Workshop on Protecting Water Quality and Biodiversity for Improved Water Management Meeting

SDG Indicator 6.3.2 – Water Quality

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UN environment programme GEMS Water

SDG Indicator 6.3.2 – Progress Summary

- 3rd global data drive complete (2017 > 2020 > 2023)
  - 120 Countries have reported
- Indicator Progress Report will be published in August 2024
- 2024 Feedback Process underway
- Continue to provide support
- Prepare for 2026 Data Drive

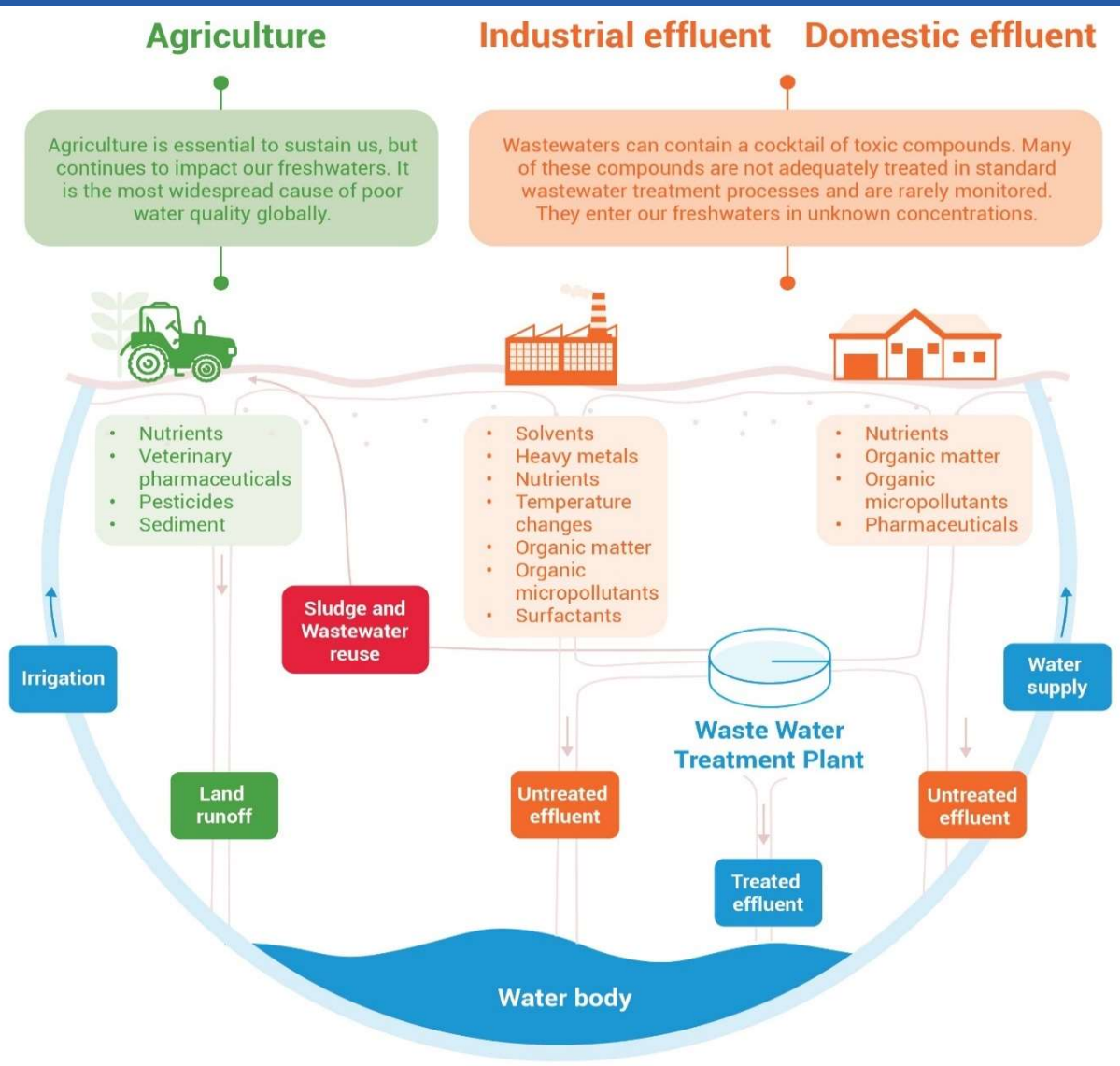
Target 6.3 and Indicator 6.3.2

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**

Pressures on quality

- **Agriculture**
- **Wastewater**
- Mining
- Deforestation
- Sediment/sand mining
- Hydromorphological changes (dams)
- Invasive species
- Habitat loss
- Over abstraction
- Multi-stressor effects



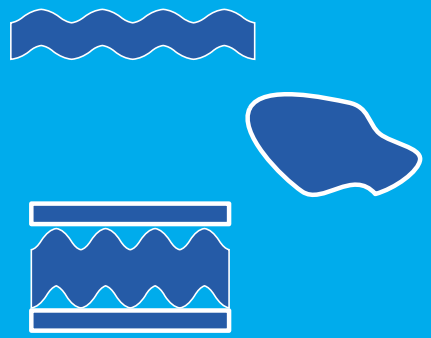
Proportion of bodies of water with good ambient water quality

Waterbodies need to be defined within the country:

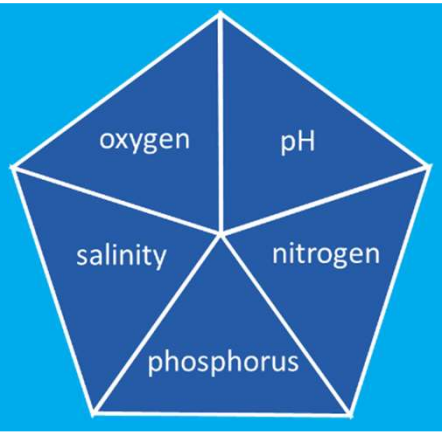
rivers,

lakes, and

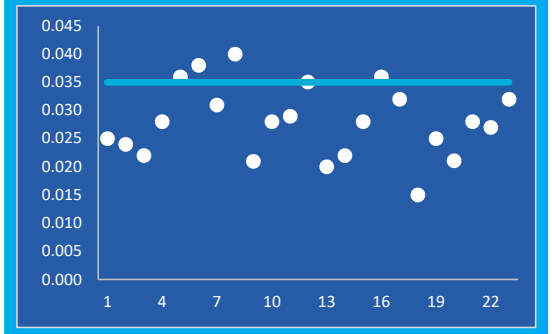
groundwaters



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



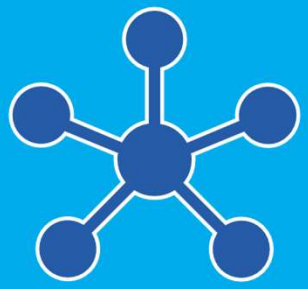
Good water quality represents at least **80%** compliance of measurements with target values



Methodology Description

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

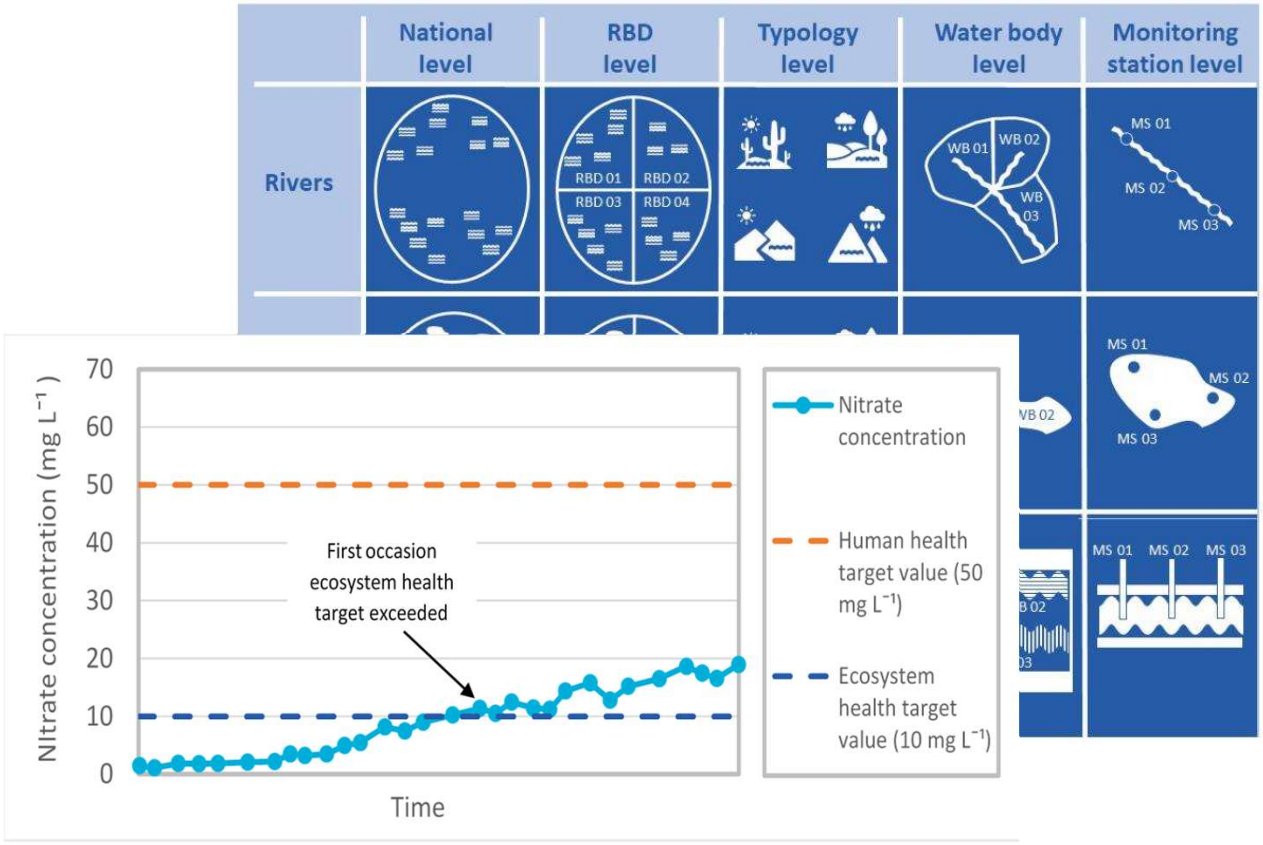
* Countries should include the fractions of N and P which are most relevant in the national context

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

Target-based approach

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

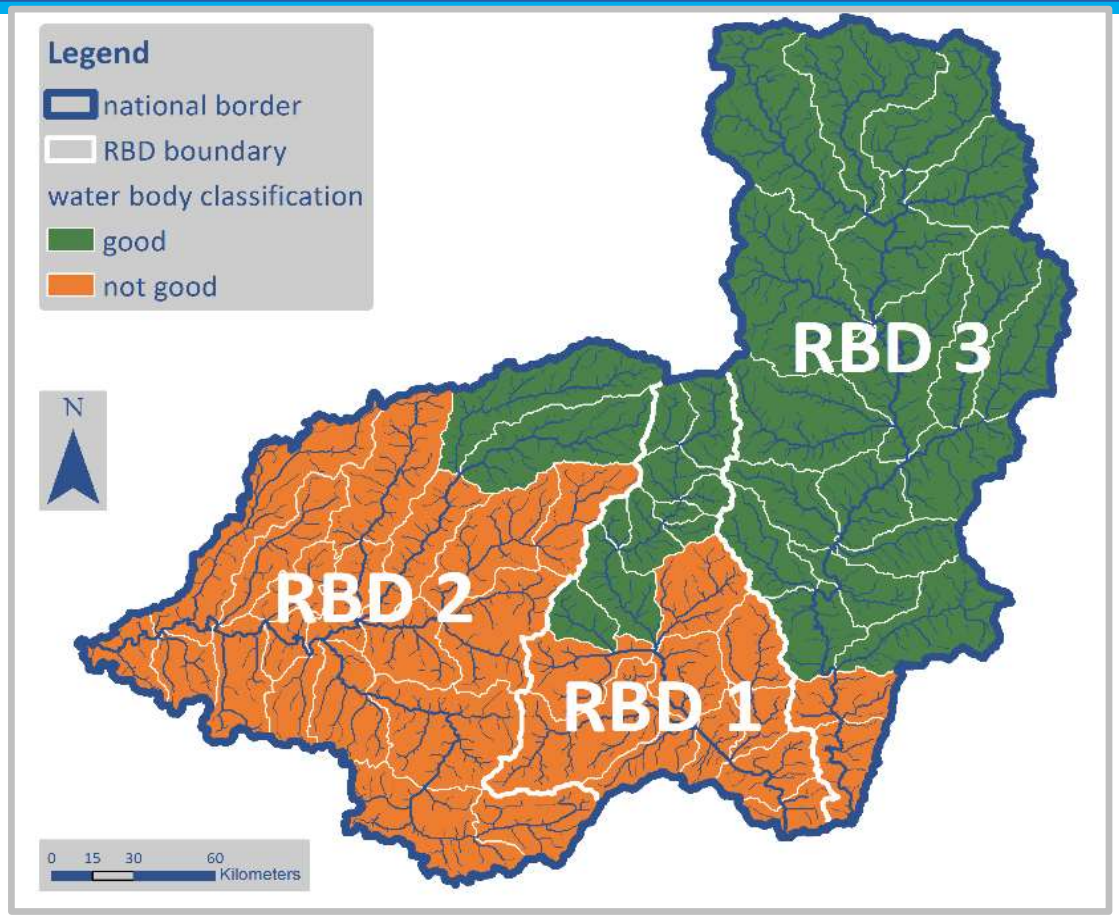
These targets can be national, or more specific.



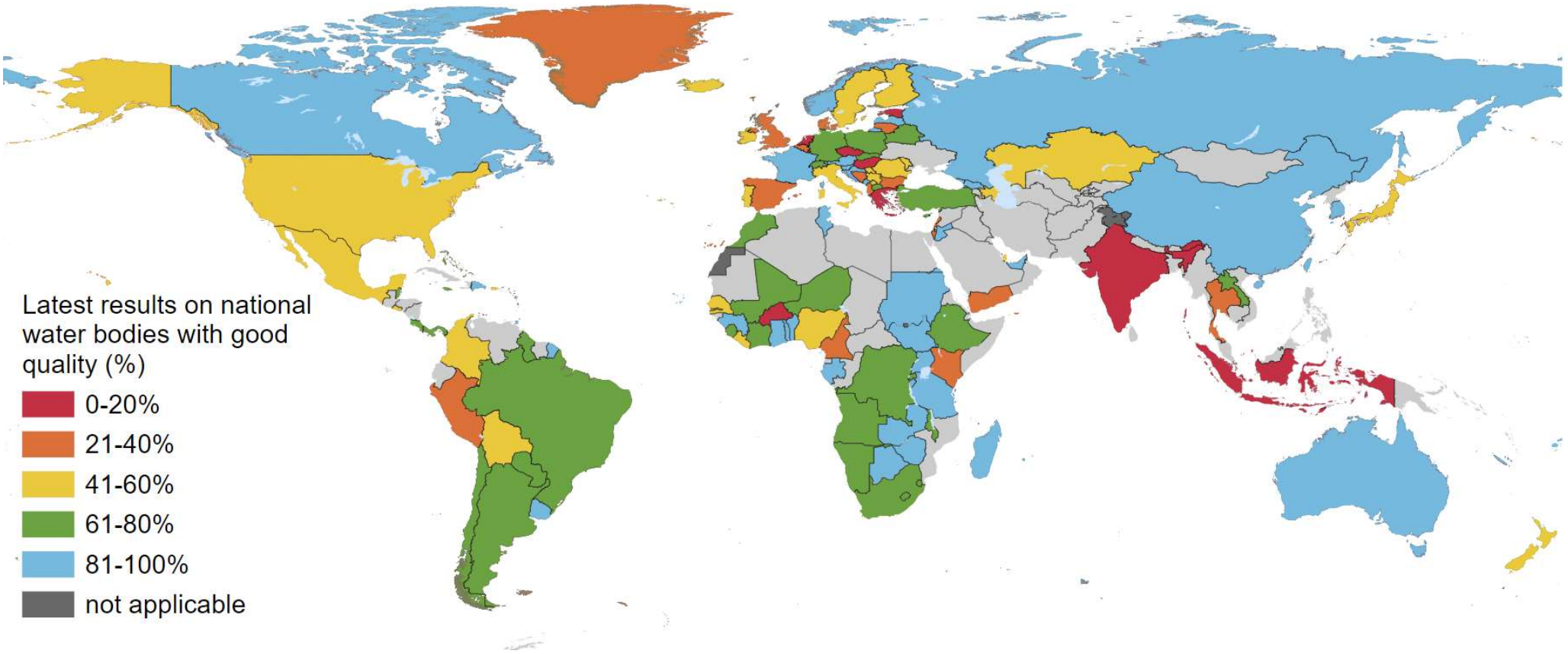
Reporting Basin Districts and Water bodies

The indicator is the "Proportion of water bodies…", these can be sections of a river, a lake or an aquifer.

These water bodies are grouped into Reporting Basin Districts



SDG Indicator 6.3.2 – Global Map



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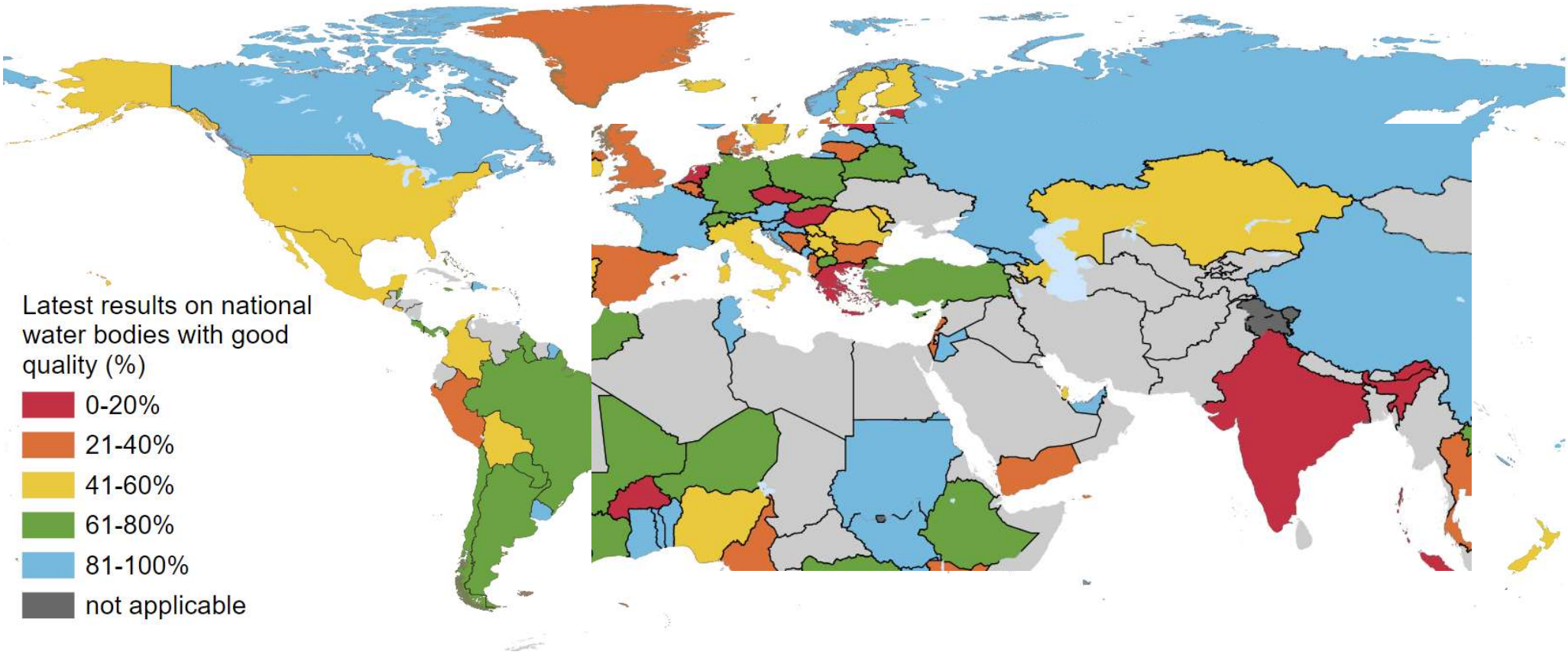
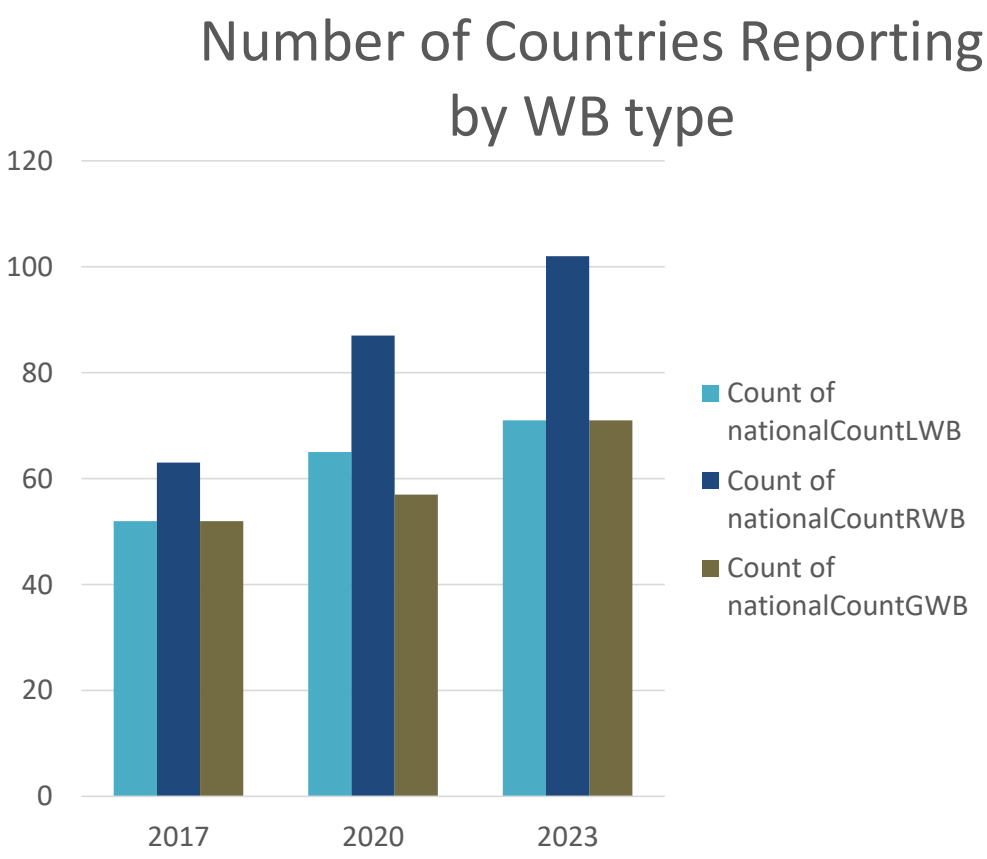
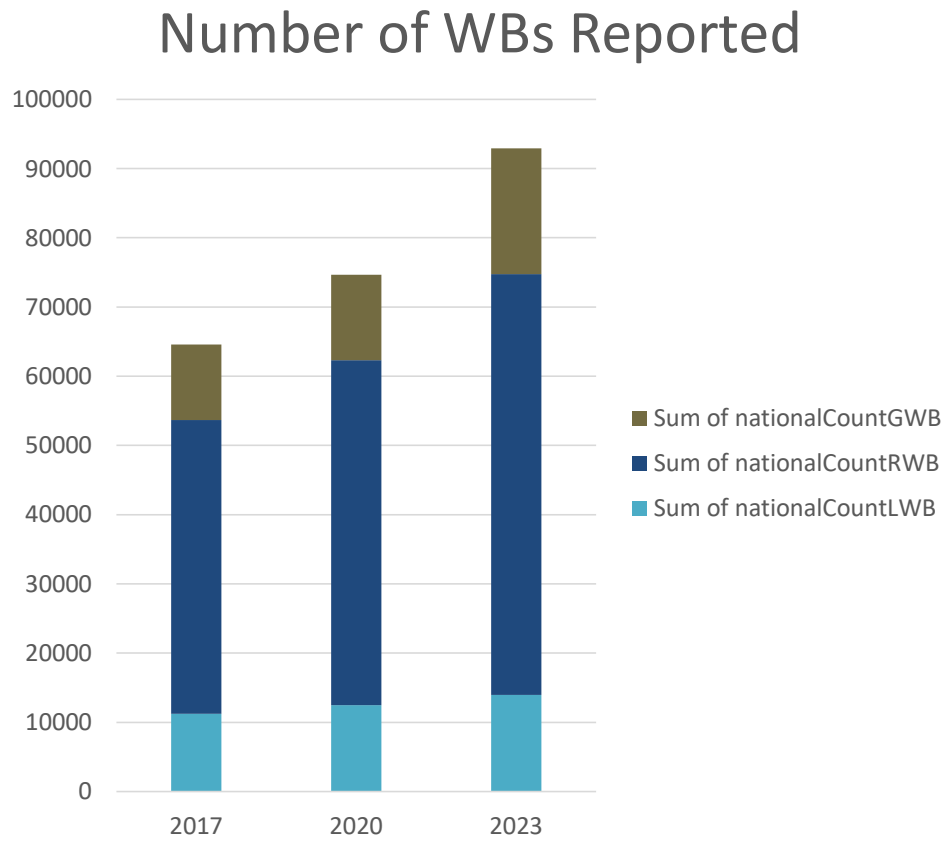
SDG Indicator 6.3.2 – Regional Focus



SDG Indicator 6.3.2 – Reporting summary





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SDG Water Quality Hub

Thank you

Further info:

- Latest progress report: https://www.unwater.org/publications/progress-on-ambient-water-quality-632-2021-update/
- Contact: SDG632@un.org

Change in extent of water-related ecosystems

SDG indicator 6.6.1

9th July 2024

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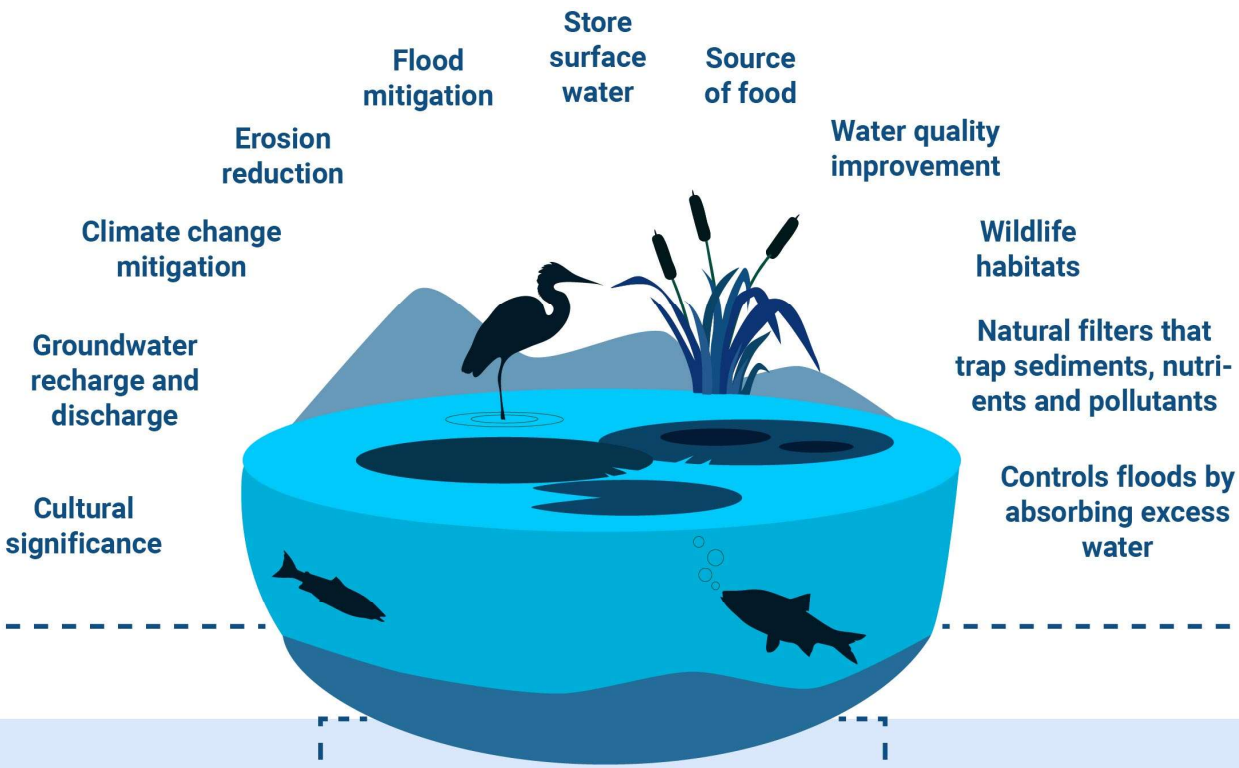


Ramsar

"Conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sistainable development throughout the world"

SUSTAINABLE DEVELOPMENT GOALS

"A shared blueprint for peace and prosperity for people and the planet, now and into the future"

THE POST 2020 GLOBAL BIODIVERSITY FRAMEWORK

"... to guide actions worldwide through 2030, to preserve and protect nature and its essential services to people"

System of Environmental Economic Accounting

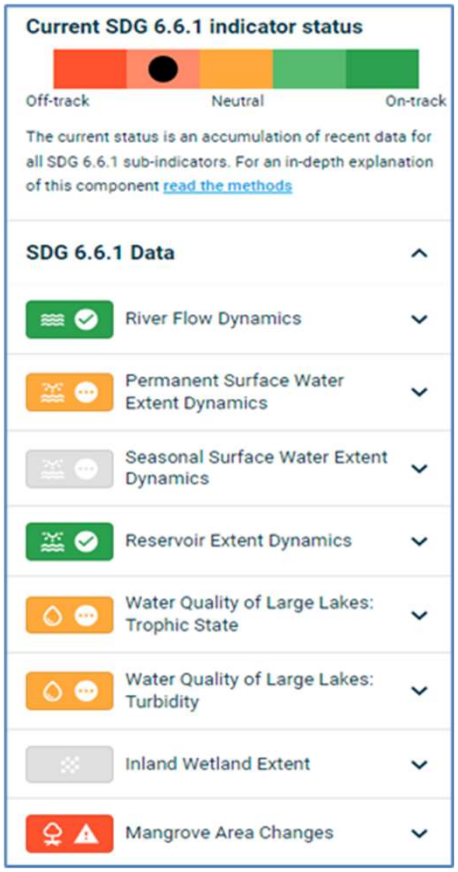
"an international statistical standard for reporting on ecosystem assets and services and to facilitate the development of indicators and analysis on the economy-environment nexus"

Protecting freshwater ecosystems and their biodiversity

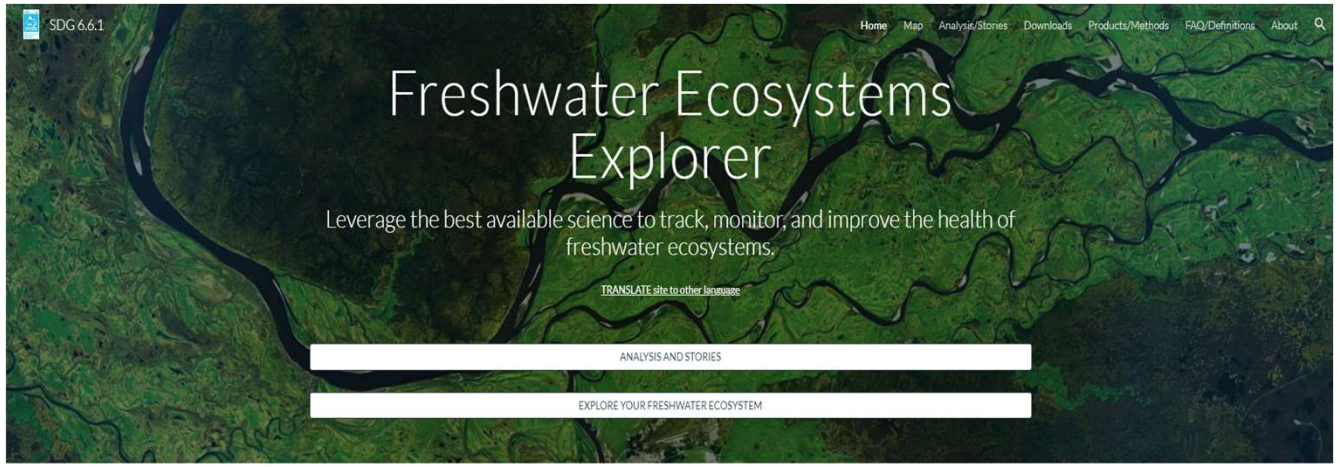
- Freshwater ~1% of the planet
- Freshwater biodiversity = 140,000 species
- Last 50 years = 80% decline of freshwater biodiversity populations
- 25% facing extinction
- Inland wetlands decline of 60%
- 1 in 5 river basins now experiencing significant change in available freshwater
- Most endangered ecosystems globally…..

Protect and restore water-related ecosystems - target 6.6

Change in extent of water-related ecosystems - indicator 6.6.1



Check the status of freshwater ecosystems at UNEPs Freshwater Ecosystem Explorer
www.sdg661.app



The Freshwater Ecosystems Explorer is a free and easy to use data platform. It provides accurate, up-to-date, high-resolution geospatial data depicting the extent freshwater ecosystems change over time.

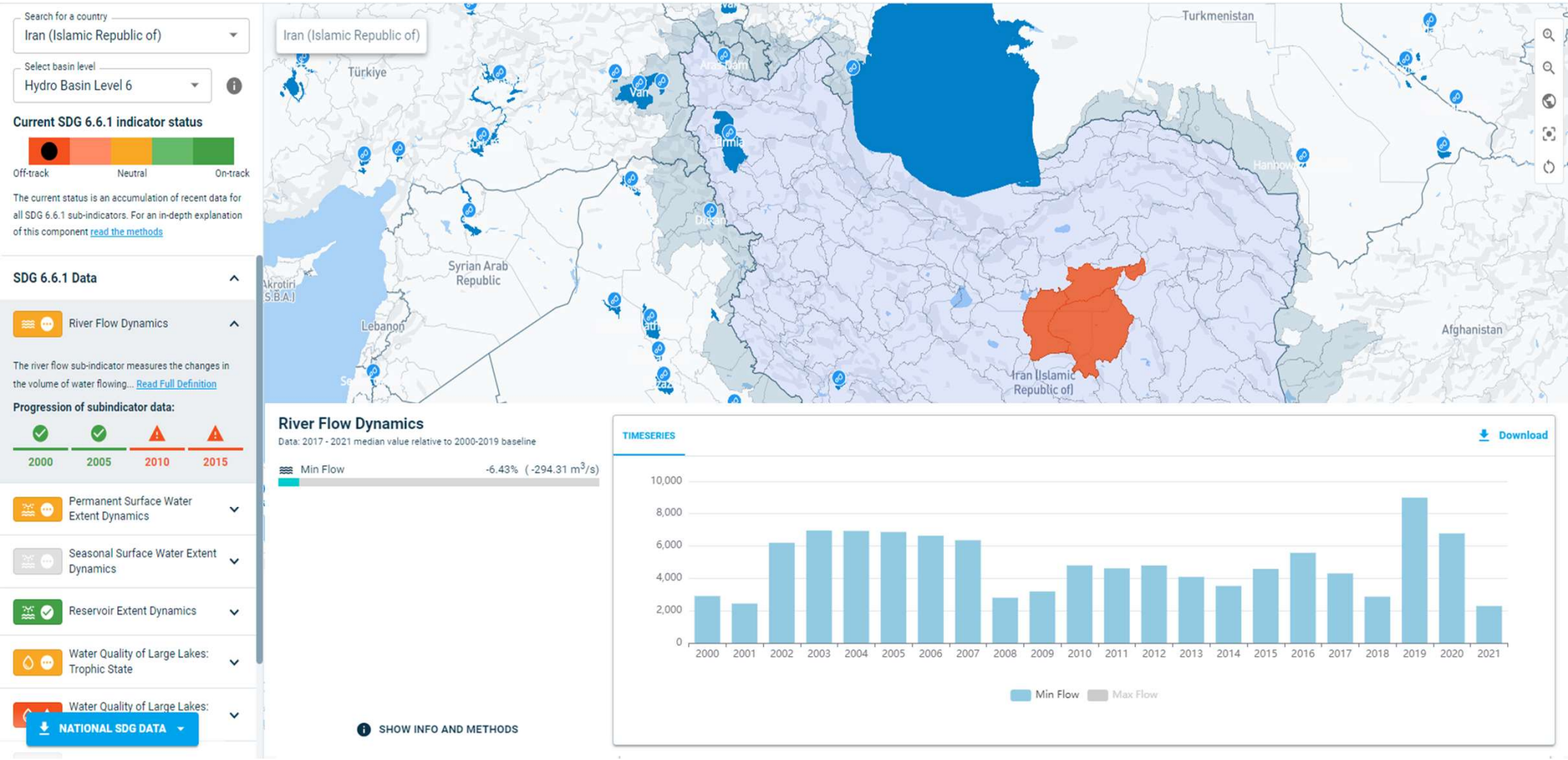
By helping decision-makers understand dynamic ecosystem changes, the data presented on this open access platform is intended to drive action to protect and restore freshwater ecosystems and enable countries to track progress towards the achievement of Sustainable Development Goal Target 6.6. Data can be visualized and downloaded at national, sub-national and basin levels. Data is available for the following:

Permanent & Seasonal Surface Waters | Reservoirs | Wetlands | Mangroves | Water Quality

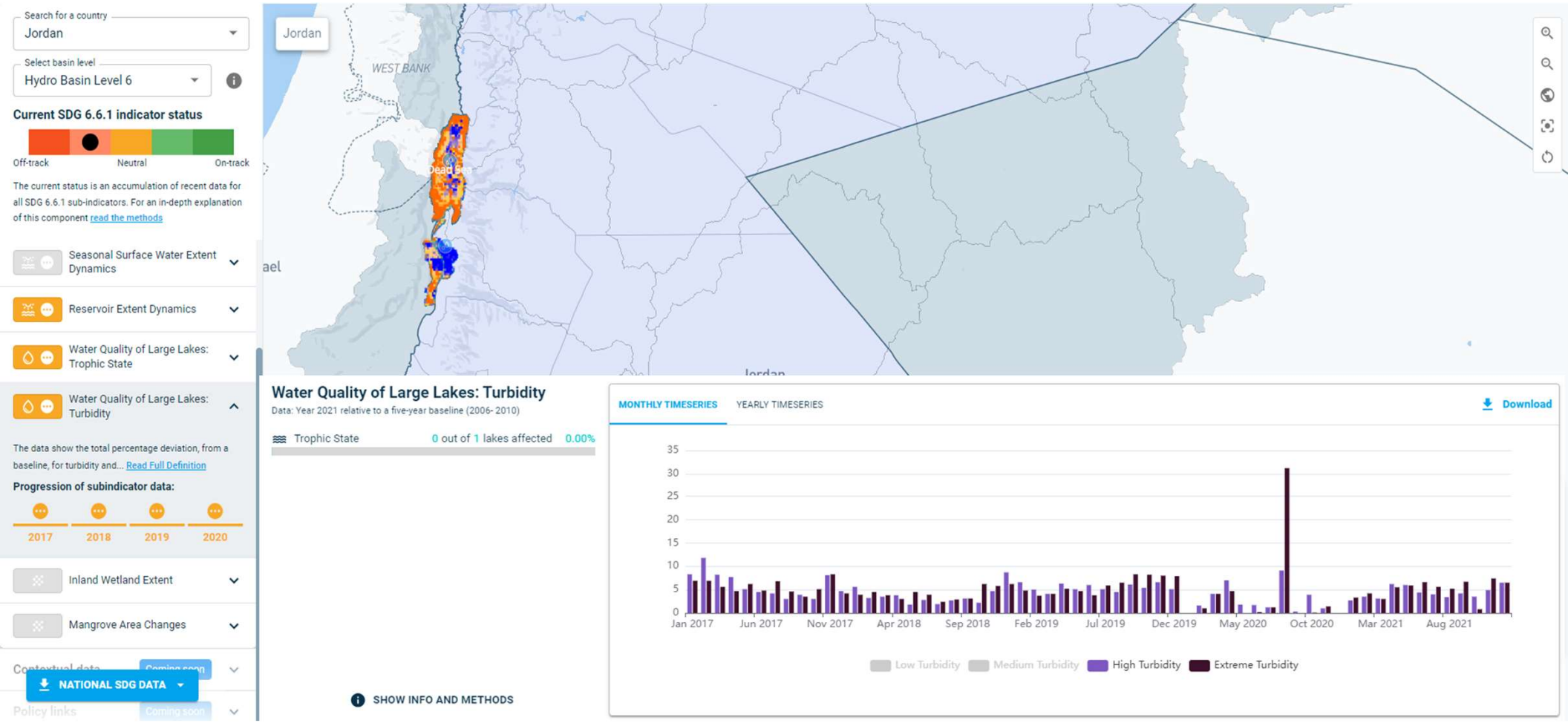
All data on the site is updated annually and produced to align with the SDG indicator 6.6.1 methodology.

The United Nations Environment Programme is the custodian agency for SDG indicator 6.6.1.

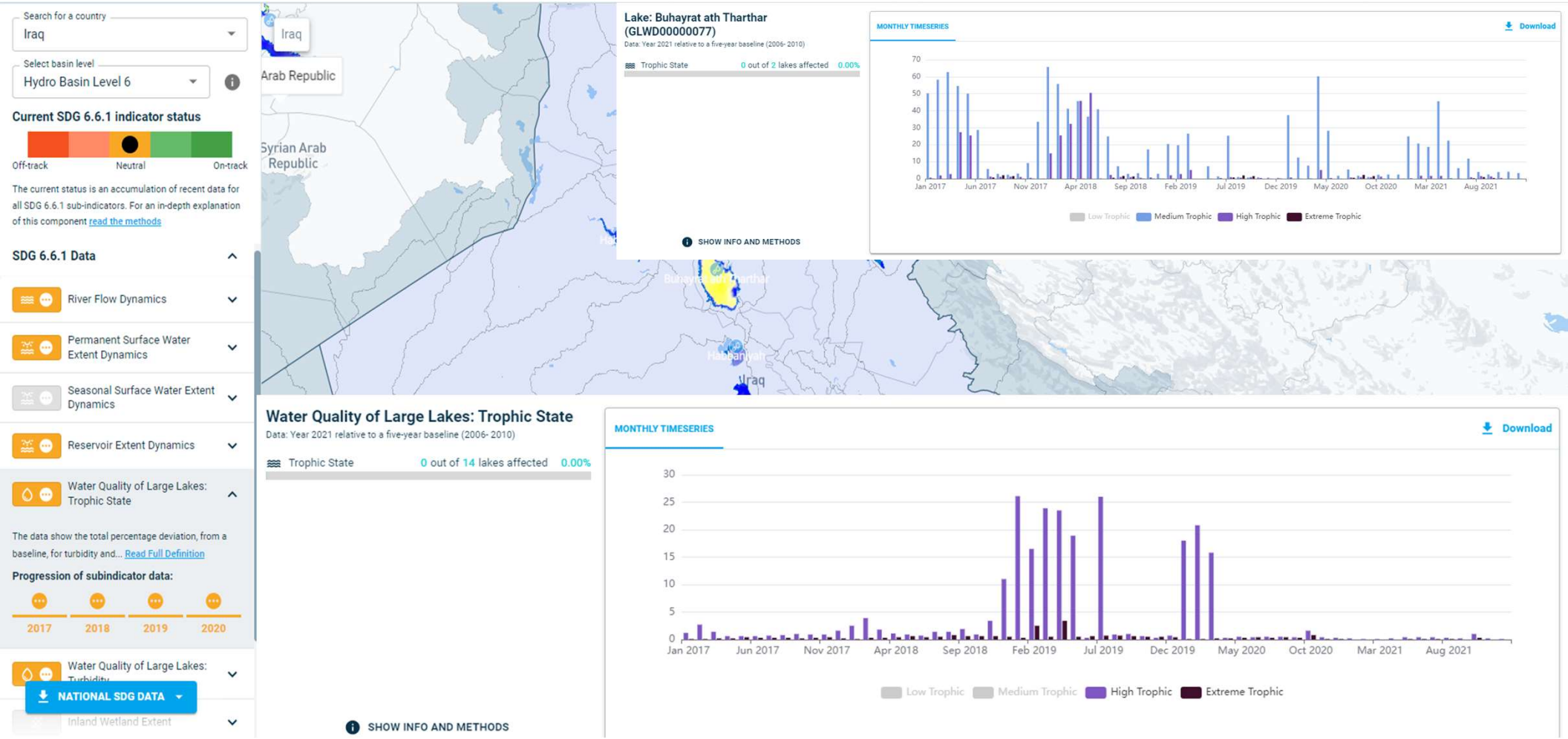
Example of SDG 6.6.1 country data and trends: river flow, Iran



Example of SDG 6.6.1 country data and trends: lake turbidity, Jordan



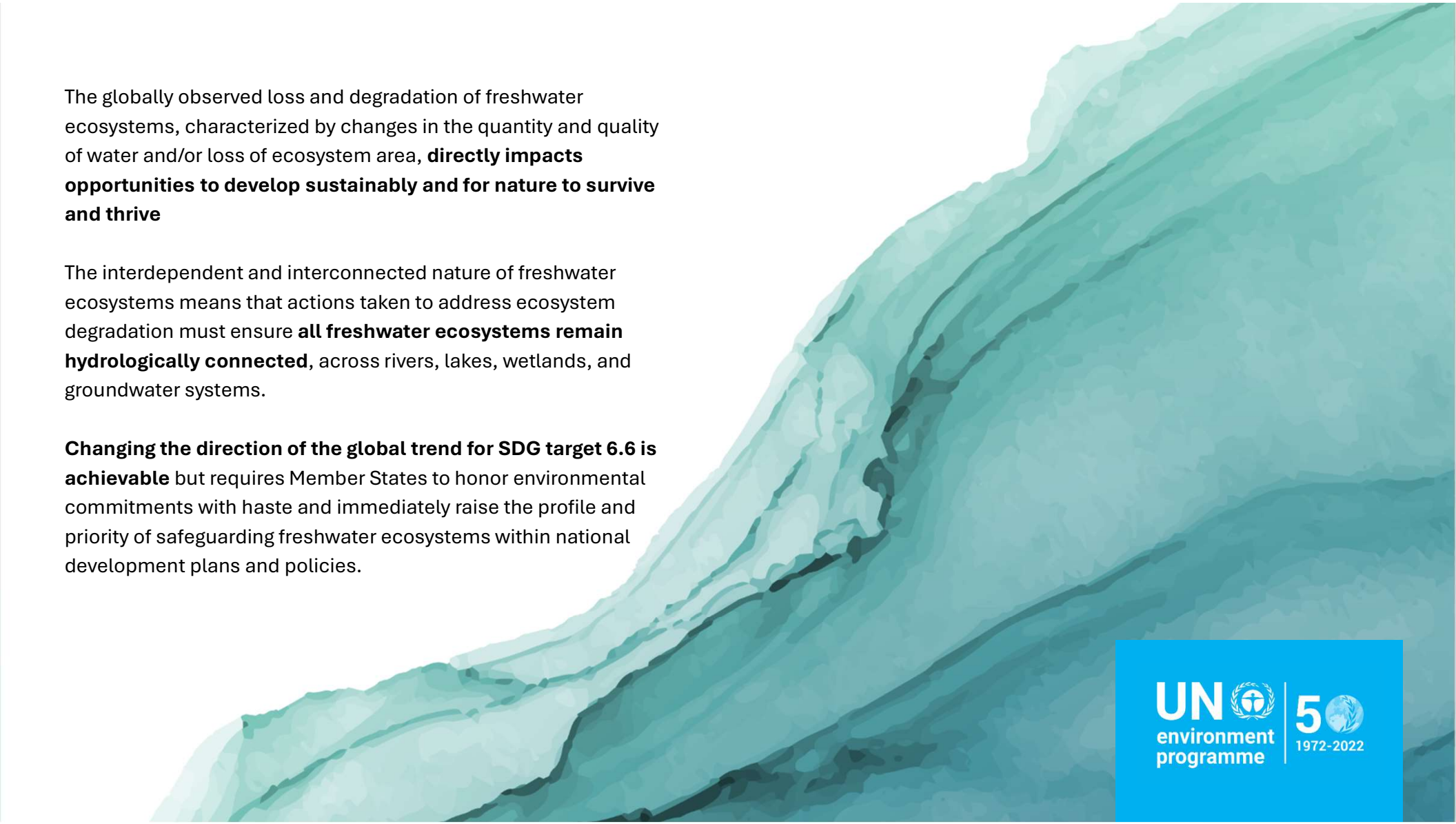
Example of SDG 6.6.1 country data and trends: lake trophic state, Iraq



The globally observed loss and degradation of freshwater ecosystems, characterized by changes in the quantity and quality of water and/or loss of ecosystem area, **directly impacts opportunities to develop sustainably and for nature to survive and thrive**

The interdependent and interconnected nature of freshwater ecosystems means that actions taken to address ecosystem degradation must ensure **all freshwater ecosystems remain hydrologically connected**, across rivers, lakes, wetlands, and groundwater systems.

Changing the direction of the global trend for SDG target 6.6 is achievable but requires Member States to honor environmental commitments with haste and immediately raise the profile and priority of safeguarding freshwater ecosystems within national development plans and policies.



Find out more about UNEP's work and learn about UNEP's freshwater work at

www.unep.org/water

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