WWQA
World Water Quality Alliance

YEMAYA

March 2026

Welcome 2026 – A critical year for water and the Alliance

Dear Friends and Partners of the World Water Quality Alliance,

We hope you had a good start to 2026 — a critical year for water.
There are several key processes that we will follow and highlight this year:

- The custodian agencies of UN-Water's Integrated Monitoring Initiative for SDG 6 (IMI-SDG6) are rolling out the fourth global data drive on SDG 6 early this year, marking an important milestone in tracking progress toward the Goal 6.
- As part of IMI-SDG6, UNEP will contribute to UN-Water's *Synthesis Report on Water and Sanitation 2026*. This report will serve as the UN system's collective input to the in-depth review of SDG 6 at the High-level Political Forum on Sustainable Development (HLPF) in July 2026. Marking ten years of SDG 6 implementation, the report will assess progress achieved, highlight how the Goal 6 has strengthened national action and policy coherence across levels, and distill key lessons learned.
- The year will culminate in the 2026 UN Water Conference in the United Arab Emirates from 2–4 December. Six interactive dialogues will provide the thematic framework for the Conference, with water quality cutting across many of them. In particular, water quality will feature prominently in "Water for People," recognizing deteriorating water quality and untreated wastewater discharge as major challenges for human health and

well-being, and in “Water for Planet,” where pollution and aquatic ecosystem degradation threaten ecosystem integrity and biodiversity.

As the WWQA community, we have a unique opportunity to use our collective voice to ensure that water quality is firmly positioned at the heart of the Conference’s discussions. During the 2023 UN Water Conference, we successfully highlighted the work and achievements of the Ecosystems Workstream during a formal side event. We are keen to build on that momentum and ensure that the important work undertaken by this Alliance meaningfully informs the 2026 Conference.

We therefore encourage all of you to share your ideas and planned initiatives with us. We will introduce a dedicated segment in upcoming newsletters focused on the Conference and would like to use this moment to bring together our collective expertise, insights, and messages to strengthen our impact.

With warm regards,
WWQA Coordination Team

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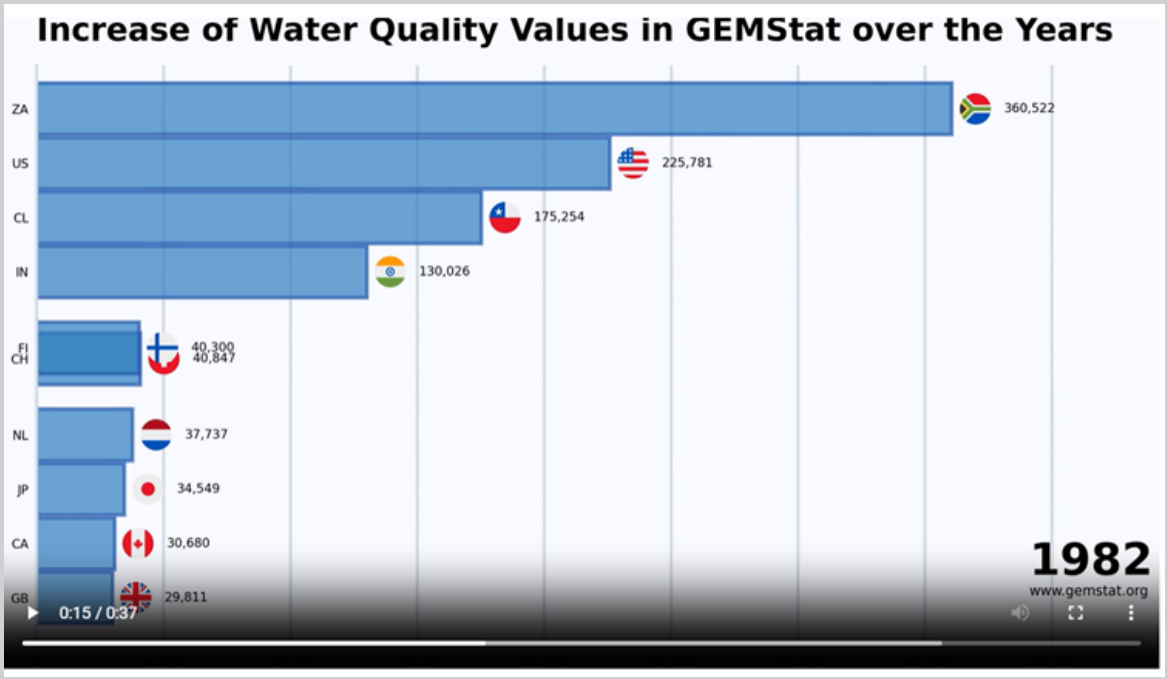
1. Special Focus on Water Quality Data

Who leads the water quality data table...

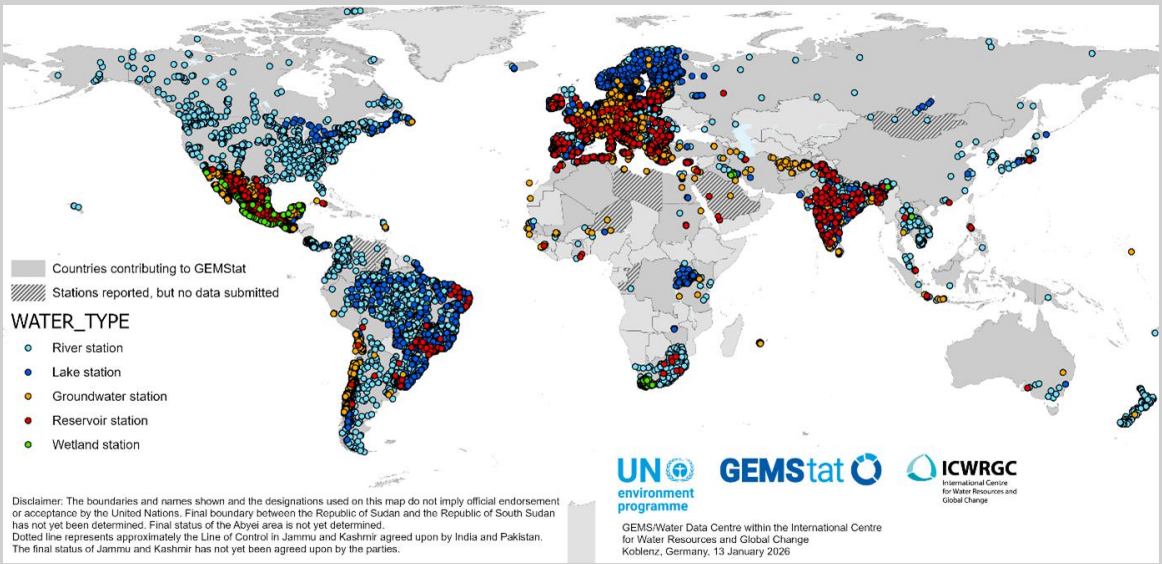
Find out which country is leading on water quality data availability on the global water quality database GEMStat over time. For the World Water Monitoring Day 2025, celebrated on 18 September, GEMStat launched a bar chart race visualizing the cumulative total of water quality data measurements for the top 10 countries in GEMStat over time (1951-2025).
Follow the link below and see whether your country has made the cut – the final results might surprise you. Please share if you think we can use this to encourage more countries to submit their water quality data to GEMStat.

World Water Monitoring Day – Highlighting the current status of data availability and important data gaps - GEMStat



2025 Update on the GEMStat Water Quality Database and the associated Zenodo Dataset

GEMS/Water provides global water quality data through the GEMStat water quality database (GEMStat - The global water quality database), which is hosted by the GEMS/Water Data Centre and the Federal Institute of Hydrology in Koblenz, Germany.
Data in GEMStat is provided by national and regional administration responsible for water quality monitoring. As of January 2026, GEMStat holds **61.4 million measurements** from over **31,000 stations** in **91 countries**. **659 different water parameters** are covered.



Global distribution of GEMStat stations, status January 2026.

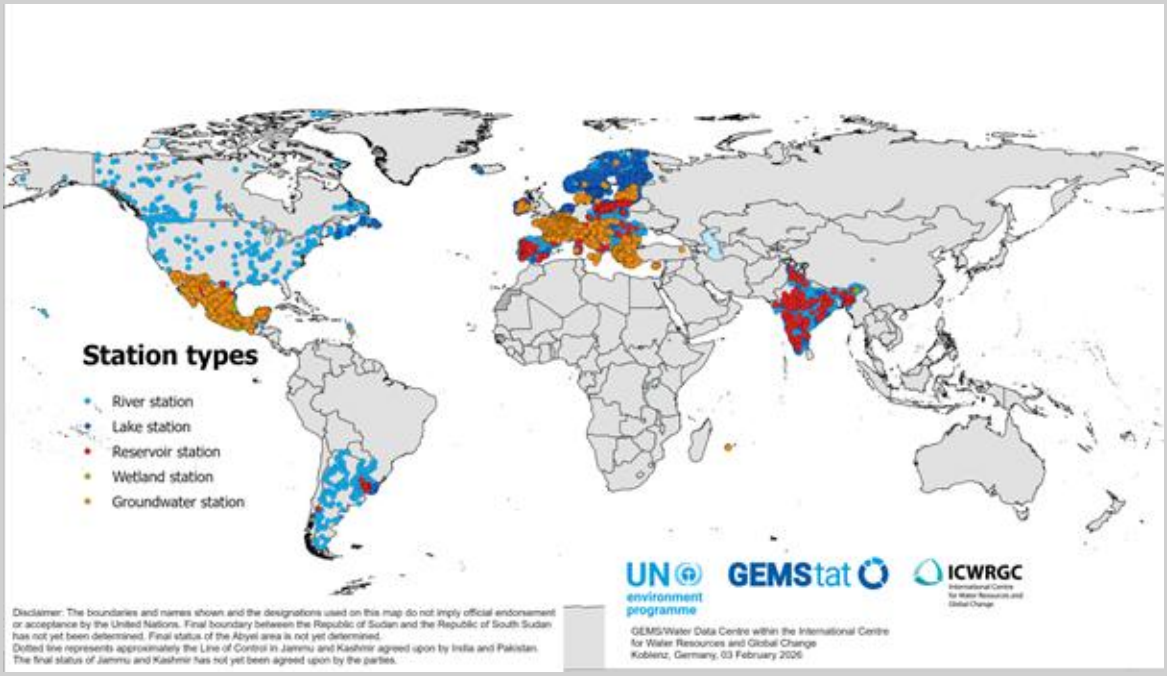
In 2025, **over 30 million new measurements on 17,442 stations** were added from:

- Chile
- European Union (all Member States through the European Environment Agency)
- Germany (separate submission by the German Environment Agency)
- Japan
- Republic of Korea
- Russia

The update for the European Union involved revising all available data due to technical issues but also included a significant number of new stations and measurements.
GEMStat data providers can choose from three levels of data policy under which their data are to be published – open (corresponding to Creative Commons license CC BY 4.0), limited (corresponding to Creative Commons license CC BY-NC 4.0, which only allows non-commercial use of the data) and restricted (data only to be used in official UN reports).

Update to Zenodo Archive

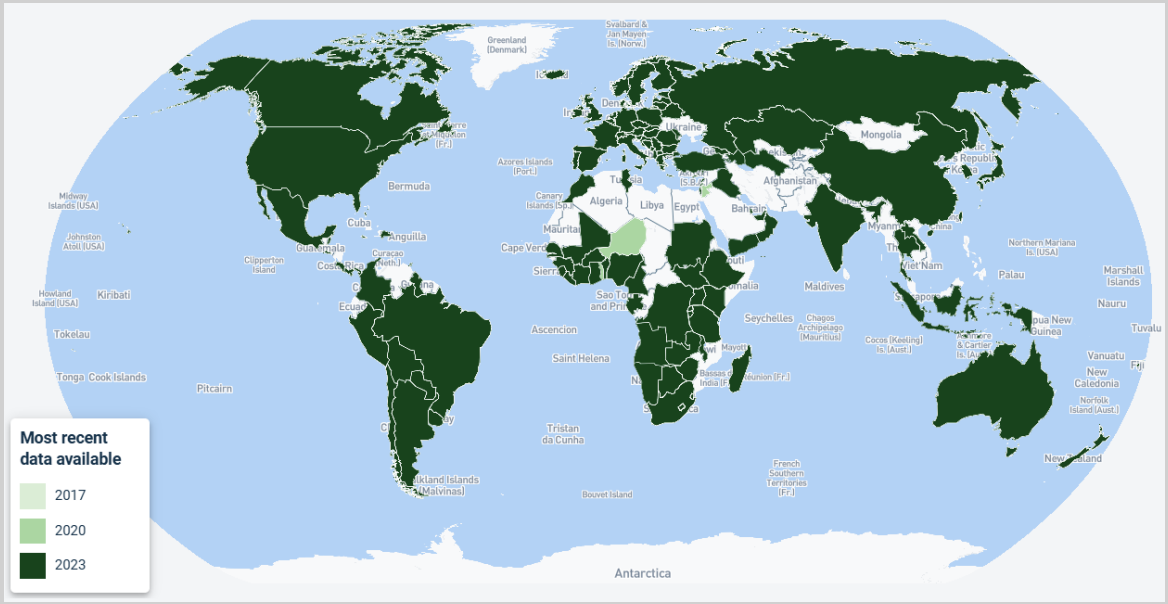
To further facilitate the access to GEMStat data, the GEMS/Water Data Centre published all open data (CC BY 4.0) in the UNEP GEMS/Water Global Freshwater Quality Archive on Zenodo in December 2024. This dataset is available for free download and was updated in January 2026. It now includes over **50 million measurements** on **622 water quality parameters**, covering almost **23,000 stations** in **42 countries** over the time period **from 1906 to 2024**.



Global distribution of GEMStat stations that are included in the UNEP GEMS/Water Global Freshwater Quality Archive on Zenodo, status January 2026.

For any queries regarding GEMStat and the Zenodo dataset, please contact the GEMS/Water Data Centre (gwdc@bafg.de).

SDG Indicator 6.3.2 Data Drive Launch



Status of SDG Reporting by countries for previous data drives SDG Water Quality Hub

This April, GEMS/Water will launch the fourth global data drive for SDG Indicator 6.3.2. As part of UN-Water's Integrated Monitoring Initiative for SDG 6, we work with national authorities responsible for freshwater monitoring on a three-year cycle. Our target this year is to increase the number of reporting countries from 120 (in 2023) to 150, but this is only half of the story. The 2026 data drive is not just about expanding participation, but it is another opportunity to highlight the importance of water quality monitoring and to demonstrate how reliable data are essential for effective freshwater management.

This indicator has revealed how stark the global water quality data gap is, particularly in many low-income countries. Despite the best efforts of those working to provide decision-makers with the most accurate information available, the reality is that existing datasets are often insufficient to answer even basic questions about status and trends. By asking countries to report on this indicator to the best of their ability, we help bring this gap into focus and create a framework for closing it.

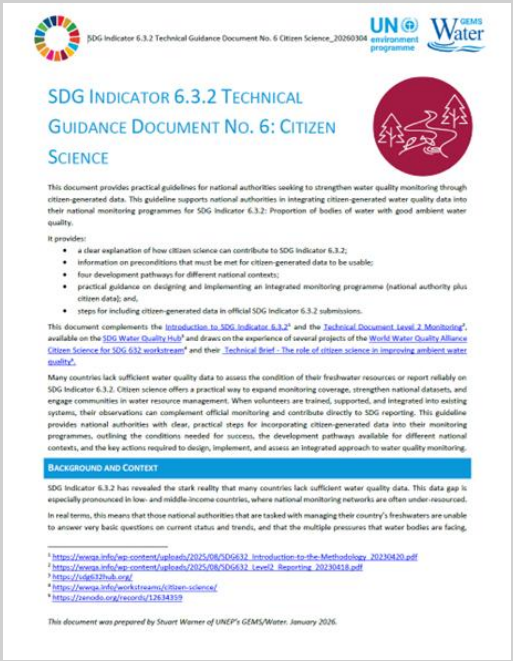
The SDG Indicator 6.3.2 reporting process has become one of the few mechanisms that consistently shows where monitoring capacity is strong, where it is most constrained, and where support is most urgently needed. For the first time, we now have robust, comparable information on where investments in monitoring and assessment capacity can have the greatest impact. And through the World Water Quality Alliance, we have the network to help deliver the technical support, partnerships, and coordinated action countries need to strengthen their monitoring systems and close the global water quality data gap.
For more information on SDG Indicator 6.3.2 Reporting, you can check our SDG Water Quality Hub.

2. Updates from the Workstreams

Citizen Science

New Citizen Science Technical Guidance Document based in Technical Brief of Citizen Science Workstream

A new citizen science Technical Guidance Document has been developed, building on the earlier Technical Brief based on the work and activities of the Citizen Science Workstream. This Guidance Document provides countries with a clear, standardised approach for integrating citizen---generated data into national monitoring programmes and into official SDG Indicator 6.3.2 reporting.


SDG Indicator 6.3.2 Technical Guidance Document No. 6: Citizen Science

This document provides practical guidelines for national authorities seeking to strengthen water quality monitoring through citizen-generated data. This guideline supports national authorities in integrating citizen-generated water quality data into their national monitoring programmes for SDG Indicator 6.3.2: Proportion of bodies of water with good ambient water quality.

It provides:

- a clear explanation of how citizen science can contribute to SDG Indicator 6.3.2;
- information on preconditions that must be met for citizen-generated data to be usable;
- four development pathways for different national contexts;
- practical guidance on designing and implementing an integrated monitoring programme (national authority plus citizen data); and,
- steps for including citizen-generated data in official SDG Indicator 6.3.2 submissions.

Background and Context

The document includes:

- a clear explanation of how citizen science can contribute to SDG 6.3.2
- information on the preconditions required for citizen-generated- data to be usable
- four development pathways tailored to different national contexts
- practical guidance on designing and implementing integrated monitoring programmes (national authority plus citizen data)
- steps for incorporating citizen-generated- data into official SDG Indicator 6.3.2 submissions

This technical document offers countries a practical roadmap for expanding participation, improving data availability, and strengthening the role of communities in national water quality monitoring.

New Citizen Science Project across all of SDG6

Building on the success of the Citizen Science Workstream, which supported two countries in integrating citizen-generated data with national water quality monitoring for official SDG reporting, UNEP was invited to design a new citizen science initiative that spans the whole of SDG 6. This new project is one of five under Priority Collaborative Action 4 (PCA4), which aims to *accelerate progress toward SDG 6 by strengthening the evidence base, improving data availability and use, advancing monitoring, promoting innovation, and documenting good practices and lessons learned*.

The proposal was endorsed by the Steering Committee of the Integrated Monitoring Initiative for SDG 6 (IMI-SDG6) in late 2025. Recognizing UNESCO's work in citizen science, UNEP has invited UNESCO to co-lead a new working group that will guide the project and serve as an expert advisory body for citizen science related requests at the UN Water-level going forward.

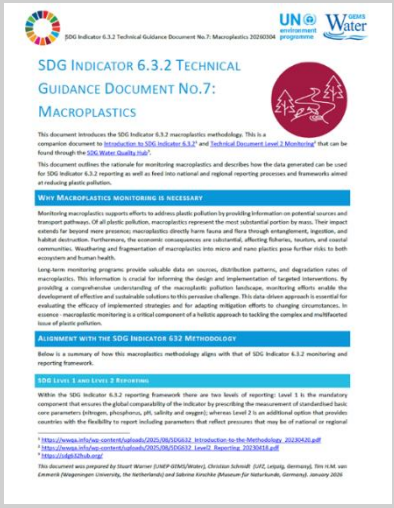
Over the coming year, the project will deliver four key outputs:

- an SDG 6 Citizen Science Info and Outreach Pack;
- a catalogue of existing citizen science activities across SDG 6;
- standardised protocols for water-related citizen science monitoring; and,
- a Citizen Science Water Quality platform

Together, these outputs will serve as a basis for improved community level engagement across SDG6.

Plastics

New Macroplastic Technical Guidance Document from Plastics Workstream


SDG Indicator 6.3.2 Technical Guidance Document No.7: Macroplastics

The WWQA Plastics Workstream has contributed to the development of a new macroplastics methodology and accompanying Technical Guidance Document for SDG Indicator 6.3.2. Building on earlier work carried out through the Nile Basin Initiative, the team helped translate macroplastics monitoring results into SDG-compliant information that countries can use to report at **Level 2** of the indicator. Level 2 covers water quality information beyond the core parameters (nitrogen, phosphorus, pH, dissolved oxygen and electrical conductivity), allowing countries to highlight additional pollution pressures, including plastics.

The release of this new technical document comes at an ideal moment, as the fourth global data drive for SDG Indicator 6.3.2 begins in April this year. While it is unlikely that countries will adopt the new method immediately for this reporting cycle, the Data Drive offers valuable visibility for water quality challenges and provides- an important opportunity to spotlight plastic pollution which is one of the most pervasive and persistent threats to freshwater ecosystems globally.

Action Plan on Macroplastic Pollution in the Nile Basin

In December 2026 the 33rd Nile Council of Ministers' Meeting has approved the Action Plan on Macroplastic Pollution in the Nile Basin as a subsidiary instrument of the NBI Basin Monitoring Strategy.
The development of the Action Plan included a stakeholder mapping, on-site stakeholder consultations and a hands-on training workshop held in Kisumu, Kenia.

While the project was financed through the Federal Ministry for Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN) the authors are also leads of two WWQA workstreams and it was a joint activity of the Plastics Workstream (Christian Schmidt, Tim van Emmerik) and thenSPI4Water Workstream (Sabrina Kirschke).

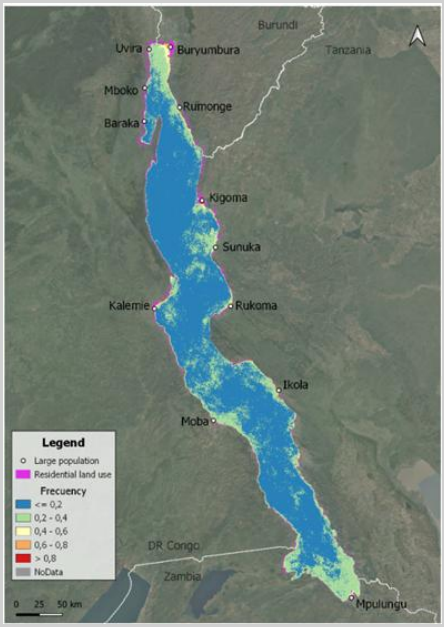
Earth Observations

EO Workstream Project upscaled for SDG Indicators 632 and 661

Following successful pilot work by the Earth Observation (EO) Workstream on Lake Tanganyika, the new indicator developed during that project is being tested and upscaled from a single lake to around 4000 lakes using data made available by the Copernicus Land Monitoring Service (CLMS).

The outputs of this new project will feed directly into the global data drives for both SDG Indicator 6.3.2 and the water quality component of SDG Indicator 6.6.1 (change in the extent of water-related- ecosystems) later this year and will be made available through UNEP's SDG Water Quality Hub and Freshwater Ecosystems Explorer. Focusing initially on chlorophyll-a and turbidity, this project represents a major step forward in identifying water quality trends and hotspots, and in supporting management of these critical water bodies.

This expansion marks a significant move toward making EO a routine, accessible and scientifically robust tool for national water resources monitoring and decision-making.



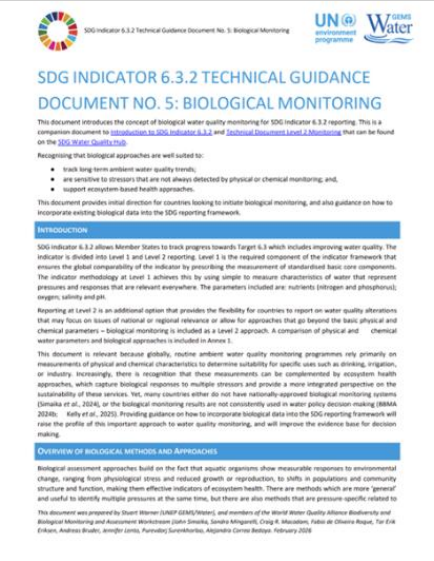
Fchla (frequency that chl-a was above the baseline P90 value) for Lake Tanganyika during RP2 (2017-2019)

You can find more information about the methodology developed with the support of WWQA Seed Funding here: Waterbody-level classification using the EO-based indicator for the pilot study

Biodiversity and Biological Monitoring and Assessment (BBMA)

New SDG 6.3.2 Technical Guidance Document from BBMA Workstream

The BBMA Workstream is developing of a new Technical Guidance Document on biological monitoring for SDG Indicator 6.3.2. The latest version of the document introduces the concept of biological water quality assessment within the SDG Indicator 6.3.2 framework and provides practical guidance for countries looking to initiate biological monitoring programmes. It also outlines how existing biological datasets can be incorporated into national SDG reporting, emphasizing the importance of harmonizing protocols to ensure comparability, methodological consistency, and greater policy relevance of biological information in water quality assessments.


SDG INDICATOR 6.3.2 TECHNICAL GUIDANCE DOCUMENT NO. 5: BIOLOGICAL MONITORING

This guidance fills an important gap. While the SDG Indicator 6.3.2 methodology recognises the limitations of relying solely on physical and chemical parameters, clear direction on how to integrate biological approaches had been missing. Biological monitoring offers several advantages:

- it is well suited for tracking long-term ambient water quality trends
- it can detect stressors that may not be captured through physico-chemical monitoring
- it supports ecosystem-based assessments of freshwater health

By providing countries with a structured entry point into biological monitoring, this new document strengthens the relevance of SDG Indicator 6.3.2 reporting and promotes the use of these approaches for water resource management.

3. Other News & Updates

GEO 7 Launched

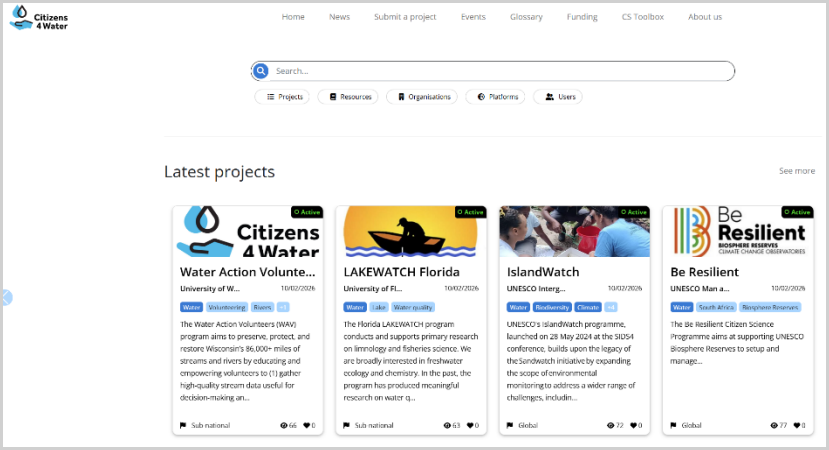
UNEP launched the 7th Edition of its Flagship Publication, the Global Environment Outlook (GEO) during the United Nations Environment Assembly on 9th December 2025.

The GEO-7 is the most comprehensive scientific assessment of the global environment to this day. It brings together the voices of 287 experts from 82 countries, with contributions from over 800 reviewers worldwide. Authors met in Bangkok, Vienna, and Nairobi to prepare the groundbreaking assessment that compares the current trajectory of the global environment – one trending towards catastrophic climate change, the collapse of nature, and growing deadly pollution – with an alternative vision of the future.

The Freshwater chapter of the State and Trends section highlights the urgent deterioration of global water quality. In 2021 alone, the world generated 359 billion cubic meters of domestic and industrial wastewater—about twice the annual flow of the Danube River—yet roughly 42% of municipal wastewater was discharged untreated.
Although limited data suggest that around 56% of monitored water bodies have good ambient quality, global water quality has declined since the 1990s and is projected to worsen without decisive action.
Pollution from agriculture, urbanization, mining, and industry continues to degrade freshwater systems, while emerging contaminants pose growing risks to ecosystems and human health. Climate change further compounds these pressures by warming freshwater, increasing harmful algal blooms and E. coli levels, and intensifying evaporation that raises salinity. Sediment pollution is also choking rivers, with about 40% of the world's largest rivers showing increased sediment loads and nearly 396 major rivers affected by suspended sediments, reducing water quality and reservoir capacity.

You can read more here: Global Environment Outlook 7 | UNEP - UN Environment Programme

Launch of UNESCO's Citizen4Water Platform



In February 2026 UNESCO IHP launched the Citizen4Water Platform. Citizens4Water aims to establish a global inventory of citizen science initiatives for hydrology and water management. The inventory consolidates knowledge from existing projects, supports the development or enhancement of citizen science projects, and identifies gaps in hydrology and water management practices.
This project entails the development of a global inventory of citizen science initiatives in hydrology and water management. The repository will:

- Facilitate researchers and project initiators to develop new or optimize current citizen science projects.
- Identify gaps in current citizen science water management practices.
- Allow policymakers to consolidate knowledge from existing projects worldwide.

4. Publications

This section highlights new papers and publications that partners and members of the WWQA are either directly involved in or recommend for sharing within the WWQA community.

Ecosystems

Linking aquaculture practices to antibiotic occurrence, accumulation, and environmental risk in freshwater systems
Aquaculture is a rapidly expanding component of global food production, but its intensification raises environmental concerns due to the widespread use of antibiotics to control bacterial diseases. This study examined the occurrence, distribution, and ecological risks of antibiotic residues in freshwater ecosystems downstream of aquaculture facilities in Latvia.

Setting safe ecological boundaries for nutrients and exploring climate impacts on biological resilience in lowland lakes and rivers in the Nordic and central European regions
Boundary concentrations for phosphorus and nitrogen set by EU countries and Norway are intended to support good ecological status in lakes and rivers. Yet these boundaries vary by more than an order of magnitude within comparable waterbody types, raising concerns that some limits may not ensure good status. This study estimates nutrient boundaries compatible with good ecological status for lake phytoplankton and river phytobenthos by using binomial logistic regression (BLR) and examines how climate variables affect their ecological status.

Citizen Science

Indigenous Community-Based Approaches to Environmental Justice through Citizen Science
The Katari River Basin, a key watershed feeding Lake Titicaca, is severely contaminated due to mining waste, urban effluents, industrial discharges, and agricultural runoff. These pressures have disproportionately affected downstream Indigenous Aymara communities, threatening

their rights to clean water, food security, and cultural continuity. This study examines citizen science as a participatory approach through which Indigenous communities engage with environmental justice concerns in their territories.

FreshWater Watch: Investigating the Health of Freshwater Ecosystems, from the Bottom Up | Citizen Science: Theory and Practice
Freshwater ecosystems are increasingly facing major global and local stressors, while monitoring surface water status by regulatory agencies is often limited by financial and political constraints. Citizen science–based approaches with robust quality control and training can support regulatory monitoring and decision-making.

5. Events

Mar 19, 2026 12:00 UTC
Join GEO AquaWatch on March 19th at 12:00 UTC as we celebrate 2 extraordinary early career scientist winners of our **Early Career Society's 3rd Annual Water Talks**!

Following a short plenary given by GEO AquaWatch Director, Dr. Ghada El Serafy (Deltares). Both winners will each present their research followed by a live Q & A session. This webinar will be presented in English and will be recorded and available on our YouTu/be Channel.

12:30 UTC Beatriz Siliva Fernandes, of Universidade Federal de São Paulo will present Remote Sensing Assessment of Chlorophyll-a and Suspended Solids in the Channels of the Santos Estuary, São Paulo, Brazil.

13:15 UTC Mar Roca Mora, of the Spanish National Research Council will present Assessing water quality impacts on submerged seagrasses using EO data
Read the speaker's abstracts and biographies here.

Water Talks are an activity of GEO AquaWatch's Early Career Society designed to promote the research of aquatic remote sensing scientists addressing water quality, especially those from the Global South, and to offer international peer mentoring opportunities for career development.

Meeting link: GoTo

2026 UN Water Conference
Special Accreditation for relevant non-governmental and other stakeholder organizations is now open. Deadline for registration: 31 March 2026
[2026 UN Water Conference Stakeholders | Department of Economic and Social Affairs]

Workshop: *Wicked Problems and Evidence-Based Policy*

As part of the International Workshops on Public Policy (IWPP), from July 06-08, 2026, in Ottawa, Canada.

Early Bird Registration is open until 16th March – regular registration until 15th May 2026

6. Jobs/Vacancies

There are currently no specific job openings that were shared with us for dissemination. However, we always encourage everyone looking for new job opportunities in the water space to keep a close eye on/or directly subscribe to Josh's Water Jobs

7. Funding Opportunities

For this section, we invite everyone to share with us any funding opportunity that might be relevant for the members of the Alliance to support activities under the WWQA and beyond.

GOOGLE.ORG IMPACT CHALLENGE: AI FOR SCIENCE
Accelerating scientific breakthroughs with the power of AI

Funding: Part of a $30M global fund; grants generally $500K–$3M and technical support available via the Google.org Accelerator.
Main aim: AI for scientific acceleration and discovery.

Example use: Research projects that advance foundational understanding in science with AI-enabled insights.
Deadline: 17 April, 2026
Who can apply: Nonprofits, social enterprises, research institutions, academic entities.

Deadline for Application: 16. April 2026
More information here.

8. Outlook: The WWQA moving forward

Dear Friends,

We appreciate your continued interest in and support of the WWQA – this is your Alliance and we have heard your feedback, ideas and wishes for a better, stronger Alliance.

Your extensive feedback was overwhelmingly positive, encouraging and provides us with the necessary conviction that we must continue to put in all effort to sustain and strengthen this Alliance.

But of course, there is also huge room for improvement which we are the first ones to acknowledge, and we truly appreciate all your suggestions and recommendations in that regard.

As the Alliance is very diverse, so are the suggestions we received, and we have to prioritize what is possible with given resource constrains and to ensure best use of our time in the interest of the Alliance.

We have summarized the survey in a brief report which you can access here.

In terms of next steps and drawn from the feedback received, we propose to do the following:

- Prepare a short "*WWQA 2026 Priorities*" document to clarify current ambition/plans and expected achievements for the Alliance in light of the resource constraints
- Act as broker, connector and visibility amplifier for the activities of the workstreams, including funding proposals – e.g. provide letter of support/relevance
- Work with partners to lead/host thematic webinars and prepare a virtual annual meeting
- Make better use of current WWQA website – encourage every workstream to provide up to date information/training on how to update
- Work towards regular –monthly/bi-monthly YEMAYA newsletters with updates on opportunities, jobs, funding opportunities – this requires active input from broader community
- Create an overview of available water quality related capacity development offerings (courses, eLearning, modules, handbooks etc.)
- Support development of WWQA local/regional/thematic assessments lead by the workstreams as joint project

The reality however, is that as long as we do not find additional resources in terms of dedicated staff/finances to support the Alliance, most of the broader recommendations and ideas will remain aspirational.

2026 will be a decisive year for the Alliance and will set the path forward. We hope you will all stay on board and if you have any ideas on how we can together strengthen the coordination and identify funding and support for the continuation of the Alliance, we will be happy to hear from you.

Sincerely,
The WWQA Coordination Team

Want to learn more about the WWQA?

To learn more about the WWQA you can visit our website and follow us on LinkedIn.

Missed a WWQA webinar? No worries! You can catch up on all our past sessions by visiting the WWQA YouTube channel.

YEMAYA welcomes articles, opinions and audio-visual material related to the issue of water quality. Please send any contribution to wwqa-coordination@un.org with a short 100-word biography, the name of your organisation.

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