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WASH in the 2030 Agenda

New global 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 recently established Global Expanded Monitoring Initiative (GEMI)².

This briefing note summarises the new global 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 worldwide³.

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. Forthcoming thematic reports on safely managed drinking water and safely managed sanitation and hygiene services will describe the indicators, definitions, and proposed methodologies in more detail⁴.

JMP 'LADDERS' FOR MONITORING DRINKING WATER, SANITATION AND HYGIENE IN THE 2030 AGENDA

Drinking-water	Sanitation	Handwashing
Safely managed	Safely managed	Basic
Basic	Basic	Limited
Limited	Limited	Limited
Unimproved	Unimproved	No facility
Surface water	Open defecation	No facility

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

INTERPRETING THE WASH TARGETS UNDER GOAL 6

Goal 6 of the 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 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

TARGET LANGUAGE		NORMATIVE INTERPRETATION
By 2030, achieve	<i>universal</i>	Implies all exposures and settings including households, schools, health facilities, workplaces, and public spaces
	and <i>equitable</i>	Implies progressive reduction and elimination of inequalities between population subgroups
	<i>access</i>	Implies sufficient water to meet domestic needs is reliably available close to home
	to <i>safe</i>	Safe drinking water is free from pathogens and elevated levels of toxic chemicals at all times
	and <i>affordable</i>	Payment for services does not present a barrier to access or prevent people meeting other basic human needs
	<i>drinking water</i>	Water used for drinking, cooking, food preparation and personal hygiene
	<i>for all</i>	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

TARGET LANGUAGE		NORMATIVE INTERPRETATION
By 2030, achieve	<i>access</i>	Implies facilities close to home that can be easily reached and used when needed
	to <i>adequate</i>	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 <i>equitable</i>	Implies progressive reduction and elimination of inequalities between population sub-groups
	<i>sanitation</i>	Sanitation is the provision of facilities and services for safe management and disposal of human urine and faeces
	and <i>hygiene</i>	Hygiene is the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene
	<i>for all</i>	Suitable for use by men, women, girls and boys of all ages including people living with disabilities
	end <i>open defecation</i>	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 <i>needs of women and girls</i>	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 <i>those in vulnerable situations</i>	Implies attention to specific WASH needs found in 'special cases' including refugee camps, detention centres, mass gatherings and pilgrimages

INEQUALITIES

Leave no one behind

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

The JMP will 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, while others will be developed over the short, medium, or long term.

Affordability of water and sanitation services is an important cross-cutting concern. The JMP is using 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 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 the 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. The 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 governments 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 the 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 new global SDG indicator ‘**percentage of population using safely managed drinking water services**’ is defined as an improved drinking water source, 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. ‘Improved’ sources are those that are potentially capable of delivering safe water by nature of their design and construction. These include piped water, boreholes or tubewells, protected dug wells, protected springs, and rainwater. Unimproved sources include unprotected dug wells and unprotected springs. The JMP recognizes that bottled water and tanker truck water can potentially deliver safe water, but has previously treated them as unimproved due to lack of data on accessibility, availability and quality. From now on, the JMP will treat them as improved and classify them as ‘limited’, ‘basic’ or ‘safely managed’, based on the criteria outlined above. 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.

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 2017.

DRINKING WATER LADDER

Safely managed

Drinking water from an improved water source which is located on premises, available when needed and free of faecal and priority contamination

Basic

Drinking water from an improved source provided collection time is not more than 30 minutes for a roundtrip including queuing

Limited

Drinking water from an improved source where collection time exceeds over 30 minutes for a roundtrip to collect water, including queuing

Unimproved

Drinking water from an unprotected dug well or unprotected spring

Surface water

Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation channel

Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs and packaged or delivered water.



SAFELY MANAGED SANITATION SERVICES

The MDG indicator ‘use of an improved sanitation facility’ focused 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 new global SDG indicator of ‘**percentage of population using safely managed sanitation services**’ is defined as use of an improved sanitation facility:

- which is not shared with other households, and
- where excreta are safely disposed in situ or transported and treated offsite

Household surveys and censuses provide information on the types of facilities used, and whether they are shared. The types of facilities used can be classified into improved and unimproved facilities, where improved facilities are those which by their construction are likely to ensure hygienic separation of human excreta from human contact. Improved sanitation facilities include flush or pour/flush toilets connected to sewers or septic tanks; protected latrines such as VIP latrines or latrines with slabs; and composting toilets. Unimproved facilities include pit latrines without a slab or platform, hanging latrines and bucket latrines.

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 improved sanitation facilities with estimates of the proportion from household surveys regulators or service providers 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 2017.



SANITATION LADDER

Safely managed

Use of an improved sanitation facility which is not shared with other households and where excreta are safely disposed in situ or transported and treated off-site

Basic

Use of improved facilities which are not shared with other households

Limited

Use of improved facilities shared between two or more households

Unimproved

Use of pit latrines without a slab or platform, hanging latrines and bucket latrines

Open defecation

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

Note: Improved facilities include: flush/pour flush to piped sewer system, septic tank or pit latrine; ventilated improved pit latrine, composting toilet or pit latrine with slab.

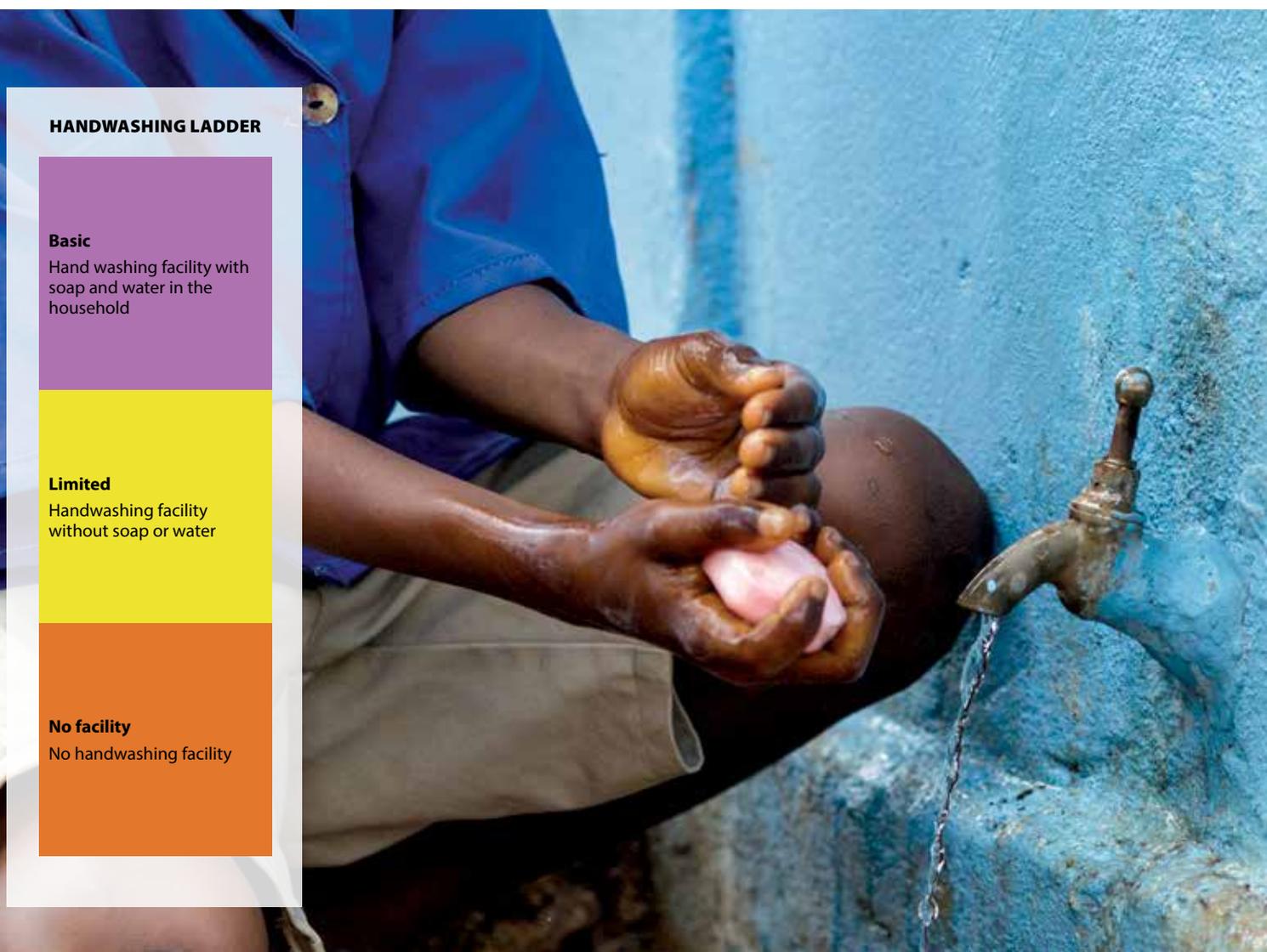
HANDWASHING FACILITIES WITH SOAP AND WATER

The benefits associated with improved hygiene are well established but it was not included in the MDGs. International consultations considered different types of hygiene, including handwashing, menstrual hygiene, and food hygiene, and identified handwashing with soap and water as a top priority in all settings.

The new global SDG indicator **'percentage of population with handwashing facilities with soap and water at home'** is defined as the presence of a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water available.

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 of handwashing materials by surveyors represents a more reliable proxy 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

Limited

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 language of SDG targets 6.1 and 6.2 referring to ‘universal access’ and ‘for all’ further reinforce the importance of WASH in all settings, not only the household.

The JMP will initially prioritize monitoring of basic WASH services in schools and health care facilities as these are critical to the achievement of SDG targets on education and health. 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 www.wssinfo.org/sdg-baselines 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). The JMP has convened a consultative process to review the questions and indicators included in these surveys and Management Information Systems, and developed a recommended set of core questions and indicators.

For both WASH in schools and health care facilities, definitions have been developed for basic services, limited services, and no service. In health care facilities, an additional ladder will be used to report on management of health care wastes. The ‘basic’ level of service represents a minimum acceptable set of services, and may not be aspirational for all countries. An ‘advanced’ level of services is therefore suggested, where the criteria would be defined for each particular setting according to local context. The JMP is working with the education and health sectors to support ongoing efforts to harmonise indicator definitions used in facility assessments and Management Information Systems with the global indicator framework.



EMERGING LADDERS FOR MONITORING ACCESS TO INSTITUTIONAL WASH

Drinking water	Sanitation	Handwashing	Health care waste management*
Advanced	Advanced	Advanced	Advanced
Basic	Basic	Basic	Basic
Limited	Limited	Limited	Limited
No service	No service	No facility	No facility

*Applies only to health care facilities.



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PROGRESSIVE IMPROVEMENTS IN MONITORING

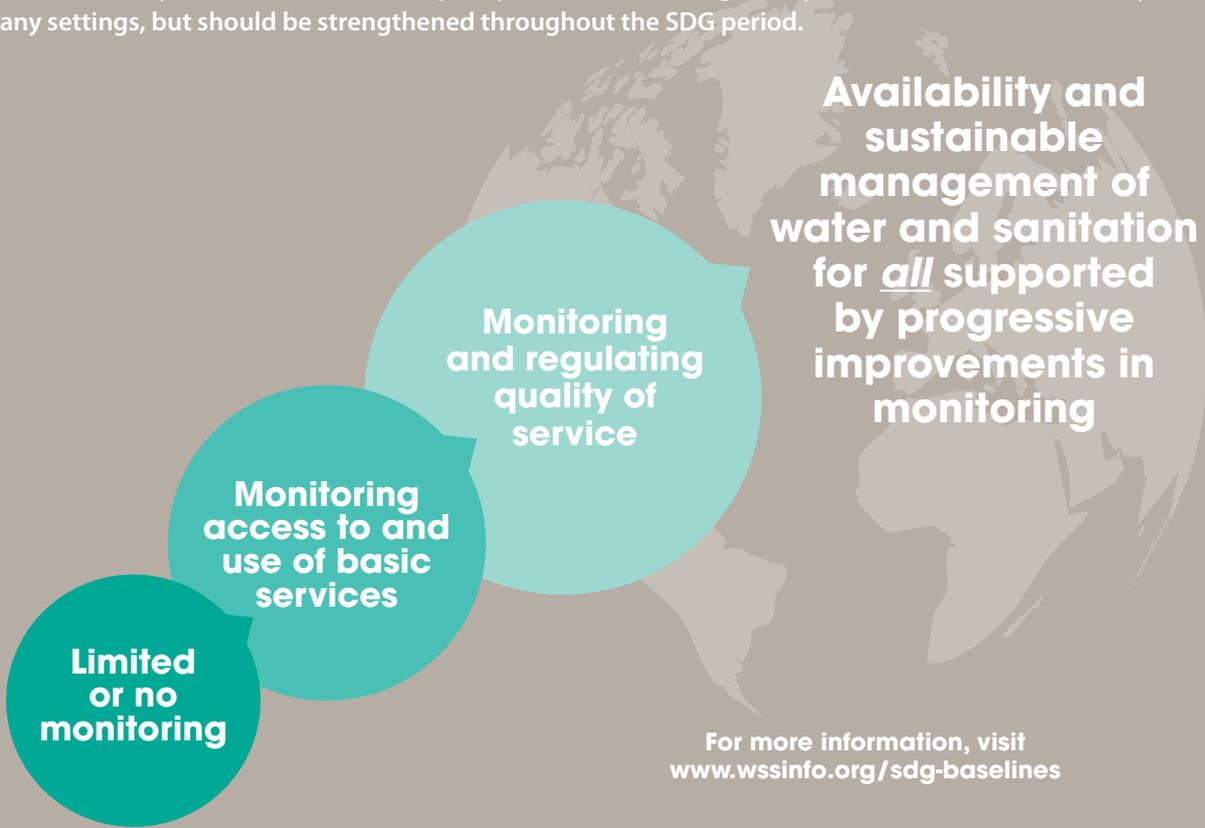
Countries are not expected to copy and paste the global targets into national plans. Instead, the 2030 Agenda calls on countries to set their own national targets guided by the global level of ambition but taking into account national circumstances. Global indicators can still be used, even if national targets aim for reaching a certain level by 2030 rather than universal coverage. In some countries where basic services are not yet universal, national targets may focus more on the lower rungs of the water, sanitation and hygiene ladders.

National monitoring systems need to be fit for monitoring national targets and indicators. 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 the quality of service. Such regulatory institutions are still relatively rare and weak in many settings, but should be strengthened throughout the SDG period.



For more information, visit www.wssinfo.org/sdg-baselines