

YEMAYA





THE WORLD WATER QUALITY ALLIANCE NEWSLETTER

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The World Water Quality Alliance is convened by the United Nations Environment Programme and supported by the Swiss Confederation. We are proud to present our February newsletter entitled YEMAYA named after the ancient African goddess of the ocean and motherhood. She is associated with fertility, femininity, protection, healing, and childbirth. Symbolized as a water creature her domains are 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 anything related to water quality. Tell us 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 wwqa-coordination@un.org.

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WOMEN AND WATER: A journey to improving water quality in rural Uganda



Two in three children in rural Uganda drink dirty water every day and this has led to a high infant mortality rate as a result of water borne diseases.

Aisha is a young Ugandan who constantly suffered from diarrhoea during her childhood as a result of drinking dirty water. Being ill, she often missed school and her family had to face the burden of expensive hospital bills. As she grew up, the idea of safe clean water was considered as a beacon of hope for her community. In 2017, Aisha suffered a miscarriage as a result of carrying heavy jerrycans (20 litres per jerrican) of water, from the only available water source to where she lived, more than a kilometre away.

Aisha was motivated, as a result of her personal experiences, to change the status quo, by helping children and whole families to access clean, good-quality water. Her dream is that no child dies from avoidable waterborne diseases and that no woman suffers poor reproductive health due to a scarcity of drinking water.

Aisha and her team have founded [Rural Water Initiative for Climate Action \(RWICA\)](#), a non-profit, community-based organisation that transforms water sources into improve water systems in order to Improve the health of women and children in marginalised communities. Aisha is a leader of a WWQA Local Water Forum in Mpigi and the Kalangala district. It is a rural district on the shores of Lake Victoria, the biggest lake in Africa. Home to 35 million people, Lake Victoria is a vital resource for the people of Uganda, Kenya and Tanzania. The threat of Lake Victoria's decay is a danger to those who have built their livelihoods around it. Fortunately, there are multiple initiatives being implemented by many organisations including the WWQA to restore the lake and to support and improve the lot of the people who live by it.

Due to the massive use of agricultural chemicals on the riparian community of Kalangala Island, fresh water has been polluted by emerging water contaminants, among which have been identified heavy metals such as lead and mercury, together with pesticides, harming the delicate ecosystem of the lake, killing off fish and other aquatic species, and disrupting the food chain.

*Farmers such as 34-year-old Amina Kyakuwa, who works for a large scale palm oil farm in Kalangala, have seen how chemicals are employed to improve the fertility of the soil and increase crop productivity. Like so many others, she is deeply concerned that the deadly chemicals seep into Lake Victoria. **“This affects us greatly as this is the water we drink. We are likely to get sick in the future. But I thank the RWICA who have set up a Local Water Forum in our community with an aim to make us aware of safe agricultural practices and water quality conservation”.***

By raising awareness, the RWICA is translating water-quality testing and monitoring into community empowerment by involving community members in the collection of water-quality data whilst increasing their own knowledge regarding the status of their water sources. Linking local citizens to scientists, agronomists, researchers, social scientists, engineers and public health experts among others and by adopting a multisector, multidisciplinary, multinational, One Health approach which promotes citizen science, advances can and are being made.

According to a New Vision article published in March 2022, investigations have revealed that most of the farmers near Lake Victoria rely on the use of chemicals in an effort to increase crop productivity and profitability. This has resulted in the seeping of pesticide-laden residue into Lake Victoria which directly threatens water safety and public health.



In studies undertaken by the RWICA, farmers have been observed using unregistered chemicals available in the market without any form of expiry date. One of the most frequently employed chemical fungicides on the market is Mancozeb, a product designed to protect fruits, vegetables and field crops from fungal diseases.

The chemical has been linked to hypothyroxinaemia which is a condition that leads to 50% of infants being born before 28 weeks, with adverse effects on the developing nervous system and which can lead to impaired cognitive functions which including the capacity to reason and the use of critical thinking. It also affects motor development leading to physical disabilities in children.

Dr Gerald Ddamulira, a research scientist and the Head of Horticulture and the Oil Palm Programme at the National Crops Resources Research Institute in Namulonge has warned that the side effects of the chemicals were not a one-off but spread out over a period of time and their accumulation overtime could cause cancer.

“We are exposed to a cocktail of pesticides primarily through the water we drink”.



Aisha is the leader of a WWQA Local Water Forum, a platform that has greatly empowered her community through the filling of knowledge gaps on water quality and the work creating awareness that she and her team undertake.

As an outcome of the WWQA Conference that was held in Konstanz (Germany) in November 2022, the RWICA have established a roadmap for national advocacy for freshwater quality protection by linking the objectives of the WWQA to National Development Plans through collaboration and coordination with government ministries, departments and agencies (MDAs) such as the Ministry of Water and Environment, the Ugandan Water and Sanitation NGO Network, and District Water and Natural Resources Coordination Departments.

The vision of the RWICA is to formulate a Victoria Basin Water Quality Monitoring Committee composed of Local Water Forums in order to promote transboundary water cooperation, thus accelerating the global water action agenda as the World looks forward to the UN 2023 Water Conference.

Contributed By: RWICA

2023: The Year of the United Nations Water Conference – How the WWQA will participate.



== UN ==
**2023 WATER
CONFERENCE**

NEW YORK
22-24
MARCH
2023

The [United Nations 2023 Water Conference](#) will be hosted in New York by the United Nations General Assembly in March 2023. This conference aims to mobilise global political and financial support to achieve the Sustainable Development Goals (SDGs) related to the management and use of water. This includes water security, access to safe and clean drinking water, water ecosystems, hygiene, sanitation and water related disasters. At the conference, governments, civil society organizations, private businesses, and other stakeholders will discuss solutions to global water challenges, such as the increasing demand for water, accelerating climate change, and transboundary water management. They will also focus on accelerating the implementation of water-related SDGs. The event will also seek to foster innovation and strengthen partnerships for Collective Action, in order to ensure access to safe and clean drinking water for all by 2030.

Attending the UN 2023 Water Conference will permit one to understand how the World is managing current and potential water crises. Many of the World's most pressing issues are related to the quantity, quality, and availability of water. One will also be able to network with other professionals and share ideas, research, and best practices on water management and conservation.

Co-hosted by the Government of Tajikistan and the Kingdom of the Netherlands, the Conference will feature an opening and closing ceremony, six plenary meetings and five multi-stakeholder interactive dialogues. It will also feature a number of high-level special events and side events organized by Member States, the UN system and other stakeholders. The outcome of the conference will be a summary of the conference proceedings and new commitments, pledges and actions by governments and all stakeholders towards achieving SDG 6 and other water-related goals and targets, compiled in the Water Action Agenda.

The WWQA will be present at the conference as a co-organiser of the exhibition called 'Walk of Water' which will be located at the main lobby of the United Nations in New York.

An important topic which must be addressed when discussing water, climate change and development is intergenerational equality. To truly achieve sustainable outcomes, the ways in which the actions of the past and present affect the future must be fully considered, as well as how the future can learn from the successes and challenges of the past and present in order to find long-term solutions to existing and emerging issues. UNESCO has gathered a group of interested organisations, including the WWQA, Member States, youth associations and academia to create an Arts Coalition for Water (ACW). The ACW will install an art exhibition which illustrates past, present and future perspectives of water. The WWQA will be one of several members of the ACW who will provide the artistic elements for the exhibition, including photos, paintings, drawings and videos. The 'Walk of Water' will offer a direct contrast between objective talks on policy and the artistic emotional expressions of water-related issues and solutions across generations and cultures. As such, it will provide an opportunity for introspection, reflection, and motivation for the attendees, as they view the art and remember the underlying reasons why the conference is taking place

It will feature five different exhibitions which have been combined into an overall installation, each focusing on a specific aspect of time: The art pieces from each of the five exhibitions will be collated to form different walkways which travel through the space of the UN 2023 Water Conference, hence the name 'Walk of Water: An Intergenerational Journey.' As such, rather than using a specific space, the Walk of Water will act as a corridor between the spaces of the Conference. Geographical diversity will be a priority so that the perspectives of different communities and cultures are appropriately represented. Further participation of the WWQA will be announced at the beginning of March.

Leading the WWQA – The Strategic and Technical Advisory Committees

The World Water Quality Alliance is an expanding organisation which requires clear leadership, a coherent approach to its activities and an effective form of administration. The WWQA is privileged in that its organs of governance are composed of some of the most important entities related to the issue of water quality in the World.

The Strategic Advisory Committee (SAC) formulates the overall concept and scope of the World Water Quality Alliance. It provides guidance and recommendations to the coordinating, participating and sponsoring organisations and agencies for the planning, implementing and further development of the Alliance's programmes and structure. It is this committee which establishes priorities and deliverables, as well as monitoring the Alliance's strategic alignment, coherence, and synergies with the approved workplans, mandates, and priorities of individual Alliance members. The World Water Quality Alliance is closely aligned to the objectives and ambitions of UN Water. The Strategic Advisory Committee ensures

that such aims are reflected in the Alliance's actions and is responsible for recommending coordinated actions by all organisations and agencies who form part of the WWQA.

As a result of the recent elections for the Strategic Advisory Committee, the following organisations are represented in the SAC: The World Meteorological Organisation, the Women for Water Partnership, the Research Centre for Eco-Environmental Science, Human Right 2 Water, UN-IHE, the OECD, the International Water Association, the World Bank, the Water and Climate Coalition, UNESCO, the University of Cork, the International Lake Environment Committee, the Union for the Mediterranean, the African Ministers Council of Water and Water Europe. The Chair of the Committee is held by the European Commission.

Due to the fact that the Alliance was created originally as the result of the Third United Nations Environment Assembly in 2017 mandating the United Nations Environment Programme to create a World Water Quality Assessment, the monitoring and evaluation of water quality and the creation of solutions to water quality challenges is a major activity of the Alliance. To ensure that the standards of work undertaken to create the Assessment itself are of a high level and to oversee a coherent, scientific, data-based response to the achievement of the water-based Sustainable Development Goals of the 2030 Agenda, there exists a Technical Advisory Committee (TAC). The TAC, provides scientific guidance, defines the priority scientific topics of the Alliance and oversees the creation of cutting-edge approaches, products and services. Furthermore, the TAC draws on and considers input received from the UN-Water Expert Group on Water Quality and Wastewater. It is the committee which promotes collaboration between the sixteen workstreams of the Alliance and all other relevant partners. For the period 2022-2024 the TAC is composed of the following organisations: Umvoto, The World Meteorological Organization, the Nanjing University of Information Science and Technology, the Swiss Federal Institute of Aquatic Science and Technology, the European Commission, the German Federal Institute of Hydrology, the UK Centre for Ecology & Hydrology, Stirling University and the International Union for Conservation of Nature. The Chair is held by Wageningen University.

The February Interview – Bernd Gawlik, European Commission and Chairperson of the Strategic Advisory Committee

Dr. Bernd Manfred Gawlik is Portfolio Co-Leader for Zero-Pollution for Planetary Health at the European Commission's Joint Research Centre. His key task is to provide scientific support to the design, implementation and monitoring of EU water policies. He has chaired the SAC of the WWQA since 2019 and was recently re-elected for another two-year mandate.

Bernd, who closely interacts with all actors concerned with water, has contributed to more than 100 publications and reports of the European Commission. During the pandemic, he was tasked to ensure technical support and overall coordination of the EC Recommendations on wastewater-based surveillance of SARS-CoV-2 and its variants. This work has resulted into an institutional uptake of the tool

and is now being established as an integral tool to ensure better preparedness of the European Union for future emerging threats. The focus of his current research is aiming for a broadening of wastewater-based surveillance with the aim to connect derived data with other information systems on demography, migration, behaviour and public health. This data layer cake then will serve as a basis for informed policy decisions in support to One Health and the zero-pollution ambition of the EU.



As Chairman of the SAC how do you envisage your role in developing the future of the WWQA?

With its new mandate, the renewed SAC has the task to push the WWQA to be more visible, to have a stronger impact. The WWQA must become a known reference on all questions related to water quality. This obviously requires the Alliance to continue its output of excellent science, but even more to place the needs of citizens at the centre of the WWQA's work. A scientific result, which does not lead to a direct and tangible improvement for a community concerned with a water-quality issue, should not be a priority for the WWQA. The Alliance has to be the place where local water science delivers on global water quality objectives for all.

Could you describe the GEMS OF WATER APPROACH and why this is such an important development?

The “Gems of Water” approach puts this objective into practice. Classical citizen science projects often focus on a scientific study of a problem. They use the citizen as mere work power for fetching a water sample. “Gems of water” seeks to change this, by ensuring that engaged local water fora, often in low resource settings, can employ and use water expertise in a renowned water quality laboratory. As a result, a Local Water Forum is empowered by an independent scientific service, assisting them in the identification of a water problem and a viable technological solution which are accepted locally, also from a cultural perspective. The “Gem” is the transformation of water data to action on water through the people concerned by the issue.

You have been the principal instigator of the COVID-19 SEWAGE SENTINEL programme. How has the monitoring of water revolutionised the approach in Europe to the early detection of COVID in our communities?

Wastewater – or shouldn’t we call it rather used water – is a mirror of the health and also the actions of a community producing it. While we understood that wastewater is not only a problem, but a possible water source, the pandemic also taught us, that this encoded information defining water quality is an untapped resource. Our sewer systems or other water bodies where we discharge wastewater, are like the veins of a community’s body. And just as we take a blood sample, to know something about a patient, a wastewater sample tells us about public health. Indeed, with Covid-19, this knowledge, already known to specialised scientists, has rapidly suddenly reached the awareness of the general public. Besides the scientific progress which has been achieved over the last two years, it is this fact and the crucial role of proper communication with the public, which has led to this revolution.

Off the Press

The Ecosystems Workstream of the WWQA has just completed a white paper which will be featured in an upcoming edition of YEMAYA. Last month, an article highlighting the work of this extremely active group of water professionals. You can check it out [here](#).

In the March Issue of YEMAYA

- *Embedding Lakes into the Global Sustainability Agenda*

- *Costa Rica – A Local Water Forum looking out to sea*
 - *The Global Environmental Monitoring of Water*
 - *The March Interview: Kilian Christ, Coordinator of GEMS/Water*
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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 and a phone number where you can be contacted.