

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

Indicator 6.3.1: Proportion of wastewater safely treated

## Institutional information

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**Organization(s):**

World Health Organization (WHO)

United Nations Human Settlements Programme (UN-HABITAT)

## Concepts and definitions

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**Definition:**

Proportion of wastewater generated by households and by economic activities which is safely treated based on treatment ladders as defined by the SEEA:

(<http://unstats.un.org/unsd/envaccounting/water.asp>, and International Recommendations for Water Statistics and IRWS: <http://unstats.un.org/unsd/envaccounting/irws/irwswebversion.pdf>) compared to total wastewater generated by households and economic activities.

This indicator covers households and the entire economy, and builds on the monitoring framework of JMP, UNSD/UNEP Water Questionnaire for non OECD/Eurostat countries, OECD/Eurostat Questionnaire for OECD countries, AQUASAT, IBNET. Statistical methods for measurement of wastewater treatment is aligned with the SEEA21 statistical standard and associated definitions, classifications and treatment categories (Encompasses all wastewater generated and treated by the economy. Treatment Categories will be consistent, as much as possible within the context of global monitoring purposes, with those defined in the SEEA (<http://unstats.un.org/unsd/envaccounting/water.asp>), and International Recommendations for Water Statistics (IRWS: <http://unstats.un.org/unsd/envaccounting/irws/irwswebversion.pdf>)

In addition, combining UNIDO industries database (<http://stat.unido.org/>) ISIC standard Classification system ( [http://unstats.un.org/unsd/publication/seriesM/seriesm\\_4rev4e.pdf](http://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf) ), will allow for data to be disaggregated for industrial/commercial wastewater into various economic activities, as well as differentiate hazardous industries from the rest. USEPA has harmonized hazardous waste classification with EU regulations compliment ISIC codes for all waste classes. ([www.epa.ie/pubs/reports/waste/stats/wasteclassification/EPA\\_Waste\\_Classification\\_2015\\_Web.pdf](http://www.epa.ie/pubs/reports/waste/stats/wasteclassification/EPA_Waste_Classification_2015_Web.pdf))

The household portion of wastewater is the same indicator as 6.2.1, and the monitoring of that will be interlinked to JMP monitoring for 6.2.1. Over the last 25 years the JMP has established global norms and standards for monitoring drinking water, sanitation and hygiene. The proposed 6.2.1. indicator builds on

these and was developed following extensive consultations with sector experts. Major international consultations took place in 2011 and 2012, as well as many regional and country consultations in various parts of the world.

Existing global norms and standards and technical recommendations for SDG monitoring are documented here: [http://www.wssinfo.org/fileadmin/user\\_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater\\_WHO-UNICEF\\_8October2015\\_Final.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater_WHO-UNICEF_8October2015_Final.pdf).

**Rationale:**

Purpose and rationale for this indicator can also be found in the methods document:

<http://www.wssinfo.org/post-2015-monitoring/> and summarised in the following methodological note (p12): [http://www.wssinfo.org/fileadmin/user\\_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater\\_WHO-UNICEF\\_8October2015\\_Final.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater_WHO-UNICEF_8October2015_Final.pdf)

**Concepts:**

See above. Global norms and standards and technical recommendations for SDG monitoring are documented here: [http://www.wssinfo.org/fileadmin/user\\_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater\\_WHO-UNICEF\\_8October2015\\_Final.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater_WHO-UNICEF_8October2015_Final.pdf).

System of Environmental and Economic Accounting for Water, adopted by Statistical Commission in 2014. This accounting structure means that these activities cover the whole economy and are considered for each industry, which are defined according to the International Standard Industrial Classification of all Economic Activities (ISIC), and covering 1) abstraction and distribution of water, 2) discharge, reuse and treatment of wastewater, and 3) consumption and returns of water back to the environment, in this accounting structure, disaggregated by industry in a standardised way. Economic activities by ISIC broadly covers agriculture, hazardous industries and other economic activities

**Comments and limitations:**

The main issue regarding safely managed drinking water services will be comparability of data on the definition of what is considered safe treatment. Although there are international guidelines and standards, their compliance by countries is not internationally binding. Countries can set their own standards which can vary from international norms and standards. For this reason, country data may not follow the international standard that JMP likes to follow for its global monitoring purposes.

Having said the above, using MDG experiences of data reconciliation, and working collaboratively with JMP on this will help reconciling definitional discrepancies and hence variations in estimates. This vast experience in dealing with such issues will be very useful in dealing with the above issues for the SDG period.

## Methodology

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**Computation Method:**

The calculation of the indicator value as derived from the framework is the amount treated (off-site and on-site) divided by the total amount of waste produced. Data on treatment of domestic wastewater will come from the multi- purpose indicator 6.2.1. Data on volumes of industrial wastewater can be estimated from inventories of industries, which will be available in the majority of Member States disaggregated by ISIC classifications. The breakdown of treated wastewater can be calculated based on compliance records, related to national standards. Unless verified otherwise, through audited compliance records, the waste generated will be considered untreated.

**Disaggregation:**

Since this indicator is disaggregated for households and non-households (industrial and commercial establishments, as per the classification of ISIC Rev4); more can be found on the methods note: [http://www.wssinfo.org/fileadmin/user\\_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater\\_WHO-UNICEF\\_8October2015\\_Final.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/Methodological-note-on-monitoring-SDG-targets-for-WASH-and-wastewater_WHO-UNICEF_8October2015_Final.pdf).

**Treatment of missing values:**

- [At country level](#)

The calculation of the indicator value as derived from the framework is the amount treated (off-site and on-site) divided by the total amount of waste produced. Data on treatment of domestic wastewater will come from the multi- purpose indicator 6.2.1. Data on volumes of industrial wastewater can be estimated from inventories of industries, which will be available in the majority of Member States disaggregated by ISIC classifications. The breakdown of treated wastewater can be calculated based on compliance records, related to national standards. Unless verified otherwise, through audited compliance records, the waste generated will be considered untreated.

- [At regional and global levels](#)

No data is published for countries for which we couldn't find country data

**Regional aggregates:**

See methods note mentioned above and 11.2 above.

**Sources of discrepancies:**

WHO is required by World Health Assembly resolution to consult on all WHO statistics, and seek feedback from countries on data about countries and territories. Before publishing all JMP estimates undergo rigorous country consultations facilitated by WHO and UNICEF country offices. Often these consultations give rise to in-country visits, and meetings about data reconciliations.

## Data Sources

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**Description:**

Preliminary estimates are available for 140 countries for 6.2.1, which is the same as the household part of this indicator: [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/02/11/090224b084172a75/1\\_0/Original/The0costs0of0m0iene000data0catalog.xlsx](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/02/11/090224b084172a75/1_0/Original/The0costs0of0m0iene000data0catalog.xlsx).

Since the publication of this, joint searches with JMP found national data available for most countries of the world. However extensive data from various sources could be combined from i) UNSD-UNEP questionnaire: <http://unstats.un.org/unsd/environment/questionnaire.htm>; ii) OECD: <https://data.oecd.org/water/waste-water-treatment.htm>. lii) AQUASTAT: <http://www.fao.org/nr/water/aquastat/data/query/index.html?lang=en>, iv) IBNET: <https://www.ib-net.org/>. v) GWI: <https://www.globalwaterintel.com/>.

#### **Collection process:**

As mentioned earlier, data is collected directly from country sources, and following established method, estimates are shared with countries to receive their feedback before publication. See 6.1 above for more details.

## Data Availability

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#### **Description:**

1. Although classified ahead of the 3rd IAEG meeting as Tier III indicator showing needing methodological developments, as we showed at that meeting that this indicator should be classified as a tier I indicator as it has established methodology, following international standards, as well as it has extensive data coverage for most countries for it to be a solid SDG indicator. We also have had since 3rd IAEG meeting extensive discussions with several countries about this indicator, including IAEG member countries.
2. Most countries of the world, including the MDG regions, covering 90% of the global population (2010 onwards), as well as 50% of the countries of the world, covering at least 50% of the global population, including all MDG regions, for 2000-2009 period.
3. Preliminary estimates are available for 140 countries for 6.2.1, which is the same as the household part of this indicator: [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/02/11/090224b084172a75/1\\_0/Original/The0costs0of0m0iene000data0catalog.xlsx](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2016/02/11/090224b084172a75/1_0/Original/The0costs0of0m0iene000data0catalog.xlsx). Since the publication of the report above, WHO and UNHABITAT have been collecting data directly from country sources, and have now data on treatment of wastewater from majority of countries of the world, many of which also provide time series data.
4. Following further testing, a revised SDG baseline estimate will be available soon, along with estimates for other parts of this wastewater indicator, i.e. industrial and commercial parts broken down by economic activities following SEEA definitions and standards.

5. For links to a few data sources mentioned in Q11 below: i) UNSD-UNEP questionnaire: <http://unstats.un.org/unsd/environment/questionnaire.htm>; ii) OECD: <https://data.oecd.org/water/waste-water-treatment.htm>. Iii) AQUASTAT: <http://www.fao.org/nr/water/aquastat/data/query/index.html?lang=en>, iv) IBNET: <https://www.ib-net.org/>. v) GWI: <https://www.globalwaterintel.com/>."

**Time series:**

WHO and UNHABITT plans to publish its first SDG baseline report with 2015 estimate, and build a time series as we move into the SDG period. (From NA to NA)

## Calendar

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**Data collection:**

Started data collection and will run through the beginning of 2017. (From NA to NA)

**Data release:**

The baseline SDG report is due mid-2017 to feed into the SG's report to be released in July 2017. (The baseline SDG report is due mid-2017 to feed into the SG's report to be released in July 2017. )

## Data providers

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National statistics offices, Ministries of water, sanitation, health, environment. Regulators of sanitation services.

## Data compilers

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WHO and UNHABITAT

## References

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**URL:**

[www.wssinfo.org](http://www.wssinfo.org) (website to be enhanced to accommodate wastewater data, as JMP sanitation indicator also to address wastewater part)

**References:**

1. The latest data from 140 countries on the use of safely managed sanitation services, which is the same as domestic part of wastewater indicator, published in the report that was produced in collaboration between the World Bank and the JMP. The report and data sources could be found at this link: <http://www.worldbank.org/en/topic/water/publication/the-costs-of-meeting-the-2030-sustainable-development-goal-targets-on-drinking-water-sanitation-and-hygiene>

2. Additionally, as explained in the methods note (see link above), other data from international databases like UNSD-UNEP, OECD, EUROSTAT, AQUASTAT (FAO), IBNET (World Bank), Global Water Intelligence, as well as data from national regulators, and other parts of national statistical systems from around the world will be integrated for monitoring 6.3.1. Combining the various data sources, it is believed that data from over 180 countries could be used for global reporting purposes.

3. This indicator is classified as a Tier I indicator, as it is conceptually clear, has an established methodology as well as standards, and data are regularly produced by almost all countries that can be used for global reporting."

## Related indicators

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### **6.2:**

(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure

### **Comments:**

[Target 6.2](#)