

# Contributions to Agenda 2030 and to the Climate Change regime: a transboundary aquifers perspective

International Conference

Groundwater, key to the sustainable development goals

Paris, 18-20 May 2022

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# Outline

- I. Introduction
- II. Considerations under the global agendas
- III. TB aquifers

# I. Introduction

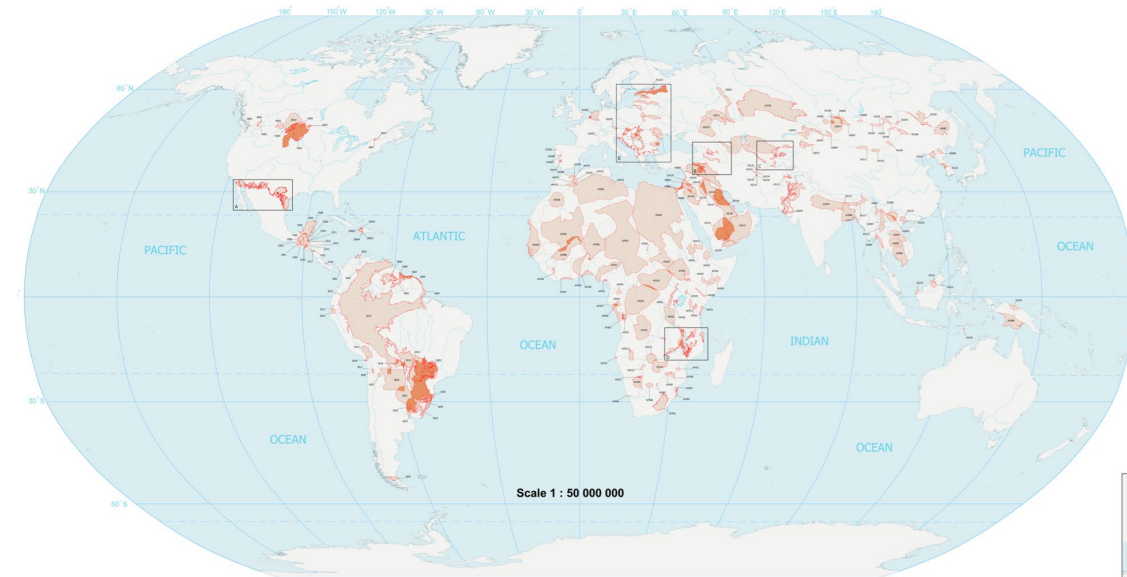
**Well known fact: groundwater represents 97% of the available freshwater on earth (excluding water in polar ice and glacier)**

**→ most of it is in TBAs (468 TBAs, outside the EU (IGRAC 2021))**



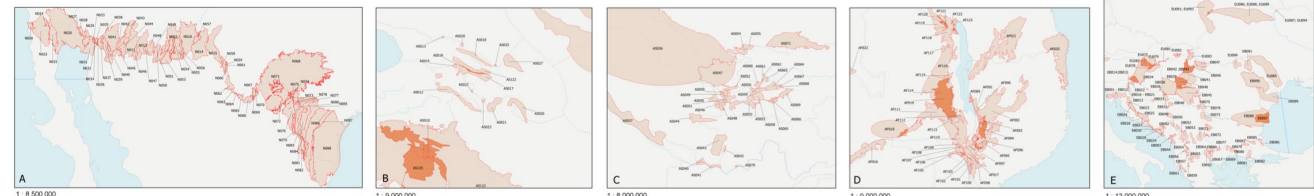
## Transboundary Aquifers of the World

- Update 2021 -



Legend
<b>Occurance and extent</b>
<span style="display:inline-block; width:10px; height:10px; background-color:brown; border:1px solid black;"></span> aquifer
<span style="display:inline-block; width:10px; height:10px; background-color:orange; border:1px solid black;"></span> overlapping area
<b>Type of TBA delineation</b>
<span style="display:inline-block; width:10px; height:10px; border:1px solid red;"></span> confirmed boundary
<span style="display:inline-block; width:10px; height:10px; border:1px solid pink;"></span> unconfirmed boundary
<b>Geographic elements</b>
<span style="display:inline-block; width:10px; height:10px; background-color:lightblue; border:1px solid black;"></span> rivers
<span style="display:inline-block; width:10px; height:10px; background-color:lightblue; border:1px solid black;"></span> lakes
<span style="display:inline-block; width:10px; height:10px; border:1px solid black;"></span> detailed maps

**Prepared by IGRAC**  
**Base maps**  
Country borders: The United Nations Clear Map (2018)  
Rivers and lakes: ESR (2018)  
**Map projection**  
Robinson projection, geographic coordinates, spheroid WGS84, longitude of central meridian 0°  
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**Disclaimer**  
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. A full disclaimer is available on the back of this map.



# I. Introduction

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Global agendas:

Agenda 2030: SDG 6 and others

Climate Change: #climateiswater, or  
#waterforclimate

Little consideration under the CC framework

→ Direct or indirect effects/requirements on  
water/GW





# I. Introduction

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Objective:

- ➔ analyze the water/GW in the global agendas (SDGs & CC)
- ➔ compare with the requirements of IWL



## II. Considerations under the global agendas

### Agenda 2030 for sustainable development

Social and economic development interrelated with the sustainable management of natural resources.

Determination to conserve and sustainably use freshwater resources

SDG 6.5: implement integrated water resources management at all levels, *including through transboundary cooperation* as appropriate

➡ Indicator 6.5.2: **“Proportion of transboundary basin area with an operational arrangement for water cooperation”**

### 2<sup>nd</sup> reporting (2021):

➤ Progress: improved reporting on transboundary aquifers

➤ Challenges remain:

- need to focus attention on data/knowledge
- steps, such as establishing regular meetings at a technical level, can significantly accelerate progress on creating cooperation

## II. Considerations under the global agendas

Other targets under goal 6 (Ensure availability and sustainable management of water and sanitation for all) :

- achieve universal and equitable access to safe and affordable drinking water for all
- improve water quality
- ensure sustainable withdrawals and supply of freshwater to address water scarcity
- protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

## II. Considerations under the global agendas

And other goals:

- goal 1: ending poverty,
- goal 2: food security,
- goal 3: healthy lives,
- goal 8: sustainable economic growth
- goal 15: Protection and sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss





## II. Considerations under the global agendas

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- CC framework

UNFCCC:

Water under adaptation (article 4.1§e):

➡ develop and elaborate appropriate plans

- for ***water resources***
- for the protection and rehabilitation of areas, particularly in Africa, affected by *drought* and desertification, as well as *floods*'.

## II. Considerations under the global agendas

Adaptation ➡ a global goal and challenge at all levels, from local to subnational, national, regional and international

➡ important for the protection of people, livelihoods and ecosystems

(article 7 Paris agreement)

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Parties should strengthen their cooperation on enhancing action on adaptation including :

- Sharing information, good practices, experiences and lessons learned, including, as appropriate, as these relate to science, planning, policies and implementation in relation to adaptation actions;
- Strengthening institutional arrangements, including those under the Convention that serve this Agreement, to support the synthesis of relevant information and knowledge, and the provision of technical support and guidance to Parties;
- Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making;
- Assisting developing country Parties in identifying effective adaptation practices, adaptation needs, priorities, support provided and received for adaptation actions and efforts, and challenges and gaps, in a manner consistent with encouraging good practices; and
- Improving the effectiveness and durability of adaptation actions.



## II. Considerations under the global agendas

- Indirect mention of water:

Ecosystems: in UNFCCC, Paris agreement & Glasgow Climate Pact:

Important to protect, conserve and restore ecosystems to deliver crucial services:

- act as sinks and reservoirs of greenhouse gases,
  - reduce vulnerability to climate change impacts
  - support sustainable livelihoods, including for indigenous peoples and local communities;
- great reliance of ecosystems on water and groundwater



## II. Considerations under the global agendas

### Food security

- UNFCCC & Paris agreement : food production is not threatened

➡ safeguarding food security: fundamental priority (Paris agreement)

vulnerabilities of food production systems to the adverse impacts of climate change recognized

Adaptation and resilience should not threaten food production;

## II. Considerations under the global agendas

### Global agendas underlain by the Human rights approach

#### ➤ Paris agreement & Glasgow Climate Pact :

Action to address climate change ➡ respect, promote and consider the obligations on human rights, the right to health, and the right to development

#### ➤ SDGs:

Reference to the Universal Declaration of Human Rights, and international human rights treaties,

Seek to realize the human rights of all

Commitments to the human right to safe drinking water and sanitation





# Conclusion

Water important element in the Global agendas

- ➡ central role of TBAs
- ➡ cooperation

TBAs fall under IWL:

- regulate the use of water resources shared by two or more countries
- determine a state's entitlement to the benefits of the water body (substantive rules) and to establish requirements for states' behaviour while developing the resource (procedural rules)



# Conclusion

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- Cooperation on TBAs important beyond the management of the water resource itself:  
Achieving SDGs (ending poverty, reaching food security, access to water economic growth, protection of ecosystems)  
Adapting to Climate Change ➡ GW plays specific role/surface water, and beyond the mentions in the CC agreements  
➡ When properly managed, and not under stress, groundwater provides a unique buffer during extended dry periods, and aquifers can store water in a time of climate change.

Thank you for your attention