account group-related prohibited grounds of discrimination: including gender, ethnicity, race, colour, religion, caste, national or social origin. This process must be inclusive and ensure active, free and meaningful participation of all relevant population groups, in particular disadvantaged groups. It should involve national human rights institutions, civil society and community based organizations, human rights organizations and academia.

Progressive elimination of inequalities: The systematic reduction and eventual elimination of inequalities between different

population groups as they progress toward the specified target. To count as a 'progressive' elimination, the following conditions must be met cumulatively: (1) there must be a reduction in the difference between the coverage rates in the relevant groups; (2) the rate of progress of each group must meet or exceed the rate of progress required for that group to reach the target by the specified time; and (3) the reduction in inequality must not be the result of a reduced rate of coverage for any group. Progress should be reported by poorest vs. richest wealth quintile, rural vs. urban, slum vs. formal urban settlement, and disadvantaged groups vs. general population.

MDG definition of an improved drinking water source: An improved drinking water source is defined as a source or delivery point that by nature of its construction or through active intervention is protected from outside contamination, in particular from contamination with faecal matter. They include: piped drinking water supply on premises; public taps/standposts; tubewell/borehole; protected dug well; protected spring; rainwater.

MDG definition of an improved sanitation facility: An improved sanitation facility is one that hygienically separates human excreta from human contact. It included the following facility types: flush or pour-flush toilets to piped sewer system, septic tank or pit; Ventilated Improved Pit (VIP) latrine; pit latrine with slab; composting toilet.



Photo: Katherine Anderson/WSSCC

5. Adams J et al., eds. *Water, sanitation and hygiene standards for schools in low-cost settings*. Geneva. World Health Organization, 2009.

6. Adams J et al., eds. *Essential environmental health standards in health care*. Geneva. World Health Organization, 2008.



International consultations were facilitated by the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation



Working groups were led by the following organizations:



Other groups involved in the consultation included:

- African Development Bank, Tunisia
- African Minister's Council on Water (AMCOW)
- Aga Khan University
- Aguaconsult, UK
- Amnesty International, UK
- Asian Development Bank
- Association of Sanitary and Environmental Engineering, Brazil
- Bamako University, Mali
- Bill and Melinda Gates Foundation
- Center for Economic and Social Rights, USA
- Centre for Food Safety, University of Georgia
- Centres for Disease Control, USA
- CEPT University, India
- Department for International Development (DFID), UK
- Dept. of Social and Preventive Medicine, University of Buffalo
- Durban Water/eThekweni Municipality, South Africa
- EAWAG, Switzerland
- FANTA III Project, FHI 360, USA
- Federal Ministry for Economic Cooperation and Development, Germany
- French Development Agency, France
- German Institute for Human Rights
- German Institute of Human Rights, Germany
- Ghana Bureau of Statistics, Ghana
- Gillings School of Global Public Health, University of North Carolina at Chapel Hill, USA
- GIZ, Burkina Faso
- GIZ, Kenya
- GIZ/SUSANA, Germany
- ICF International
- ICF International, USA
- Institute of Nutrition Research; US Navy Medical
- Inter-American Development Bank (AIDB), USA
- International Water Association (IWA), The Netherlands
- Japan International Cooperation Agency (JICA), Japan
- LSHTM/SHARE Consortium, UK
- Mailman School of Public Health, Columbia University
- Mel & Enid Zuckerman College of Public Health,
- Ministry of Drinking Water and Sanitation, India
- Ministry of Foreign Affairs, Finland
- Ministry of Foreign Affairs, The Netherlands
- Ministry of Public Health and Sanitation, Kenya
- Ministry of Water and Sanitation, Madagascar
- Ministry of Water and Sanitation, Mozambique
- Ministry of Water Resources, Works & Housing, Ghana
- National Statistical Office, Paraguay
- Netherlands Water Partnership, The Netherlands
- Oxford University/London School of Hygiene and Tropical Medicine, UK
- Plan International, USA
- Research Unit, Peru
- Rural Water Supply Department, Uganda
- Rural Water Supply Network, Switzerland
- Sanitation and Water for All
- School of Law, New York University
- Spanish Agency of International Cooperation for Development (AECID), Spain
- Stanford University, USA
- Stockholm International Water Institute, Sweden
- U.S. Department of State
- UN Habitat, Kenya
- UN- Water
- Unilever, UK
- United Nations Development Programme, USA
- United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB), Canada
- University of Arizona
- University of Leeds, UK
- USAID/WASHplus Project
- Water and Sanitation for Africa, Burkina Faso
- Water and Sanitation Regulatory Council, Mozambique
- Water For People, USA
- Water Institute, University of North Carolina, USA
- Water.Org
- World Bank
- WEDC, Loughborough University, UK