How the legal status of groundwater can influence the good achievement of Groundwater related SDG targets!

International Conference

Groundwater, key to the sustainable development goals

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Outline

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II. Legal instruments

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I. Introduction

A. Importance of GW for the SDGs

<u>Under Goal 6:</u>

- GW major source for drinking water

21% of all abstractions are meant for domestic use

➡ 65% of drinking water in the EU, 38% in the United States, 100% in arid regions

➡ Source for the vast majority of the rural population who do not get their water delivered to them via public or private supply systems → access at a low cost

➢ Key for the realization of SDG 6.1 achieve universal and equitable access to safe and affordable drinking water for all

- TB cooperation (target 6.5 "implement integrated water resources management at all levels, including through transboundary cooperation as appropriate"

488 TBA (without the EU) ➡ in comparison 286 TB rivers & lakes

- GW flow for the environment

➡ ensuring the sustainability of gw dependent ecosystems: Wetlands, rivers, deltas ….

➡ ecosystem services

➢ Target 6.6 protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

I. Introduction

For other goals:

- Poverty reduction (Goal 1) Low development costs
  - ➢ Usually good natural quality
  - ➢ No seasonal high seasonal variability (storage)
  - ➢ Suitable in rural environments with small-scale irrigation

- GW is THE source for irrigation

70% of all groundwater abstracted in the world

➡Approximately two-thirds to three-quarters of the groundwater withdrawals in North America, Asia and Africa are for irrigation

➢ Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

I. Introduction

B. Strong connection between the SDGs and the Human Rights

➡SDGs « seek to realize the human rights of all »

➡Important reference to the Universal Declaration of Human Rights (1948) & international human rights treaties

➡Commitment to international law

In addition, reaffirmation of the commitment to:

➢the right to food:

➡ending hunger affirmed as a priority

➡food is sufficient, safe, affordable and nutritious

☛ article 11.1 International Covenant on Economic, Social and Cultural rights (1966)

I. Introduction

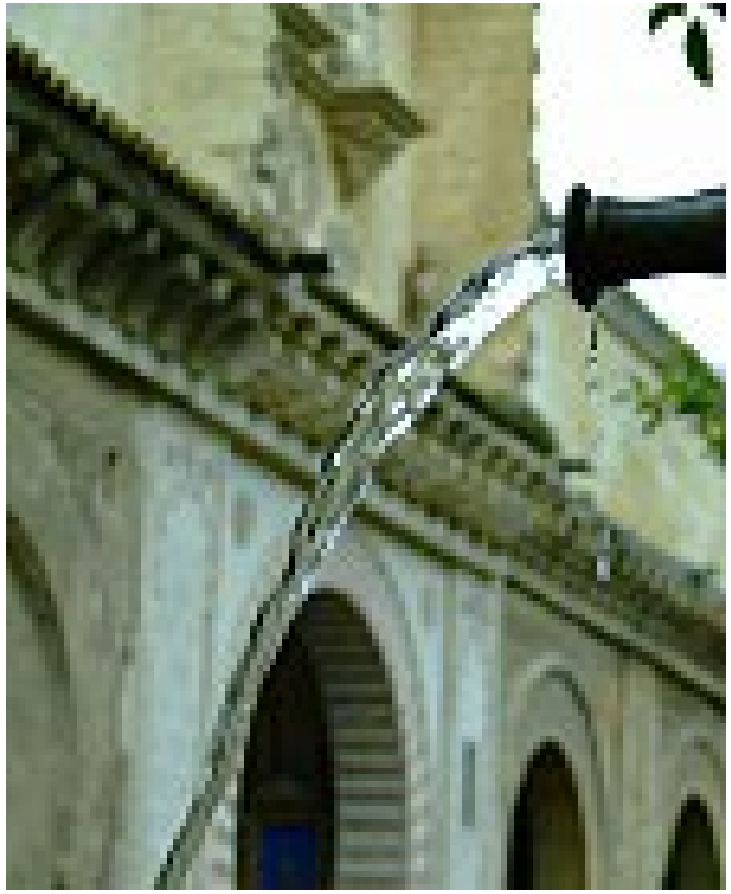
- the human right to safe drinking water and sanitation

☛ essential for the full enjoyment of life and ***all human rights*** (UN GA 2010)

Criteria (UN GA Resolution 74/141 (2019)) :

- ✓ sufficient, safe, acceptable, physically accessible and affordable water
- ✓ without discrimination

Full realization of the right responsibility of the States (UN GA Resolutions 68/157 (2013) & 74/141 (2019))



III. Legal instruments

A. National level

How to manage GW to achieve SDGs?

Or what legal framework & tools for GW management in view of the SDGs?

1. Question of ownership:

GW: link with the land; strong tradition: ownership of the land carries ownership of the underground (but for example Islamic water law: GW common good)

Modern water legislations:

➡shift from private to public ownership:

- Few exceptions India, Pakistan, the Philippines, Texas & other american States
- However some resistance in the minds of landowners

☛ State can regulate GW extraction, use and protection considering all users and in regards to the situation of the GW

III. Legal instruments

- Control on quantity

➡ regulating GW extraction/drilling of wells:

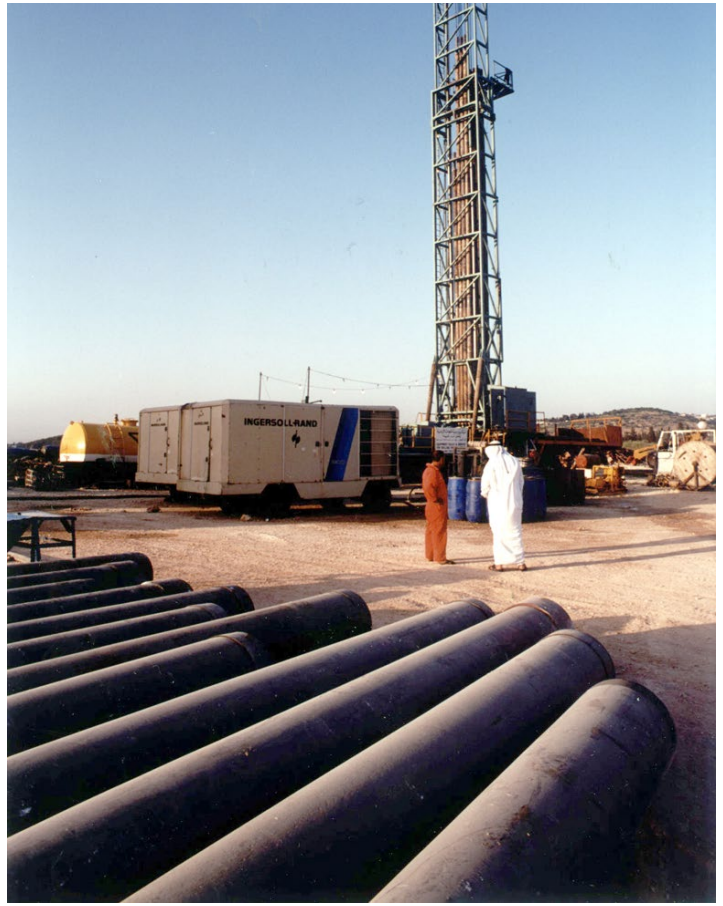
Administrative permits (declaration & authorization): include volumes and rates of extraction, and limited in time, with regular weight of the sustainability of the extractions

➢ Notable exception: domestic water supply exempted in some legislations (threshold defined by regulation)

➢ Consideration of the environmental flow: emerging trend

→ preserving quantity for GW dependent ecosystems

➢ Accreditation of well drillers



III. Legal instruments

- Control on quality

☛Pollution control measures:

- ➢ Prohibition of direct discharges of pollutants
- ➢ Wastewater discharges: Regulated through permits, bound by time, with a requirement on the quality of the effluent discharged, the required treatment, and the timing and rate of discharge. Payment of charges “polluter pays’’ principle
- ➢ Regulation of land use : solid waste discharges, agricultural practices
- ➢ Protection zones
- ➢ Requirement of EIA in the case of new projects

III. Legal instruments

<u>Non-respect of these measures (quantity and quality):</u>

- often considered as an offence, or even a crime,
- can be subject to a sanction (i.e. payment of a fine)
- Enforcement mechanisms often exists in the law/regulation

Tools available for proper, sustainable management of groundwater and for reaching certain targets:

6.3 improving water quality, 6.4 ensuring sustainable withdrawals, 6.6 protect and restore water-related ecosystems etc…

III. Legal instruments

Serious implementation problems of the law

☛ Illegal wells causing depletion, and illegal discharges creating pollution

Challenge: invisible character of GW

<u>Problems:</u>

- Law adopted but not the implementing regulation
- Weak institutions
- Lack of capacities
- Little awareness involvement of the stakeholders

→their involvement in gw governance can create understanding and acceptance of some obligations and decisions

III. Legal instruments

B. GW & the HR to safe drinking water

- Trend towards formal recognition of the right in the Constitution, the Water Law, or through case law
- GW source of drinking water for local communities in places where water services are lacking or inadequate

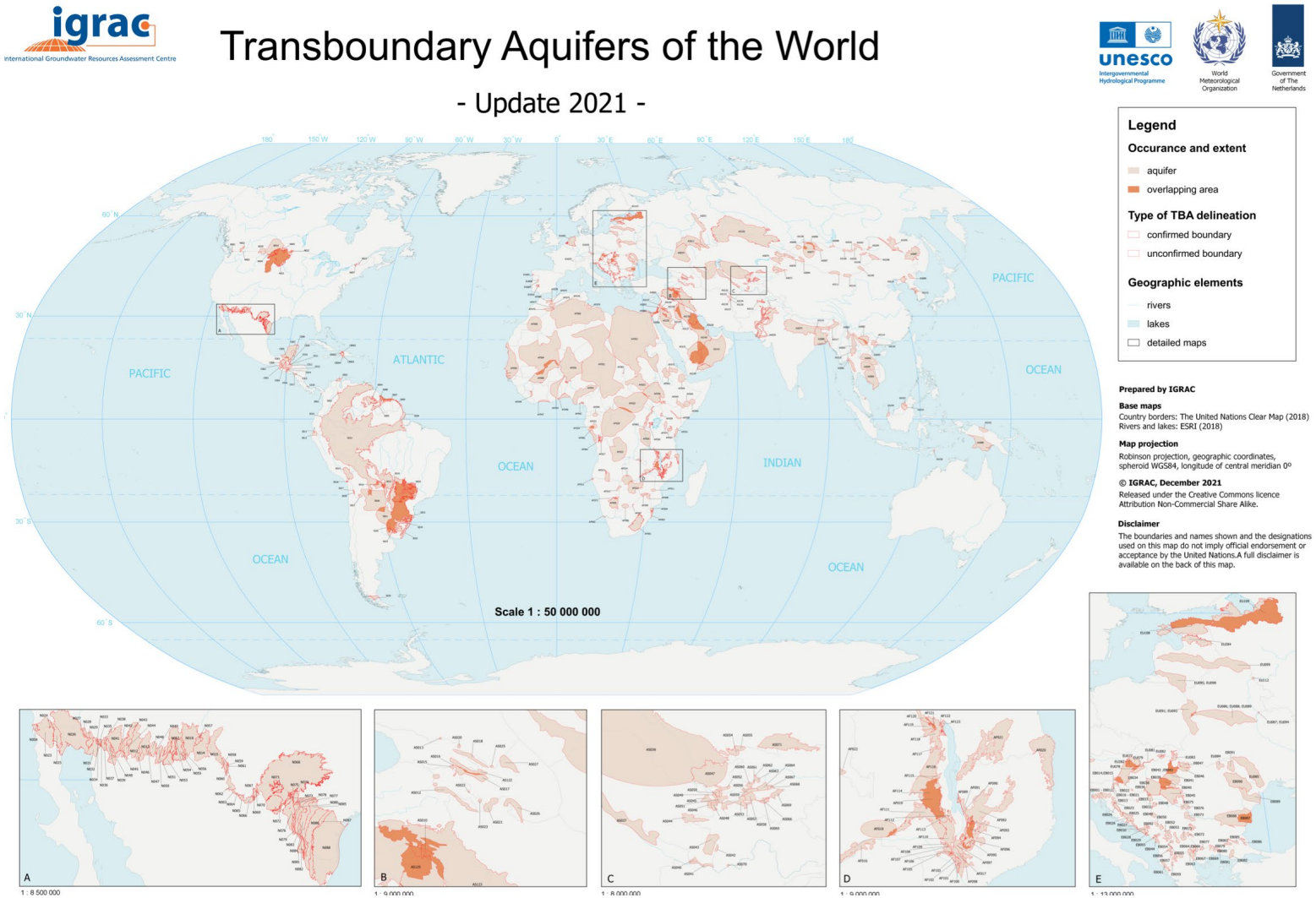
<u>Duty of the State:</u>

- Protect the resource: sufficient, safe & acceptable (quantity & quality)
- Physically accessible: wells in the vicinity
- Affordable: pricing policy towards the vulnerable population

III. Legal instruments

C. Transboundary level

➜ ***most of the groundwater is in TBAs (488 TBAs, outside the EU (IGRAC 2021))***



III. Legal instruments

IWL instruments

Global process

Convention on the law of non-navigational uses of international watercourses (21 mai 1997)

In force since 2014, 37 Parties

Draft articles on the law of transboundary aquifers

Topic of 5 UN GA resolutions

Regional process

Convention on the protection and use of transboundary watercourses and international lakes (1992, amended in 2013)

In force since 1996, 44 Parties

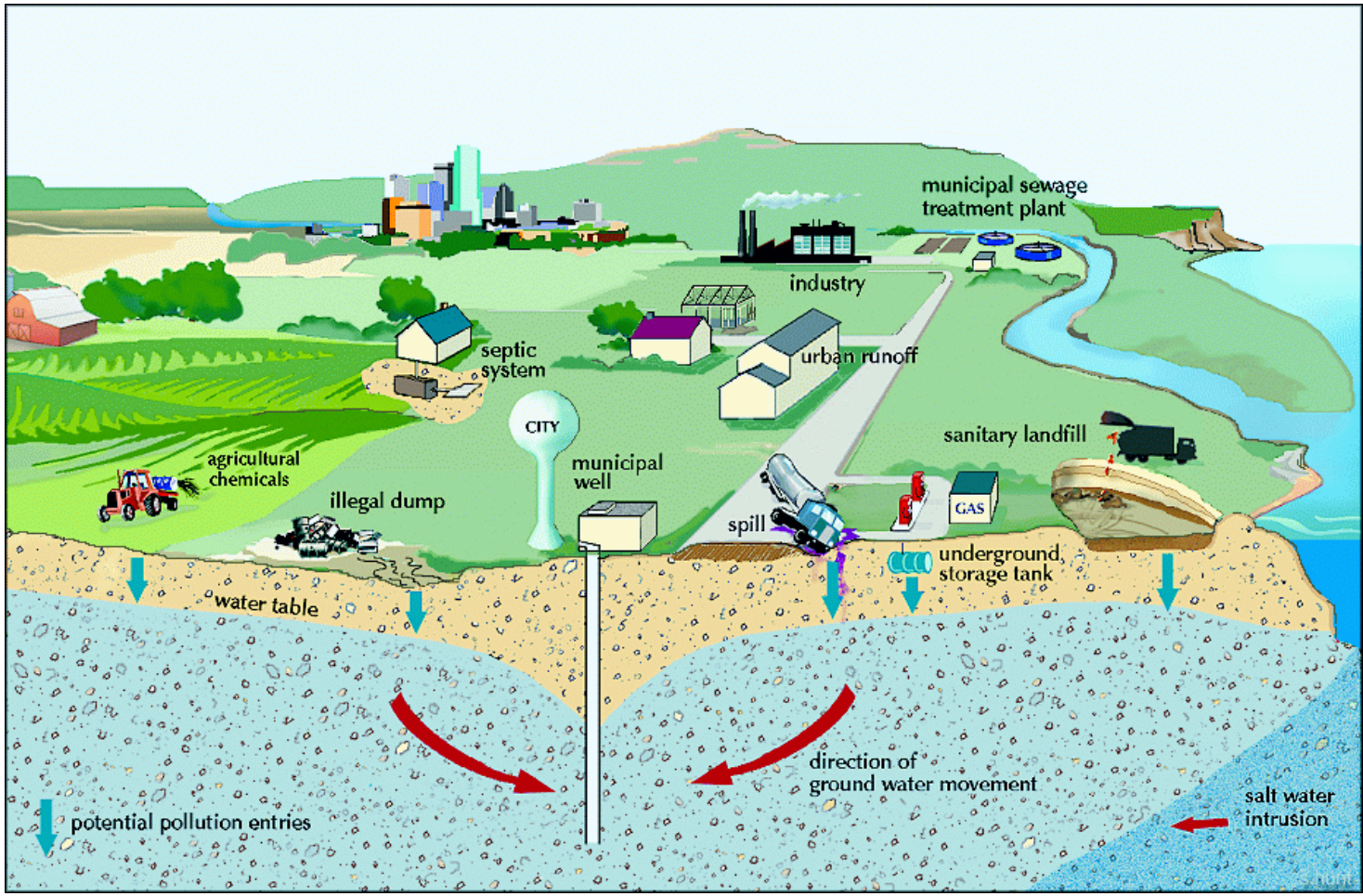
➔ today open to all UN members

III. Legal instruments

⇨ Focus on the DA⇢ tailored to the characteristics of transboundary aquifers

➢Scope:

- the utilization of the TBA & the measures for their protection, preservation and management
- Other activities that have or are likely to have an impact upon such aquifers or aquifer systems



III. Legal instruments

- **Common principles shared by the three instruments**

General principles
→ Core principles of IWL *(customary):*

- Equitable & reasonable use:

➡consideration of factors,
➡***special regard shall be given to vital human needs***

- no harm rule

→General obligation to cooperate & its corollary the regular exchange of data

III. Legal instruments

➢ <u>Protection and preservation of ecosystems</u>

- Ecosystems within, or dependent upon, TBA
- Obligation of protection and preservation
- Obligation to ensure that the ***quality and quantity*** of water in the TBA, and in the discharge zones is sufficient

➢ <u>Recharge and discharge zones</u>

- identify the recharge and discharge zones within their territory
- to prevent and minimize detrimental impacts
- Non aquifer States where a recharge or discharge zone is located ➔cooperate with the aquifer States

III. Legal instruments

- Prevention, reduction and control of pollution

- individually and, where appropriate, jointly,
- prevent, reduce and control pollution of their TBA
- that may cause significant harm to other aquifer States.
- including through the recharge process
- precautionary approach in view of uncertainty about the nature and extent of a TBA

III. Legal instruments

- Monitoring
  - Obligation
  - wherever possible jointly
  - If not jointly, exchange the monitored data
  - harmonized standards and methodology
  - identify key parameters based on an agreed conceptual model

III. Legal instruments

- Technical cooperation with developing States:

Promotion of scientific, educational, technical, legal and other cooperation with developing States for the protection and management of transboundary aquifers or aquifer systems, including capacity building, research, monitoring…

➡ directly or through competent international organizations,

Conclusion

GW most important source of freshwater on earth

Reliance on GW is significant, for drinking water & irrigation

It plays a considerable role for the realization of the SDGs

At the national level, under public ownership State can regulate GW management, a range of tools exists to control quantity and quality, and preserve the resource.

Main problem: implementation, leading to overexploitation & pollution ☞ Governance

Conclusion

- TB level:

Very few cases of successful cooperation on TBA

IWL provides a framework & guidance with rules aiming at the sustainable management of TBAs

➡ Issues of knowledge, capacities & political will

Reporting under 6.5.2 seems to be raising awareness

TBAs remain managed at the national level ⇨ importance of the national legal framework

Thank you for your attention