

THE WORLD WATER QUALITY ALLIANCE NEWSLETTER

October 2023

The World Water Quality Alliance is convened by the United Nations Environment Programme and supported by the Swiss Confederation. It proudly presents its monthly newsletter, YEMAYA, named after the ancient African goddess of the ocean and motherhood. She is associated with fertility, femininity, protection, healing, and childbirth. Her domains are symbolized as water creatures: the seas, rivers, and lakes. She is honoured and revered in the African diaspora, particularly in Cuba, Haiti, Brazil, and the United States.

We, the World Water Quality Alliance Coordination Team, welcome articles about water quality. Tell us about your experiences. Describe the challenges you and your people face. Talk to our global community; talk to people from around the World. Send your articles to <u>wwqa-coordination@un.orq</u>.

IN THIS ISSUE

- Outcomes from the WWQA 2023 Annual Conference
- The October Interview: Loïc Charpentier Water Innovation Policy Maker, Water Europe, Technology and Innovation
 - The Africa Use Cases
 - Results from the Social Engagement Platform workshop
 - Highlight from the Innovation workshop on Water Quality Monitoring & Assessment
 - The WWQA BULLETIN BOARD
 - International Colloquium: Promoting Sustainable Lake Management ,Challenges, Achievements and Lessons Learned
 - Cassandra Conference
 - The World Water Quality Hub
 - Job Openings

Outcomes from the WWQA 2023 Annual Conference



The World Water Quality Alliance (WWQA) hosted a vibrant three-day conference at the United Nations in Nairobi from September 18th to 20th, 2023. The conference was held in a hybrid format, offering both in-person and online participation to cater to a global audience. Its core aim was to promote dialogue, engagement, and exchange among the multidisciplinary audience ranging from scientists to local communities and youth organizations; and to highlight how water quality data can be gathered and used to promote practical local action and how, as a result, all members of society can maintain a permanent dialogue with decision-makers at a supranational level to advance water quality issues.

Distinguished attendees included scientists, water specialists, UN officials, and researchers, as well as members of Local Water Forums, encompassing local officials, youth advocates, business figures, researchers, and everyday citizens representing diverse backgrounds. These diverse participants united to address water quality concerns, present current work under WWQA workstreams, with a special emphasis on how to generate and connect data to action, through engaging youth and local organizations in discussions and actions essential for their future and their communities. Day 1 of the Annual Conference focused on social engagement and youth, through an interactive format combining videos and panel discussions. This provided a platform for Local Water Forums, community groups working on water (from Kenya and abroad) and youth organizations share experiences through presenting their activities, initial results, experiences and feedback.

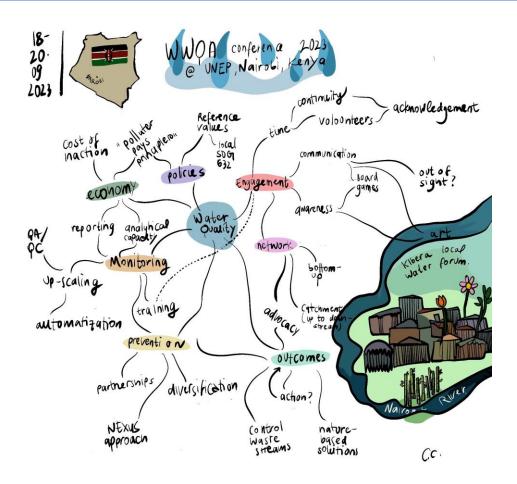
Day 2 opened with a presentation on the Pathway to a World Water Quality Assessment and the discussion about what constitutes an Assessment and why such an assessment on water quality is so critical. The WWQA workstreams and their achievements so far were presented and how these sit within the global policy context and outcomes of the UN (United Nations) Water Conference in New York, and the Water Action Agenda.

Day 3 was devoted to the future of the WWQA and organized in an interactive manner to capture the thoughts, ideas, comments that had been brewing in the minds of participants after Day 1 and Day 2. It went through the journey of the WWQA and invited participants to get together in smaller break-out groups to discuss core focus areas of the WWQA, what works well and what needs improvement, and what is the way forward for specific elements of the WWQA. Participants mentioned their appreciation for the opportunities provided by the WWQA for engagement and interaction across a range of disciplines and countries, the diversity of topics it handles and focus on water quality from different. Areas of improvement suggested improved coherence in structure, and how to make activities more visible through e.g. an online map for those wishing to find out more about where activities are taking place.

The WWQA Annual Conference highlighted that collaboration and knowledge exchange play a key role in developing innovative solutions to water quality issues, and that there is a clear call for promoting inclusivity by improving access to water quality data and information and resources for all stakeholders. All in all, The Annual Conference created opportunities for a wide range of expertise and perspectives to start exchanging views with the goal to generate innovative solutions for water quality through enhanced collaboration.

In conclusion, the WWQA 2023 Annual Conference was a success, fostering collaboration and knowledge sharing among experts from diverse backgrounds as a first step to promoting and supporting the transformation of scientific knowledge into practical actions. This three-day event not only highlighted the critical importance of obtaining good water quality data and the continued need for a World Water Quality Assessment but also emphasized the role of local communities and youth in addressing this issue of local and global concern. It is contributing to bridging the gap between high-level policies and local stakeholders, highlighting one of the Alliance's aims of providing, synthesizing scientific knowledge and translating into practical measures. While there were areas for improvement, such as enhancing visibility and expanding partnerships, the conference's overall impact on advancing water quality initiatives and promoting multidisciplinary networks cannot be understated. The WWQA continues to be at the forefront of addressing one of the most pressing challenges of our time, water quality, and with sustained effort it can make a difference on a local and global scale.

Article contribution by Vivianne Kiriinya, WWQA Coordination Team



1 - Image from Caterina Cacciatori - Scientific Project Officer at European Commission

Reflections of the WWQA Conference

The World Water Quality Alliance Annual Conference held in Nairobi this year, provided a series of important reflections which should be considered by water stakeholders and decision makers in the coming years. The WWQA conference echoed other conclusions that have already been expressed during the plethora of water events that take place regularly around the globe, for instance the ongoing need to monitor water quality, demand intersectoral collaboration, undertake long-term planning, and extolled the virtues of action based on objective scientific observation to audiences both online and in person. These messages have been voiced a few times but where there is still a gap between stating these and putting them into practice. What truly differentiated the WWQA Conference from other events is the opportunity that it gave, on the first day, to hear from those who work on the ground, from those who suffer from the consequences of mismanagement and pollution of water, from those who face the challenges of climate change and from those who, instead of waiting for external administrations and agencies to act, have taken it upon themselves to improve their local situation by leading initiatives within their community, often without any external physical or financial support. The WWQA in its

conference, brought the voice of the slum, the rural village, women, and minorities to those who represent the major international changes seeking change. In a series of passionate sessions, witnesses from the Caribbean, East and South Africa, the Middle East, and South America described the realities that researchers and government officers often describe but may seldom experience. Honest, straightforward dialogue and the opportunity for neglected causes to express their fears, their frustrations, their dreams, and their hopes proved to be an inspiring element of the conference and a valuable lesson for future events that purport to seek answers but which all so often ignore the true nature of the challenges to be overcome.

Article contribution by Dr Richard Elelman - Head of Politics, EURECAT

Loïc Charpentier - Water Innovation Policy Maker, Water Europe, Technology and Innovation

Could you please share some insights into your background and your journey in the field of water policy and innovation management?

I've been working for Water Europe for five years now. I inadvertently plunged into the water sector after an initial internship with the European Association of RTOs (European Association of Research and Technology Organisations). There was an opportunity. I've always been interested in research and innovation but more in constitutional and European Law. As for the subject of water, it's fascinating because of the complexity and horizontality of the policies. When I arrived, Water Europe had 160 members. Today, we have more than 260 in some thirty countries. As the association has grown, I have taken on different tasks, including developing the advocacy programme and setting up the policy advisory committee. I'm also active in the communication of EU research & innovation projects on behalf of Water Europe to the European institutions and manage the Member of the European Parliament Water Group's secretariat. I am also involved in different EU research clusters and the co-leader of the Policy advisory group of the Zeropollution4Water cluster which aims to cluster sister projects working on tackling water pollution in surface and groundwaters.



2 - Image provided by Loïc Charpentier, Water Innovation Policy Maker, Water Europe , Technology and Innovation

As an Innovation Water Policy Manager, what role do you see innovation playing in shaping the future of water quality management?

Innovation is something that is difficult to grasp and finance when you are a policymaker. Research cannot be based on a target result. A fortiori, investment in the water sector is not seen as politically expedient. This may partly explain why the water sector is structurally underfunded. Therefore, I foresee some modifications and enhanced innovation in governance as water risks become more and more important.

Research is a key policy for developing and deploying technical and non-technical solutions that can ensure a gain in well-being or security for people, particularly in the water sector. I'm thinking of digitalization, investment in water-efficient processes, especially for industry and agriculture, and the introduction of intelligent pollution risk control, and nature-based solutions. Water is a vast playground for research and innovation with plenty of opportunities. We will not be able to build water-smart societies without research and innovation. Cooperation is paramount not only within the sector but also with other segments of our society and economy hence why the work of platforms such as Water Europe and the Alliance are so important.

Can you share a memorable experience or moment that highlights the positive impact of the Alliance's work on water quality, and how it resonates with your role at Water Europe?

My participation in the UN WWQA activities was mainly during the conference in Nairobi. I was surprised by the number of initiatives working on water quality. One of the good outcomes of this conference was the starting point for cooperation between several initiatives along the Nairobi rivers. They discovered that they aim to tackle similar issues on the same rivers. I'm sure it will be a source of synergies and more impact. Personally, I also enjoyed this meeting as it opened the vision that we can have on some challenges or practices. For instance, citizen science is better accepted as part of water quality monitoring data' in several African countries such as Sierra Leone. Why? What are the methods used? This conference provided some answers. For example, European countries have a greater density of monitoring stations and have in-situ data. Therefore, there is less perceived need for citizen science to monitor the traditional water quality parameters of water bodies. How do you see the relationship between Water Europe and the World Water Quality Alliance evolving in the future to further advance the cause of water quality worldwide?

Water knows no borders. No matter where we are, we need water and decent water quality of course. Moreover, if we do believe that access to water in other parts of the world does not impact our region, we fail to understand the value of water and its impact on food production, trade, demography, health, etc... It's the reason behind the fact that Water Europe is one of the founders of the Alliance. Water Europe aims to foster collaboration to develop and deploy innovative solutions to solve the SDG's challenges. We are a relay at the European level to collaborate on water quantity and quality challenges. Water Europe will continue to engage within the Alliance as we must understand and learn from the different perspectives of the different regions to collaborate, advocate, and implement innovative solutions in the most efficient manner.

What was your overall takeaway from Day 2 of the WWQA conference as a moderator?

During the second day, three sessions highlighted the actions carried out by sixteen workstreams of the alliance. The objective was to identify synergies between these different groups, particularly around the management of urban wastewater, skills development, and awareness about water quality. Several challenges were also highlighted such as data collection and sharing, access to digital tools, and adaptation to local situations. As for the two sessions for institutional collaboration, they emphasized a desire for cooperation from Asian and African organizations, particularly around nexuses such as water and health. Regarding the last session, the panelists' demonstrated that additional actions on other water quality dimensions should be welcomed. In particular, the benefits of nuclear research or investment in digital water were highlighted.



3 - Image provided by Loïc Charpentier from LinkedIn Page

The Africa Use Cases



Improving global water quality is one of the 2030 Agenda targets, and comprehensive and current water quality monitoring data is critical to meet this target. When attempting to assess the global baseline, water quality data within Africa is not always readily available. However, scientists across Africa are hard at work collecting hugely valuable water quality data - what is needed is synergy between those who collect the data and the decision-makers. This would connect water quality hotspots to the associated solutions, thereby driving which better drives investment (Data to Action).

To address this challenge, the Africa Use Cases were born: the Cape Town aquifers (presented at the 50th International Association of Hydrogeologists Worldwide Groundwater Conference in September 2023), the Lake Victoria Basin, and the Volta River Basin. These Use Cases used the WWQA triangulation approach which combines in-situ measurements, satellite-based water quality information, and water quality modelling to provide an improved view of water quality. Since satellite imagery and modelled data need verification and validation within situ data, the challenges and opportunities related to data sharing need to be assessed. The focus of this article is the work done at the Lake Victoria Use Case, specifically the stakeholder engagement process, product development, and the lessons learned. A multi-stakeholder process was initiated through various engagements over the last four years. Key in this process was the involvement of African Great Lakes-African Center for Aquatic Research and Education(AGL-ACARE) who formalized Advisory Groups for each of the seven African Great Lakes.

Through these engagements over the years, there was a need identified by in-country Lake Victoria stakeholders for a tool to assess the potential for coastal eutrophication at the lake, especially as it relates to fisheries. Taking this forward, the WWQA members collaborated with key Lake stakeholders to develop a Lake Victoria-specific portal within the online GlobeWQ platform. GlobeWQ is a data visualization platform that utilizes the Triangle integration approach to inform water quality hotspots, trends & underlying drivers.

As part of the activities at the recent WWQA Nairobi conference, workshops were held to define the way forward. The urgent action items include:

- Identify long-term sustainable funding to expand this Triangle integration methodology in Africa: This could include further development for Lake Victoria, other African Great Lakes, and beyond!
 - Promote mutual benefit between those that have and those that need data; including data providers retaining ownership and being recognised for their data. This includes memorandums of understanding with government institutions.
- Standardized protocols & policies for better sharing between countries & institutions (including standardized data types and formats).
- Conclude which water quality platform(s) meets the Lake Victoria stakeholder needs and can be used as a shared repository. This may include GEMStat for data storage and data representation, GlobeWQ for the visualisation of the triangulation output, and AGL-Inform for the hosting of information products.
 - A need to synergize with other WWQA workstreams and projects (e.g., ALReS, Asia Water Quality(AwaQ), GlobeWQ, Water-ForCE).

Overall, the Lake Victoria use case is an example of what can be achieved with strong in-country stakeholder networks, a bottom-up approach that meets stakeholder needs, and the WWQA experience in global challenges to support local solutions.

For more information on the Lake Victoria and other Africa Use Cases, see here.

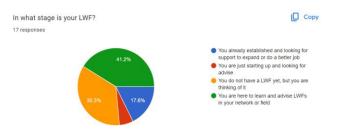


Results from the Social Engagement Platform Workshop

WWQA Workshop to Support the Establishment of Local Water Forums

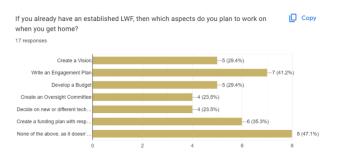
This one-day workshop was held in Nairobi, following the WWQA conference on 21st September 2023, and hosted by Human Right 2 Water and Women for Water Partnership in coordination with the WWQA. It was designed as a Train-the-Trainer workshop, to provide guidelines on how to set up and fund a local water forum. The participants were a mix of existing and new Local Water Forums (LWFs), with also some institutions and water authorities that are looking to set up LWFs in their areas.

"It was a very engaging session with real-life examples where I got to find ways to source out stakeholders from different sectors."



4 - A Pie chart showing feedback from the different groups regarding different stages Local Water Forums

Images by Amanda and Noemie



5 - A graph showing different aspects that the participants needs to work on in different local water forums

Images by Amanda and Noemie

The four modules were a mix of presentation and breakout groups, covering an outline of how to develop a stakeholder engagement plan, undertake stakeholder mapping, identify technical support resources, and how to put the stakeholder engagement plan into action for finding local support and funds.

Key takeaways included the importance of creating an organizational body, with an oversight committee, a vision, and a communication plan. This structured approach will help to provide reassurance for potential funders and Supporters, create greater engagement with important members of the community, and provide a more creative approach towards fundraising.

Fundraising was viewed from multiple points of view, from the aspect of how to engage and value volunteers, and which local institutions could benefit from the water quality monitoring and might be willing to contribute in terms of technical, advisory, resource, or funding support. Each participant was given the tools to create their own funding and engagement plan by the end of the workshop.

"It's Amazing, I've learned a lot, especially on fundraising strategies."

The feedback was both positive and constructive. Out of the twenty-one people that attended, the third that are already either in a Local Water Forums or about to start one, have stated that they will be writing an engagement and a funding plan because of the workshop.



Innovation Workshop on Water Quality Monitoring & Assessment

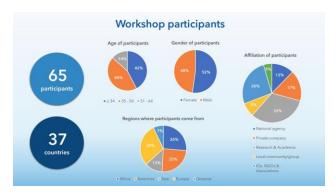
Water quality monitoring and assessment is a continuous and often laborious activity that requires multiple steps and processes to obtain credible and quality data which can then be translated into relevant information which provides the basis for evidence-based decision-making and uptake by policymakers and then ultimately leads to actions to improve and safeguard water quality. So goes, the general expectation and theory. However, there are many steps along this value chain from data to action which are faced with multiple challenges. Overcoming these challenges will help to tackle existing roadblocks towards achieving better management of water quality globally.

Cognizant of existing challenges, a consortium of key UN agencies working on ambient water quality including the United Nations Environment Programme (UNEP), World Meteorological Organization (WMO), United Nations Education, Scientific and Cultural Organization (UNESCO) and International Atomic Energy Agency (IAEA) under the umbrella of the World Water Quality Alliance (WWQA) launched a global call for submission of challenges by water quality practitioners to identify key challenges they are facing within their work related to water quality monitoring and assessment. Over 60 challenges were submitted and reviewed by the organizing committee and the following 4 challenges were selected, and submitted from 4 different continents:

- 1. Data to Action: Transforming data into actionable insights for water stewardship (Canada)
- 1. Empowering citizen scientists to improve water quality, from monitoring to action (Sierra Leone)
 - 1. Melding AquaWatch & Global Indigenous Knowledge (MAGIK) (Australia)
 - 1. Routine Monitoring of Antimicrobial Resistance in Water (Finland)

Following the selection of these challenges, a call for participation was launched to seek water quality professionals with relevant expertise and backgrounds to contribute to the collective development of solutions to the identified challenges.

Over 300 applications from across the world were received and around 70 participants were selected based on their expertise, background, gender, regional representation, and affiliation among other considerations. More than 25 participants were fully or partially funded for the workshop with priority given to participants from developing countries, indigenous peoples, and underrepresented communities.



6 - Figure 1: Composition of participants

The European Commission's Joint Research Centre (JRC) offered to host the workshop which was eventually held from 27 -29 September at one of their research facilities in Petten, the Netherlands.

To create a conducive and enabling environment for the participants to develop practical solutions to the identified challenges, the organizers collaborated with the United Nations Institute for Training and

Research (UNITAR) and the University of Geneva to facilitate a hackathon (an event in which several people with different backgrounds and experience come together to identify and develop solutions through collective intelligence and collaboration).

During the three days of the Innovation Workshop, the participants received focused input and pocket lectures to support the process for the work sessions. However, most time was spent in their respective groups and subgroups to develop solutions to the issues identified. Through inverted classrooms and cross-pitches input was solicited from the broader groups before identifying a sustainable and viable way forward on the last day. All four challenges identified tangible and concrete next steps for the groups to take up beyond the workshop to be developed into pilot projects or new processes to be tested and applied in the field.

A great immediate outcome of the workshop was the relationship building and new partnerships that were formed between the workshop participants and the commendable efforts and drive by the teams to take their projects and initiatives further.

Stay tuned for the outcomes of the workshop and the way forward developed by the four challenges which will be shared in a report during the coming weeks.



Article contribution by Melchior Elsler-GEMS/Water

7 - Images provided by Melchior Elsler, GEMS/Water, UNEP



The WWQA BULLETIN BOARD

International Colloquium: Promoting Sustainable Lake Management, Challenges, Achievements and Lessons Learned.

The International Lake Environment Committee (ILEC), in collaboration with the United Nations Environment Programme (UNEP), will host an International Colloquium in a hybrid format allowing both in-person and online participation on November 6th, 2023 (Monday), during the 19th World Lake Conference (WLC19) at the Balatonfüred Congress Center in Hungary.

This Colloquium will focus on the "Sustainable Lake Management (SLM)" resolution adopted during the 5th United Nations Environment Assembly (UNEA5.2) in February 2022. It will provide a platform for governments and international organizations to share their initiatives and experiences related to SLM at the national, regional, and lake basin levels. Additionally, discussions will revolve around the significance of SLM in achieving water-related SDGs and the role of Integrated Lake Basin Management (ILBM) as a tool to promote SLM. The Colloquium will precede the 19th World Lakes Conference which this year has the theme 'Beyond Lakes: Linking Science, Culture and Governance for their Sustainable Use'.

The WWQA will be presenting at the Colloquium together with the WWQA Ecosystems Workstream on how sustainable lake management can contribute to improved water quality and key actions outlined in the White Paper 'Embedding Lakes into the Global Sustainability Agenda'.

Registration Deadline: In-Person – October 15th (Sunday), Online – November 6th (Monday)

Registration Method: <u>https://tinyurl.com/43nnraav</u>

In-Person: https://forms.gle/72DbpN65EMNb2yLo8



8 - Image from : https://www.ilec.or.jp/en/news/14087/

Cassandra Conference

The World Water Quality Alliance would like to invite all its members to participate in the CASSANDRA conference from the 13th until the 15th of November 2023. It is a 100% online event (free registration) in which the WWQA is closely involved. To view the panels, many of which include representatives of the WWQA, <u>click here</u>.

The purpose of the three-day conference is to highlight the fact that **climate change, health, mass migration, potential conflict and gender inequality** are five strongly interrelated crises which demand understanding, awareness and a broad, global approach to the design and implementation of solutions.

Please sign up for the CASSANDRA conference here: https://cassandraconference.org.



9 - Image from EURECAT

The World Water Quality Hub - Please share your views!

The World Water Quality Alliance (WWQA) has its beginnings at the third session of the UN Environment Assembly in 2017 when solution 3/10 "Addressing water pollution to protect and restore water-related ecosystems" was adopted, which requested the UN Environment Programme (UNEP) to develop a Word Water Quality Assessment. With support from the World Meteorological Organisation (WMO), UNEP organized a workshop in December 2018, bringing together different stakeholders to design an action plan with regard to emerging issues in water quality. This marked the founding of the WWQA.

The WWQA has identified <u>10 areas of focus</u> for the World Water Quality Assessment, and the World Water Quality Hub was developed to support this initiative and gather information on these focus areas.

The World Water Quality Hub provides access to freshwater quality datasets and products contributed by members of the <u>World Water Quality Alliance</u> and other partners to support the development of a <u>World</u> <u>Water Quality Assessment</u>. More information on current contributors can be found <u>here</u>.

We value your feedback regarding the hub. Please click on the link below to be directed to the survey

Feedback form :World water Quality Hub

Additional Resources for World Water



10 - Image from https://bit.ly/45kTzML

Job Openings

Global Monitoring Specialist supporting IMI-SDG6 (re-advertisement, home-based) with the UN-Water Technical Assistance Unit. Deadline 24 October.

For more information: see <u>here</u>.

Coordinator for the Project Preparation Grant (PPG) phase of the GEF-funded International Waters project, "<u>Towards a better understanding of the Amazon Aquifer Systems for its protection and</u> <u>sustainable management</u>" (Amazon Aquifer) Deadline 24 October.



11 - For further information about the application, please visit <u>http://otca.org/coordinacion-ppg/</u> (for Spanish) or <u>http://otca.org/en/coordinator-ppg-phase/</u> (for English).

Call for Young Scientific Programme Committee (YSPC) to support World Water Week's Scientific Programme Committee

SIWI is seeking committed individuals **aged 35 or under** to provide support to World Water Week's Scientific Programme Committee. The Young Scientific Programme Committee (YSPC) is a group of young professionals that are selected each year to work with the Scientific Programme Committee (SPC). They collaborate with experienced water experts to develop the SIWI Seminar Series for World Water Week.

Applications are open until 16 November 2023.

In the November Issue of YEMAYA

- Water at COP 28
- November Interview: Sulagna Mishra, Scientific Officer at the World Meteorological Organization.
 - WMO State of Water Global Resources report

Please follow our social media handles at:

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*Unless otherwise indicated, all contributions are by the WWQA coordination team.

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YEMAYA welcomes articles, opinions and audio-visual material related to the issue of water quality. Please send any contribution to <u>wwqa-coordination@un.org</u> with a short 100-word biography, the name of your organisation and a phone number where you can be contacted.