SDG Indicator 6.3.2
Caribbean Region
Summary Presentation 28th April 2022

Proportion of bodies of water with good ambient water quality

Stuart Warner UNEP GEMS/Water

| INDICATORS	CUSTODIANS
6.1.1 Proportion of population using safely managed drinking water services	WHO, UNICEF
6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water	WHO, UNICEF
6.3.1 Proportion of domestic and industrial wastewater flows safely treated	WHO, UN-Habitat, UNSD
6.3.2 Proportion of bodies of water with good ambient water quality	UNEP
6.4.1 Change in water-use efficiency over time	FAO
6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	FAO
6.5.1 Degree of integrated water resources management	UNEP
6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation	UNECE, UNESCO
6.6.1 Change in the extent of water-related ecosystems over time	UNEP, Ramsar
6.a.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan	WHO, OECD
6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	WHO, OECD

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
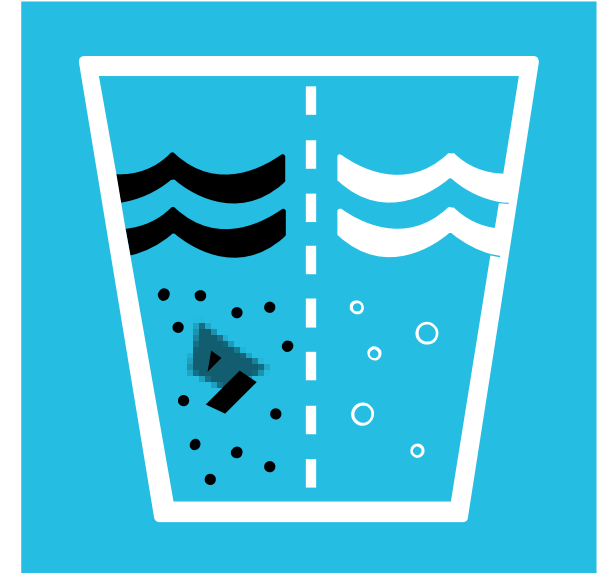
IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE

UN environment programme

GEMS Water

Phase 1 (2015-2018)

2015

Methodology development

2016

Methodology pilot testing, expert review and revision

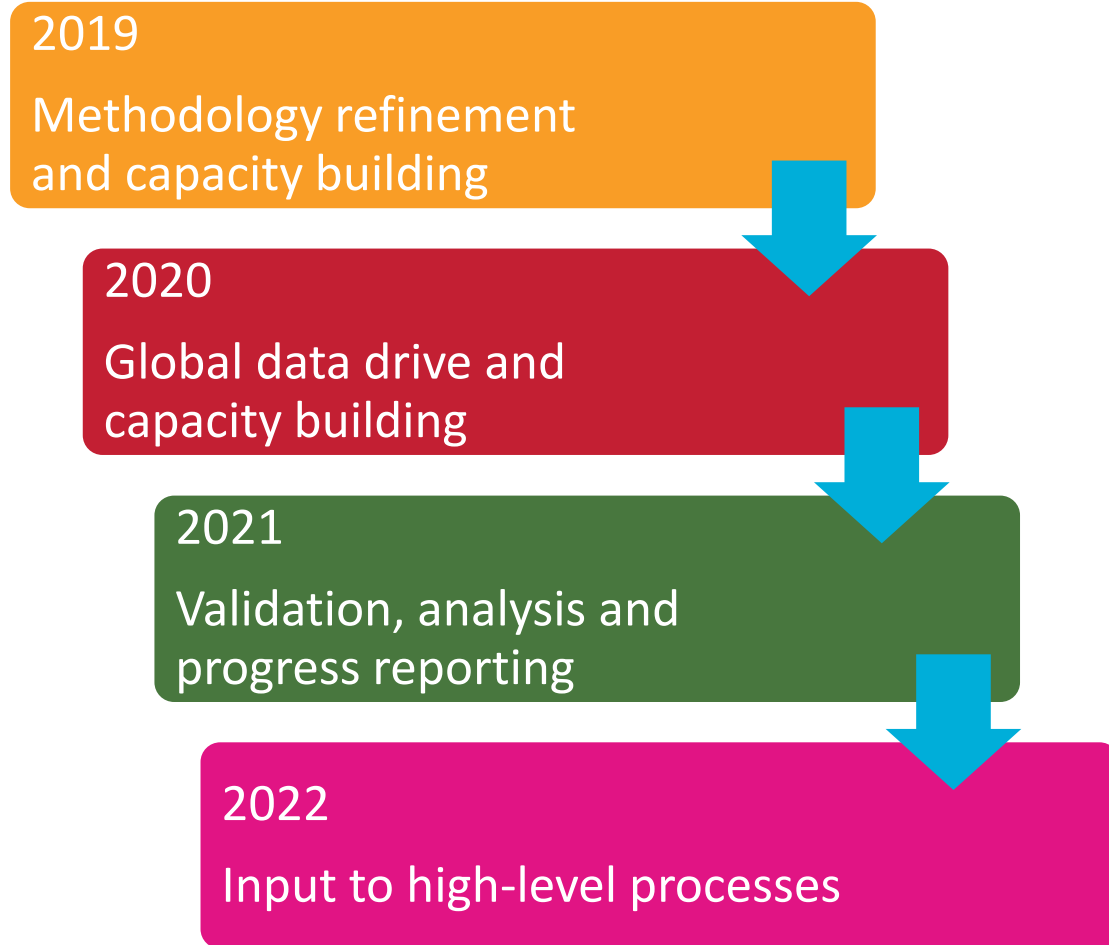**2017**

Global implementation, integrated baseline process

2018

Baseline reporting, SDG 6 synthesis reporting

Phase 2 (2019-2022)

2019

Methodology refinement and capacity building

2020

Global data drive and capacity building

2021

Validation, analysis and progress reporting

2022

Input to high-level processes

Key external events

- First draft of the World Water Quality Assessment
- High-level Political Forum (HLPF)
  - Every year
  - Next in-depth review of SDG 6?
- One-day high-level meeting of the President of the General Assembly
  - New York in 2021
- Preparatory process Midterm Comprehensive Review of International Decade for Action (2018-2028)
  - Regional and global meetings, 2022
- United Nations Conference on the Midterm Comprehensive Review of International Decade for Action
  - New York, World Water Day 2023
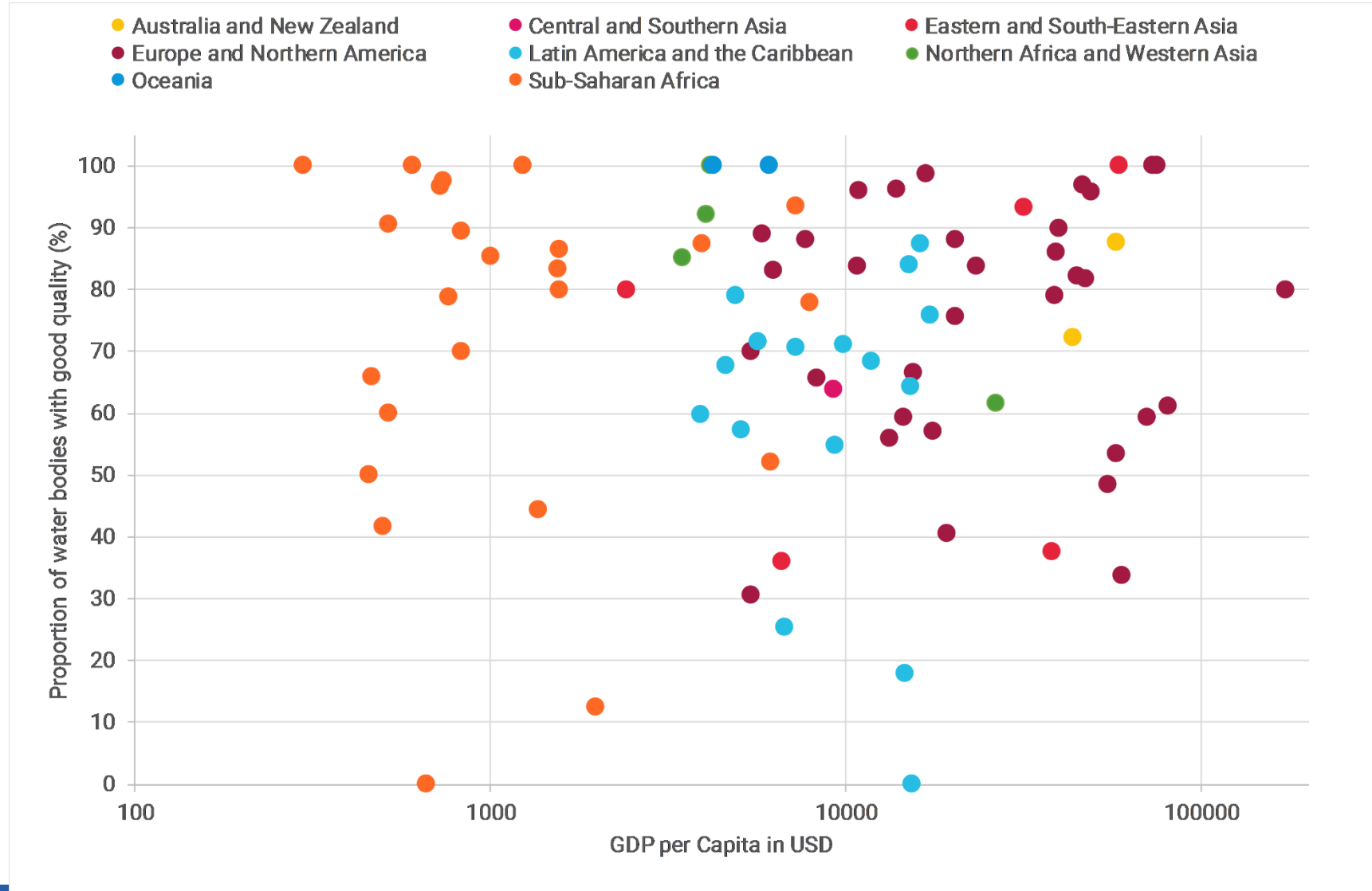
Indicator Progress Report launched at

Stockholm WWW

Report available at:

https://www.unwater.org/publications/progress-on-ambient-water-quality-632-2021-update/
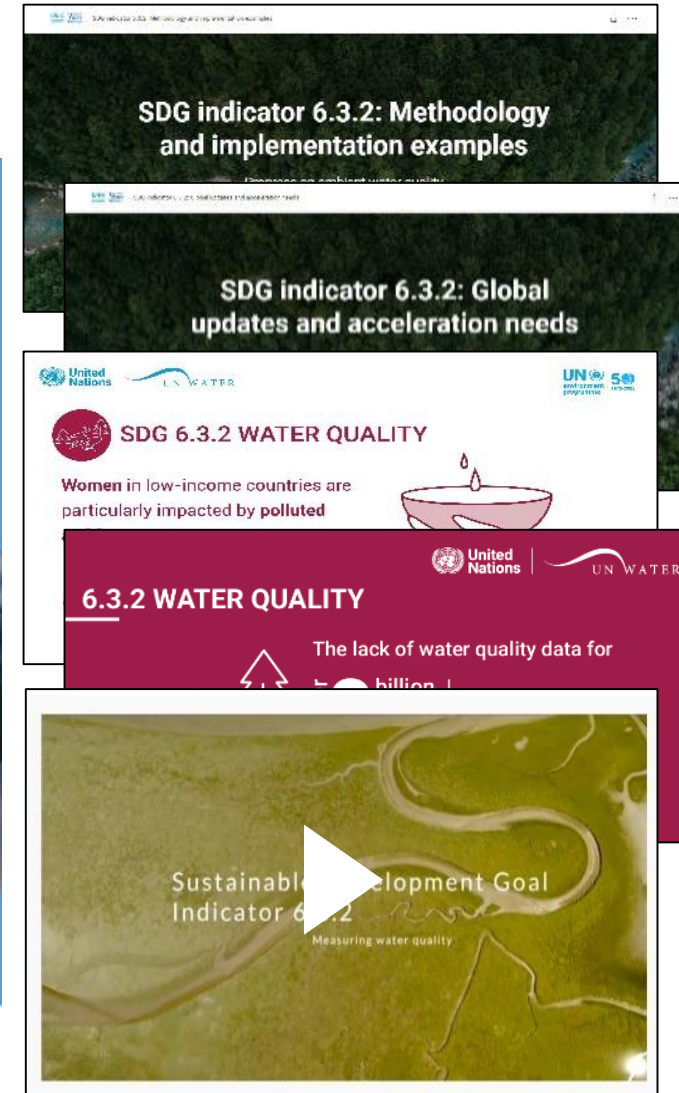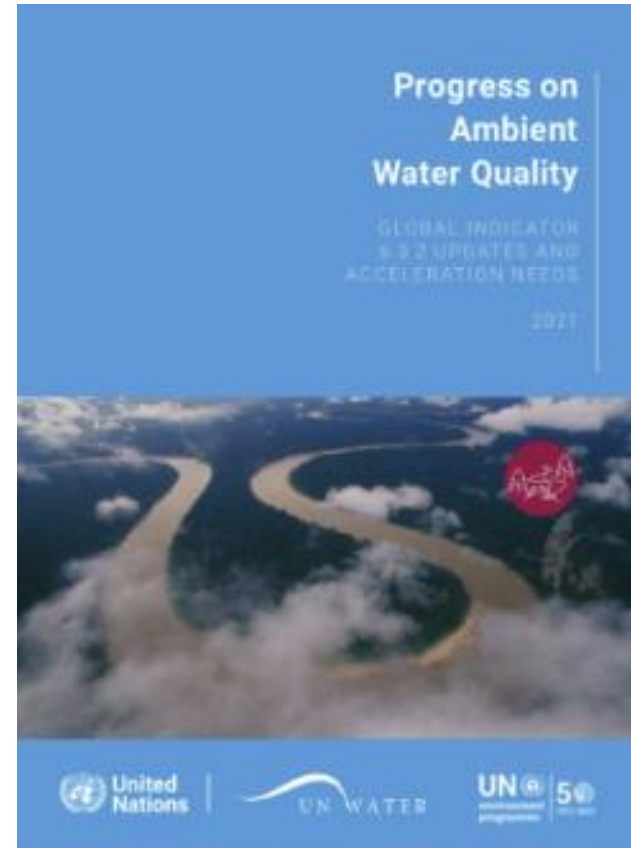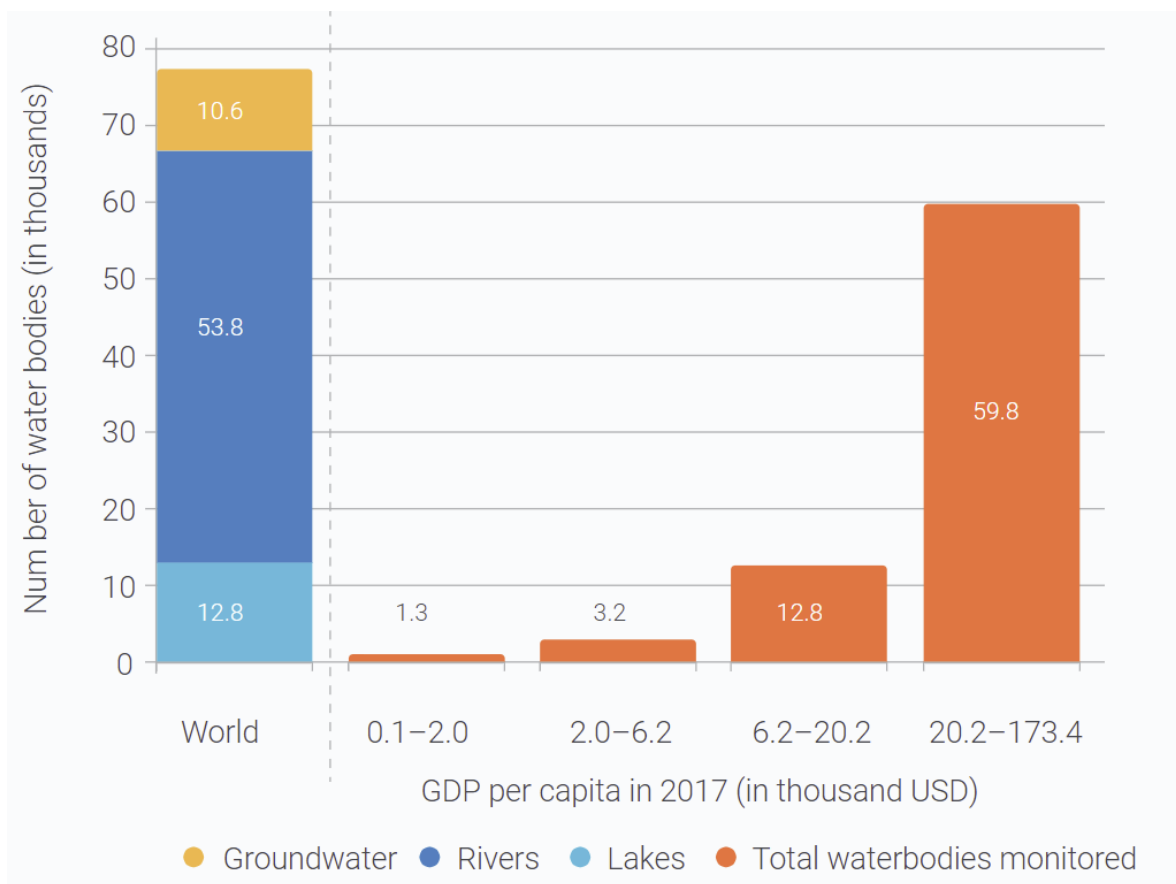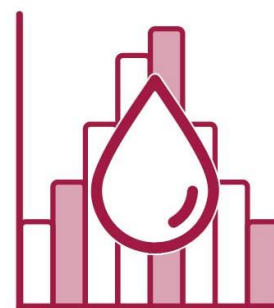
Good and poor water quality reported in all world regions

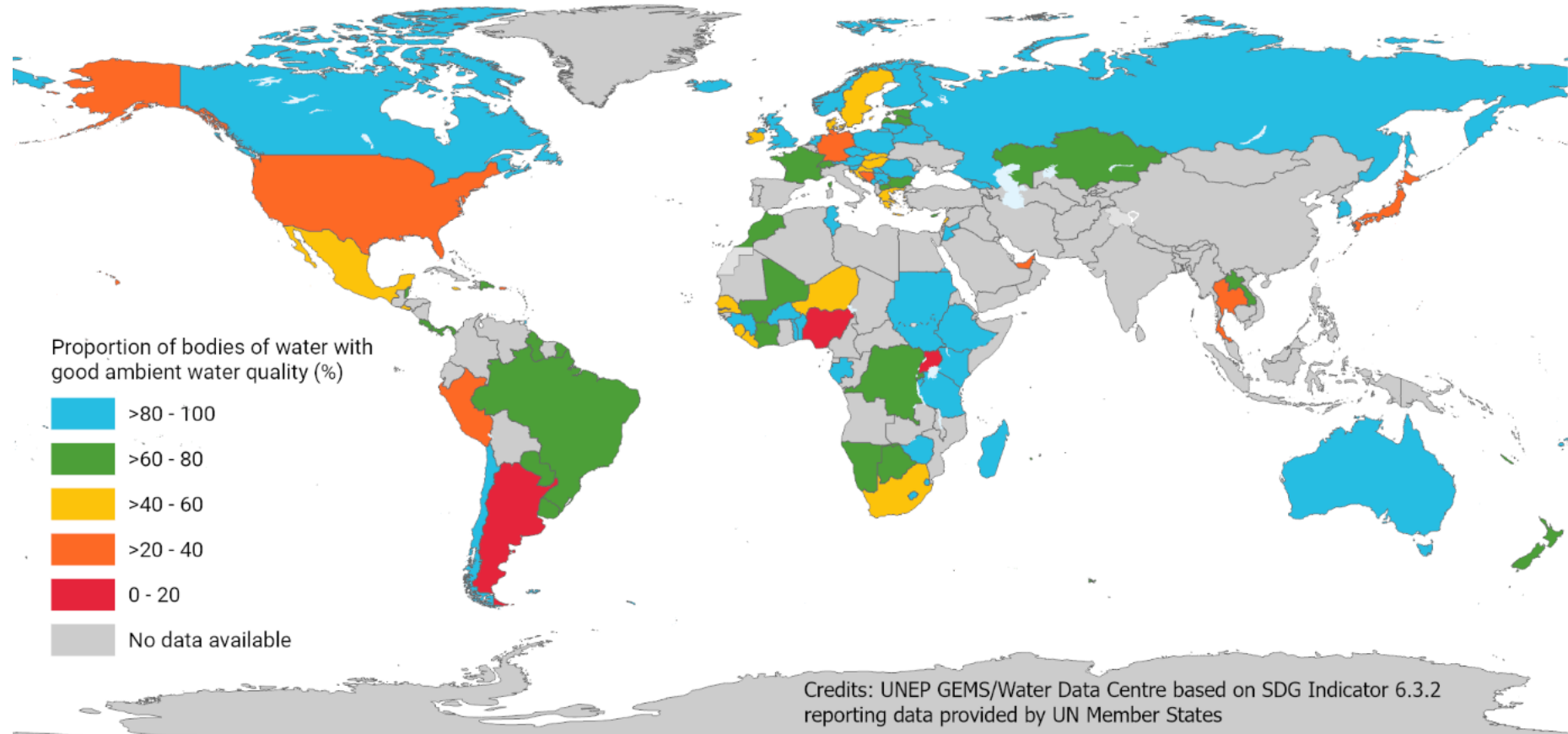# Richer countries used more data to calculate their indicator

Only 1% of water bodies 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

Number of water bodies (in thousands)

GDP per capita in 2017 (in thousand USD)

World: Groundwater 10.6, Rivers 53.8, Lakes 12.8

0.1–2.0: 1.3
2.0–6.2: 3.2
6.2–20.2: 12.8
20.2–173.4: 59.8

● Groundwater ● Rivers ● Lakes ● Total waterbodies monitored

UN environment programme

GEMS Water

- 97 submissions
- Over 100 % more than in 2017

Proportion of bodies of water with good ambient water quality (%)

▮	>80 - 100
▮	>60 - 80
▮	>40 - 60
▮	>20 - 40
▮	0 - 20
▮	No data available

Credits: UNEP GEMS/Water Data Centre based on SDG Indicator 6.3.2 reporting data provided by UN Member States

UN environment programme

GEMS Water

Only six from this region

Belize
Jamaica
Dominican Republic
Antigua and Barbuda
Trinidad and Tobago
Guyana

UN environment programme

GEMS Water
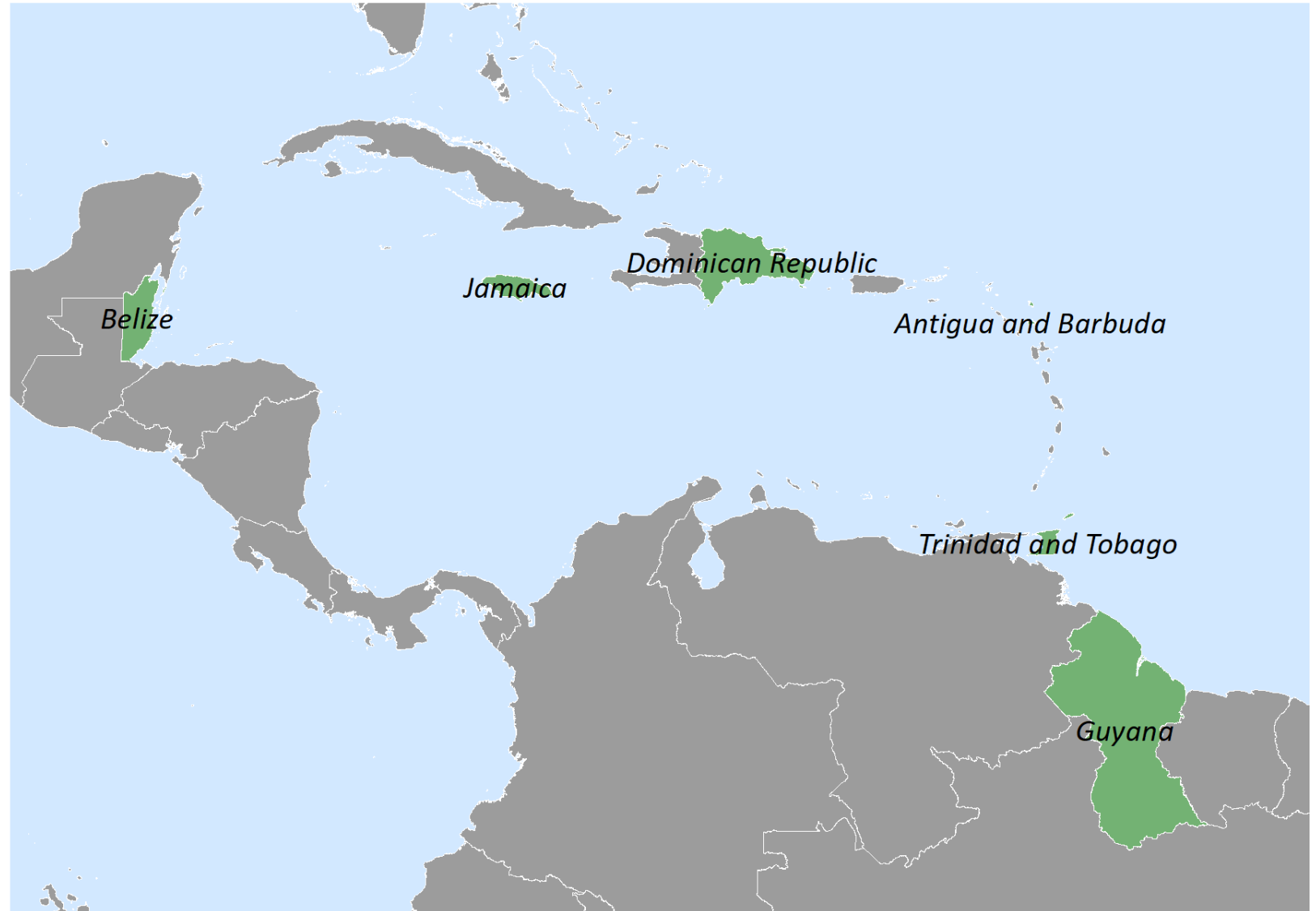
- Availability of data
  - Data do not exist and are not routinely collected
- Access to data
  - Data access and sharing between organisations within a country
- Appropriate target values to classify water quality
  - Many countries do not have existing ambient water quality standards
- Spatial reporting units
  - Delineating water bodies is often a problem
- Indicator calculation
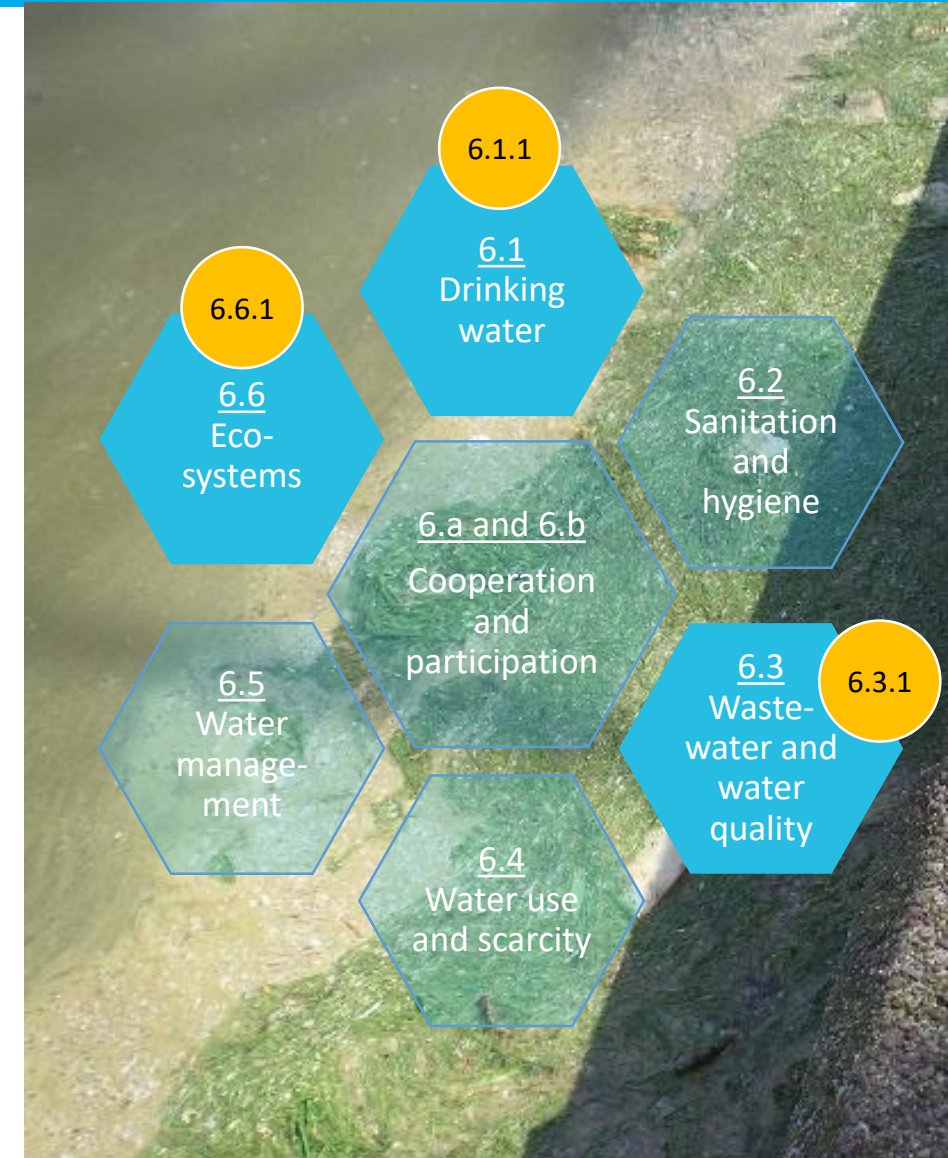 - The calculation of the indicator using existing data can be a challenge

Question and Answer Session

No information, or inaccurate information, could lead to incorrect management actions, such as:

- Lack of appropriate controls on discharges to waterbodies

- Inadequate treatment to waters used for drinking water supplies

- Delayed or inadequate conservation or remediation of waterbodies and wetlands

6.1.1

6.1 Drinking water

6.6.1

6.6 Eco-systems

6.2 Sanitation and hygiene

6.a and 6.b Cooperation and participation

6.3 Waste-water and water quality
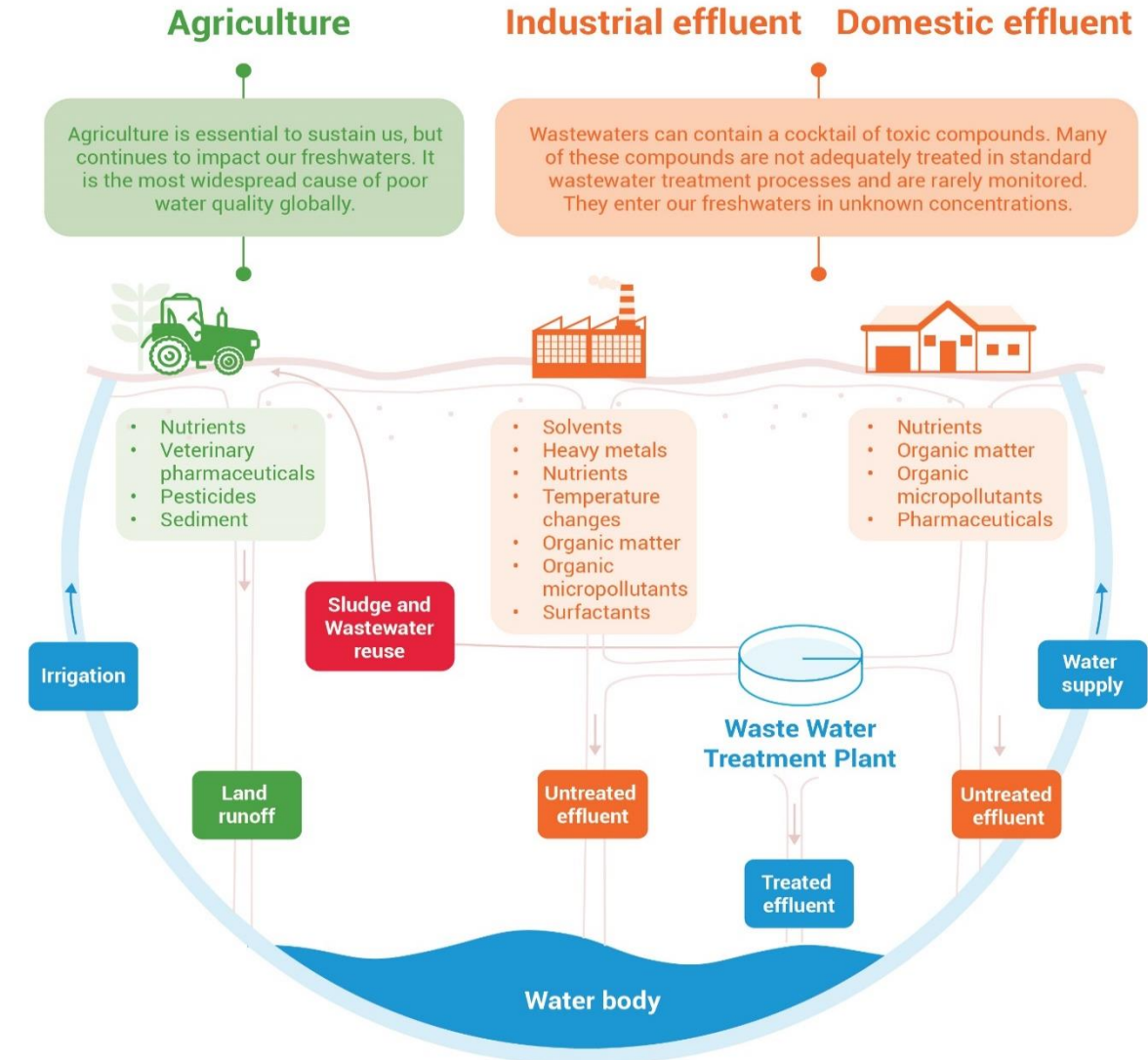
6.3.1

6.5 Water manage-ment

6.4 Water use and scarcity

Good ambient water quality does not damage ecosystem function or present a risk to human health

| Supports a balanced ecosystem including fisheries	Requires minimum treatment before domestic, agricultural or industrial use	Safe for recreation, such as water contact activities

Agriculture

Agriculture is essential to sustain us, but continues to impact our freshwaters. It is the most widespread cause of poor water quality globally.

Industrial effluent   **Domestic effluent**

Wastewaters can contain a cocktail of toxic compounds. Many of these compounds are not adequately treated in standard wastewater treatment processes and are rarely monitored. They enter our freshwaters in unknown concentrations.

- Nutrients
- Veterinary pharmaceuticals
- Pesticides
- Sediment

- Solvents
- Heavy metals
- Nutrients
- Temperature changes
- Organic matter
- Organic micropollutants
- Surfactants

- Nutrients
- Organic matter
- Organic micropollutants
- Pharmaceuticals

Irrigation

Sludge and Wastewater reuse

Water supply

Land runoff

Untreated effluent

Waste Water Treatment Plant

Untreated effluent

Treated effluent

Water body

UN environment programme

GEMS Water

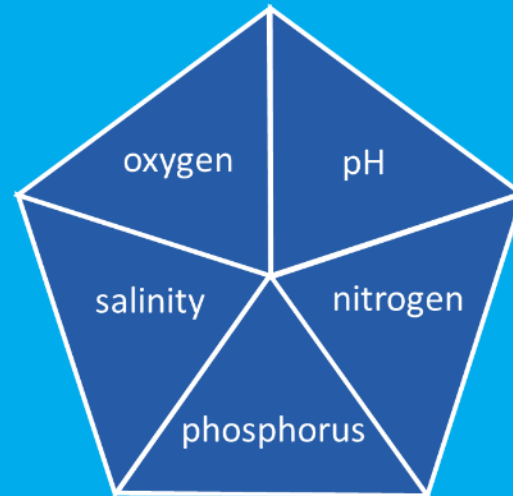# Proportion of bodies of water with good ambient water quality

Waterbodies need to be defined within the country:

rivers,

lakes, and

groundwaters
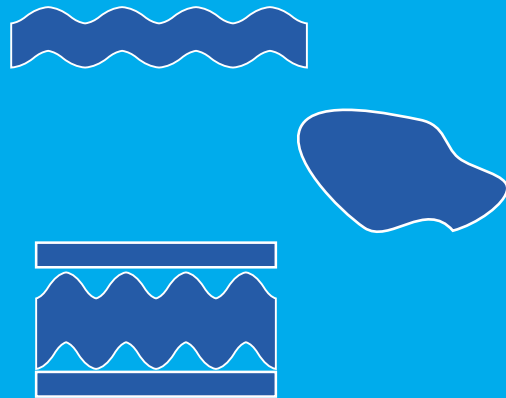
Water quality is classified by comparing measurements with **target values** for specific **parameters** from specific **parameter groups**
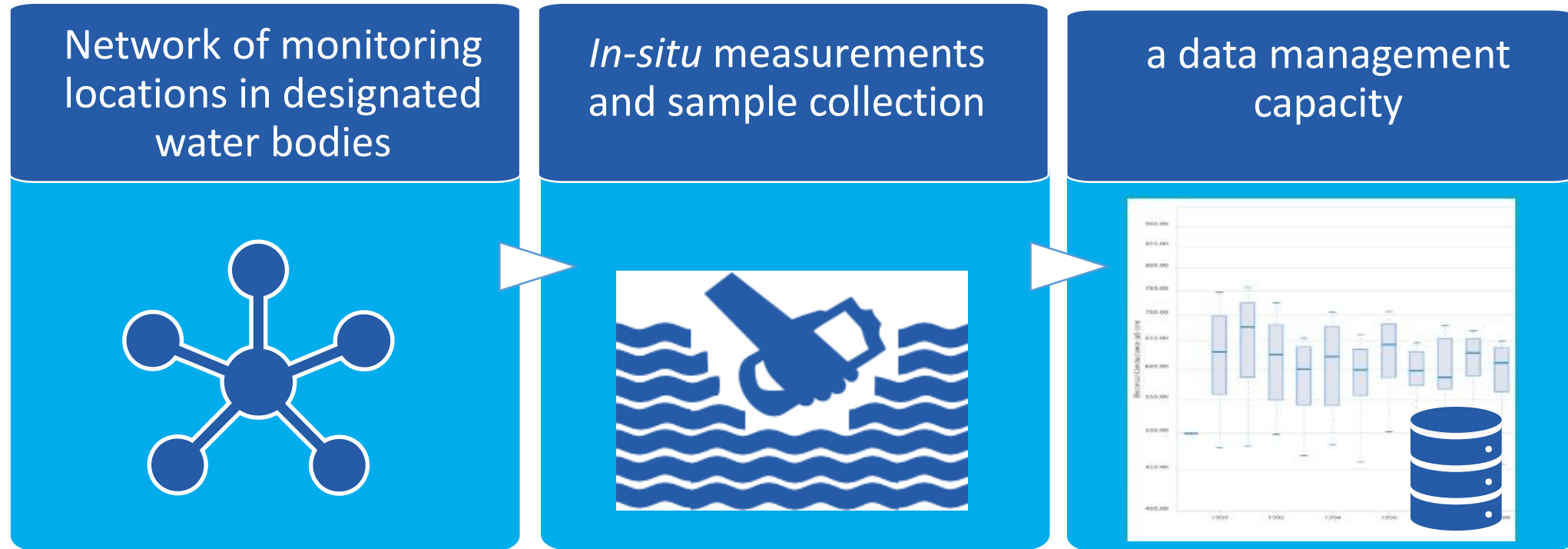
Good water quality represents at least **80%** compliance of measurements with target values

oxygen
pH
salinity
nitrogen
phosphorus

UN
environment
programme

GEMS
Water
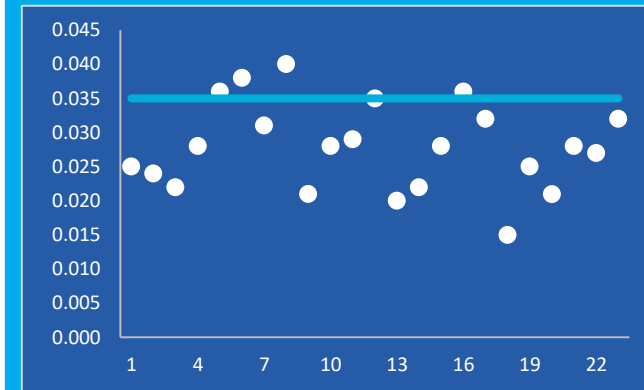
Indicator 6.3.2 provides information on the current status of freshwater bodies, and how water quality changes over time. But you need:

Network of monitoring locations in designated water bodies	*In-situ* measurements and sample collection	a data management capacity

We have learnt that many countries have data gaps, and do not have a clear understanding of the quality of their freshwaters.

Core Parameter Groups

Parameter group	Parameter	River	Lake	Groundwater	Reason for Inclusion / Pressure
Oxygen	**Dissolved oxygen**	●	●		Measure of oxygen depletion
	Biological oxygen demand, Chemical oxygen demand	●			Measure of organic pollution
Salinity	**Electrical conductivity** *Salinity, Total dissolved solids*	●	●	●	Measure of salinisation and helps to characterises the water body
Nitrogen*	**Total oxidised nitrogen** *Total nitrogen, Nitrite, Ammoniacal nitrogen*	●	●		Measure of nutrient pollution
	Nitrate**			●	Health concern for human consumption
Phosphorous*	**Orthophosphate** *Total phosphorous*	●	●		Measure of nutrient pollution
Acidification	**pH**	●	●	●	Measure of acidification and helps to characterises the water body

* Countries should include the fractions of N and P which are most relevant in the national context

** Nitrate is suggested for groundwater due to associated human health risks

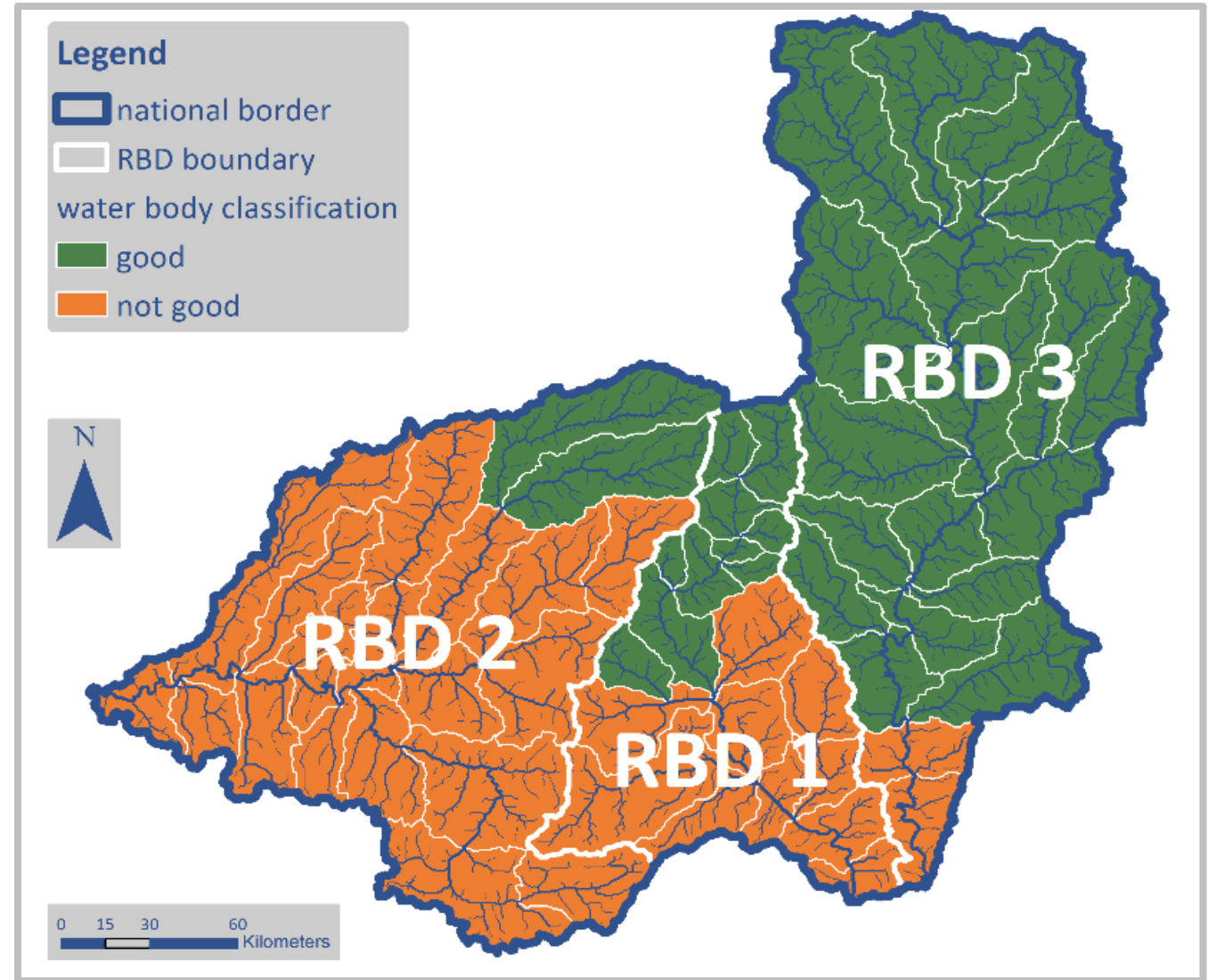Measured values are compared to numerical target values that represent "good ambient water quality"

These targets can be national, or more specific.

Reporting Basin Districts and Water bodies
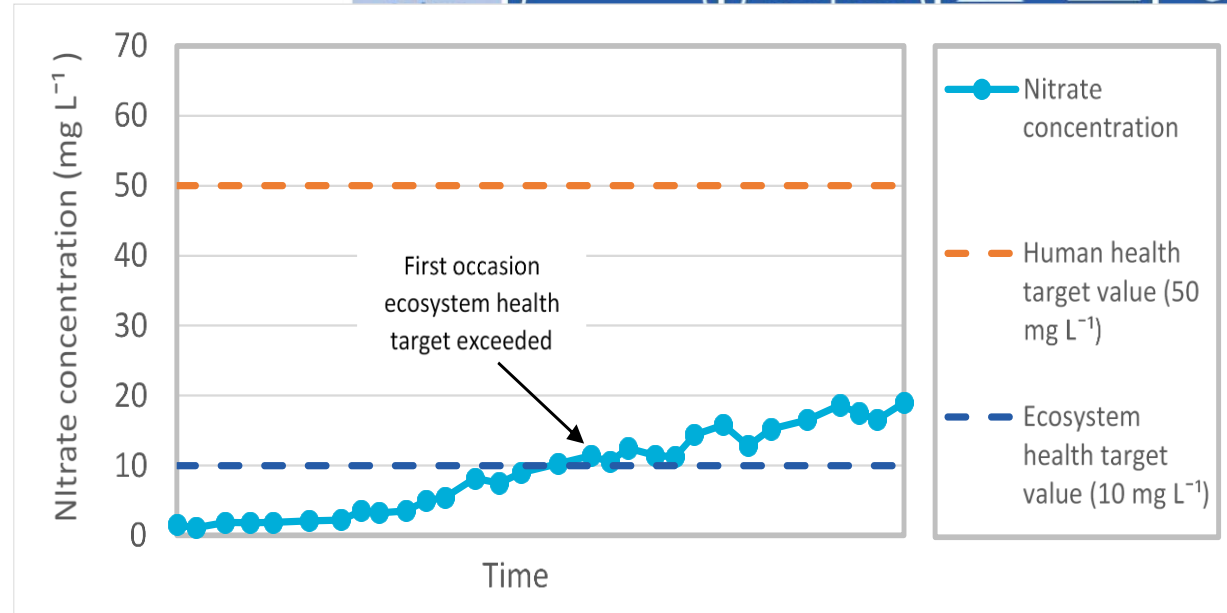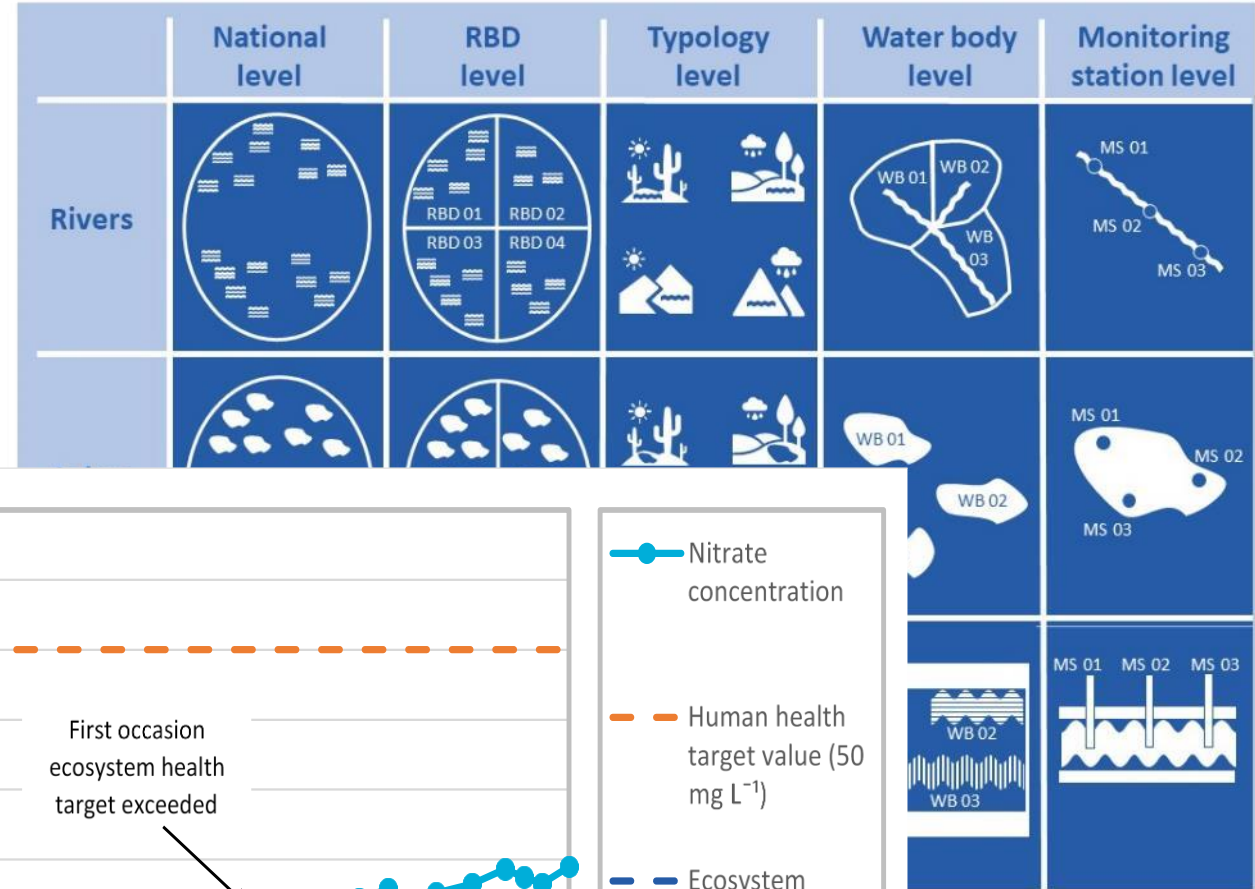
The indicator is the "Proportion of bodies of water...", these can be sections of a river, a lake or an aquifer.

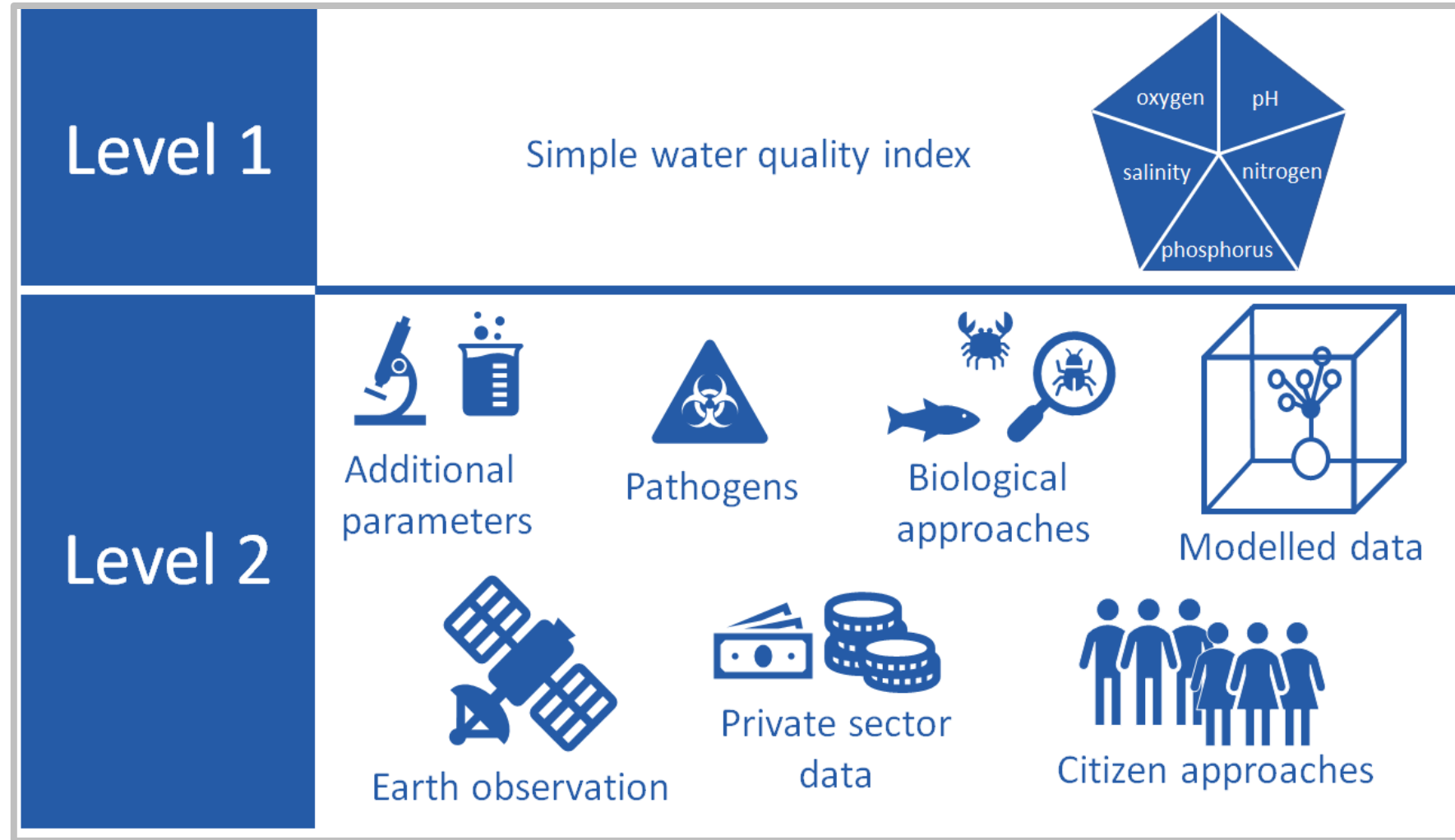These water bodies are grouped into Reporting Basin Districts

Legend
national border
RBD boundary
water body classification
good
not good

Reporting is done initially at Level 1

There is the option to report at Level 2

Level 1 — Simple water quality index (oxygen, pH, nitrogen, phosphorus, salinity)

Level 2 — Additional parameters, Pathogens, Biological approaches, Modelled data, Earth observation, Private sector data, Citizen approaches

Available Support Options: Indicator Support Platform
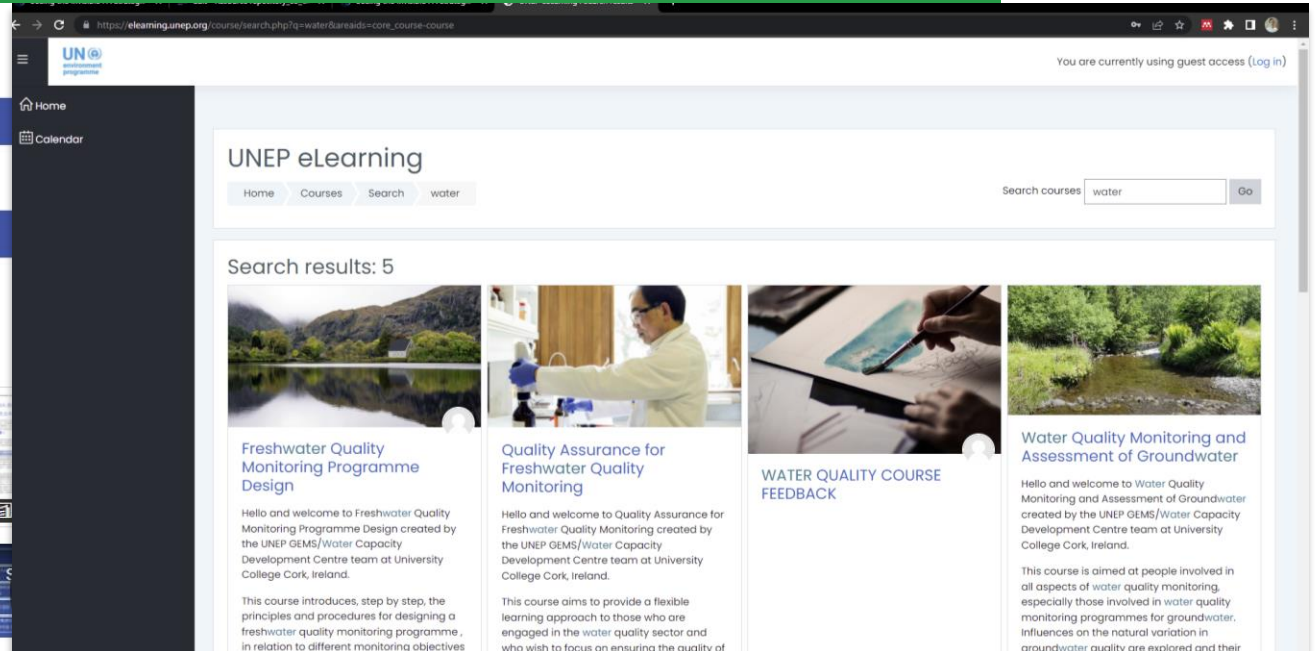
Documents and Material at the SDG 6 support portal
https://communities.unep.org/display/sdg632/Documents+and+Materials

- Introduction to Indicator 6.3.2
- Technical Guidance Documents
- Detailed Level 1 Reporting Workflow Description
- Helpdesk function at sdg632@un.org
- Bilateral teleconferences
- UNEP's eLearning platform

Indicator Calculation Service

Countries can also choose to have their indicator score calculated on their behalf by the GEMS/Water

Target values

Water quality data

Hydrological Units

Indicator Score

Available Support Options: Optional Target values
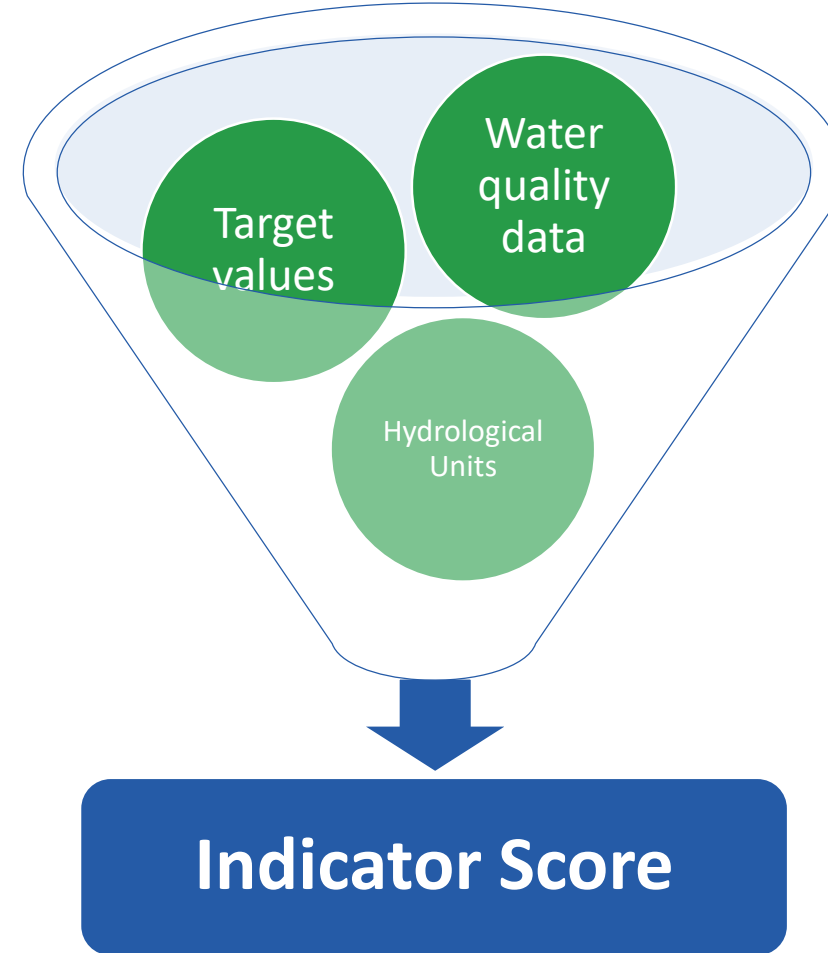
Parameter Group	Parameter	Target type	Rivers	Lakes	Groundwaters
Acidification	pH	range	6 – 9	6 – 9	6 – 9
Salinity	Electrical conductivity*	upper	500 µS cm^{-1}	500 µS cm^{-1}	500 µS cm^{-1}
Oxygenation	Dissolved oxygen	range	80 – 120 (% sat)	80 – 120 (% sat)	-
Nitrogen	Total Nitrogen	upper	700 µg N l^{-1}	500 µg N l^{-1}	-
	Oxidised nitrogen	upper	250 µg N l^{-1}	250 µg N l^{-1}	250 µg N l^{-1}
Phosphorus	Total phosphorus	upper	20 µg P l^{-1}	10 µg P l^{-1}	-
	Orthophosphate	upper	10 µg P l^{-1}	5 µg P l^{-1}	-

* For EC a better approach is to use a deviation from normal rather than specific numerical value

Develop new Level 2 reporting *workflow*

Continue to receive Level 1 submissions

Continue capacity development

Continue / initiate new case studies (Earth observation and citizen science)

Develop SDG WQ Online Hub

Prepare for IMI-SDG6 Phase 3 - 2023

Thank you

Contact: SDG632@un.org

Indicator 632 Support Platform:
https://communities.unep.org/display/sdg632/Documents+and+Materials

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