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## UN 2023 Water Conference Side Event

### Groundwater: An Invisible Cross-Sectoral Fundament for Implementation of the Water Action Agenda

**Friday, 24 March 2023, 08:00 – 09:15 (EST)  
Trusteeship Room, UN HQs, New York, USA**

Organized by: Namibia, Co-leads: Botswana, South Africa. Other countries: Austria, Bahamas, El Salvador, Finland, Germany, Republic of Korea, Slovenia, Spain, St Kitts and Nevis, Switzerland, Uruguay, Uganda. Partners: UN-Water, UNESCO, AMCOW, AQUAFED, BRGM, CeReGAS, Deltares, EAWAG, EuroGeoSurveys, WREG, FAO, GEF, GEUS, IAEA, IAH, ICATALIST, IGRAC, IHE Delft, IWRA, JWF, KIGAM Korea, New Mexico WRRI, ORASECOM, OSS, SADC-GMI, SIWI, The Water Institute, UNDP, UNECE, UNEP, UNESCO GWYN, UNESCWA, UN-Habitat, University of Arizona WRRC, WfWP, WMO, World Bank.

#### **Background on the event (one paragraph)**

Groundwater is fundamental to life on earth. Yet, we still don't know sufficient about the state of aquifers globally and we keep depleting and polluting them. Our aquifers are our freshwater "bank", and in this metaphor we're robbing the bank and polluting and abusing the leftovers – undermining the key role groundwater plays in stabilizing water availability during climatic and human- induced adversities. And we are not aware and precognizant. This asks for more than a campaign and the science coming together, this needs a whole- of-society transformative approach with political will and scaled up action. For water, food, energy, and biodiversity security. For our economies and cities. For mitigating climate change and investing in resilience and adaptation. For security, peace, and prosperity at large. This side event, jointly proposed by Namibia, Botswana and South Africa, builds on the main findings of the UN-Water Summit on Groundwater which took place on 7 and 8 December 2022 at UNESCO Headquarters in Paris. In the side event, the organizers and participating countries and institutions discussed how groundwater can play a prominent role in the implementation of the Water Action Agenda. Five short panels, aligned with the UN-Water SDG 6 Global Acceleration Framework, addressed important aspects for sustainable groundwater development. These included 1) Strengthening groundwater monitoring: data and information, 2) Innovative practices, new technologies, social engagement and transformative policies for integrated solutions, 3) Improving groundwater knowledge and capacity at local, national and international level for sustainable development, 4) Informed investments for groundwater monitoring and solution implementation and 5) Groundwater governance. A special intervention was made by the Groundwater Youth Network.

#### **Water Action Agenda (one paragraph, if possible, please include the link to your commitment in the [Water Action Agenda database](#))**

The organizers and participating institutions in the Side Event agreed to contribute to the Water Action Agenda by promoting local, national and international groundwater-centered programmes and initiatives that will raise the political profile of groundwater on the development agenda. Proposed Water Action Agenda Commitments on Groundwater are given in the "Recommendations" item below.

## **Key Issues discussed (5- 8 bullet points)**

- The Ministers of Namibia, Botswana and South Africa expressed their satisfaction about the results of the cooperation among the three countries to jointly address the water crisis in Southern Africa and strengthen regional stability and peace through the establishment of cooperative frameworks for the groundwater governance of the Stampriet Transboundary Aquifer. This transboundary aquifer is one of the case studies of the GGRETA project which is implemented by UNESCO-IHP and funded by the Swiss Agency for Development and Cooperation (SDC).
- Groundwater plays a crucial role in water supply security for all. Science will play a pivotal role in our ability to see how we can best utilize this important resource sustainably. In this regard, better scientific knowledge on the important pressures on aquifers and the impacts of mining and other human activities with high risk of pollution of this vulnerable resource should be produced.
- Hydrogeological assessment remains critical to understand the 3-dimensional aspects of the groundwater systems beneath our feet.
- Long-term monitoring networks should be designed in a holistic way to incorporate all the components of the hydrological cycle. A change of mind-setting is needed to understand the users and their needs and support evidence-based decisions. In a context of water crisis, data should be used for better knowing the groundwater balance, modelling and predicting different quantity and quality groundwater scenarios. Use of isotopes is a good method to track groundwater pollution and replenishment.
- Beyond innovative groundwater technological solutions for agriculture and irrigation, it is important to look at the resource side and enhance grey water use, infiltration, NBS, MAR. Innovation through technology, digitalization, use of satellite data, etc. is necessary to accelerate sustainable groundwater use and support policy, social and information strategies. Innovation should also support management strategies that are inclusive, recognize diversity and bring in indigenous knowledge.
- Capacity Development is one of the SDG 6 accelerators that will accelerate all others. Groundwater education and empowerment is critical for behavioural change, enabling communities to inclusively (youth, women, minorities) drive the necessary change. Enhancing technical, institutional and human capacity to manage groundwater monitoring systems in addition of capacity development to exchange data for planning and implementation at all levels. A particular attention should be given to educate, empower and support the youth and future groundwater specialists, scientists and managers that will have the responsibility for this resource
- Groundwater data acquisition is rarely a priority for developing countries. The standard instruments of the major financial partners are usually project oriented, and are not the best instruments to help closing the financial gap on groundwater exploration and local groundwater expertise. Innovative dedicated funds for hydrogeological assessment and long-term monitoring programmes should be set up in particular for cooperation on transboundary aquifers. Investments are needed to use the best available science to inform about protection areas, NBS, infiltration and recharge areas, etc.
- There is a lack of cooperation and effective groundwater governance. National water laws and regulations are weak in protecting groundwater resources. Actions need to happen at several scales and across sectors. Governance frameworks are not evolving fast enough to drive gender equality, resulting in less meaningful participation of women than men in formal water governance processes, because of existing stereotypes and cultural norms. Sex-disaggregated data should be used to positively influence actions.

## **Key recommendations for action (5 - 6 bullet points)**

### ***UNESCO Commitments***

- Set up and support a global groundwater coordination and knowledge exchange platform in the framework of the UN water community (and other global frameworks and initiatives).
- Foster scientific cooperation (UNESCO Recommendation on Open Science) and improve open access and sharing of groundwater data by 2030 (Decision of UNESCO Member States).
- Assist countries in developing technical capacity and setting up or improving national groundwater assessment and monitoring programmes.
- Contribute to increasing the number of transboundary aquifers covered by cooperation frameworks.