



Sanitation

"By 2030 Everyone Will Have Safe Water To Drink"
#GlobalGoals



The agenda for sustainable development includes 17 Sustainable Development Goals (SDGs) with 169 target groups that are integrated and inseparable from each other. One such agenda is SDG 6: ensuring the availability and management of sustainable water and sanitation.

Figure 1. Components of SDG 6: Ensure Availability and Sustainable Management of Water and Sanitation for All



Source: UNICEF's Strategy for Water, Sanitation and Hygiene (2016-2030)



Sanitation, as well as clean water, is specifically discussed at the objectives of the SDG 6, although it remains to be noted that these objectives are actually a unity. In explaining the purpose of SDG 6, it set targets or achievement targets as follows:

- 6.1** By 2030, achieve universal and equitable **access to safe and affordable drinking water** for all
- 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
- 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
- 6.4** By 2030, substantially **increase water-use efficiency** across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- 6.5** By 2030, implement **integrated water resources management** at all levels, including through transboundary cooperation as appropriate
- 6.6** By 2020, **protect and restore water-related ecosystems**, including mountains, forests, wetlands, rivers, aquifers and lakes
- 6.A** By 2030, **expand international cooperation and capacity-building support** to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- 6.B** Support and **strengthen the participation of local communities** in improving water and sanitation management

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has reported country, regional and global estimates of progress on drinking water, sanitation and hygiene (WASH) since 1990. The JMP maintains an extensive global database and has become the leading source of comparable estimates of progress at national, regional and global levels. The 2015 update marked the end of the Millennium Development Goal period and the 2017 update established baseline estimates for monitoring the new SDGs targets.



DRINKING WATER

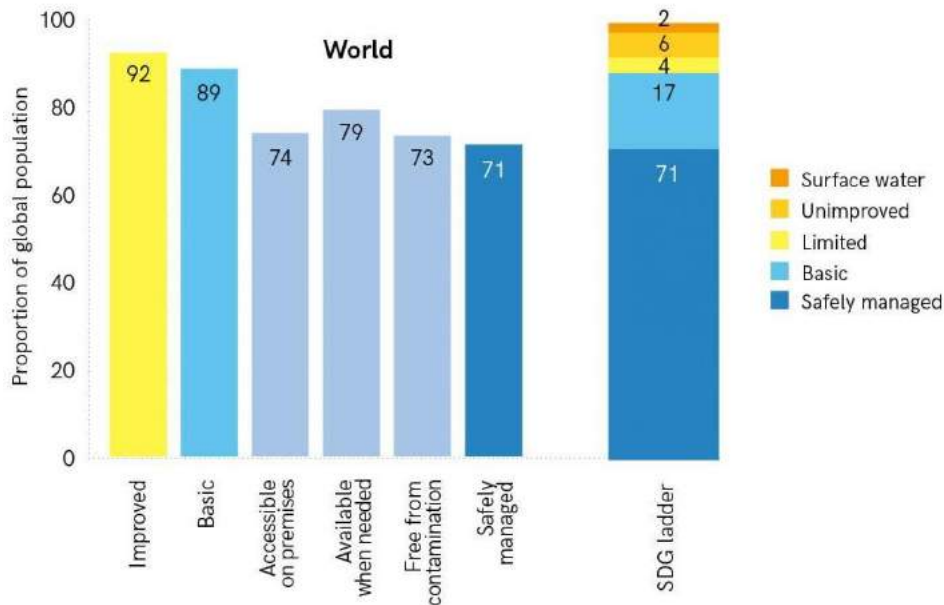
Drinking water services refers to the accessibility, availability and quality of the main source used by households for drinking, cooking, personal hygiene and other domestic uses.

Figure 2. Criteria for safely managed drinking water services



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Figure 3. SDG baseline estimates for drinking water services



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

The JMP has developed a new service ladder to facilitate enhanced monitoring of drinking water during the SDG era (Figure 4). It builds on the established source type classification, thereby providing continuity with MDG monitoring, and introduces additional criteria on the accessibility, availability and quality of drinking water services. The rungs on the ladder are designed to enable countries at different stages of development to benchmark and compare progress over time.

Figure 4. The new JMP Ladder for household drinking water

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, 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 canal
<i>Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water.</i>	

Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

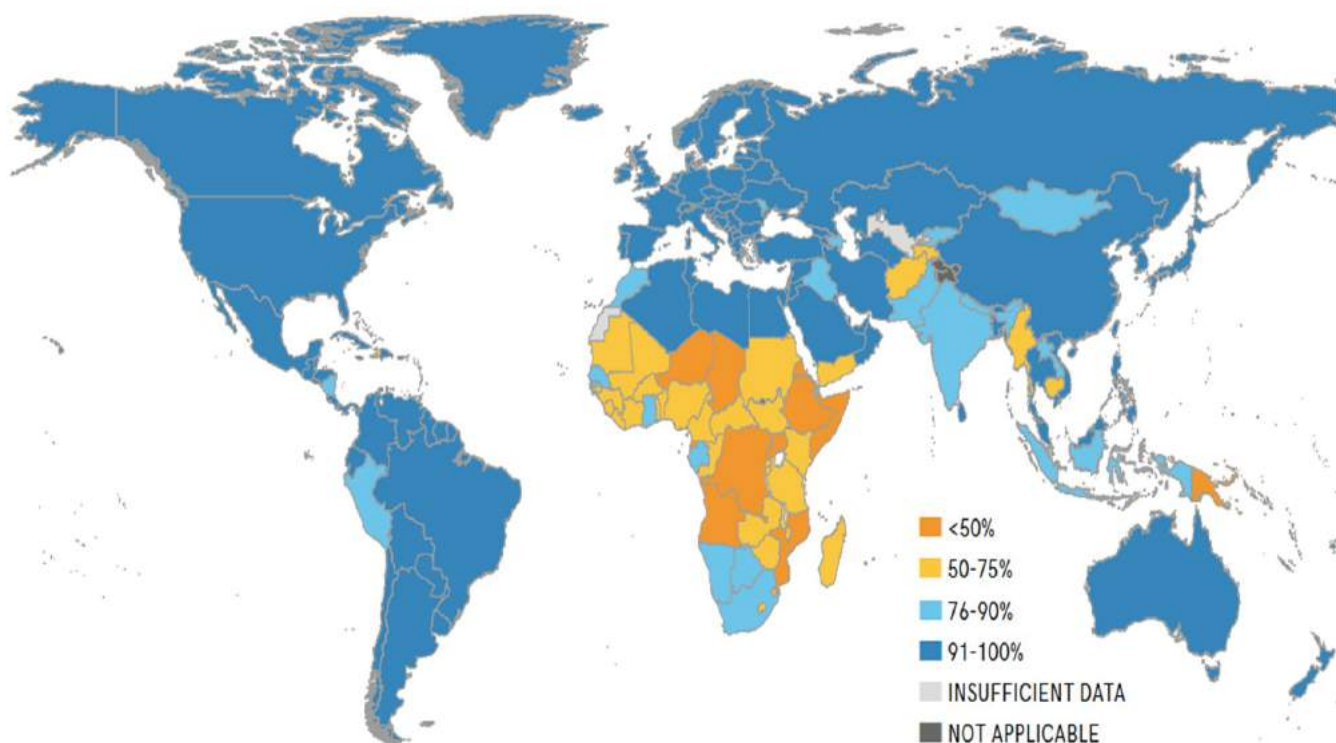
Improved drinking water sources are those which, by nature of their design and construction, have the potential to deliver safe water. The JMP subdivides the population using improved sources into three groups according to the level of service provided. In order to meet the criteria for a safely managed drinking water service, people must use an improved source meeting three criteria:

- ♦ it should be accessible on premises,
- ♦ water should be available when needed, and
- ♦ the water supplied should be free from contamination.

If the improved source does not meet any one of these criteria but a round trip to collect water takes 30 minutes or less, then it will be classified as a basic drinking water service. If water collection from an improved source exceeds 30 minutes it will be categorised as a limited service. The JMP also differentiates populations using unimproved sources such as unprotected wells or springs, and populations drinking surface water collected directly from a river, dam, lake, stream or irrigation canal.

A reports by WHO and UNICEF shows that among the three important aspects of SDG 6, namely drinking water, sanitation and hygiene, access to drinking water has experienced the most significant increase in each country. But there are still millions of people in the world who do not have access to safe drinking water, which is on-site drinking water, available when needed, and free from contamination. Even though 71% of the world's population has access to safe drinking water, 161 million people still use surface water (water directly from rivers, dams, ponds, etc.) as their source of water. There are around 264 million people who travel 30 minutes or more to get drinking water. In 2015, 181 countries achieved coverage of more than 75% with at least basic services.

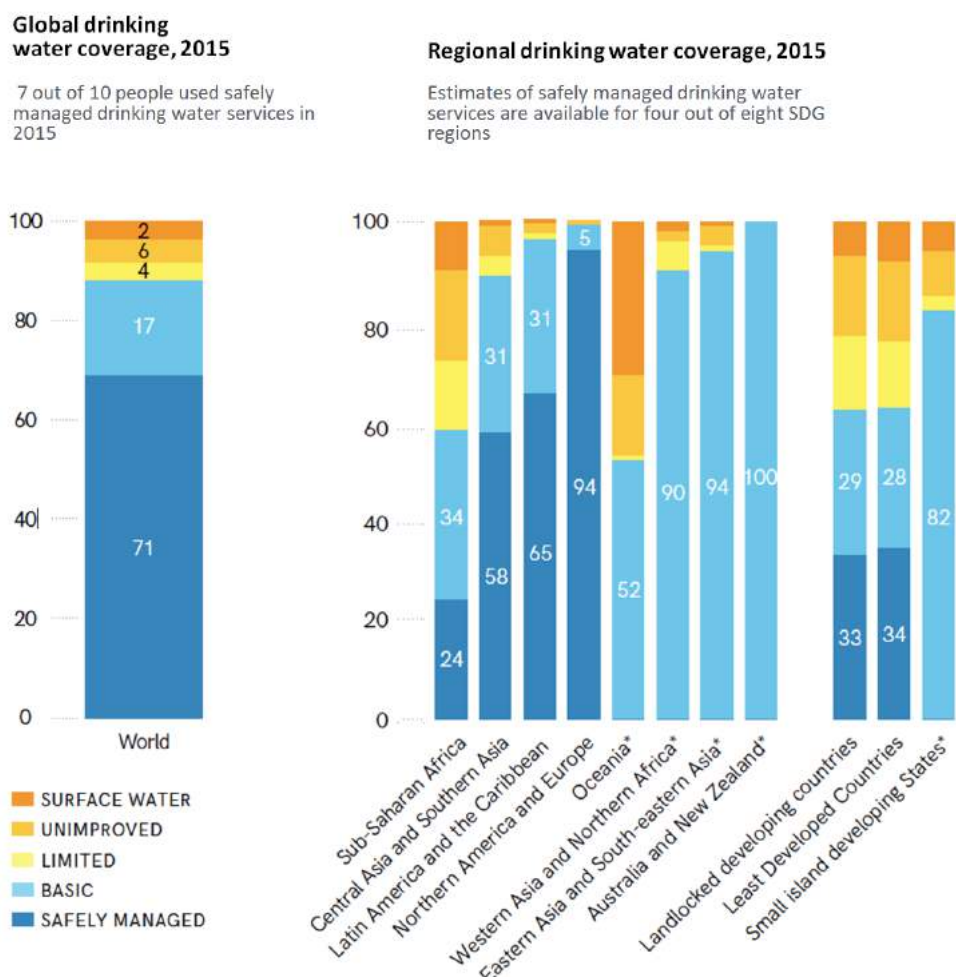
Figure 5. Proportion of national population using at least basic drinking water services, 2015



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Bhutan and Mauritania make the most significant increase in access to potable water. The percentage of the population of Bhutan, a small country in the Himalayas, which has access to basic drinking water increased by 17% between 2000 and 2015. On the other hand, the percentage of people using surface water dropped from 11% to almost none. Elsewhere in Mauritania, located in the western region of Africa, surface water use declined to almost zero in 2015 from 6% in 2000. Access to basic drinking water in this country also increased from 54% to 70%. Meanwhile, access to at least basic drinking water in Zimbabwe and Comoros has decreased between 2000 and 2015. The percentage of Zimbabweans who have access to basic drinking water has dropped from 70% to 67%, while surface water use has increased from 6% to 7% between 2000 and 2015. While in Comoros, a small island off the east coast of Africa, populations that had access to basic drinking water dropped from 86% in 2000 to 84% in 2015. However, the country improved the number of people drinking from surface water sources. Its percentage decreased from 2% to 1% in 2015.

Figure 6. Global and Regional drinking water coverage, 2015



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Target 6.1: “By 2030, to achieve universal and equitable access to safe and **affordable drinking water** for all. Indicator 6.1.1 Proportion of the population using **safely managed** drinking water services.”

Key messages in 2015:

1. 71 per cent of the global population (5.2 billion people) used a safely managed drinking water service; that is, one located on premises, available when needed and free from contamination.
2. Estimates for safely managed drinking water were available for 96 countries (representing 35 per cent of the global population), and for four out of eight SDG regions¹.
3. One out of three people using safely managed drinking water services (1.9 billion) lived in rural areas.
4. Eight out of ten people (5.8 billion) used improved sources with water available when needed.
5. Three quarters of the global population (5.4 billion) used improved sources located on premises.
6. Three out of four people (5.4 billion) used improved sources free from contamination.
7. 89 per cent of the global population (6.5 billion people) used at least a basic service; that is, an improved source within 30 minutes' round trip to collect water.
8. 844 million people still lacked even a basic drinking water service.
9. 263 million people spent over 30 minutes per round trip to collect water from an improved source (constituting a limited drinking water service).
10. 159 million people still collected drinking water directly from surface water sources, 58% lived in sub-Saharan Africa.



SANITATION

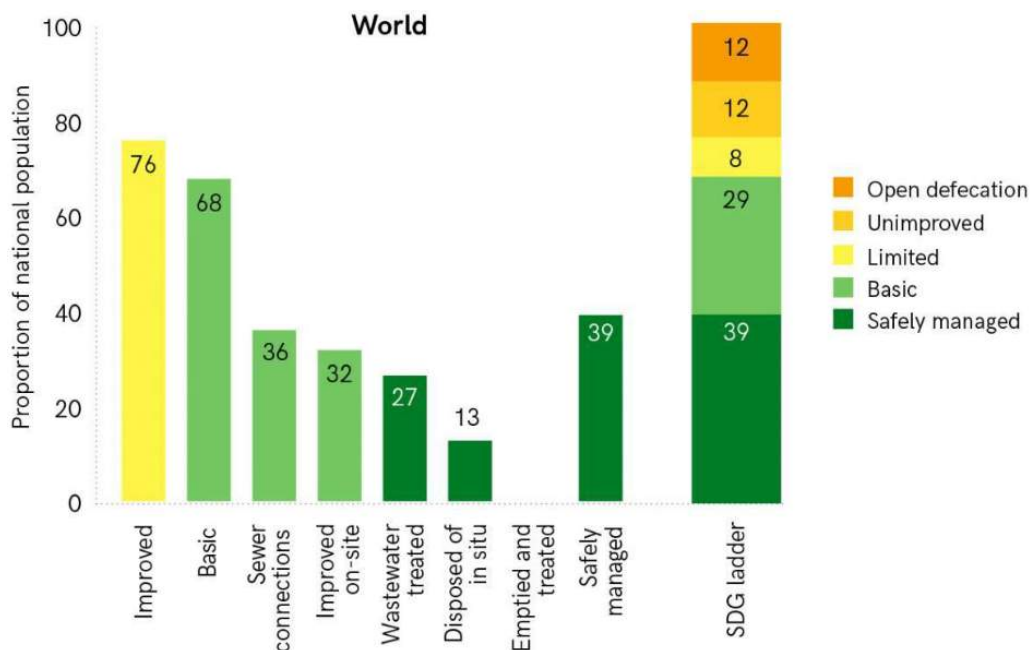
Sanitation services refer to the management of excreta from the facilities used by individuals, through emptying and transport of excreta for treatment and eventual discharge or reuse

Figure 7. JMP definition of the difference between basic and safely managed services



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Figure 8. SDG baseline estimates for sanitation services



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Improved sanitation facilities are those designed to hygienically separate excreta from human contact. There are three main ways to meet the criteria for having a **safely managed sanitation service** (SDG 6.2). People should use improved sanitation facilities which are not shared with other households, and the excreta produced should either be:

- ♦ treated and disposed in situ,
- ♦ stored temporarily and then emptied and transported to treatment off-site, or
- ♦ transported through a sewer with wastewater and then treated off-site.

If the excreta from improved sanitation facilities are not safely managed then people using those facilities will be classed as having a **basic sanitation service** (SDG 1.4). People using improved facilities which are shared with other households will be classified as having a **limited service**. The JMP will also continue to monitor the population practising **open defecation** which is an explicit focus of SDG target 6.2.

The JMP service ladders are used to benchmark and compare service levels across countries. These have been updated and expanded to facilitate enhanced global monitoring of drinking water, sanitation and hygiene. The new ladders build on the established improved/unimproved facility type classification, thereby providing continuity with past monitoring, and introduce new rungs with additional criteria relating to service levels.

Goal 6. Ensure availability and sustainable management of water and sanitation for all

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.”

Figure 9. New JMP Ladder for measuring access to sanitation services

SERVICE LEVEL	DEFINITION
SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite
BASIC	Use of improved facilities that 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 or bucket latrines
OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste

Note: improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.

Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

There are three main ways in which households can meet the criteria for a **safely managed** sanitation service. Households using toilets where the excreta are flushed out of the household, transported through sewers and treated at a treatment plant, count as **wastewater treated off-site**. For households using toilets or latrines connected to septic tanks or pits, the criteria are met when excreta are either **emptied and treated off-site**, or remain stored and are considered **treated and disposed of in situ**.

Figure 10 shows that, globally, the population using sewer connections and on-site sanitation are evenly split, at 38 per cent each. In four of the SDG regions, on-site systems are more common.

Figure 10. Population using on-site and sewer sanitation systems, by region, 2015



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Two out of five people globally (38 per cent), two thirds of those in urban areas (63 per cent) and 1 in 10 in rural areas (9 per cent) report having sewer connections. These households are classified as having safely managed sanitation services if the toilets are not shared, and if the wastes flushed out of the household reach a treatment plant and undergo at least a minimum level of treatment:

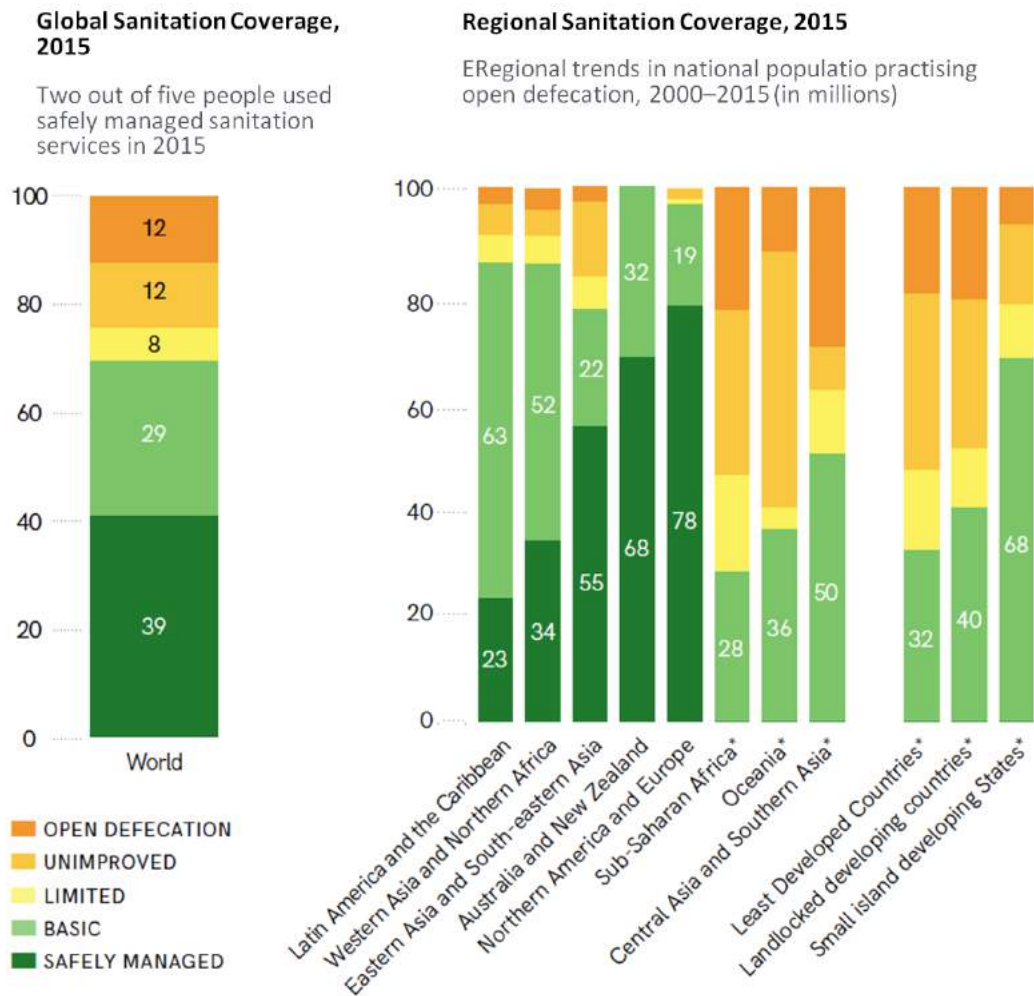
- ♦ primary treatment where the effluent is discharged through a long ocean outfall,
- ♦ secondary treatment, or
- ♦ tertiary or advanced treatment.

Data on **wastewater treatment** at the national level were available from 115 countries, representing 88 per cent of the global population with sewer connections. In 76 of these countries, more people use sewer connections than on-site sanitation.

Globally, three quarters of sewer-borne wastewater (73 per cent) is estimated to undergo at least secondary treatment. By applying this ratio to the population with sewer connections (2.8 billion), and adjusting for sharing (given that 5 per cent of people using toilets with sewer connections share them), 1.9 billion people with sewer connections are classified as having safely managed sanitation services.

A total of 711 million people, over 90 per cent of whom live in urban areas, have sewer connections that do not receive the minimum level of treatment specified above. Many more are connected to wastewater treatment plants that do not provide effective treatment or comply with effluent requirements.

Figure 11. Global and Regional Sanitation Coverage, 2015



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Key messages in 2015,

1. 39 per cent of the global population (2.9 billion people) used a safely managed sanitation service; that is, excreta safely disposed of in situ or treated off-site.
2. Estimates for safely managed sanitation were available for 84 countries (representing 48 per cent of the global population), and for five out of eight SDG regions.
3. Two out of five people using safely managed sanitation services (1.2 billion) lived in rural areas.
4. 27 per cent of the global population (1.9 billion people) used private sanitation facilities connected to sewers from which wastewater was treated.
5. 13 per cent of the global population (0.9 billion people) used toilets or latrines where excreta were disposed of in situ.
6. Available data were insufficient to make a global estimate of the proportion of population using septic tanks and latrines from which excreta are emptied and treated off-site.
7. 68 per cent of the global population (5.0 billion people) used at least a basic sanitation service.
8. 2.3 billion people still lacked even a basic sanitation service.
9. 600 million people used a limited sanitation service; that is, improved facilities shared with other households.
10. 892 million people worldwide still practised open defecation.



HYGIENE

Hygiene refers to the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene.

Hygiene has long-established links with public health, but was not included in any MDG targets or indicators. The explicit reference to hygiene in the text of SDG target 6.2 represents increasing recognition of the importance of hygiene and its close links with sanitation. Hygiene is multi-faceted and can comprise many behaviours, including handwashing, menstrual hygiene and food hygiene. International consultations among WASH sector professionals identified handwashing with soap and water as a top priority in all settings, and also as a suitable indicator for national and global monitoring.

Goal 6. Ensure availability and sustainable management of water and sanitation for all

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.”

The presence of a handwashing facility with soap and water on premises has been identified as the priority indicator for global monitoring of hygiene. Households that have a handwashing facility with soap and water available on premises will meet the criteria for a basic hygiene facility. Households that have a facility but lack water or soap will be classified as having a limited facility, and distinguished from households that have no facility at all. In some cultures, ash, soil, sand or other materials are used as handwashing agents, but these are less effective than soap and are therefore counted as limited handwashing facilities.

Figure 12. The new JMP Ladder for hygiene

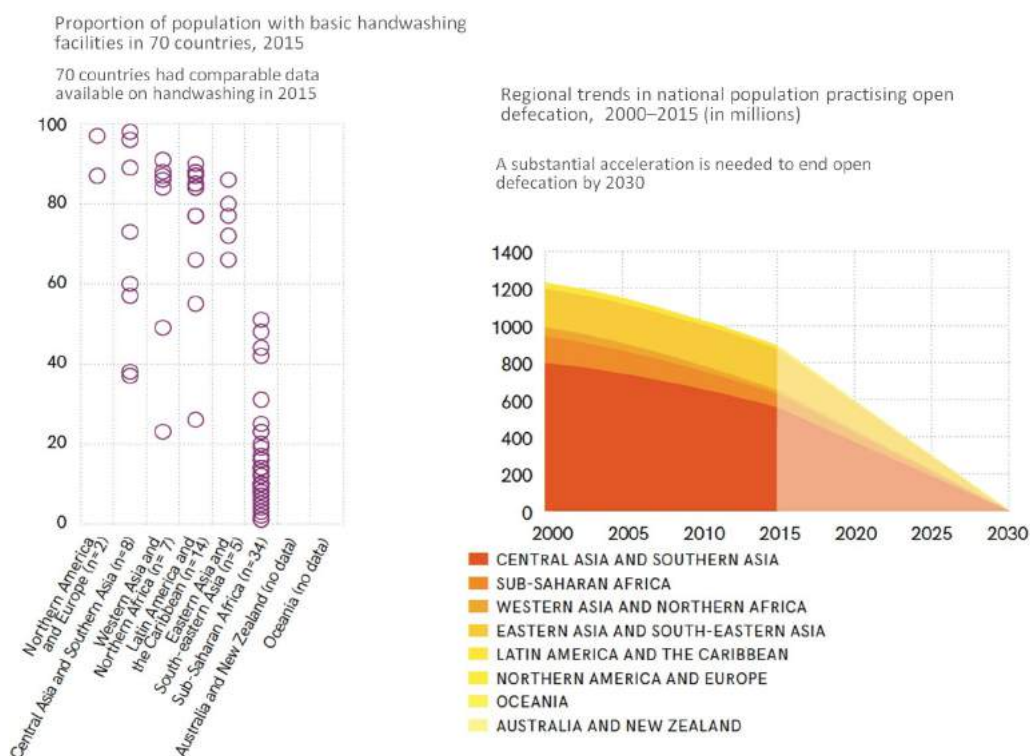
SERVICE LEVEL	DEFINITION
BASIC	Availability of a handwashing facility on premises with soap and water
LIMITED	Availability of a handwashing facility on premises without soap and water
NO FACILITY	No handwashing facility on premises

Note: Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

The new global SDG indicator for handwashing is the **proportion of population with handwashing facilities with soap and water at home**. Handwashing facilities can consist of a sink with tap water, but can also include other devices that contain, transport or regulate the flow of water. Buckets with taps, tippy-taps and portable basins are all examples of handwashing facilities. Bar soap, liquid soap, powder detergent and soapy water all count as **soap** for monitoring purposes.

Figure 13. Global hygiene indicators, 2015



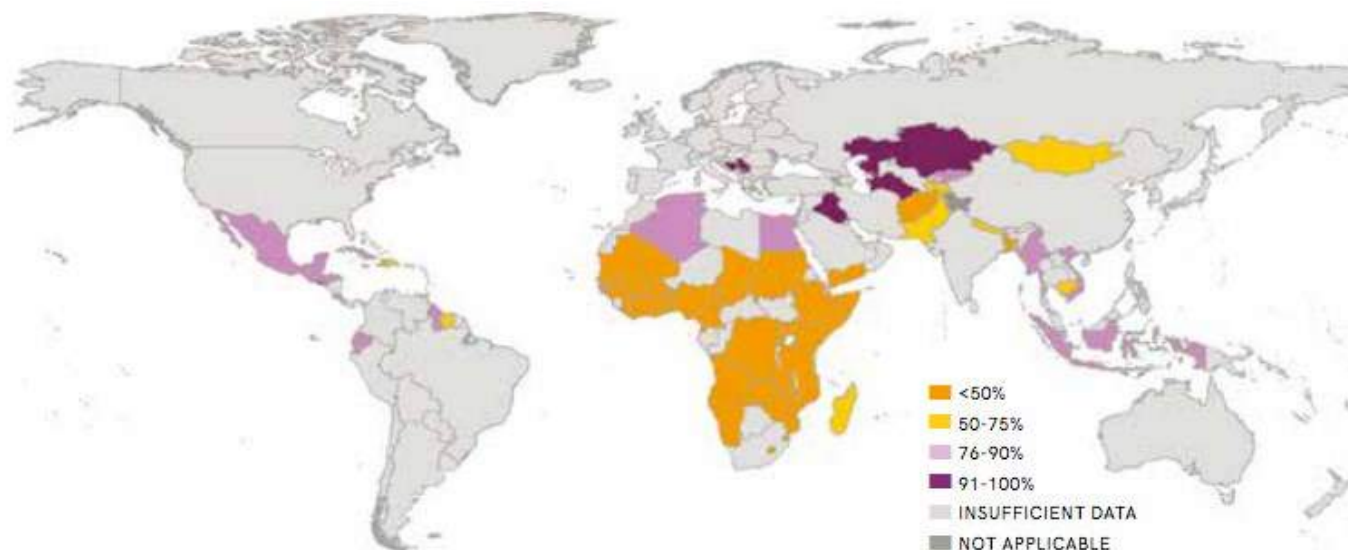
Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Between 2000 and 2015, the number of people practising open defecation declined from 1229 million to 892 million, an average decrease of 22 million people per year. As shown in Figure 13, progress will need to accelerate in order to end open defecation by 2030.

All SDG regions saw a drop in the number of people practising open defecation, except for sub-Saharan Africa, where high population growth led to an increase in open defecation from 204 to 220 million. Also in Oceania, where open defecation increased from 1 to 1.3 million.

As shown in Figure 14, most countries in Africa had less than 50% coverage with basic handwashing facilities in 2015.

Figure 14. Proportion of national population with handwashing facilities including soap and water at home, 2015



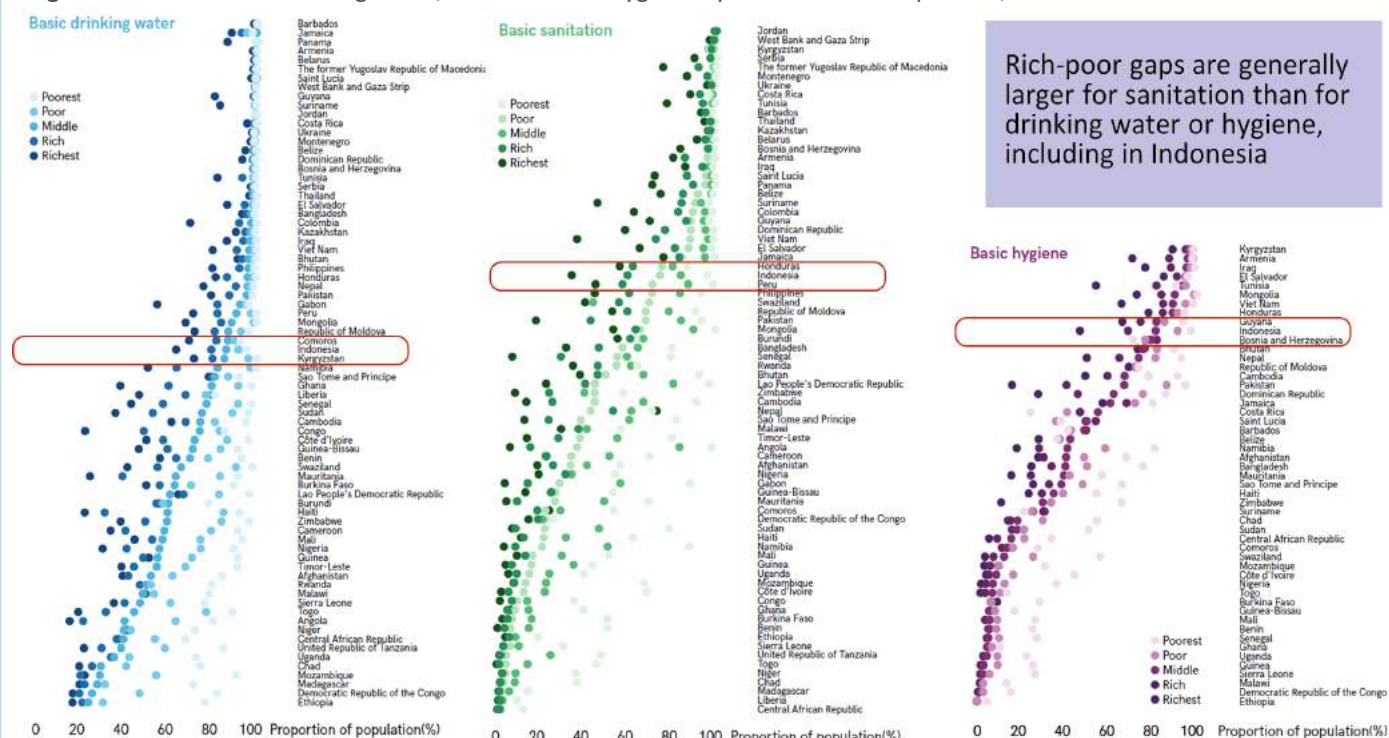
Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Key messages in 2015:

1. 70 countries had comparable data available on handwashing with soap and water, representing 30 per cent of the global population.
2. Coverage of basic handwashing facilities with soap and water varied from 15 per cent in sub-Saharan Africa to 76 per cent in Western Asia and Northern Africa, but data are currently insufficient to produce a global estimate, or estimates for other SDG regions.
3. In Least Developed Countries, 27 per cent of the population had basic handwashing facilities with soap and water, while 26 per cent had handwashing facilities lacking soap or water. The remaining 47 per cent had no facility.
4. In sub-Saharan Africa, three out of five people with basic handwashing facilities (89 million people) lived in urban areas.
5. Many high-income countries lacked sufficient data to estimate the population with basic handwashing facilities.

The JMP has established a new database on inequalities in basic drinking water, sanitation and hygiene. Inequalities are found in all countries, but the spread in basic service coverage between the different quintiles provides a useful measure of the extent to which access to services is equitable.

Figure 15. Use of basic drinking water, sanitation and hygiene by national wealth quintiles, 2010–2014



Source: WHO/UNICEF JMP Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG baseline

Figure 15 reveals significant differences in coverage of basic water, basic sanitation and basic hygiene across wealth quintiles. Overall, the gaps between quintiles are larger for sanitation than for drinking water or hygiene. Absolute gaps tend to be smaller at very low levels of coverage and then increase through lower and mid-range coverage, before converging again at higher levels of coverage.



SDG 6 DEVELOPMENT IN INDONESIA

During 2011-2015, the percentage of households in Indonesia that have access to adequate drinking water continues to increase. In aggregate (urban + rural), the percentage of households that have access to adequate drinking water increases every year, namely from 63.95 percent in 2011 to 70.97 percent in 2015. With a consistent increase, the target SDGs provide convenience for all residents and ensuring access to housing with decent basic services by 2030 is also optimistic that it will be achieved.

In 2015, the percentage of households with access to decent drinking water has reached 81.30 percent and has exceeded the MDG target of 75.29 percent in 2015. The percentage of households that have access to decent drinking water for urban areas is increasing every year. The high percentage of households with access to decent drinking water also provides optimism for achieving the SDGs target while continuing to maintain and improve basic services for safe drinking water for urban households.

Figure 16. Proportion of populations with access to decent and sustainable drinking water services by province (in Percent), 2016



Source: Central Bureau of Statistics, processed

Access to decent drinking water source services has been relatively evenly distributed but needs to be accelerated to reach the 100% target by 2019. Only access to safe drinking water sources for rural residents still needs special attention from the government. At present, although it is smaller, the gap between the access of households in urban and rural areas to drinking water sources is still relatively wide.

Figure 17. Percentage of Sources of Decent Household Water Supply, 2009 - 2017



Source: Central Bureau of Statistics, processed

Decent sanitation facilities are sanitation facilities that meet health requirements, including toilets using goose necks or cages with lids, landfills using septic tanks or Waste Water Treatment Systems, and these sanitation facilities are used by households alone or together with certain other households.

Proper and sustainable sanitation includes 5 (five) criteria, namely (1) stop open defecation; (2) washing hands with soap; (3) management of drinking water and household food; (4) safe management of household waste; and (5) safe management of household wastewater.

Figure 18. Proportion of households with access to decent sanitation by province (in Percent), 2017



Source: Central Bureau of Statistics, processed

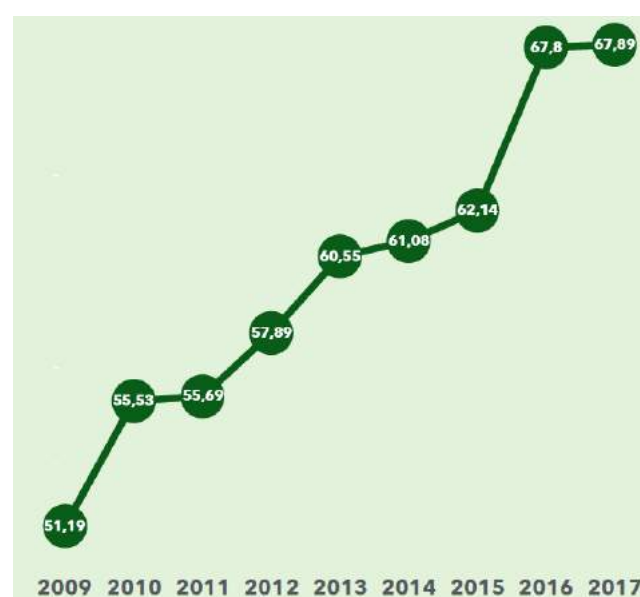
The proportion of the population that has access to proper and sustainable sanitation services is the ratio of households that have access to proper sanitation facilities with all households, expressed as a percentage. This indicator is used to measure population or households that have access to decent sanitation services both in urban and rural areas. This indicator illustrates the level of people's welfare from the aspect of health.

During 2011-2015, the percentage of households in Indonesia that have access to proper sanitation has increased. The percentage of households with decent sanitation reached 62.14 percent in 2015. Proper sanitation development needs attention and acceleration to achieve the 100% universal access target in 2019. With a consistent increase every year, the SDGs target to provide access to sanitation and health easy and evenly distributed for all residents in 2030 optimism will be achieved.

In the same period, the percentage of urban households that had proper sanitation increased every year. In 2015, the percentage of households with access to proper sanitation had reached 76.36 percent. This shows that the proportion of households with proper sanitation access according to the MDG target of 76.82 percent in 2015 has not been fully achieved. With continuous efforts to improve proper sanitation access services, optimal target SDGs will be achieved.

Households in rural areas that have decent sanitation are fewer than urban households. During 2011-2015 the percentage increased every year from 39.04 percent to 47.84 percent. There are still many households that do not have access to proper sanitation requiring the government to work hard to achieve the SDGs target by 2030, namely achieving easy and equitable access to sanitation and health for the entire population.

Figure 19. Percentage of households having access to proper sanitation, 2009 - 2017



Source: Central Bureau of Statistics, processed

Community Based Total Sanitation (CBTS) is an Indonesian approach to change hygienic and sanitary behavior through community empowerment by triggering. CBTS includes 5 (five) criteria, namely (1) stop open defecation; (2) washing hands with soap; (3) management of drinking water and household food; (4) safe management of household waste; and (5) safe management of household wastewater.

Hand Wash Using Soap is the behavior of washing hands using clean running water and soap. Household Water and Food Water Management is the activity of managing drinking water and food in households to improve and maintain the quality of water from water sources that will be used for drinking water, and to apply the principle of food sanitation hygiene in the process of food management in households.

Figure 20. Proportion of populations having hand washing facilities with soap and water by province (in Percent), 2016



Source: Portrait of SDG development in Indonesia, Central Bureau of Statistics, processed

The following is a summary of regulations in Indonesia regarding the provision of potable and sanitary water

Figure 21. Regulatory framework related to water supply and sanitation in Indonesia



Source: Indonesian Regulation, processed

In 2009, Indonesia launched a national program for the Acceleration of Settlement Sanitation Development (Percepatan Pembangunan Sanitasi Permukiman or PPSP) initiated by the Sanitation Development Technical Team (Tim Teknis Pembangunan Sanitasi or TTPS) by promoting the City Sanitation Strategy (Strategi Sanitasi Kota or SSK). At that time, this program was also to support the efforts of the Indonesian Government to fulfill the Millennium Development Goals (MDGs) objectives, especially those related to item 7 of the 10th MDGs, namely reducing the half of the population who do not have sustainable access to safe drinking water and proper sanitation in 2015. The PPSP target is that in 2015 it can reach 330 cities/districts throughout Indonesia. Apparently, the results of his achievements far exceeded the target. Until 2014, there were 446 cities/districts registered as participants in the PPSP program. Therefore, PPSP is expected to be an umbrella for various activities related to the development of the ongoing sanitation sector.

PPSP is directed at 3 goals, namely:

1. Stop open defecation (BABS) behavior in 2014, in urban and rural areas.
2. Reduction of landfill waste from its sources and environmentally friendly waste handling
3. Reduction of inundation in 100 regencies/cities covering 22,500 hectares.

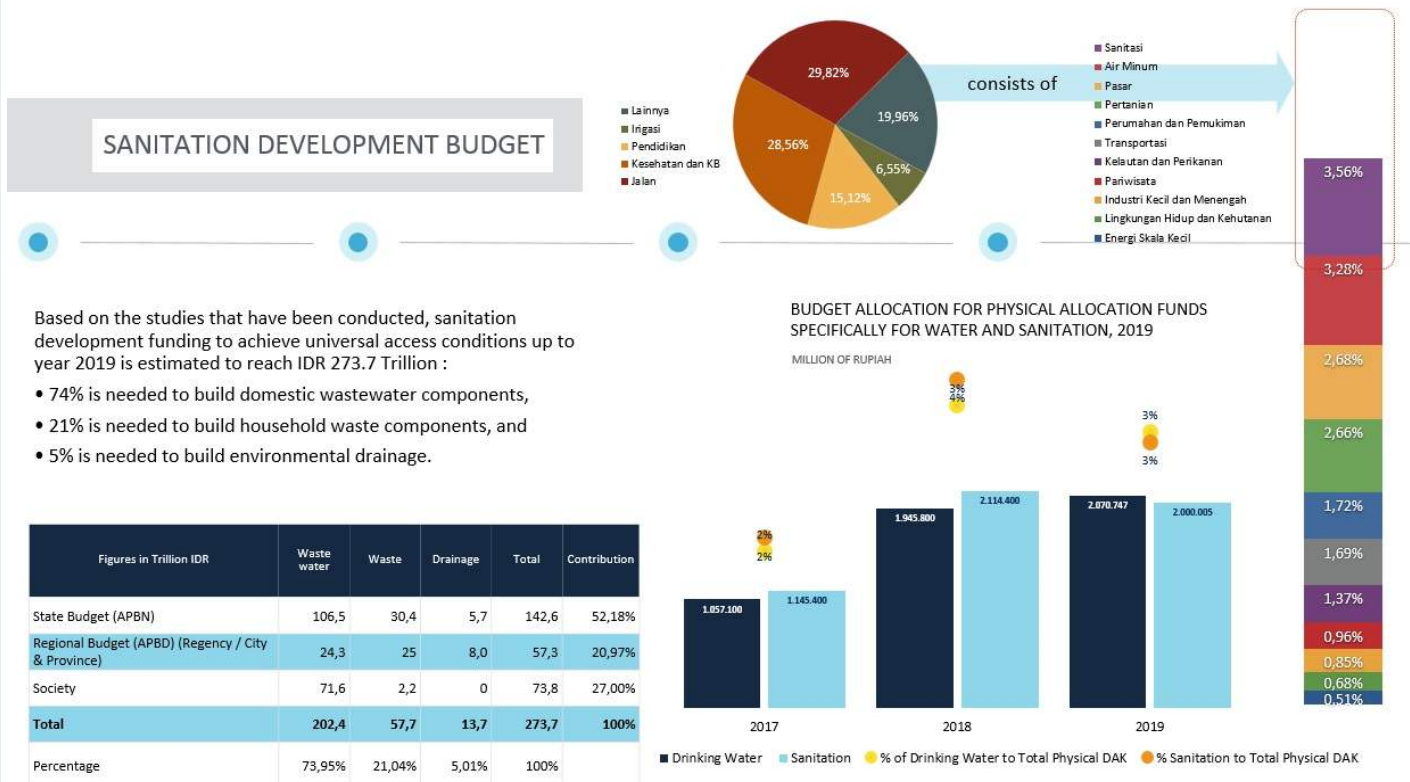
Figure 22. Indonesia Program to Accelerate Sanitation Development



Source: PPSP, 2009

To finance a proper sanitation development program, in addition to the budget allocated through the APBN and APBD, various funding sources innovations need to be carried out considering the amount of funds needed to achieve development targets in accordance with the SDG.

Figure 23. Funding for Proper Sanitation Development in Indonesia



Source: Road Map 2015 - 2019 : ACCELERATION PROGRAM FOR SETTLEMENT SANITATION DEVELOPMENT ; Ministry of Finance

The following are the types and fields of physical infrastructures that have been budgeted for in the development of proper sanitation and drinking water for the 2019 budget year.

Figure 24. Types and Physical Area of Special Allocation Funds (DAK) for the Fiscal Year 2019

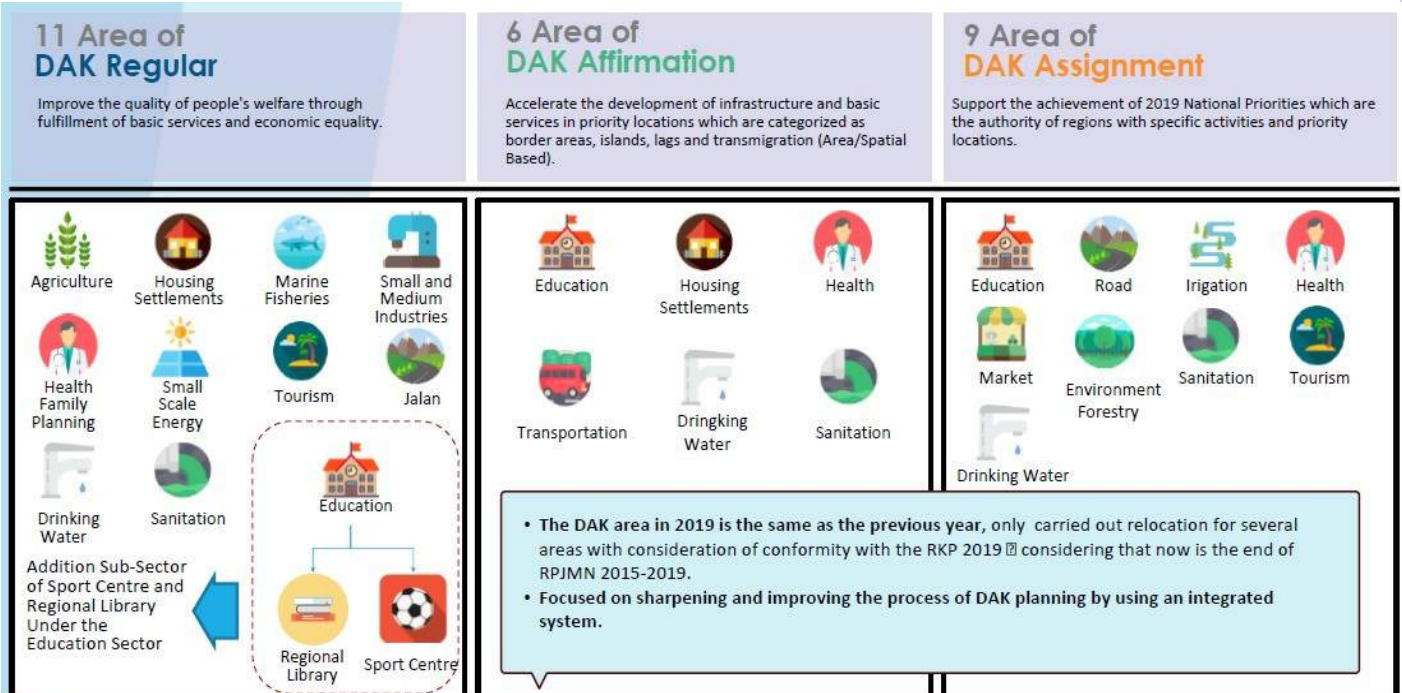


Figure 25. Target for Output Achievement of Physical Special Allocation Fund (DAK), 2019



Source: processed

The policy direction of the DAK in the Water Sector is to realize universal access to drinking water and fulfillment of Minimum Service Standards (SPM) and support national priority programs through the use of idle capacity of the Water Supply System (SPAM), new SPAM development for regions that do not have drinking water services and increase in SPAM through additional capacity and / or volume of existing facilities and infrastructure.

Figure 26. Technical Criteria of DAK Physical Assessment for Drinking Water in 2019

Assess ment criteria	<ol style="list-style-type: none"> 1. Idle capacity of SPAM; 2. Targets of house extension and number of people served; 3. SPAM management institution; 4. Availability of FS, availability of DED, availability of land; 5. Listed in the PDAM business plan, and Community Work Plan; 6. Proposed SPAM development capacity; 7. Permit for taking/using raw water source; 8. The distance of SPAM to the pollution source exceeds 10 meters; 9. The distance of rainwater reservoirs and springs is at least 10 meters.
Priority Location	<ol style="list-style-type: none"> 1. District/City with access is lower than national drinking water access (<72,04%); 2. 31 priority cities which are the locations of KOTAKU (MY CITY); 3. 37 Regencies/Cities that have regional SPAM; 4. The implementing villages of PAMSIMAS year 2008-2018 which are located in 365 districts; 5. 12 Districts / Cities with service coverage approaching to 100%; 6. 122 Less Developed Districts; 7. 7 Posts in Cross Border between countries (PLBN), 10 National Strategic Activities Centers (PKSN), and 187 sub-districts with border priority locations; 8. 111 outermost small islands (PKT); 9. 144 transmigration areas in 135 districts/cities in accordance with the Letter of Secretary General of the Ministry of Village, Development of Less Developed Areas and Transmigration No S1332/SJKDPD'IT/OB 12017; 74 transmigration areas in 70 districts / cities in accordance with the Decree of the Village Minister, Development of Less Developed Areas and Transmigration No. 9 Year 2016; 10. All districts in Papua and West Papua; 11. 160 districts/cities and 1000 villages that are the location for stunting treatment;

Source: Ministry of PUPR

The DAK Physical Policy for Sanitation aims to realize universal access to sanitation and fulfillment of Minimum Service Standards (SPM) through local government support, especially to increase the coverage of centralized and local wastewater management facilities, in the form of communal and individual community-based facilities and/or additional home connections, construction of Fecal Treatment Plant (Instalasi Pengolahan Lumpur Tinja or IPLT) and procurement of stool trucks in Districts or Cities that have City Sanitation Strategy (Strategi Sanitasi Kota or SSK) documents as well as construction of Reuse Reduce Recycle Waste Management Sites (TPS JR) and Development of Environmental Drainage.

Figure 27. Technical Criteria of DAK Physical Assessment for Sanitation in 2019

Assessment criteria	<ol style="list-style-type: none"> 1. The readiness of investment program, ownership of City Sanitation Strategy (SSK) documents and Medium Term Investment Program Plans (RPIJM). 2. Settlement area/cluster with density of >150 person/Ha 3. Districts/cities that already have centralized SPALD and have idle capacity. 4. Villages that have ODF for at least 1 year (at the latest 1 January 2018) 5. Districts/cities that already have SPALD-T (with scale of urban and/or settlement). 6. Slum alleviation planning document, the master plan and its DED. 7. Islamic boarding schools/religious education institutions which have a minimum of 300 permanent students.
Priority Location	<ol style="list-style-type: none"> 1. Regions that have or are currently preparing District/City Sanitation Strategy documents (SSK); 2. 122 Less Developed Districts; 3. 7 Posts in Cross Border between countries (PLBN), 10 National Strategic Activities Centers (PKSN), dan 187 sub-districts with border priority locations; 4. 111 outermost small islands (PKT); 5. 52 of 144 transmigration areas; 6. All districts in Papua and West Papua provinces; 7. 31 priority cities for slum handling acceleration which is the location of KOTAKU (MY CITY); 8. Districts/cities that already have IPLTs that have been functioning or are currently/already have compiled a feces sludge management system (regular/on-call basis); 9. Districts implementing PAMSIMAS and 1000 Stunting Villages.

Source: Ministry of PUPR

CHALLENGES AND CONSTRAINTS TO ACCESS 100% TO WATER WORTH DRINKING

- ♦ By looking at the achievement trends in 2009-2016, there is a gap or distance of 28.86% to jump to 2019. It is hoped that it can be achieved in 2019.
- ♦ Idle capacity or unused capacity is still very large at 37,900 liters/second. This means that from all raw water sources, there is water that has not been treated in SPAM.
- ♦ Non-Revenue Water, which is the volume of non-revenue water or water loss from PDAM, is very large at 33%. For the company calculations, this figure is a huge loss.
- ♦ Good technology and infrastructure are needed to meet those needs.
- ♦ The number of healthy PDAMs is only 196 (52%) and there are 172 less healthy or sick companies (48%) and increased access for the last 5 years which only touched 4.5% per year.
- ♦ State budget (or APBN) allocations that still need a budget tagging to allocate the needs for achieving SDG, especially drinking water and sanitation.
- ♦ The Local Government's commitment to funding drinking water is less than 10% of the APBD needs.

CHALLENGES AND CONSTRAINTS FOR DECENT SANITATION ACCESS

- ♦ The success of sanitation handling is one that meets the required technical rules.
- ♦ Non-technical factors include the presence of community participation from planning, construction, utilization and management so that the sanitation facilities or infrastructure can be maintained
- ♦ Important factors for community-based sanitation development include regulations, the role of the private sector, financing, institutions, technology, community involvement, culture, gender, social impacts and environmental impacts.
- ♦ So far, financing has been carried out by the government. The high cost of the management process makes people reluctant to manage it. Regulations are needed as an incentive for LGs to increase the allocation from the Regional Budget. Funding innovation is needed, especially for local governments
- ♦ Technology includes the ease of spare parts, especially those from local origin, community acceptance, tool resilience, efficiency, and operational ease.
- ♦ Institutional factors include regulation, sanctions, government control, and community institutions.
- ♦ Factors of community involvement include involvement without looking at gender, willingness to maintain, willingness to contribute, and willingness to pay.
- ♦ Environmental impact factors are seen from the ability of these facilities to manage the environment, efficient energy use, and also the efficiency of raw materials.

CONCLUSION

- ♦ Acceleration is needed in the development of access to safe drinking water, and especially proper sanitation.
- ♦ Need to monitor performance continuously.
- ♦ Sanitation development is relatively lagging so it is necessary to study the development of drinking water along with sanitation development.
- ♦ Funding for the provision of adequate water and sanitation facilities needs to be improved. However, evaluation of specific allocations needs to be done so that data is more accurate
- ♦ In addition to physical development, providing education and advocating to the community for the importance of sanitation, both development and maintenance.

RECOMMENDATION

- ♦ Review of related regulations is needed with incentives for LGs to increase APBD allocations for sanitation and construction of facilities.
- ♦ It needs a budget tagging of the APBN and APBD as a budget allocation in achieving SDG, especially sanitation development.
- ♦ Funding innovations need to be carried out, especially for regional governments to accelerate the achievement of universal access targets in 2019.
- ♦ So far the Physical DAK allocation for education, health has the largest portion. It is necessary to review the allocation of drinking water and sanitation as part of prevention in the health sector.
- ♦ It is necessary to involve NGOs in providing education and advocacy regarding the importance of sanitation to the community.

ADVANCED RESEARCH

- ♦ Allocation of ABPN and APBD in detail for the water and sanitation sector.
- ♦ The most effective public education system.
- ♦ Funding patterns for sanitation development by involving the community extensively.



Disclaimer

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