



WASH Post-2015

Proposed indicators for drinking water, sanitation and hygiene

Sustainable Development Goal (SDG) 6 aims to 'Ensure availability and sustainable management of water and sanitation for all' and comprises six technical targets relating to drinking water, sanitation and hygiene, wastewater management, water efficiency, integrated water resource management and protection of aquatic ecosystems.

The WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP)¹ has been monitoring progress on drinking water and sanitation since 1990 and is collaborating with UN-Water partners to develop a framework for integrated monitoring of water and sanitation related SDG targets under the Global Expanded Monitoring Initiative (GEMI)².

This briefing note summarises proposed indicators for monitoring the drinking water, sanitation and hygiene (WASH) elements of the SDG targets and reflects extensive technical consultation with over 100 experts from over 60 organisations worldwide.

The SDG targets apply to all countries so the JMP proposes to use a 'service ladder' approach to benchmark and track progress across countries at different stages of development. Emerging JMP ladders build on existing datasets and introduce new indicators which reflect the ambition of the new SDG targets. A Post-2015 Monitoring Green Paper³, describes the indicators, definitions and proposed methodologies in more detail.

EMERGING 'LADDERS' FOR MONITORING DRINKING WATER, SANITATION AND HYGIENE POST-2015

Drinking Water	Sanitation	Handwashing
Safely managed	Safely managed	Basic
Basic	Basic	
Unimproved	Shared	Unimproved
Surface water	Unimproved	
	Open defecation	No facility

1 <http://www.wssinfo.org/>
 2 <http://www.unwater.org/gemi/en/>
 3 <http://www.wssinfo.org/post-2015-monitoring/>

INTERPRETING THE WASH TARGETS UNDER GOAL 6

Goal 6 of the proposed Sustainable Development Goals aims 'to ensure availability and sustainable management of water and sanitation for all'. The following tables illustrate how each element of the proposed WASH targets can be understood from a normative perspective. Indicators used for monitoring are designed to match the normative interpretation as closely as possible, while recognizing that some elements are not yet possible to measure on a routine basis.

Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all

LANGUAGE IN PROPOSED TARGETS

NORMATIVE INTERPRETATION

By 2030, achieve	universal	Implies all exposures and settings including households, schools, health facilities, workplaces, etc.
	and equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
	access	Implies sufficient water to meet domestic needs is reliably available close to home
	to safe	Safe drinking water is free from pathogens and elevated levels of toxic chemicals at all times
	and affordable	Payment for services does not present a barrier to access or prevent people meeting other basic human needs
	drinking water	Water used for drinking, cooking, food preparation and personal hygiene
	for all	Suitable for use by men, women, girls and boys of all ages including people living with disabilities

Target 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

LANGUAGE IN PROPOSED TARGETS

NORMATIVE INTERPRETATION

By 2030, achieve	access	Implies facilities close to home that can be easily reached and used when needed
	to adequate	Implies a system which hygienically separates excreta from human contact as well as safe reuse/treatment of excreta in situ, or safe transport and treatment off-site
	and equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
	sanitation	Sanitation is the provision of facilities and services for safe management and disposal of human urine and faeces
	and hygiene	Hygiene is the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene
	for all	Suitable for use by men, women, girls and boys of all ages including people living with disabilities
	end open defecation	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; discharged directly into a drainage channel, river, sea, or other water body; or are wrapped in temporary material and discarded
	paying special attention to the needs of women and girls	Implies reducing the burden of water collection and enabling women and girls to manage sanitation and hygiene needs with dignity. Special attention should be given to the needs of women and girls in 'high use' settings such as schools and workplaces, and 'high risk' settings such as health care facilities and detention centres
	and those in vulnerable situations	Implies attention to specific WASH needs found in 'special cases' including refugee camps, detention centres, mass gatherings and pilgrimages

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

LANGUAGE IN PROPOSED TARGETS

NORMATIVE INTERPRETATION

By 2030, improve water quality by	halving the proportion of untreated wastewater	Implies halving the proportion of population for whom domestic wastewater (sewage and faecal sludge) is not treated to adequate standards
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INEQUALITIES

No target met
unless met for ***all***

Universal SDG targets can only be considered achieved when met for all sub-groups within the population which implies progressive disaggregation of data by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.

MEASURING INEQUALITIES

JMP proposes to report on the progressive elimination of inequalities in access to different levels of drinking water, sanitation and hygiene services. Service level indicators correspond with human rights criteria of quality, availability, accessibility, acceptability and affordability and build directly on existing MDG indicators. Some of these indicators can be monitored immediately post-2015, while others will be developed over the short, medium, or long term.

Affordability of water and sanitation services is an important cross-cutting concern. JMP plans to use available data on household expenditure, tariffs, income and poverty to start benchmarking affordability across countries and reporting national, regional and global trends.

IMMEDIATE/SHORT-TERM APPROACH

URBAN vs. RURAL

An indicator of inequality could be the gap (or ratio) between WASH coverage for urban and rural populations, and/or the rate of change in this gap or ratio. Data which JMP has already collected from household surveys and censuses can be disaggregated immediately by urban and rural areas.

WEALTH

An indicator of wealth inequality could be the gap (or ratio) between the sections of the population with the highest and the lowest income, and/or the rate of change in this gap or ratio. JMP has this information for approximately 80 countries.

SUBNATIONAL DISTRIBUTION

Many of the existing household surveys used by the JMP generate data on 4–10 subnational regions, but this information has not yet been systematically extracted from survey reports into the JMP database. Subnational analysis could also be made for particularly vulnerable areas, such as districts with high levels of poverty or Neglected Tropical Diseases. Such analysis would be relatively straightforward to develop and reporting could start early in the post-2015 period.

MEDIUM-/LONG-TERM APPROACH

INFORMAL URBAN SETTLEMENTS

Most household surveys and censuses in the JMP database do not include informal urban settlements or slums, which are often not considered in official data collection. In the medium-term, the JMP can engage with researchers or agencies with special expertise (e.g. UN-Habitat) to explore new methods to characterize informal urban settlements and their water and sanitation services.

DISADVANTAGED GROUPS

Disadvantaged groups will not be the same in all settings. Monitoring of disadvantaged groups is challenging because they often form a small proportion of the population, and are therefore difficult to reach through conventional household surveys (currently the majority of JMP data). Also, through these surveys it is infeasible to accurately measure intra-household inequalities such as **sex, age, or disability**.

In many cases locally-important groups are already included in household surveys; ideally Member States would use participatory processes to better identify them and design monitoring instruments accordingly. Alternative survey instruments or specially-designed surveys could lead to more efficient ways to gain information on target sub-populations, and JMP will collaborate with researchers on innovative approaches. Such instruments are more complex and costly than existing surveys, and widespread uptake by national authorities would be a long-term prospect.

SAFELY MANAGED DRINKING WATER SERVICES

The MDG indicator ‘use of an improved source of drinking water’ has been used as a proxy for ‘safe drinking water’ but international consultations since 2011 established consensus on the need to better address normative human rights criteria including accessibility, availability, and quality.

The proposed new core indicator of **‘percentage of population using safely managed drinking water services’** comprises four elements:

- a basic drinking water source (MDG ‘improved indicator’),
- which is located on premises,
- available when needed, and
- compliant with faecal and priority chemical standards.

Household surveys and censuses provide information on the types of drinking water sources used and whether sources are located on premises. Increasingly surveys also collect data on the availability and quality of water at the household level, including directly testing drinking water for faecal or chemical contamination.

DRINKING WATER LADDER

Safely managed

A basic drinking water source which is located on premises and available when needed; free of faecal and priority chemical contamination

Basic

Piped water, boreholes or tubewells, protected dug wells, protected springs and rainwater provided collection time is no more than 30 minutes for a roundtrip including queuing¹

Unimproved

Drinking water from unprotected dug wells, unprotected springs, carts with small tank/drum, tanker trucks or basic sources with a total collection time of more than 30 minutes for a roundtrip including queuing¹

Surface water

River, dam, lake, pond, stream, canal or irrigation channel

Data from surveys and censuses will be combined with data from administrative or regulatory databases on availability and compliance with drinking water standards. Data on faecal and chemical contamination are not yet available for all countries but sufficient data exist to make global and regional estimates of safely managed drinking water services in 2016/17.



¹ Bottled water is considered ‘basic’ for drinking only when the household uses a basic source for cooking and personal hygiene.

SAFELY MANAGED SANITATION SERVICES

The MDG indicator 'use of an improved sanitation facility' focuses on hygienic separation of excreta from human contact but international consultations since 2011 established consensus on the need to go beyond access to a basic facility and address safe management of faecal waste along the sanitation chain.

The proposed new core indicator of '**percentage of population using safely managed sanitation services**' comprises three main elements:

- a basic sanitation facility (MDG 'improved' indicator),
- which is not shared, and
- where excreta are safely disposed in situ or transported and treated off-site.

Household surveys and censuses provide information on the types of facilities used, and whether they are shared. The percentage of the population using safely managed sanitation services can be calculated by combining data on the proportion of the population using different types of basic sanitation facilities with estimates of the proportion of faecal waste which is safely disposed in situ or transported and treated off-site.

Data on disposal or treatment of excreta are not yet available for all countries but can be estimated based on faecal flows associated with different types of facility. Sufficient data exist to make global and regional estimates of safely managed sanitation services in 2016/17.

SANITATION LADDER

Safely managed

A basic sanitation facility which is not shared with other households and where excreta are safely disposed in situ or treated off-site

Basic

Flush/pour flush to piped sewer system, septic tank or pit latrine, ventilated improved pit latrine, composting toilet or pit latrine with a slab not shared with other households

Shared

Sanitation facilities of an otherwise acceptable type shared between two or more households

Unimproved

Pit latrines without a slab or platform, hanging latrines and bucket latrines

Open defecation

Human faeces disposed of in fields, forest, bushes, open bodies of water, beaches or other open spaces or disposed of with solid waste



HANDWASHING FACILITIES WITH SOAP AND WATER

The benefits associated with improved hygiene are well established but it was not included in the MDGs. Of the range of hygiene behaviours considered important for health, international consultations identified handwashing with soap and water as a top priority in all settings.

The proposed new core indicator of **'percentage of population with handwashing facilities with soap and water at home'** refers to the presence of a device to contain, transport or regulate the flow of water to facilitate handwashing.

Household surveys increasingly include a section on hygiene practises where the surveyor visits the handwashing facility and observes if water and soap are present. Observation by surveyors represents a more reliable indicator for measuring handwashing behaviour than asking individuals to report their own behaviour.

Following the standardisation of hygiene questions in international surveys data on handwashing facilities are now available for a growing number of countries covering most developing regions of the world.

HANDWASHING LADDER

Basic

Hand washing facility with soap and water in the household

Unimproved

Handwashing facility without soap or water

No facility

No handwashing facility

INSTITUTIONAL WASH

To date global monitoring has focused on access to drinking water, sanitation and hygiene at the household level. While household access remains the primary concern international consultations recommended that future monitoring should also prioritise institutional settings, including schools, health care facilities and workplaces, where lack of access to WASH significantly impacts on the health, welfare and productivity of populations.

The JMP proposes to prioritise schools and health care facilities for extra-household monitoring, as global and national WASH norms exist and it is widely agreed that states have a responsibility to ensure effective provision of WASH services in these settings. While schools and health facilities may have highly sophisticated WASH services, for global monitoring purposes JMP will focus on access to basic services (see Post-2015 Monitoring Green Paper for definitions).

Data on the availability of basic drinking water, sanitation and hygiene facilities are already available for most regions through nationally representative surveys of services and facilities and through Education and Health Management Information Systems (EMIS/HMIS). Further work is needed to identify suitable indicators for menstrual hygiene. JMP is working with the education and health sectors to support ongoing efforts to harmonise indicator definitions across these different data sources.



EMERGING LADDERS FOR MONITORING ACCESS TO INSTITUTIONAL WASH

Drinking water	Sanitation	Handwashing	Menstrual Hygiene
Basic	Basic	Basic	Basic
Unimproved	Unimproved	Unimproved	Unimproved
No service	No service	No facility	No facility



PROGRESSIVE IMPROVEMENTS IN MONITORING

Achieving higher levels of service in WASH will be a major challenge throughout the SDG period, and a related challenge will be monitoring WASH services.

Many high and some middle-income countries have well-developed routine monitoring systems and regulatory frameworks and could start reporting on safe management of WASH services.

In many low- and middle-income settings, however, sectoral monitoring systems are weak or absent. Inventories may track numbers of facilities but have little information regarding the functionality or use of such systems. Household surveys and censuses can fill gaps and provide basic information about infrastructure and practices at the household level. These surveys and censuses have provided the great majority of data used for tracking the WASH MDGs, and will continue to be at the heart of SDG reporting.

As sector capacities strengthen, national Management Information Systems (MIS) can increasingly provide reliable information about access to and use of services. Such systems can provide information about management of services which cannot be measured through household surveys.

Ideally, independent and robust regulators should conduct surveillance of drinking water and sanitation services, which would yield data not only on access but also quality of service. Such regulatory institutions are still relatively rare and weak in many settings, but should be strengthened throughout the SDG period.

