

YEMAYA





THE WORLD WATER QUALITY ALLIANCE NEWSLETTER

January 2023

The World Water Quality Alliance is convened by the United Nations Environment Programme and supported by the Swiss Confederation. It is proud to present a new monthly 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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The 2022 World Water Quality Alliance Conference



The World Water Quality Alliance Conference 2022 was held from 28th-30th November in Konstanz, Germany on the shores of the Bodensee. The aim of the event was to demonstrate that local communities are key to the overcoming of global water-based challenges. The World Water Quality Alliance, convened by the United Nations Environment Programme and supported by the Swiss Confederation, organised this event together with the Konstanz University of Applied Sciences (HTWG) and the Women for Water Partnership to promote local dialogue, engagement and exchange, to highlight how the data generated by the World Water Quality Assessment can be transformed into practical local action and how, as a result, local society can maintain a permanent dialogue with decision-makers at a supranational level.

Development cooperation experts, chief scientists and water experts attended the event to actively observe, learn and engage with the Local Water Forums and the Youth Organisations who work with the WWQA. The Local Water Forums are composed of local politicians, businesspeople and researchers, but most importantly of all, ordinary citizens representing all genders, ethnic groups, low-income sectors and the full social reality of where they live, who have become engaged in the issue of water quality together with neighbourhood cultural actors capable of communicating the importance of water quality and stimulating an emotional response. They were joined by Youth organisations who have recognised the need to not only become engaged but, more importantly, to initiate and lead actions that address issues that will directly affect the future of their generation and the future of their respective communities.

Over three days, the onsite and online event discussed the results and achievements of the Local Water Fora and the initiatives undertaken by the WWQA Youth Platform. In the build-up to the UN Water Conference 2023, the opportunities to expand the work and influence of the Social Engagement and Youth movements of the WWQA were explored and developed. The role of citizen science was also discussed. Above all, the conference sought to establish permanent ties between the high-level strategist and the local stakeholder, between youth and society. It promoted and supported the transformation of scientific knowledge into practical local actions and enhanced the role of the local community as the means of resolving one of the most important global challenges of our times, water quality.



All the youth representatives present at the conference, external observers and members of the WWQA team met in person for the first time. Fruitful discussions took place where the vision and mission of the youth workstream were finalised. Furthermore, the next steps and a two-year plan were initialised to fully launch the Youth-oriented activities of the WWQA, to ensure that Youth can both initiate and lead water-quality activities round the World. Emphasis was placed on the roles and opportunities in the 2023 Water Year and in its run up to the 2023 Water Conference and the workstreams WWQ-Assessment.

Local Water Forums had the opportunity to present their current work and set-up. Many of the forums at the table were youth-led initiatives who are concerned about the water quality of their surrounding water bodies and want to make a difference. The overarching issues that each LWF face are sadly similar. For example, nutrient pollution and untreated sewage. Potential solutions greatly vary due to culture, geography, involvement of the private sector, among numerous other factors. The presentations of the LWF's showed the impact a bottom-up approach can have on improving water quality of a local community. A two-year plan designed to attract and recruit new LWF and, just as importantly, to establish the WWQA as vital means of communication, data exchange and action initiation at the local level was drawn up in accordance with the objectives of the UN Water Conference 2023.

*The various workstreams of WWQA that are involved in citizen science presented their progress as well as stimulating an interactive and open discussion of the definition and value of citizen science. An aspect that was emphasised was the inclusion **of all genders, all income groups, all age groups and ethnic minorities** in the work of both the Local Water Forums and Youth Workstream. As has been recognised, not only by numerous agencies of the United Nations, but also by such supranational entities as the*

European Union, the OECD, the World Bank and the World Economic Forum, the environmental challenges which the planet is facing can only be resolved by the uniting of diversified expertise. The chemist, the physicist, the biologist and the engineer must work with the sociologist, the political scientist and the anthropologist. They must all collaborate with the writer, the photographer, the decision-maker and above all, the citizen. The WWQA permits and indeed, actively promotes such a union. Therefore, it is essential that its different workstreams are capable of working in a way that specific expertise from several workflows can be brought together, when required, to overcome specific challenges.

*At the conference, it was emphasised that the results of the **World Water Quality Assessment** must be accessible to all members of the Quintuple Helix (local members of the five social sectors – public, private, research, culture and citizens) if the uptake of data and its translation into tangible action is to be successful. The World Water Quality Assessment places much importance on a user-centric approach. The creation of a digital platform to disseminate the work and findings of the assessment will connect the traditional information value chain i.e., normative data, analysis, information, and sharing to maintain water quality under review, together with social engagement where stakeholders are enabled to review data, complement them with own knowledge assets and foster uptake for solutions. This is a solutions value chain, where evidence-based advocacy can incubate local solutions to the three planetary crises, not least of which is human health. The Assessment strives to connect with UN Country Teams and people at scales where transformation is feasible. Participants will have the opportunity to comment, discuss and criticize the presented format, so that the WWQA can produce a communications tool of true value to local communities and youth.*

The 2023 World Water Quality Alliance Conference will take place in Nairobi at UNEP Headquarters in November. Further details will appear in future editions of YEMAYA and the WWQA website: www.wwqa-info

The Value of Citizen Science

The World Water Quality Alliance believes that citizen science has the potential to be a powerful force in technological advancement. Citizen scientists are members of the public who voluntarily participate in scientific research, usually using their own equipment. They provide valuable resources to universities, research institutions, and international, national and sub-national organisations. Citizen scientists can help to provide data that could not be collected otherwise which may help advance technological development by providing large data sets for machine learning algorithms, for example. Furthermore, collaborating with ordinary members of the public can help to make technology more accessible, intuitive, and personalized for the layperson. Ultimately, citizen science can help ensure that technological advancements are made responsibly and with maximum public input and engagement.

There are often questions raised about the validity of such approaches to monitoring and in situ observation, especially by members of the academic community. They would argue among other aspects the following:

1. Data Quality Issues: *Citizen science requires participants to collect and enter data, and this data is used for analysis and the formation of conclusions. The accuracy of conclusions and analysis can be compromised if data collection is unreliable, incomplete, or biased.*

2. Linger Participation: *While citizen science can often be successful at attracting large numbers of followers, it is common for participation to drop off significantly as the project goes on. This can be caused by fatigue, lack of clear direction, a lack of positive results, or inadequate communication and rewards.*

3. Data Security: *The large data sets generated by citizen science can create privacy concerns, since they may contain sensitive information or data that could be misused. Citizen science initiatives must use secure systems and protocols to protect the data collected.*

4. Accountability: *Citizen science is often funded by non-profit entities, governments, or universities, and these organizations need to be held accountable for the integrity and outcomes of the investigations.*

Nevertheless, many would argue that despite the objections described above, the benefits outweigh the disadvantages. The World Water Quality Alliance, through the work of numerous workstreams including the Africa Use Case Workstream, The Capacity Development Consortium (CDCM), the Social Engagement Platform, Youth Action for World Water Quality Workstream, the Citizen data for SDG 6.3.2 Initiative, the Ecosystems workstream and the Friends of Groundwater programme has demonstrated that citizen science:

1. Improves civic engagement: *Citizen science can provide a platform where people of all backgrounds and interests come together to engage in decision-making and collective action, strengthening communities and promoting democratic participation in the issue of water quality.*

2. Creates a sense of common purpose: *By unifying people around a water-quality-based challenge to undertake data collection and analysis, citizen science efforts can foster a sense of belonging and purpose. People are generally more likely to invest their time and energy in actions that they feel connected to.*

3. Empowers citizens: *Citizen science allow citizens to take an active role in research and build a sense of ownership over the data they are helping to produce. This can provide invaluable experience and training for participants and lead to increased confidence, knowledge and skills in areas such as data collection and analysis, which in turn can lead to a higher level of policy co-creation and implementation.*

4. Encourages collective action for change: Citizen science can be an important way to leverage collective action to spur change. Involving citizens in research and data collection related to water quality obliges local political stakeholders to pay more attention to such issues.

Capacity development is essential. The WWQA has a specific workstream dedicated to this issue. With regards to citizen science, programmes are developed which can provide the necessary training and support that hitherto uninformed lay people and specialised experts often require. It is important that all of society gains knowledge about the scientific processes behind the monitoring of water quality, that the technical skills required to conduct research and acquire data are built, that relationships between researchers and local communities are developed, and the engagement of participants is meaningful. Capacity development is further enhanced by the raising of awareness of the resources and knowledge that citizen science can provide to policy makers and decision makers and making sure that the participants are effectively integrated into decision-making processes.

Kibera - The story of an African Slum fighting to improve its water quality

Brandon Okoth is a 22-year-old who has spent all his life in Kibera, Africa's largest slum. Highly intelligent, articulate and a born activist, Brandon is an example of how the youth who inhabit the largest slum in Africa are, instead of resigning themselves to their fate, leading a vast array of initiatives in order to improve their district and create opportunities for their closely-knit, vibrant community. Brandon is the leader of the WWQA Local Water Forum in Kibera and his work which he presented at the 2022 WWQA Conference in Germany is establishing a roadmap for large-scale slums faced with urgent environmental challenges around the globe. One of the principal aims of the WWQA is to replicate such actions and establish WWQA Local Water Forums in not only large urban areas but also towns, villages and small local communities around the globe. This movement is being led by two WWQA workstreams; The Social Engagement Platform and the Youth Action for World Water Quality Workstream.



Brandon came into contact with the WWQA in 2022. The promotor of a library for small children, his enthusiasm and interest for the issue of water led him to contact our organisation. Members of the WWQA Coordination Team based in Nairobi visit the district regularly invited by Brandon and his team. It is estimated that there are over 200,000 people living in Kibera, and it is still growing. The residents of Kibera are often considered the urban poor of Kenya, with unemployment and poverty being major issues. Although living conditions in Kibera are harsh, the area is home, as has been stated, to a vibrant community that is working to improve the quality of life in the slum. They have established schools and healthcare facilities as well as businesses, thereby providing opportunities to the residents. In spite of the advanced development that has taken place, troubles such as crime and water shortages remain common in Kibera.

One of the principal issues is the River Nairobi which runs through Kibera and other, smaller Nairobi slums. It is one of the most polluted rivers in Kenya. The river, a source of drinking water for many local residents, is heavily polluted by industrial effluents and sewage discharged by factories operating near its banks. Uncontrolled dumping of solid waste including plastics, electronic waste, medical waste and other industrial waste is also contributing to the river's pollution. The river also receives untreated wastewater from households and other human sources, which significantly increases its pollutant load. Leaking underground petrol storage tanks and the use of agrochemicals has led to its further contamination with heavy metals, hazardous chemicals and other pollutants.

In an effort to address the pollution of the River Nairobi, the Nairobi City Water and Sewerage Company (NCWSC) has implemented several important programmes to reduce pollution and encourage citizens to be more mindful of their waste generation. But far more needs to be done. Brandon Okoth, with the support of both the WWQA and the local MP, Peter Ochieng Orero, is creating a number of water conservation initiatives and recycling schemes whilst the Government of Kenya is working to establish a River Nairobi Commission.



Positive results will not happen overnight but the enthusiasm, vision and stubborn determination of people such as Brandon are the reasons why the WWQA is working at a local community level in Africa, Europe, Asia and the Americas to support such initiatives. Every organisation, every individual has a role to play. Join the WWQA today and unite with Brandon and thousands of people like him who fight for clean water for all. For more information see the WWQA website www.wwqa.info or contact us at wwqa-coordination@un.org.

The January Interview – Noémie Plumier, Co-Leader of the Youth Action for World Water Quality Workstream of the WWQA



Noémie, please introduce yourself.

My name is Noémie Plumier, I have just turned 30. I am French-Canadian with Spanish roots. I finished my first master's degree in International Relations in 2020. In 2022, I decided to specialize in International Environmental Law, I graduated in October. My second master thesis was about the Minamata Convention, mercury pollution, and the one-health approach. Two years ago, I joined the World Youth Parliament for Water (WYPW) as a Strategic Partnership Facilitator. I volunteered to represent the WYPW as one of the co-coordinators in the UN-Water Task Force on World Water Day and World Toilet Day Campaign 2023: Accelerating Change. I would like to pursue a career in hydro diplomacy and water cooperation. In my spare time, I love to explore the French Alps with my horse Sam and my dog Ina. Or dance bachata! I am the co-lead of the Youth Action for World Water Quality Workstream of the WWQA with Ines Breda who represents the IWA.

What triggered your passion for water?

I grew up in a small rural village in the South of France where my family for four generations used to produce "Côte de Provence" wine. We always had to pay attention to the weather and were dependent on it. Water, especially heavy rain and drought were at the heart of our conversations. I studied in a boarding school located next to the Mediterranean Sea. I joined a local scuba diving club which allowed me to explore marine ecosystems in the national park of Porquerolles. The youngsters from the club were picking up litter on the beaches after the high tourist season, mostly plastics, single use styrofoam, cigarettes butts, that type of thing. After my undergraduate degree, I decided to take a gap year to allow me time to choose my master's degree specialization. I joined Point Hope in Ghana working on child protection policies and nutrition/WASH programmes. I continued to gain field experience for two more years in the Dominican Republic and Cuba with H2O4all, a Canadian NGO. It reinforced my passion for water and filled me with motivation to work towards the achievement of human rights to water and sanitation but also to contribute to a cleaner, healthier environment for all.

What is the vision of the youth workstream and what are the future plans for the workstream?

In Konstanz, Ines and I organized a workshop to develop our vision, mission and activities. Together with several young people from the Local Water Forums and other workstream leaders we agreed on a vision - that everyone should care about water quality and about improving life both in the present and the future. The mission is to connect and encourage people to prioritize and act for water quality by reducing barriers and promoting solutions by means of sustainable strategies, tools and partnerships, within people's environmental realities. With the Stakeholder Engagement Platform, we are exploring ways to join forces and through Local Water Forums. We have different focuses but a common goal: to

strengthen the resilience of local communities focusing on water quality solutions. We submitted a seed funding proposal that was granted for our first activity consisting of the mapping of the potential youth partner organizations and individuals in the existing work streams, both within the WWQA and potential future members of the Alliance. Afterwards, we aim to create activities for Youth providing capacity building to impulse impact on targeted water quality challenges in their local communities.

What is the role of the Youth Workstream in the World Water Quality Alliance?

We see a number of main entry points and degrees of contribution of the Youth Workstream to the WWQA. The core team and co-leaders are here to build bridges and strengthen communication both within the workstream and with other workstreams. Most importantly, the youth in Local Water Forums are working hand in hand with the core team, enabling the promotion and support of local solutions to specific water quality challenges.

In the February Issue of YEMAYA

- *The World Water Quality Assessment*
 - *The 2023 United Nations Water Conference*
 - *The WWQA in Uganda*
 - *The February Interview – Bernd Gawlik, European Commission and Chairperson of the WWQA Strategic Advisory Committee*
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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.