On line meeting with the National Commission for UNESCO on World Water Day Celebration the Launch of the United Nations World Water Development Report and the World Water Forum 2022

Alice Aureli PhD Hydrologist. Chief of Section : Groundwater Sustainability and cooperation Intergovernmental Hydrological Programme UNESCO

- 1. UN World Water Day 22<sup>nd</sup> March 2022
- 2. The reason the UN-System selected Groundwater as topic for the Day
- 3. The UNWWDR
- 4. The WWForum
- 5. The role of UNESCO at the Forum and
- 6. UNESCO IHP activities for the year 2022 and beyond



## Groundwater: making the invisible visible



www.worldwaterday.org



- UNESCO coordinates the 2022 World Water Day (WWD) campaign : 'Groundwater: Making the invisible visible',
- A campaign that will remain active throughout the year 2022, with different events related to groundwater, aimed at conveying a message about the importance of these hidden resources to the UN intergovernmental Water Conference taking place in March 2023.
   The campaign of the year will culminate at the UN WATER Groundwater Summit organized by UNESCO at the HQs 6-8 December 2022





## **UNESCO HQs**

7-8 December

6 December pre-summit events



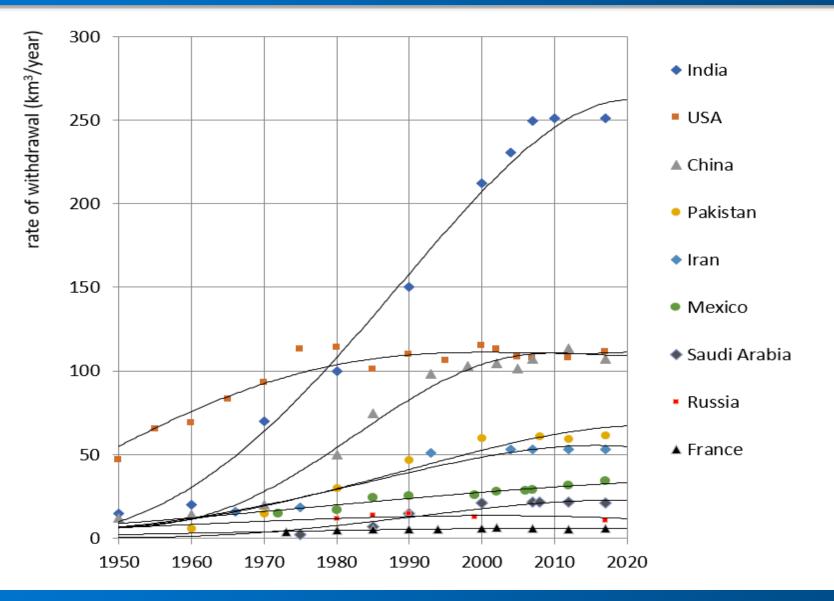
## WHY FOCUS ON GROUNDWATER ? UNESCO LEAD UN AGENCY IN THIS TOPIC

- Groundwater is the most abundant source of freshwater on earth,
- Approximately 50% of the world's population drinks groundwater daily.
- With respect to food production, groundwater is estimated to contribute to over 40 % of the world's production of irrigated crops.
- Groundwater sustains ecosystems, maintains base flow of rivers
- Groundwater can play an essential role in climate change adaptation and mitigation,
- Aquifers can also buffer impacts resulting from seasonal variability and climate change.





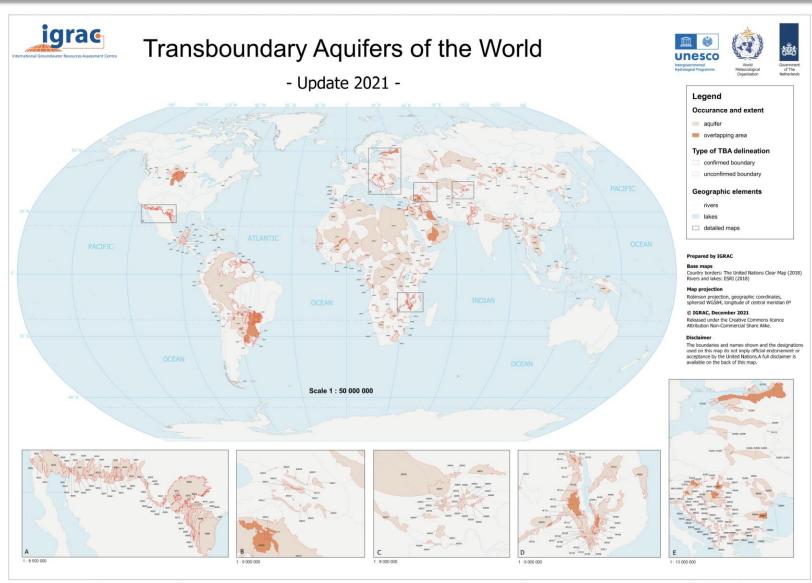
### Evolution of total groundwater withdrawal in selected countries, period 1950-2020





## **TRANSBOUNDARY AQUIFERS: a prerequisite for cooperation and peace UNESCO IHP STUDIES**

- The UNESCO centre IGRAC has compiled several UNESCO studies and identified 468 transboundary aquifers, underlying almost every nation.
- It is likely that new transboundary aquifers will still be identified in the future and that the delineation of existing transboundary aquifers may be refined once further studies are conducted.
- Assessment of transboundary aquifers is a specific step towards transboundary governance of environmental resources.
- Detailed data and information at national and regional level about groundwater resources and in particular on transboundary aquifers is still limited.





#### Progress on Transboundary Water Cooperation

GLOBAL STATUS OF SDG INDICATOR 6.5.2 AND ACCELERATION NEEDS

2021



**UNESCO is the responsible with UNECE of the monitoring of the SDG 6 Indicator 6.5.2:** *Proportion of transboundary basin area with an operational arrangement for water cooperation.* 

#### We are coordinating with 153 countries

#### Report published last September 2021

Insufficient knowledge on GROUNDWATER systems, despite an unprecedented opportunity for countries to consider their transboundary aquifers

#### Acceleration

Building on the impetus offered by SDG 6.5.2 reporting process

## UN World Water Development Report 2022 Prepared by the UNESCO WWAP on behalf of UN-WATER

Groundwater: making visible the invisible





## The United Nations World Water Development Report Launch of 2022 edition on Groundwater





## THE REPORT STRUCTURE

#### **PART 1: Baseline and Context**

Basic concepts and terminology related to groundwater and aquifers; Challenges and opportunities; Legal and other institutional aspects of groundwater governance

#### **PART 2: Thematic Focus**

Food and agriculture; Human settlements; Industry, including energy production; Ecosystems; Climate change

#### **PART 3: Regional Perspectives**

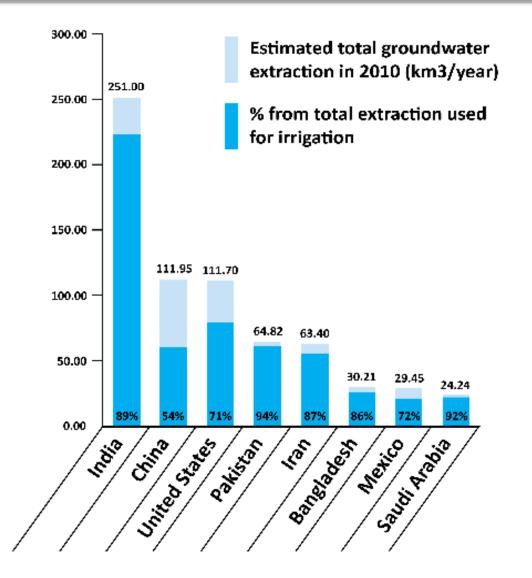
Africa; Asia and the Pacific; Europe and North America; Latin America and the Caribbean; The Arab Region

#### **PART 4: Response Options**

Building the knowledge base; Policy and planning; Groundwater management; Transboundary aquifers; Financing; Moving forward

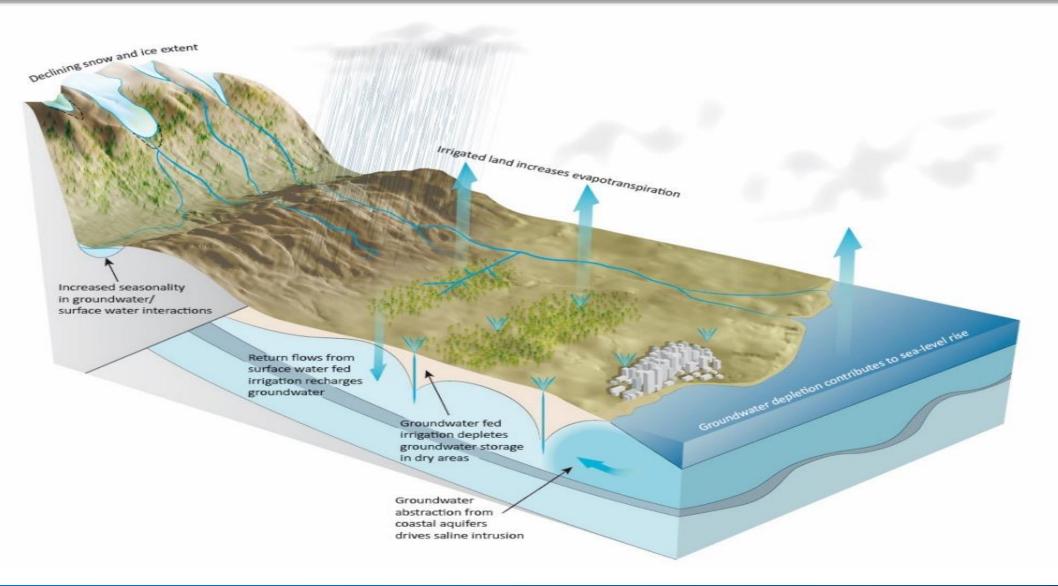


## **Estimated groundwater abstraction for irrigation in selected countries**

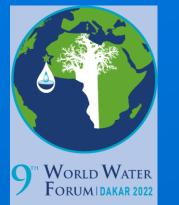




# **Conceptual representation of key interactions between groundwater and climate change**







## 9<sup>th</sup> World Water Forum (Dakar) – Senegal

It has been organized every three years since 1997 by the World Water Council, in partnership with a host country. The 9th Forum will be the first of its kind to be hosted in sub-Saharan Africa.

Created in 1996, the World Water Council is the founder and co-organizer of the World Water Forum and catalyzes collective action during and in between each Forum.

The World Water Forum is the world's largest event on water.

By bringing together participants from all levels and areas, including politics, multilateral institutions, academia, civil society and the private sector, among others, the World Water Forum provides a unique platform where the international water community and key decision makers can collaborate and make long-term progress on global water challenges.



## **UNESCO's contribution to the 9th World Water Forum**

UNESCO plays a major role in the 9th World Water Forum. Not only is UNESCO part of the Forum's International Steering Committee and leading one of its Task Forces, but it is also leading the actions for World Water Day 2022 on groundwater and launching the World Water Development Report 2022 on the same topic

UNESCO and Senegal defined the strategic framework of cooperation of the parties for the successful organization of the 9th World Water Forum and specifically concerning the following aspects:

- UNESCO's scientific and strategic support in the overall organization of the forum
- Strategic partnership between Senegal and UNESCO for the contribution to the priority theme "Tools and means"

## 9<sup>th</sup> World Water Forum (Dakar) - Senegal

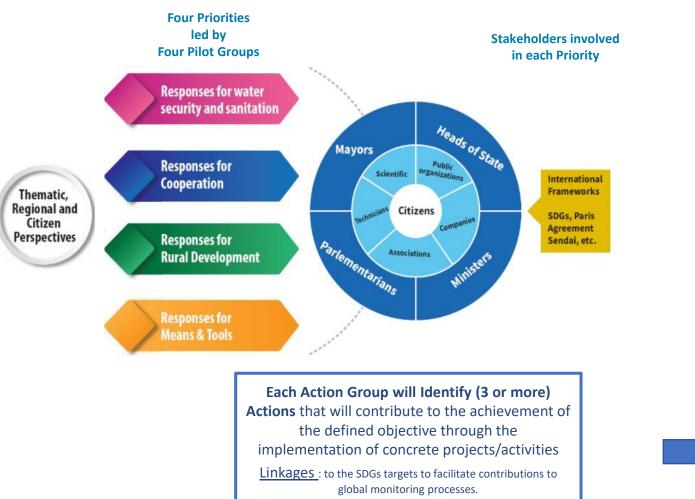


- UNESCO's contribution to the organization of the other themes of the Forum, in particular the themes on water security and water cooperation.
- UNESCO's support to the mobilization and participation of stakeholders, including youth.
- Launch of the UN World Water Development Report 2022 and organization of the celebration of the UN World Water Day (22<sup>nd</sup> of March)

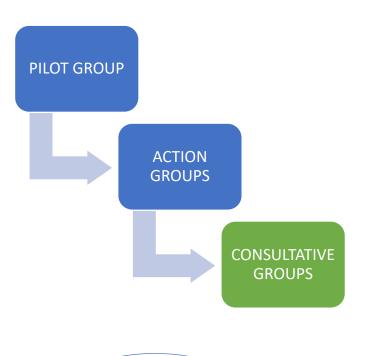


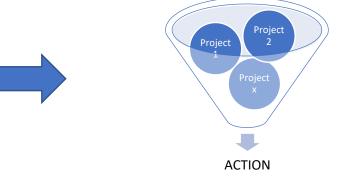


### 9th World Water Forum **STRUCTURE**



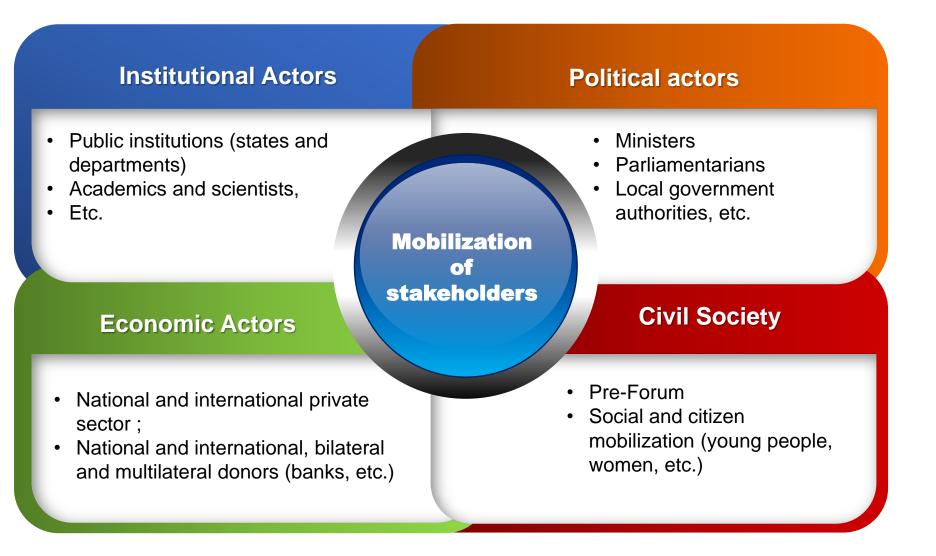
<u>Collaboration</u> : with the group and <u>others</u> (consultative groups and out of the water box actors).







## 9th World Water Forum / Mobilization of actors







#### Launch of the UNWWD Report 21<sup>st</sup> the 21<sup>st</sup> March at the Forum



World Water Day 2022 Factsheet

# Groundwater: making the invisible visible







#### Join UN-Water at the Celebrations of World Water Day 2022

#### at the 9th World Water Forum in Dakar, Senegal

Groundwater is invisible, but its impact is visible everywhere. Out of sight, under our feet, groundwater is a hidden treasure that enriches our lives. Almost all of the liquid freshwater in the world is groundwater. We need to work together to sustainably manage this precious resource. Groundwater may be out of sight, but it must not be out of mind.

#### 21 March

11:15-11:45 (GTM) Launch of the United Nations World Water Development Report "Groundwater: Making the Invisible Visible" at 9th World Water Forum Opening Ceremony Convened by UNESCO-WWAP Datar Arena

#### 22 March

& 00-9:00 (GTM) **Celebration of the UN World Water Day "Groundwater: Making the Invisible Visible"** Convened by UN-Water Task Force, coordinated by UNESCO, IGRAC Plenary Session Room Teaser 1

9:00-10:30 (CTM) High-Level Panel 1 "Making the invisible visible: groundwater a response for resilience and sustainability" Convened by UN-Water Task Force, coordinated by UNESCO Auditorium CICAD

10:45-12:15 (GTM) Special Session Making invisible visible: Groundwater Catalogue for informed policy development and management interventions Convened by UN-Water Task Force, coordinated by IGRAC Room 13 EXPO



There is also a series of events on transboundary waters cooperation

## UNESCO's contribution to the 9<sup>th</sup> World Water Forum / UNESCO programme



#### Join UN-Water at the Celebrations of World Water Day 2022

#### at the 9th World Water Forum in Dakar, Senegal

Groundwater is invisible, but its impact is visible everywhere. Out of sight, under our feet, groundwater is a hidden treasure that enriches our lives. Almost all of the liquid freshwater in the world is groundwater. We need to work together to sustainably manage this precious resource. Groundwater may be out of sight, but it must not be out of mind.

21 March 11:15-11:45 (GTM) Launch of the United Nations World Water Development Report "Groundwater: Making the Invisible Visible" at 9th World Water Forum Opening Ceremony Convened by UNESCO-WWAP Dakar Arena

#### 22 March

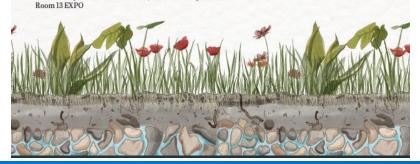
8:00-9:00 (GTM) Celebration of the UN World Water Day "Groundwater: Making the Invisible Visible" Convened by UN-Water Task Force, coordinated by UNESCO, IGRAC Plenary Session Room Teaser 1

9:00-10:30 (GTM)

UNESCO

High-Level Panel 1 "Making the invisible visible: groundwater a response for resilience and sustainability" Convened by UN-Water Task Force, coordinated by UNESCO

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Opening ceremony of the Forum, including the presence of the UNESCO Director General / Presentation of the World Water Development Report (WWDR) 2022
<ul> <li>Celebration of the UN World Water Day</li> <li>Plenary session from 8:00 to 9:00, presentation of main WWDR messages and Ceremony "Passing the groundwater baton"</li> <li>High-level Panel on Groundwater</li> <li>Special Session: The Groundwater Catalogue - a tool to strengthen the interface between science and policy</li> <li>Special session "Accelerating gender equality in water: the way forward"</li> </ul>
<ul> <li>8 technical sessions</li> <li>18 side events within the pavilion of UNESCO</li> <li>11 Events at the UNESCO Water Family Stand <ul> <li>Enhancing capacity on water cooperation in Africa, coordinated by UNESCO and China</li> </ul> </li> </ul>

#### UNESCO official events and side events during the World Water Forum

21 March 2022				
Official Sessions	Side-Events			
Opening Ceremony <ul> <li>Presentation of the UN WWDR</li> </ul>	<ol> <li>Water Culture, and disaster risk reduction</li> <li>Fundamental Sciences for sustainable water management</li> <li>Meeting: Water Youth Network</li> <li>Water quality portal</li> </ol>			
22 March 2022				
Official Sessions - World Water Day	Side-Events			
<ol> <li>Making the invisible visible: groundwater a response for resilience and sustainability</li> <li>Promoting transboundary governance by building capacity and sustainable institutions to peacefully manage water resources</li> <li>Water and adaptation to Climate change: key governance practices</li> <li>Making the invisible visible: Groundwater Catalogue for informed policy development and management interventions</li> <li>Promoting peace by developing and implementing legal frameworks for transboundary water resources</li> <li>Leveraging Knowledge Sharing Platforms</li> <li>Accelerating gender equality in the water domain: the way forward</li> <li>Financing innovation: novel means and tools, technical and non- technical solutions to leverage knowledge, education, science and innovation required for solving water challenges</li> </ol>	<ol> <li>"City-basin dialogue for adaptation to climate change [OIEau &amp; SIAAP ]"</li> <li>Flood management in West Africa [WADIRE]</li> <li>Meeting: Water Youth Network</li> </ol>			



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## PRIORITY GENDER UNESCO WWAP Advocacy: A Call for Action





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World Water Assessment Programme

## Accelerating Gender Equality in the Water Domain

Through a Multi-stakeholder Call for Action

Special session on 22 March 2022: 13:30 – 15:00



Acelerando la igualdad de género en el ámbito del agua Un Llamado a la acción a gran escala



Libérer le pouvoir de l'égalité entre les genres dans le secteur de l'eau Grâce à un Appel à l'action multipartite

Actions for integrating gender equality in policy and planning are needed for overcoming structural inequalities in water



The UN SDG6 Global Acceleration Framework and The Capacity Development Initiative

#### **PRIORITY GENDER:**

#### AGENDA 2030 AND UNESCO WWAP TOOLKIT ON SEX-DISAGGREGATED WATER DATA

PRIORITY TOPICS	RELATED SDGs
Gender-responsive water governance	1 mm         5 mm         6 mmm         10 mmm         15 mm         10 mmm           1 mm         Image: Constraint of the second of the
Safe drinking water, sanitation and hygiene (WASH)	1 Harr 1 Harr
Gender-specific knowledge resources	1 mm         5 mm         8 mmm         10 mmm         17 mmm           ******         Image: Construction of the second of the seco
Transboundary water management	1 Name         5 million         6 million         10 million         15 million         16 million         17 million           1 Name         Image: Constraint of the state of t
Water for agricultural uses	1 mar 1
Water for industry and enterprise	1 mar 1
Human rights-based water resources management	1 Taur 1 Taur
Water, migration, displacement and climate change	1 mer         5 mmr         8 mmmr         10 mmr         13 mm         16 mmr           1 mer         Image: Comparison of the state of
Indigenous and traditional knowledge, and community water rights	1 mare 1 mare
Water education and training	1 Aur 4 MACHAN 5 MACHAN 6 MACHANA 10 MACHAN 17 MACHANA



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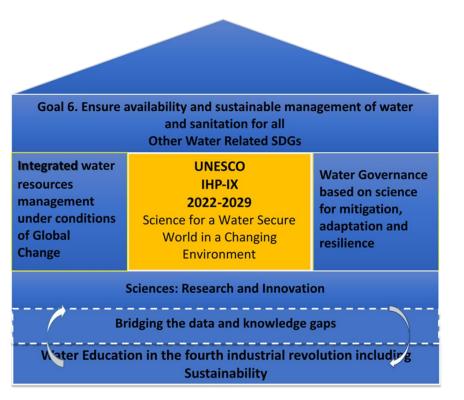


## UNESCO official events and side events during the World Water Forum (cont'd)

23 March 2022				
Official Sessions	Side-Events			
<ol> <li>Developing local actors' capacity and platforms for knowledge and experience sharing</li> <li>Endogenous knowledge and local solutions for water education, policies, and use</li> <li>Leveraging Knowledge Sharing Platforms</li> <li>WWAP Session</li> <li>Promoting knowledge and tools for collaboration and benefit sharing on transboundary water resources</li> </ol>	<ol> <li>IRD-UNESCO</li> <li>Poster National Committees for West Africa</li> <li>Poster Exhibition : Inventaire mondial des musées de l'eau</li> <li>"Roundtable (Freshwaters and Salt Waters)</li> <li>"Roundtable (Freshwaters and Salt Waters)</li> <li>arch 2022</li> </ol>			
Official Sessions	Side-Events			
<ol> <li>Concrete answers for water security</li> <li>Promoting capacity development through training cooperation projects</li> <li>Science and innovation for enhancing governance and management of transboundary aquifers and IWRM</li> </ol>	<ul> <li>IAEA</li> <li>Basic science for sustainable water management</li> <li>"Flash mobs: Women - Water - Work [WfWp]"</li> <li>Meeting: Gender equality in water management</li> <li>Meeting: Water Youth Network</li> </ul>			
25 March 2022				
Closing Ceremony and end of the World Water Forum				



### IHP IX 2022-2029: Science for a Water Secure World in a Changing Environment



#### **Five priority areas:**

- 1. Scientific research and innovation
- 2. Water Education in the Fourth Industrial Revolution including Sustainability
- 3. Bridging the data-knowledge gap
- 4. Integrated water resources management under conditions of global change
- 5. Water Governance based on science for mitigation, adaptation and resilience

#### 34 expected outputs



#### How is UNESCO contributing to the UN SDG6 Global Accelerator Framework? Lead agency of the UN-WATER CDI



UNESCO's contribution to the Water and Climate Coalition hosted by WMO for SDG6 Implementation



#### The UN 2023 Water Conference

#### 2023 UN Water Decade Conference

On 20 December 2018 the General Assembly adopted the resolution on the "Midterm comprehensive **review** of the implementation of the **International Decade for Action**, 'Water for Sustainable Development' 2018-2028". (A/RES/73/226).

The resolution calls for an intergovernmental Conference, with participation of other stakeholders, to be convened in **New York from 22 to 24 March 2023**.

It will consist in Plenary Meetings and 5 five Interactive Dialogues. Side events, including seminars, workshops and panel discussions on issues related to the implementation of the Decade, will be organized by participants in the Conference.

The Conference will be informed by the outcomes of **regional** and global preparatory meetings (Road Map to 2023).







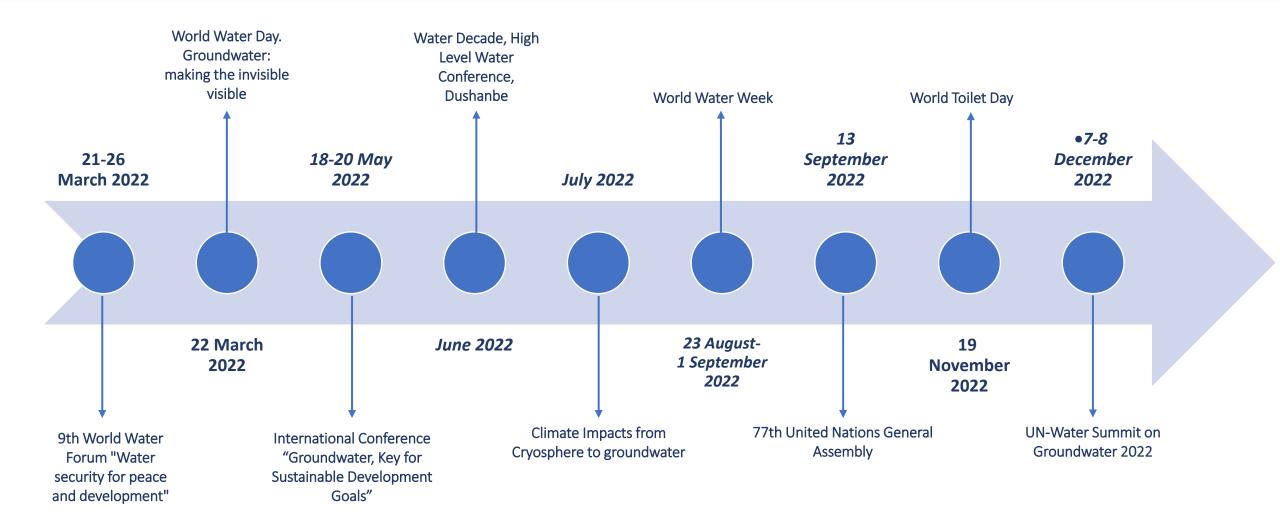


UNESCO is participating in the meetings of the "RoadMap to 2023". In line with its the IHP-IX Strategic Plan, UNESCO's messages are focused on strengthening the international recognition of water science in general, the importance of groundwater, as well as of the critical need to fill the gap of available and required capacities, particularly in developing countries, in view of attaining SDG 6 and other SDGs.

UNESCO provided inputs, aligned with these priorities, to the UN-Water proposals for the Interactive Dialogues.



## UNESCO events on Groundwater: Making the invisible visible in 2022 and beyond





#### Main events on Water organized by or with participation of IHP

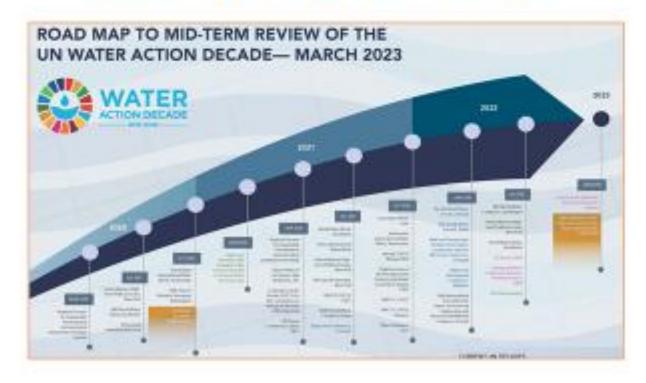
Second International Conference on Water, Megacities and Global Change (Eaumega)	11-24January	
9 <sup>th</sup> World Water Forum (9WWF) including:	21-26 March	
<ul> <li>Launch of World Water Development Report</li> <li>Celebration World Water Day Theme "Groundwater: Making the invisible visible</li> </ul>		
Asia-Pacific Water Summit	22-24 April	
UN Biodiversity Conference (Biodiversity COP-15)	25 April -08 May	Kunming, China
International Conference "Groundwater, Key for Sustainable Development Goals"	18-20 May	
The XIth Scientific Assembly of the International Association of Hydrological Sciences (IAHS 2022),	29 May to 3 June	Montpellier, France
Water Decade, High Level Water Conference, Dushanbe	June	Tajikistan
UNEP/ Stockholm + 50 Conference on Sustainable development	02-03 June	
39th International Association for Hydro-Environment Engineering and Research (IAHR)World Congress	19-24 June	Grenada, Spain
High Level Political Forum	July	NY
- Event Climate Impacts from Cryosphere to groundwater		
International Symposium on Ice, Snow and Water in a Warming World	21-26 August	
World Water Week	29 August to 2 September	On line and Stockholm
The IAH Conference on Groundwater in China	September	
77th United Nations General Assembly	October	NY
First celebration of International Geodiversity Day / Earth Futures Festival Film festival on Earth sciences for sustainable development	6 October	
UN Climate Change Conference COP27	7 November	Egypt
World Toilet Day	19 November	
UN-Water Summit on Groundwater	7-8 December	Paris

Main water events in 2022

> In yellow: events of the Road Map 2023



## 2023 UN Water Conference



## Merci

# Thank you



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GROUNDWATER: MAKING THE INVESTIGATION