

# SDG Indicator 6.3.2 on ambient water quality

## 2023 Data Drive Updates

UNEP GEMS/Water



- **Context**
- **Indicator recap**
- **Timeline**
- **2021 Progress Report findings**
- **Updates**
  - New SDG Water Quality Hub
  - Level 2 Reporting
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# SDG 6 indicators



United Nations  
Statistics Division



UNEP



OECD



World Health  
Organization



# Target 6.3 and Indicator 6.3.2

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
- **Indicator 6.3.2 - Proportion of bodies of water with good ambient water quality**

**TARGET** **6.3**

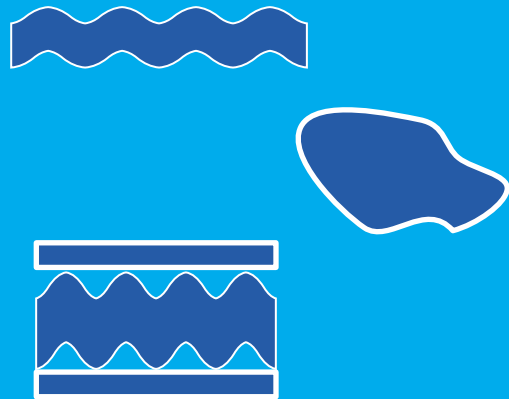


**IMPROVE WATER  
QUALITY, WASTEWATER  
TREATMENT AND SAFE  
REUSE**

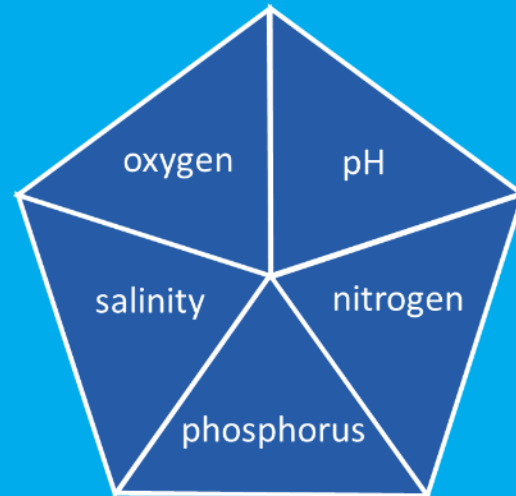
# Proportion of bodies of water with good ambient water quality

Waterbodies need to be defined within the country:

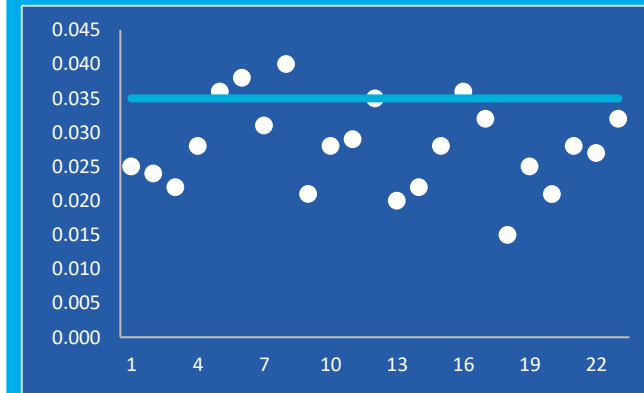
**rivers,**  
**lakes, and**  
**groundwaters**



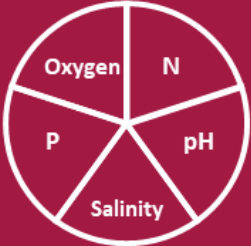













Water quality is classified by comparing measurements with **target values** for specific **parameters** from specific **parameter groups**



Good water quality represents at least **80%** compliance of measurements with target values



# Level 1 and Level 2

Reporting Level	Level 1	Level 2
Data Collection	In-situ only	In-situ or remote
Data Type	 <p>Physico-chemical</p>	<p>Physico-chemical</p>  <p>Biological / Ecosystem</p>  <p>Pathogens</p> 
Data Source	<p>National monitoring programme</p>  <p>Private sector</p>  <p>Academic sector</p>  <p>Citizen</p> 	<p>National monitoring programme</p>  <p>Private sector</p>  <p>Academic sector</p>  <p>Citizen</p>  <p>Earth observation</p>  <p>Models</p> 

# SDG Indicator 6.3.2 - Timeline

2016 - Method development and testing

2017 - Global data drive

2018 – Progress Reporting

2019 – Feedback process and prepare for data drive

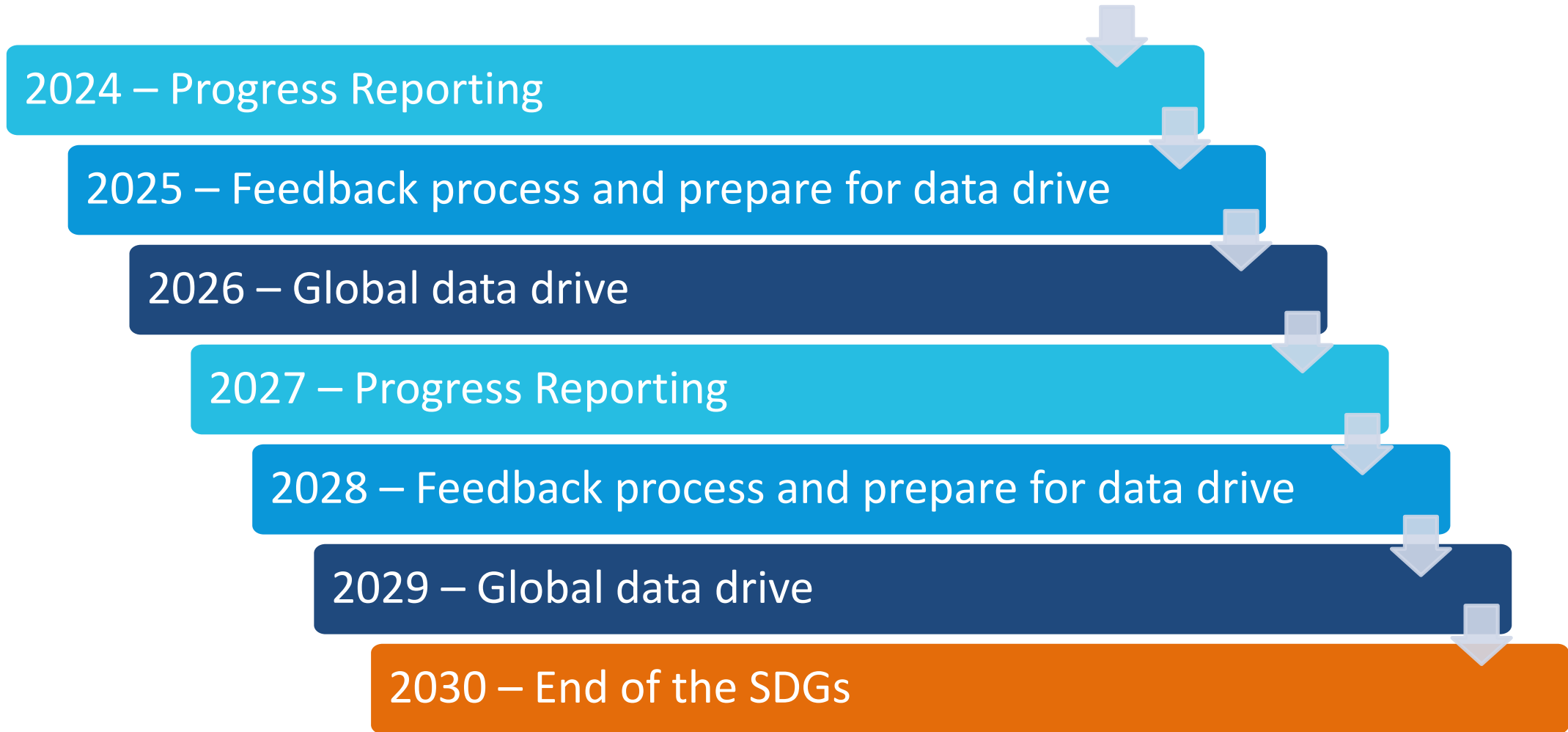
2020 – Global data drive

2021 – Progress Reporting

2022 – Feedback process and prepare for data drive

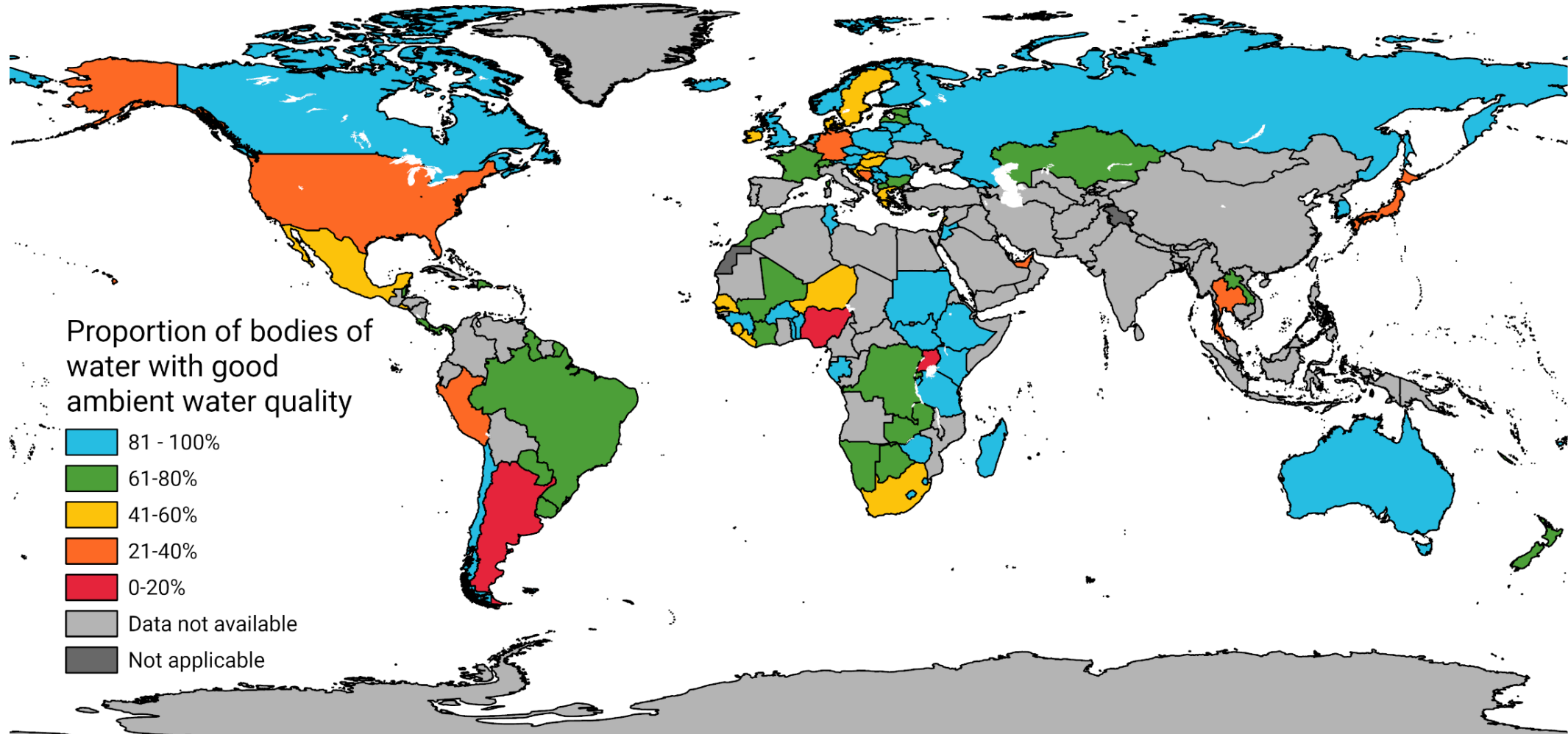
2023 – Global data drive (Deadline - Oct 1<sup>st</sup>)

# SDG Indicator 6.3.2 - Future



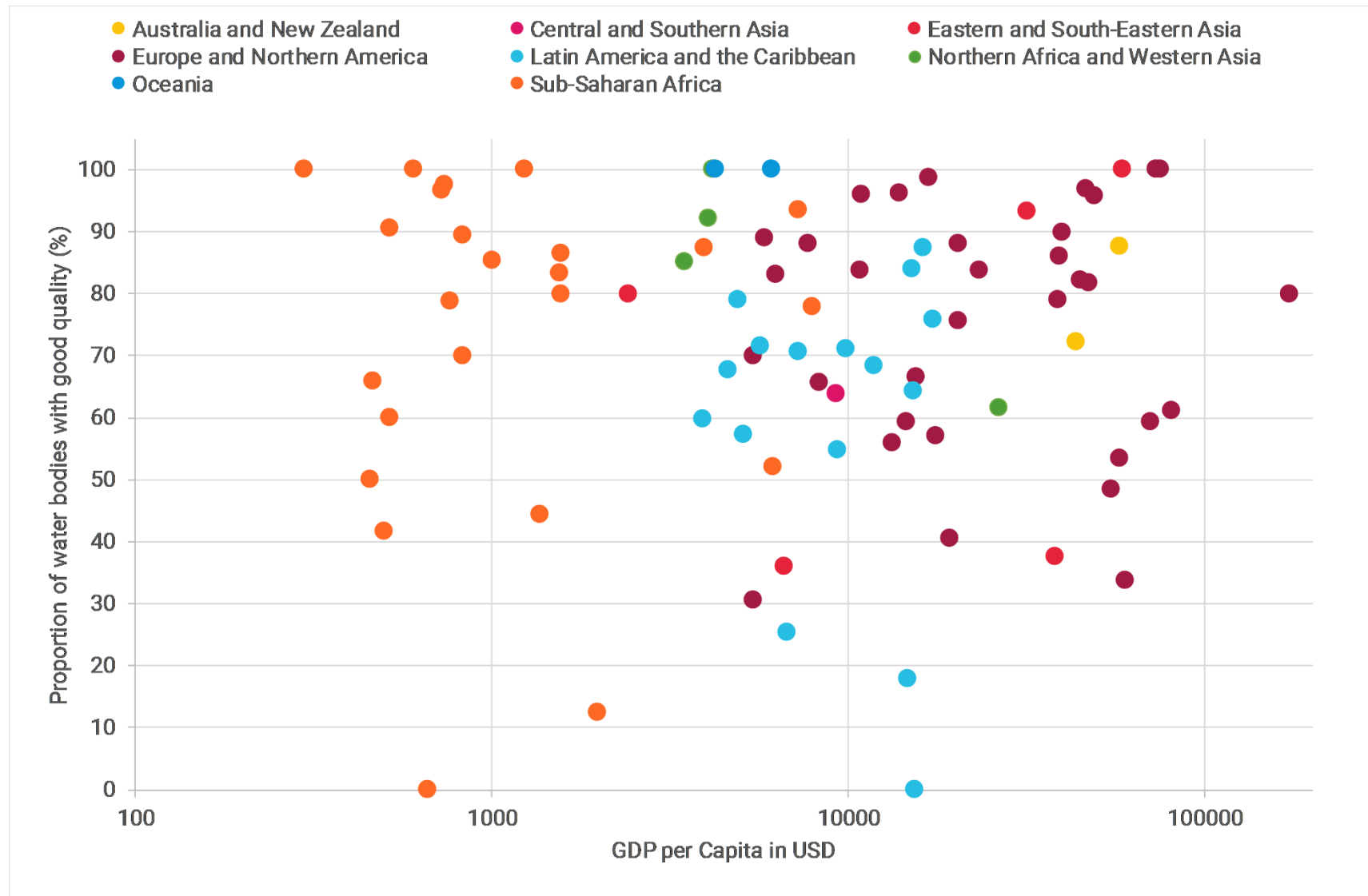


# SDG Indicator 6.3.2 - Latest Results

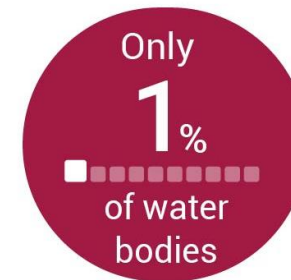
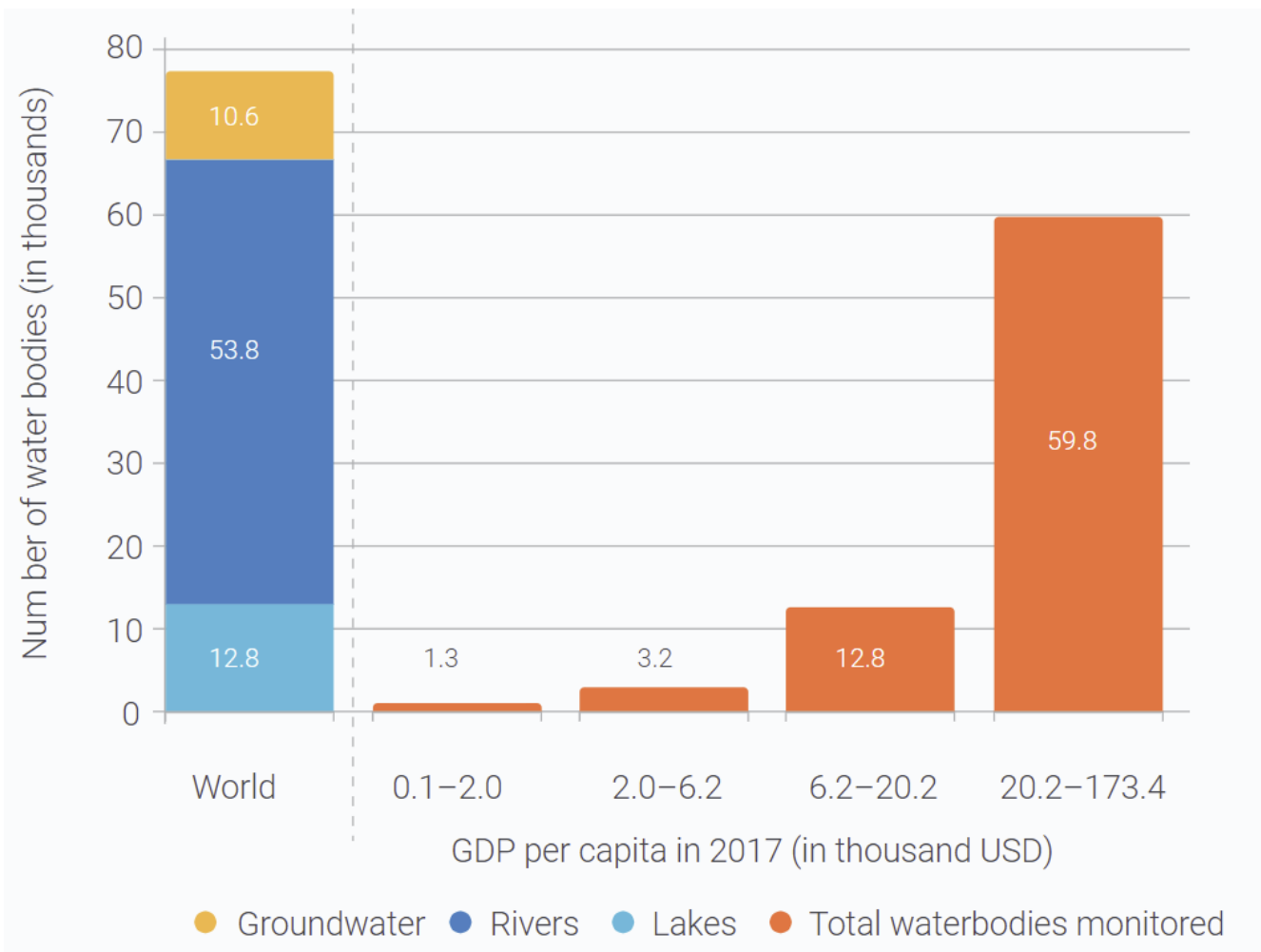


# Summary results from 2020 data drive

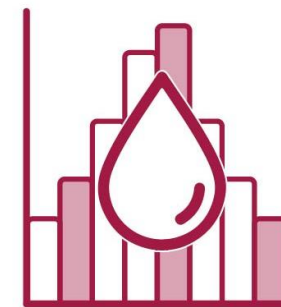
Good and poor water quality reported in all world regions



# Summary results from 2020 data drive



where we have information are in the 20 lowest GDP countries



In low-GDP countries, there is an **urgent need** for **better data** on the **health** of rivers, lakes and groundwater

# SDG Water Quality Hub



## SDG Water Quality Hub

SDG Indicator 6.3.2 tracks progress towards SDG target 6.3. This target aims to improve water quality of rivers, lakes and aquifers globally.

This portal is designed for those tasked with reporting on this indicator for their country. It streamlines the reporting process, provides real-time feedback and insight into submissions, as well as information on the supports available.

The third global data drive is taking place in 2023. During previous drives of 2020 and 2017, 97 countries have reported on this indicator so far. Those countries, as well as those that report in 2023 are shown on the map.

Translate page to other languages

Reported  
Not reported

### Sustainable Development Goal 6: Ensure access to water and sanitation for all.

**SDG 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.

**SDG indicator 6.3.2:** Proportion of bodies with good ambient water quality.

**Submit data for SDG indicator 6.3.2: Level 1**

Level 1 reporting focusses on the five core parameters. This is the same as that reported during previous data drives in 2017 and 2020.

Prepare for submission

Submit Level 1 Data

**Submit data for SDG indicator 6.3.2: Level 2**

Level 2 reporting is optional and allows countries to report on water quality beyond the five core parameters of Level 1.

Prepare for submission

Submit Level 2 Data

**Results**

Summary results for current and previous reporting years.

2017 Results

2020 Results

2023 Results

**Support Available**

Support is available to help with key aspects of the indicator methodology.

- Support platform
- Indicator calculation service
- Establish target values
- Additional support

Read more

### Important Concepts

#### # Level 1 and Level 2 Reporting

Level 1 reporting covers the pressures on water quality that are relevant at the global scale, whereas Level 2 goes further and provides the opportunity to include information that relates to pressures of national or sub-national relevance.

Level 1 reporting is essential because it provides global comparability which is essential for all SDG indicators.

Level 2 provides this flexibility and makes it possible to make water quality information available through the SDG reporting framework.

Read more

#### 📍 National and subnational reporting

This indicator can be reported at three spatial scales: water body level, reporting basin district level (based on river basin delineations), or, at the national level.

If the water body or RBD levels are chosen, the national indicator will be calculated automatically.

Countries are encouraged to report at sub-national scales because national scores fail to provide insight into where water quality is improving or degrading within a country. Reporting at this finer resolution allows other data to be overlaid to provide greater insight into drivers of water quality and also, it allows transboundary water quality trends to be identified.

Read more

#### 🌊 Water body definitions

SDG indicator 6.3.2 is relevant for rivers, lakes and aquifers.

It is these hydrological units which are classified as either good or not good water quality. Defining lake water bodies is relatively straightforward, whereas for rivers and aquifers the task is more difficult.

Read more

#### 🎯 Target-based approach to classify water quality

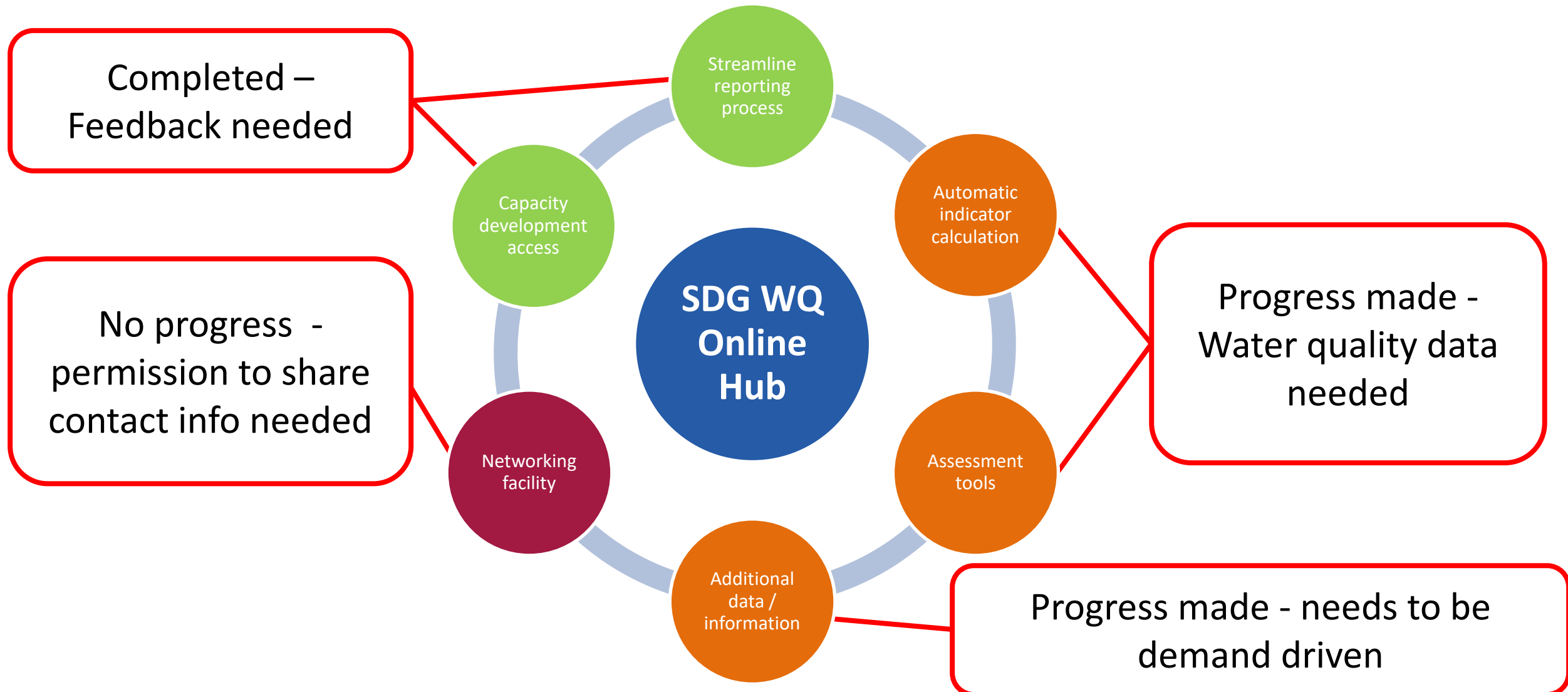
Indicator 6.3.2 uses a target-based approach to classify water quality. This means that the measured values are compared with numerical values that represent "good water quality".

Show more

<https://sdg632hub.org/>



# SDG Water Quality Hub



# SDG Water Quality Hub – Scorecard

SDG 6.3.2 water quality score card

**Choose CSV File**

Browse... SL\_Data\_for Joe\_20230418\_v2.csv

Upload complete

Please make sure that:  
 - First row is the header,  
 - There are no merged cells, and  
 - Each row is a single monitoring event for one parameter.

Select relevant columns

**Water body type**

Water type

**Reporting basin district**

Sub Catchments/Geology

**Water body**

Sample Location

**Monitoring location**

Sample ID

**Monitoring event date**

Sample Date

**Parameter**

Parameters

**Unit of measure**

Unit

**Monitoring value**

Measurement

WQ score (good=1, not good=0)

SDG 6.3.2 water quality score card

**Choose CSV File**

Browse... SL\_Data\_for Joe\_20230418\_v2.csv

Upload complete

Please make sure that:  
 - First row is the header,  
 - There are no merged cells, and  
 - Each row is a single monitoring event for one parameter.

Select relevant columns

**Water body type**

Water type

**Reporting basin district**

Sub Catchments/Geology

**Water body**

WB

**Monitoring location**

Sample Location

**Monitoring event date**

Sample Date

**Parameter**

Parameters

**Unit of measure**

Unit

**Monitoring value**

Measurement

WQ score (good=1, not good=0)

Your data | Score card | Score card by water body type

**Water quality status by water body type**

Water Body Type	Parameter	Good (%)	Not good (%)
Groundwater	Acidification	100	0
	Nitrogen	100	0
	Oxygenation	100	0
	Phosphorus	100	0
	Salinity	50	50
River	Acidification	65	35
	Nitrogen	95	5
	Oxygenation	75	25
	Phosphorus	95	5
	Salinity	100	0

**Groundwater**

**River**

Legend for Pie Charts:  
 Poor (Red), Marginal (Orange), Fair (Yellow), Good (Green), Excellent (Dark Green)

# SDG Water Quality Hub

Map of reporting status

Quick Start Guide

Submission preparation

The screenshot shows the SDG Water Quality Hub website interface. At the top, there are logos for UN, Water, and SDG Water Quality Hub, along with navigation links for 'Submission' and 'Results' for the year '2020'. A 'Quick guide' button is highlighted in the top right corner. The main content area features a world map titled 'SDG Water Quality Hub' showing reporting status by country, with a legend for 'Reported' (blue) and 'Not reported' (red). Text on the left explains that the portal is designed for those tasked with reporting on this indicator, streamlining the process and providing real-time feedback. It also mentions that the third global data drive is taking place in 2023, with 97 countries having reported so far. Below the map, there is a section for 'Sustainable Development Goal 6: Ensure access to water and sanitation for all', including 'SDG Target 6.3' and 'SDG indicator 6.3.2'. A video thumbnail titled 'Measuring ambient w...' is also visible. The 'Submission preparation' section is highlighted with a red box and contains three columns: 'Submit data for SDG indicator 6.3.2: Level 1', 'Submit data for SDG indicator 6.3.2: Level 2', and 'Results'. The 'Level 1' section includes a 'Prepare for submission' button and a 'Submit Level 1 Data' button. The 'Level 2' section includes a 'Prepare for submission' button and a 'Submit Level 2 Data' button. The 'Results' section shows buttons for '2017 Results', '2020 Results', and '2023 Results'. A 'Support Available' section offers a 'Read more' button. Below this is the 'Important Concepts' section, which includes four sub-sections: '# Level 1 and Level 2 Reporting', 'National and subnational reporting', 'Water body definitions', and 'Target-based approach to classify water quality'. Each sub-section provides detailed information and a 'Read more' or 'Show more' link.

<https://sdg632hub.org/>



# SDG Water Quality Hub – Prepare for Submission

The screenshot displays the 'Checklist for Data Preparation' page on the SDG632hub.org website. The page is titled 'Checklist for Data Preparation' and includes the following content:

- A thank you message: "Thank you for going through the preparation steps for SDG indicator 6.3.2 Level 1 submission."
- A section titled 'Download template' with the instruction: "Click on the button below to download the Level 1 reporting template." Below this is a blue 'Download' button with an Excel icon.
- A note: "This template is also available in [Français](#), [Español](#), [Русский](#)"
- A 'Start Submission' button.
- Support information: "For support in Français, Español, العربية, 中文, Русский - [click here](#)"
- Help desk contact: "For support or clarification on any aspect of the indicator methodology or submission process then please contact the SDG 632 Help Desk: [SDG632@un.org](mailto:SDG632@un.org)"
- Additional resources: "You can also browse the supporting materials at the SDG Indicator 6.3.2 Information Page: <https://communities.unep.org/display/sdg632/Documents+and+Materials>"
- A footer note: "If you have already been through this flow and you are sure you know how to use the data in connection with the right template [skip these steps](#)"

<https://sdg632hub.org/>



# SDG Water Quality Hub – Submission Process

**Summary**

**Data review**

Please review the data

National level

Reporting basin

Water Body

Below you see the data

Reporting basin district code
1
2
3
4
5

**Data**

Below you see the data

Water body or Reporting basin specific target?
No
No
No
Yes
Yes

**National summary**

2023 data drive

Characteristics	Lake	River	Groundwater
<b>Number of assessed water bodies</b>	460	2300	28
<b>Percentage of assessed water bodies with good water quality</b>	47.0 %	75.9 %	67.9 %
<b>Number of monitoring locations</b>	705	5559	166

**Score**

71.02

very low low moderate high very high

0% 20% 40% 60% 80% 100%

**Parameters**

**Map Legend**

Quality(%)

- Very high (81-100)
- High (61 to 80)
- Moderate (41 to 60)
- Low (21 to 40)
- Very low (0 - 20)
- No data
- Not applicable

mapbox

Back Save draft Next

# SDG Water Quality Hub

Map of reporting status

Quick guide

Submission preparation

Results pages

The screenshot shows the SDG Water Quality Hub website interface. At the top, there are logos for UN, Water Quality Hub, and navigation links for Submission, Results, and 2020. The main heading is "SDG Water Quality Hub". Below this, there is a world map showing reporting status, with a legend indicating "Reported" (blue) and "Not reported" (red). To the right of the map is a "Quick guide" button. Below the map, there is a section for "Sustainable Development Goal 6: Ensure access to water and sanitation for all." and "SDG 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." Below this, there is a video thumbnail titled "Measuring ambient water quality". The "Submission preparation" section is divided into three columns: "Submit data for SDG indicator 6.3.2: Level 1", "Submit data for SDG indicator 6.3.2: Level 2", and "Results". The "Results" column has buttons for "2017 Results", "2020 Results", and "2023 Results". Below this is the "Important Concepts" section, which includes "Level 1 and Level 2 Reporting", "National and subnational reporting", "Water body definitions", and "Target-based approach to classify water quality".

<https://sdg632hub.org/>



# SDG Water Quality Hub – Results

Submission info

## Results - Kenya

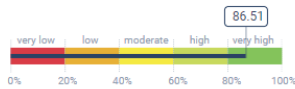
Period considered for the data submitted:  
2017 - 2020

Status:  
Approved

Data visibility:  
National level

## Score

## Parameters



## National summary

2020 data drive

Characteristics	Lake	River	Groundwater
Number of assessed water bodies	6	52	31
Percentage of assessed water bodies with good water quality	33.3 %	90.4 %	90.3 %
Number of monitoring locations	43	75	31

## Target values

2020 data drive

Target values are used to compare a measured value to a numerical concentration limit that represents water of good ambient quality. Target values are specific to each water quality parameter and represent concentrations that aim to preserve these ecosystems or to return them to their natural or near-natural condition.

The data below is aggregated based on the target values sheet

LAKES

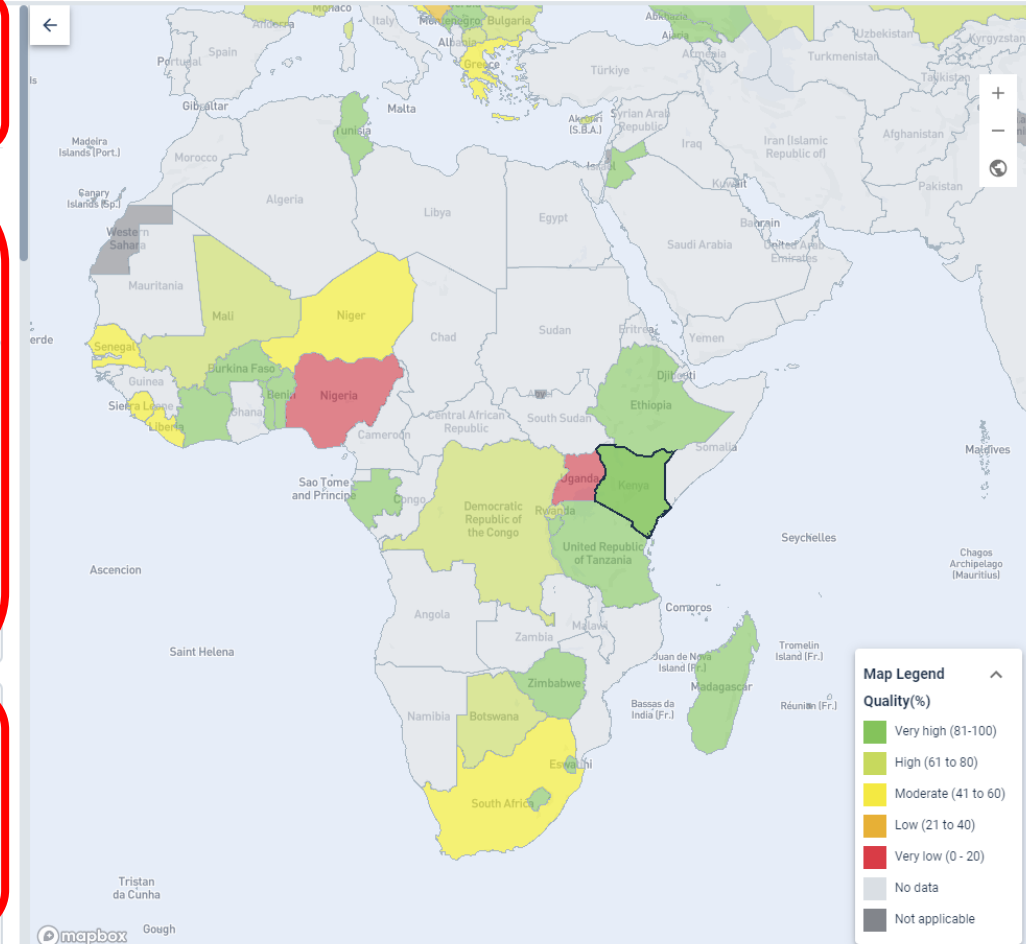
RIVERS

GROUND WATER

Uploaded values found in the target values sheet\* suggested as optional minimum range target\* suggested as optional maximum range target\*

National summary info

Target value info



# SDG Water Quality Hub

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Link to supports page

The screenshot shows the SDG Water Quality Hub website interface. At the top, there are logos for UN, Water Quality Hub, and navigation links for Submission, Results, and 2020. The main heading is "SDG Water Quality Hub". Below this, there is a world map showing reporting status, with a legend indicating "Reported" (light blue) and "Not reported" (dark red). Text to the left of the map explains the indicator and provides a link to translate the page. Below the map, there is a section for Sustainable Development Goal 6, including the target and indicator descriptions. The "Submission preparation" section is divided into two levels: Level 1 (core parameters) and Level 2 (optional parameters), each with a "Prepare for submission" button and a "Submit Data" button. The "Results" section shows buttons for "2017 Results", "2020 Results", and "2023 Results". A "Support Available" section lists services like a support platform and target value establishment. The "Important Concepts" section includes: "Level 1 and Level 2 Reporting", "National and subnational reporting", "Water body definitions", and "Target-based approach to classify water quality". A "Quick guide" button is located in the top right corner.

# SDG Water Quality Hub – Support

The screenshot shows the 'Support Available' section of the SDG Water Quality Hub website. It features four columns of support services, each with a red callout box highlighting key text and a red-bordered box below it with a simplified label. The callouts are connected to the labels by red lines.

- Support Platform:** The Support Platform contains introductory and technical documents and videos as well as country case studies and reports. <https://communities.unep.org/display/sdg632/Documents+and+Materials>
- Indicator Calculation Service:** UNEP GEMS/Water provides an indicator calculation service. The indicator will be calculated and returned to the country focal point for validation. This iterative process between the country focal point and GEMS/Water involves working together to establish suitable target threshold values and hydrological units (water bodies and RBDs). The indicator is then calculated using the available national data. The most straightforward way to avail of this service is for the national water quality data to be added to GEMStat, GEMS/Waters' Global Water Quality Database.
- Target Values Support:** Setting suitable target threshold values to be used in the indicator calculation is a significant challenge for most countries. A technical guidance document is available on the support platform, but more in-depth support and guidance can be provided through the Help Desk. [SDG632@un.org](mailto:SDG632@un.org)
- Additional Support:** Please contact the SDG 632 Help Desk if you have any queries or need further information. [SDG632@un.org](mailto:SDG632@un.org) GEMS/Water's Capacity Development Centre has online courses available on freshwater quality monitoring and assessment including short 12-week continuous professional development courses, a Postgraduate Diploma and Master's Degree Programmes. <https://www.ucc.ie/en/gemscdc/> Free online courses on freshwater quality monitoring and assessment are available on UNEP's eLearning platform. [https://elearning.unep.org/course/search.php?reads=core\\_course-course&q=water](https://elearning.unep.org/course/search.php?reads=core_course-course&q=water)

Link to Support Platform

Indicator Calculation Service

Target Value Support

Additional Support

# SDG Water Quality Hub

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Link to supports page

Important concepts

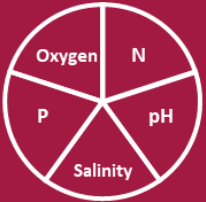













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<https://sdg632hub.org/>

# Level 2 Reporting

## Summary

- Optional
- 2023 first time countries asked to report at Level 2
- Separate reporting template
- Undertaken either in parallel or in sequence to Level 1 reporting
- Flexible by design
- Developed in response to feedback received from countries
- New technical document

Reporting Level	Level 1	Level 2
Data Collection	In-situ only	In-situ or remote
Data Type	 Physico-chemical	Physico-chemical  Biological / Ecosystem  Pathogens 
Data Source	National monitoring programme  Private sector  Academic sector  Citizen 	National monitoring programme  Private sector  Academic sector  Citizen  Earth observation  Models 

# What is Level 2 Reporting?

## Level 1

maintains the global comparability

covers the parameters that are relevant at the global scale

it is limited in scope and cannot represent all pressures to freshwater quality

## Level 2

provides the opportunity to report any water quality data

to report on parameters and using approaches that match national capacity

provides the flexibility to report beyond Level 1

and to focus on water quality issues that may be significant locally, nationally or regionally



# What is Level 2 Reporting?

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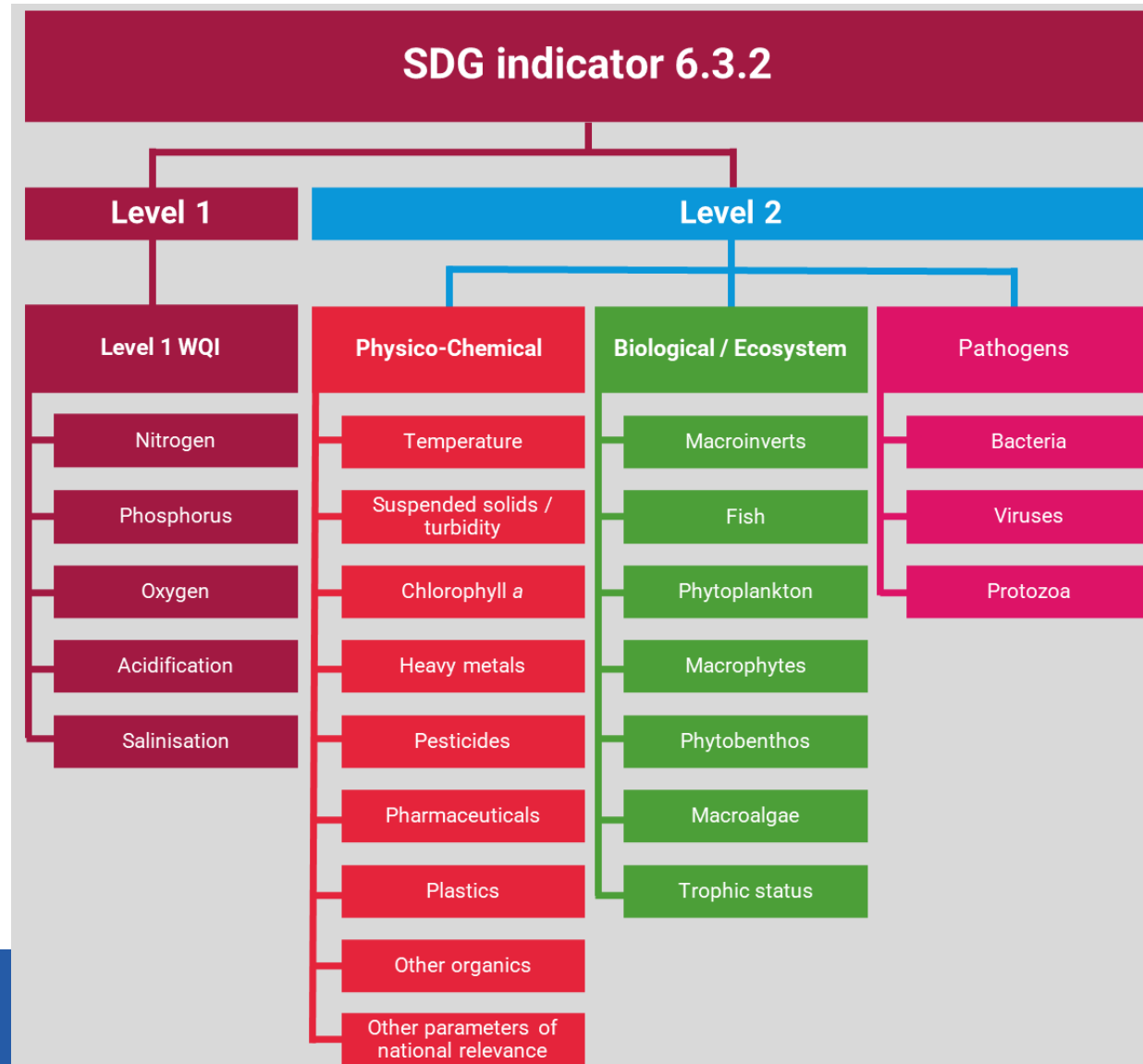
to report on parameters and using approaches that match national capacity

provides the flexibility to report beyond Level 1

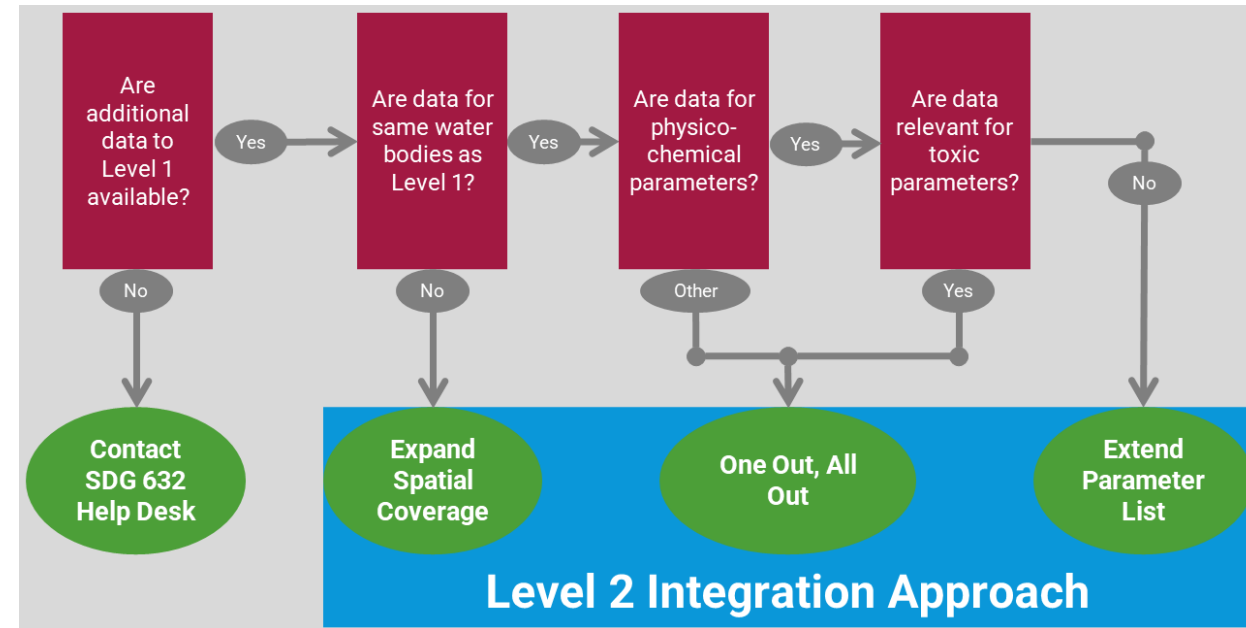
and to focus on water quality issues that may be significant locally, nationally or regionally

# Level 2 Concepts

## Sub-indicators



## Different approaches to integration



# Summary

- 2023 Data drive **launched**
- Reporting deadline - **October 1<sup>st</sup>**
- 97 countries reported, low-income countries report on far fewer water bodies
- New **SDG Water Quality Hub** is available
- Countries have option to report at **Level 2** for first time



**Questions or clarification?**

# Thank you

## Further info:

- Latest progress report: <https://www.unwater.org/publications/progress-on-ambient-water-quality-632-2021-update/>
- Contact: [SDG632@un.org](mailto:SDG632@un.org)
- SDG Water Quality Hub: <https://sdg632hub.org/>

