Transboundary freshwater security governance train

Interactive Online Session:

IWL & Transboundary Groundwater

15 June 2021

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Event Moderator

Dr. Yumiko Yasuda

Senior Network and Transboundary Water Cooperation Specialist, GWP

- Yumiko leads GWP's thematic work on transboundary water, and is the lead faculty of the MOOC on Transboundary Freshwater Security, designed and directed the production of the course.
- Her area of expertise lies in the analysis of water and environmental governance, water diplomacy, political economy analysis surrounding natural resources management, with a focus on transboundary rivers and non-state actors' engagements in natural resources management.
- Dr. Yasuda obtained her PhD degree from the Centre for Water Law, Policy and Science at the University of Dundee, MA in environmental policy from the Tufts University, and MSc in environmental science from Tsukuba University. Her research on the Mekong has culminated in the publication of a book entitled "Rules, Norms and NGO Advocacy Strategies: Hydropower Development on the Mekong River" by Routledge in 2015.

Fun fact! Yumiko performed stand-up comedy in Scotland.

The biggest achievement in life:
Still working on it!

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Event Chairs

Professor Otto Spijkers

Founding Staff Member,
International Water Law
Academy, Wuhan University

Dr. David Devlaeminck

Lecturer, School of Law,
Chongqing University

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國際水法中心 INTERNATIONAL WATER LAW ACADEMY

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Founding Staff Member of the International Water Law Academy (IWLA), Professor at the China Institute of Boundary and Ocean Studies (CIBOS) and at the Research Institute of Environmental Law (RIEL) of Wuhan University

- Otto Spijkers studied international law at the University of Amsterdam, New York University School of Law, and the Hague Academy of International Law. He studied philosophy at the University of Amsterdam and the University of Malta. He obtained a Diplôme approfondi de langue française.
- Prior to joining the IWLA of CIBOS, Professor Spijkers was Lecturer of Public International Law at Utrecht University, and researcher at the Utrecht Centre for Water, Oceans and Sustainability Law.
- He also was a visiting lecturer at the Grotius Centre for International Legal Studies of Leiden University, Xiamen University's China International Water Law Programme, the Università degli Studi di Salerno (Italy), and the Association pour la promotion des droits de l'homme en Afrique centrale (APDHAC) of the Université Catholique d' Afrique Centrale (Yaoundé, Cameroon).

Fun fact! Otto recently got a Chinese name, 高海平. His name is inspired by his height – Otto is very tall – and the fact that he was born near the ocean.

Biggest achievement in life: finding a home in lots of different countries.

Professor Otto Spijkers

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David J Devlaeminck

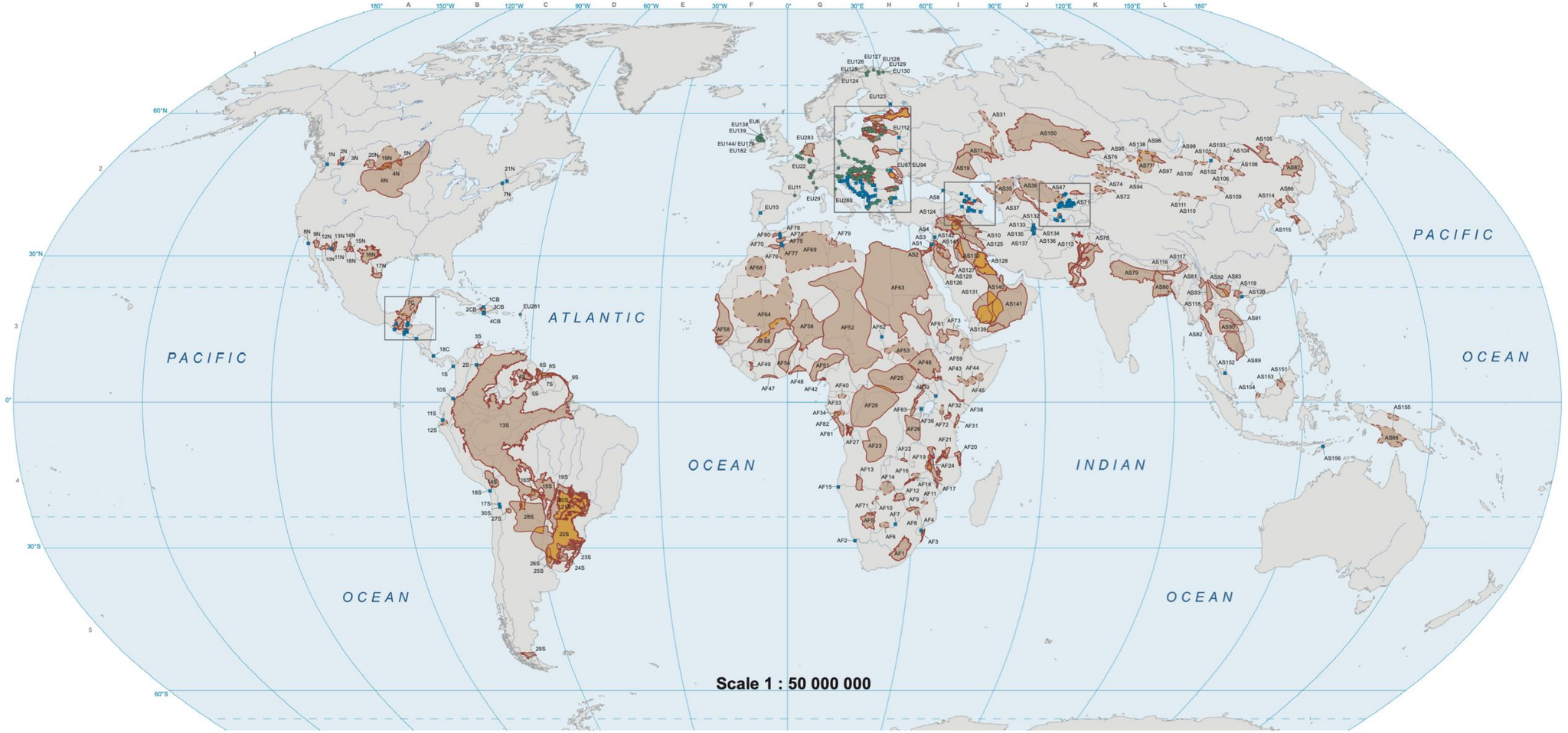
Lecturer, School of Law, Chongqing University

- Dr. Devlaeminck is an emerging young scholar in the law of international watercourses. He completed a BA in Philosophy at the University of Guelph, Canada; an MA in Philosophy at McMaster University, Canada; the Water Without Borders Graduate Certificate Programme at the United Nations University – Institute of Water, Environment and Health, Canada; and a PhD in International Law from Xiamen University, China.
- He conducts teaching and research on international environmental law with a focus on the law of international watercourses. He has published in various international journals and his monograph, *Reciprocity and China's Transboundary Waters: The Law of International Watercourses*, was recently published with Routledge.

Fun fact! David is a bit of an adventurous eater, willing to try anything (from sandworms to cicada) at least once.

The biggest achievement in life:
After moving to China in 2014, he now speaks Mandarin (although it's a work in progress)!

Transboundary Aquifers of the World



Source: IGRAC & UNESCO-IHP, Transboundary Aquifers of the World (2015). Available at: https://www.un-igrac.org/resource/transboundary-aquifers-world-map-2015

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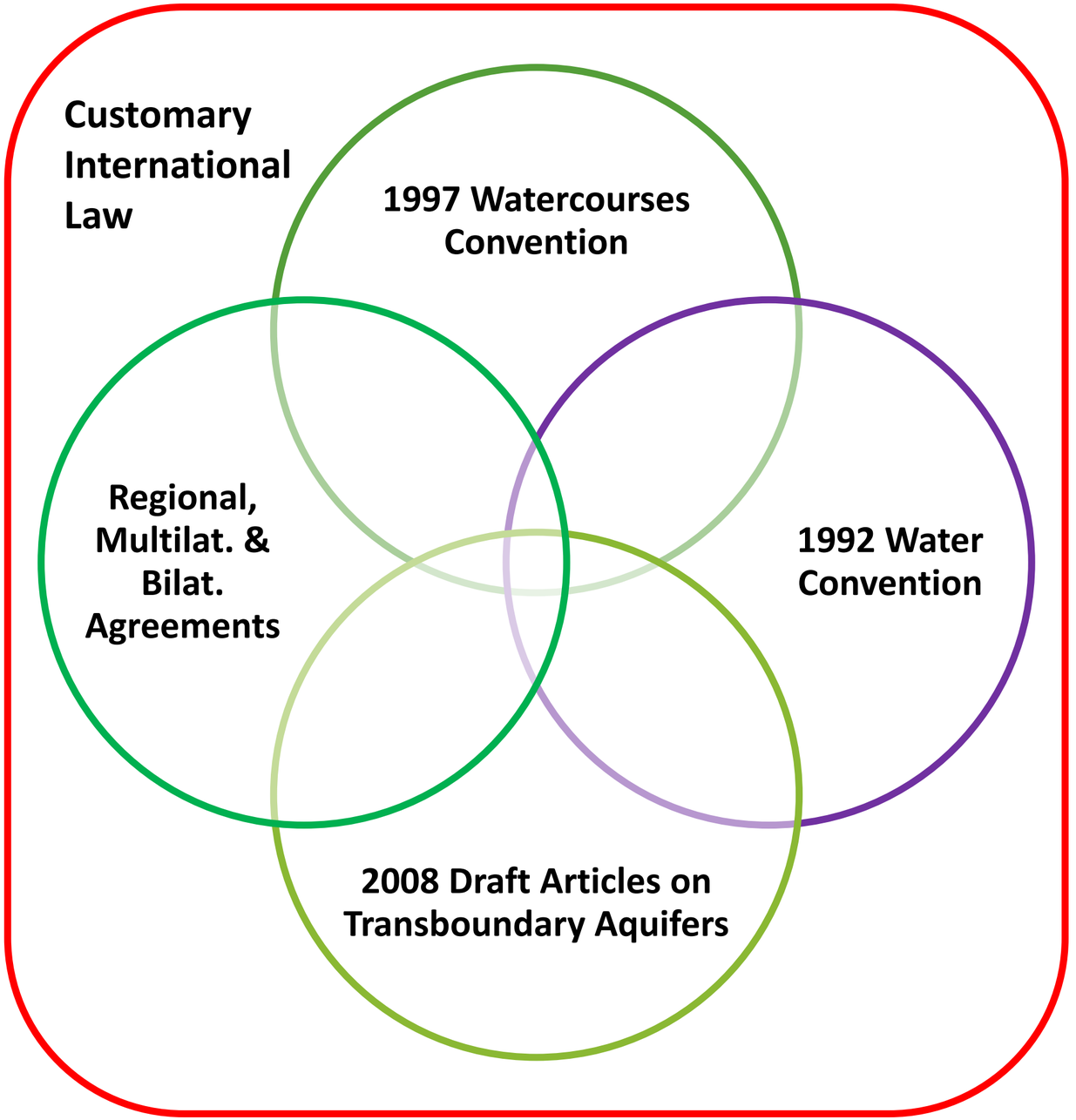
- Transboundary groundwater law as the “poor cousin” of transboundary surface water law?

- Various agreements apply to transboundary aquifers, but gaps remain.

- 2008 Draft Articles recommended to States “*as guidance for bilateral or regional agreements and arrangements*” concerning the joint management of transboundary aquifers.



Speakers

1. **Dr. Francesco Sindico**, School of Law, Strathclyde University
2. **Professor Pilar Carolina Villar**, Federal University of São Paulo, Brazil
3. **James Sauramba**, Executive Director, Southern African Development Community (SADC) Ground Water Management Institute

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Dr. Francesco Sindico

Director of the Strathclyde Centre for Environmental Law and Governance (SCELG) and Reader (Associate Professor) in International Environmental Law at the University of Strathclyde Law School in Glasgow, Scotland, UK

- Francesco has published the book "International Law and Transboundary Aquifers", an area of International Water Law that he has been working on for over a decade.
- He combines work in academia with collaborations with international organisations and national governments including as legal counsel before international courts.
- He is also active in the field of international climate change law (especially climate change litigation), sustainability and island studies

Fun fact! In pre-pandemic times, he enjoyed ending big conferences with a Ceilidh (go find out what it is and start dancing!).

Biggest achievement in life: being able to work and speak in different languages highlighting that English is not the only language out there.

Pilar Carolina Villar

Professor at the Sea Institute of the Federal University of São Paulo (UNIFESP)

- Pilar Carolina Villar is a lawyer with a master and a PhD in environmental sciences, as well as a post-doctoral in geology at University of São Paulo (USP).
- She teaches environmental law and water resources management at UNIFESP and participates in the Graduate Interdisciplinary Program in Marine Science and Technology.
- Her career has focused on the multiple dimensions of water governance, especially in the case of Guarani aquifer and the La Plata Basin.

Fun fact! Pilar has been repeatedly stopped in Customs and Border Protection at airports for carrying Guarani aquifer rock samples in her luggage. After seeing water percolating through the rock, luckily officers agreed that these samples were very useful to show students how an aquifer works.

The biggest achievement in life: To value and celebrate small achievements in everyday life.

James Sauramba

Executive Director of the Southern African Development Community Groundwater Management Institute (SADC-GMI) since its launch in 2016

- He is responsible for providing vision and effective strategic partnerships with the SADC Secretariat in Botswana and the 16 SADC Member States; building the only Centre of Excellence for groundwater management in the SADC region.
- He holds a Bachelor's degree in Civil Engineering from Zimbabwe, and an MBA in General Management from South Africa, and he is currently studying towards a Doctoral Degree qualification.
- Engineer Sauramba has more than 30 years working experience predominantly in the SADC region in the water and infrastructure sectors where he held various senior management positions.

Knowledge is the only resource that increases with sharing

The biggest achievement in life: Setting up the SADC Groundwater Management Institute in 2016, the Centre of Excellence for groundwater development and governance in the SADC region.

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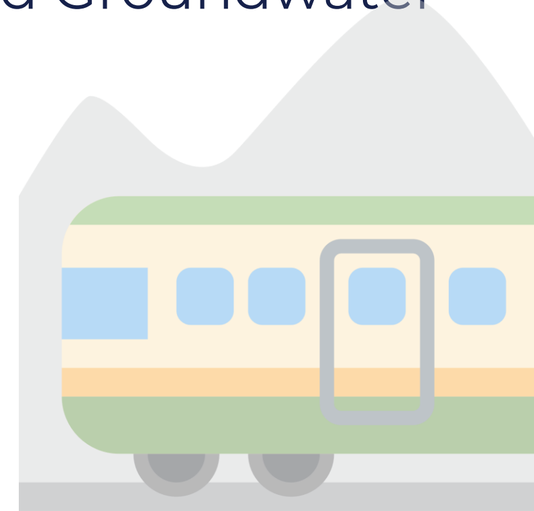
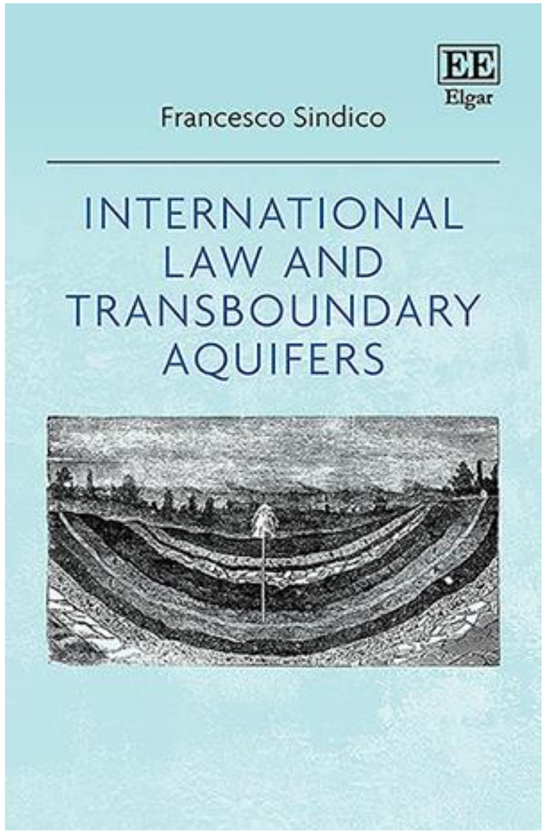


Global frameworks for the governance of transboundary aquifers



- International Law applicable to transboundary aquifers
- Are some rules/provisions legally binding? Customary international law
- Some examples

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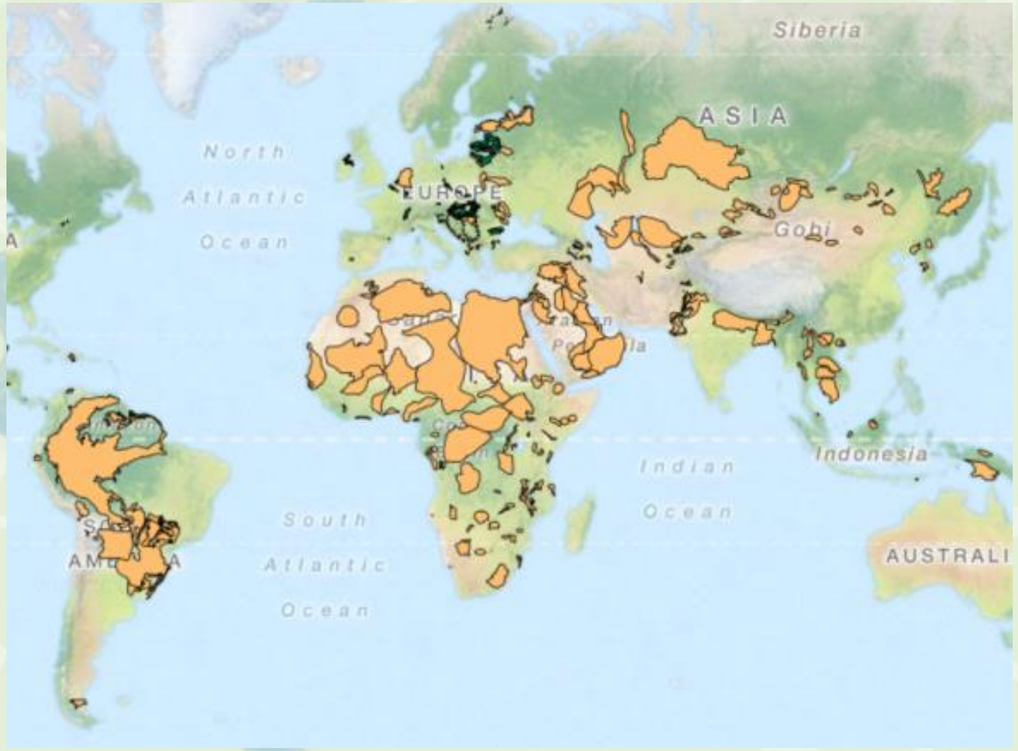
International Law applicable to transboundary aquifers

- UN Watercourses Convention
- UNILC Draft Articles on the Law of Transboundary Aquifers
- UNECE Water Convention and Model Provisions on Transboundary Groundwater

Are some rules/provisions legally binding?

- Some procedural obligations appear to be emerging as customary international law
  - Obligation to monitor
  - Obligation to exchange information
- Identifying an obligation as customary international law has a practical relevance (not just a theoretical / academic debate)

Some examples



IGRAC TBA Map

- Genevese Aquifer Convention
- Ocotopeteque Citala Statement of Intent
- Iullemeden, Taoudeni/Tanezrouft Aquifer System MoU

Legal and Institutional Aspects of the Guarani Aquifer

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Pilar Carolina Villar

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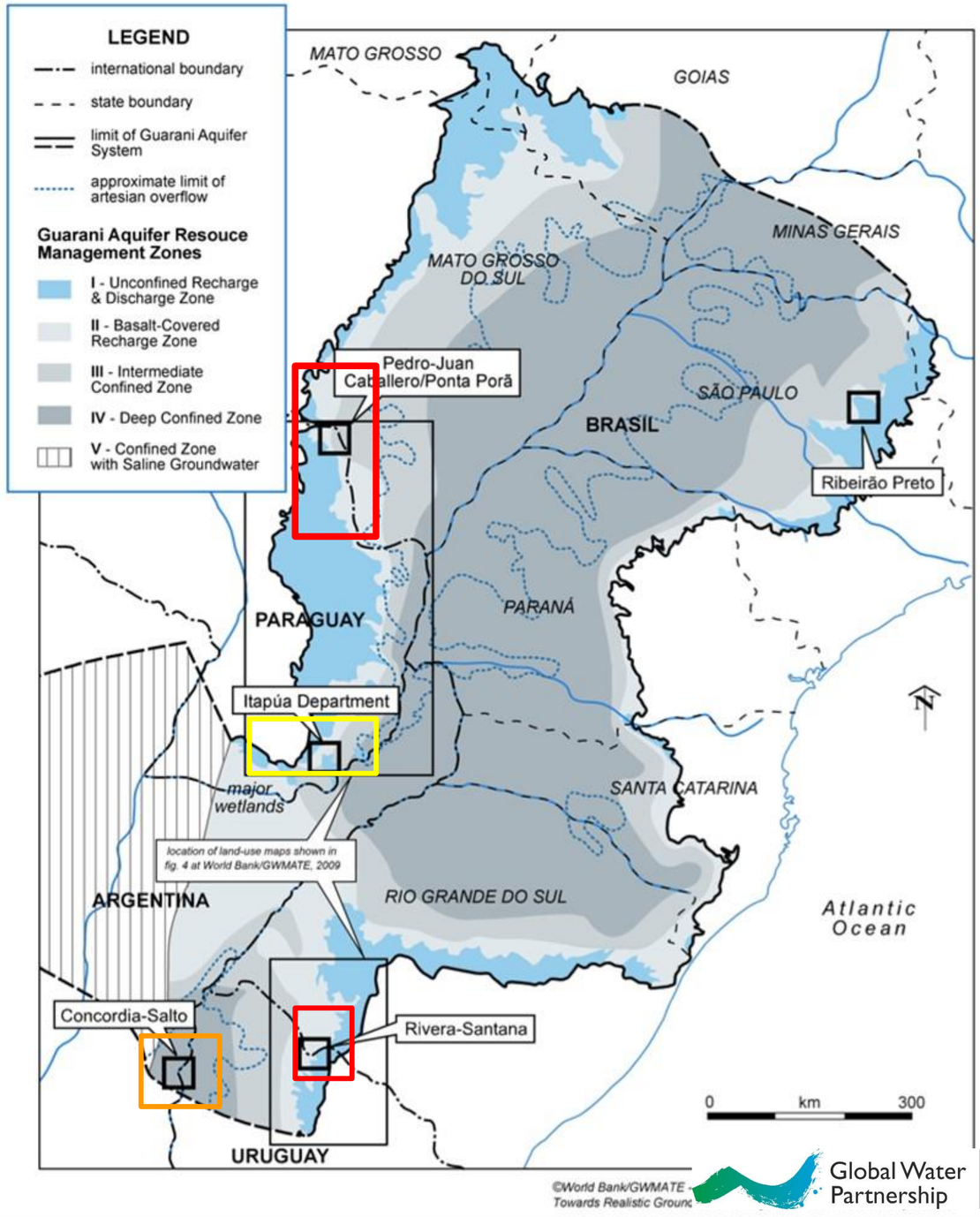
Guaraní Aquifer System



- Area 1.087.879 km^2 / confined (90%) recharge area (ra): 124.650 km^2 .
- Sandy sedimentary rocks
- Argentina (225.500km^2); Brazil (735.918 km^2) (68%); Paraguay (71.700 km^2); Uruguay (45.000 km^2)
- Water reserves: 37 a 50 mil km^2
- 34.3 millions of inhabitants/ 11.3 in ra.
- Brazil main user (93,6%)
- No transboundary conflicts;
- Low risk of overexploitation or contamination
- Potential transboundary conflicts would be limited to the border areas.

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The Agreement on the Guarani Aquifer

Key elements Agreement on the Guarani Aquifer	
Scope	SAG "is a transboundary water resource that integrates the sovereign territories of the Republic of Argentina, the Federative Republic of Brazil, the Republic of Paraguay and the Oriental Republic of Uruguay, which are the sole owners of this resource" (art. 1).
Substantive rules	Sovereign territorial control over their respective portions of the SAG (art. 2º). Sovereign right to promote the management, monitoring, and sustainable utilization of the SAG water resources (art. 3º). Equitable and reasonable utilization principle (art. 3º and 4º). Obligation of not causing significant harm to the other Parties or the environment (art. 3º, 6º and 7º). States shall act in agreement with the principles and norms of applicable international law (art. 5º). Cooperation (arts. 12, 13 e 14).
Procedural rules	Exchange technical information about studies, activities and works (art. 8º). Obligation to inform and exchange data on planned measures that may have transboundary effects on the GAS, including results from an evaluation of environmental effects (art. 9º). Duty to provide the appropriate data and information required by other Party or Parties in the case of planned measures (art. 10). Cooperation programs to extend scientific and technical knowledge over the GAS (art. 12) Identification of critical areas, especially boundary areas (art. 14).
Institutional mechanisms	The establishment of a commission for the Guarani Aquifer (art. 15). Not implemented
Dispute settlement	Direct negotiations (art. 16, 17 and 18). Arbitration procedure (art. 19) Not implemented.

Life happens over aquifers

Recharge área of the Guarani Aquifer in Ribeirão Preto

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Thanks for your attention!

pilar.villar@unifesp.br

Role of SADC in Transboundary Groundwater Governance

SADC Member States

By: Eng. James Sauramba
Executive Director

GROUNDWATER MANAGEMENT INSTITUTE

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Enabling Instruments for Groundwater Governance in SADC

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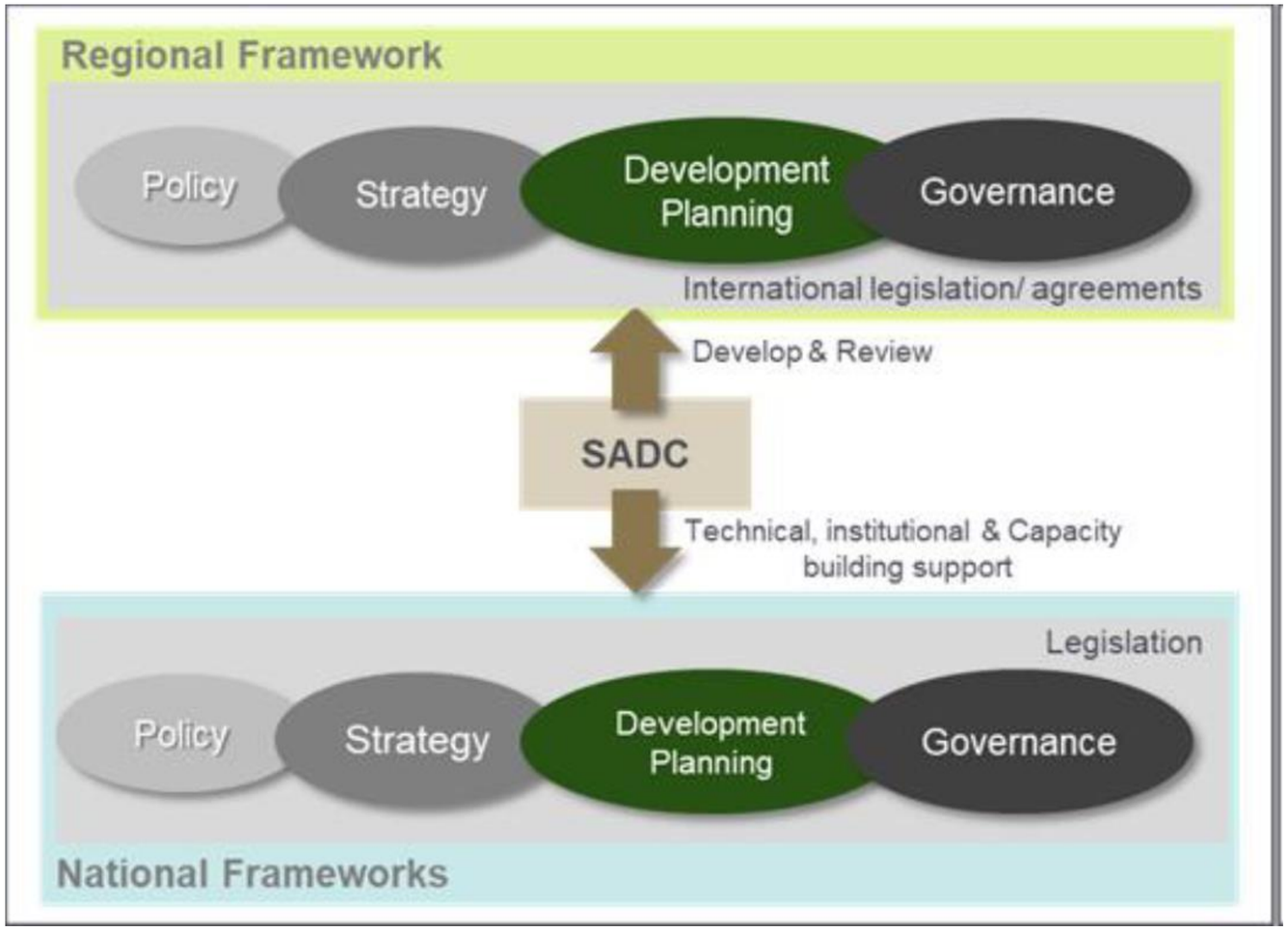

The regional framework consists of:

1. SADC Regional Water **Policy** (2005),

2. SADC Regional Water **Strategy** (2006),

3. SADC Revised **Protocol** on Shared Watercourses (2000 as amended).

4. SADC Regional **Strategic Action Plan** (through various phases of development) and Currently at RSAP V (2021-2025)

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Alignment of SADC Protocol with UN Draft Articles on the Law of Transboundary Aquifers (2008)

Customary international water law principles already embedded in the SADC Protocol:

1. Equitable and reasonable utilization of shared water resources (and the factors that are relevant to weighing such utilization);
2. Obligation not to cause significant harm;
3. General obligation to cooperate in good faith;
4. Obligation to conclude basin/aquifer-specific treaties/institutional management mechanisms;
5. Regular exchange of data/information.

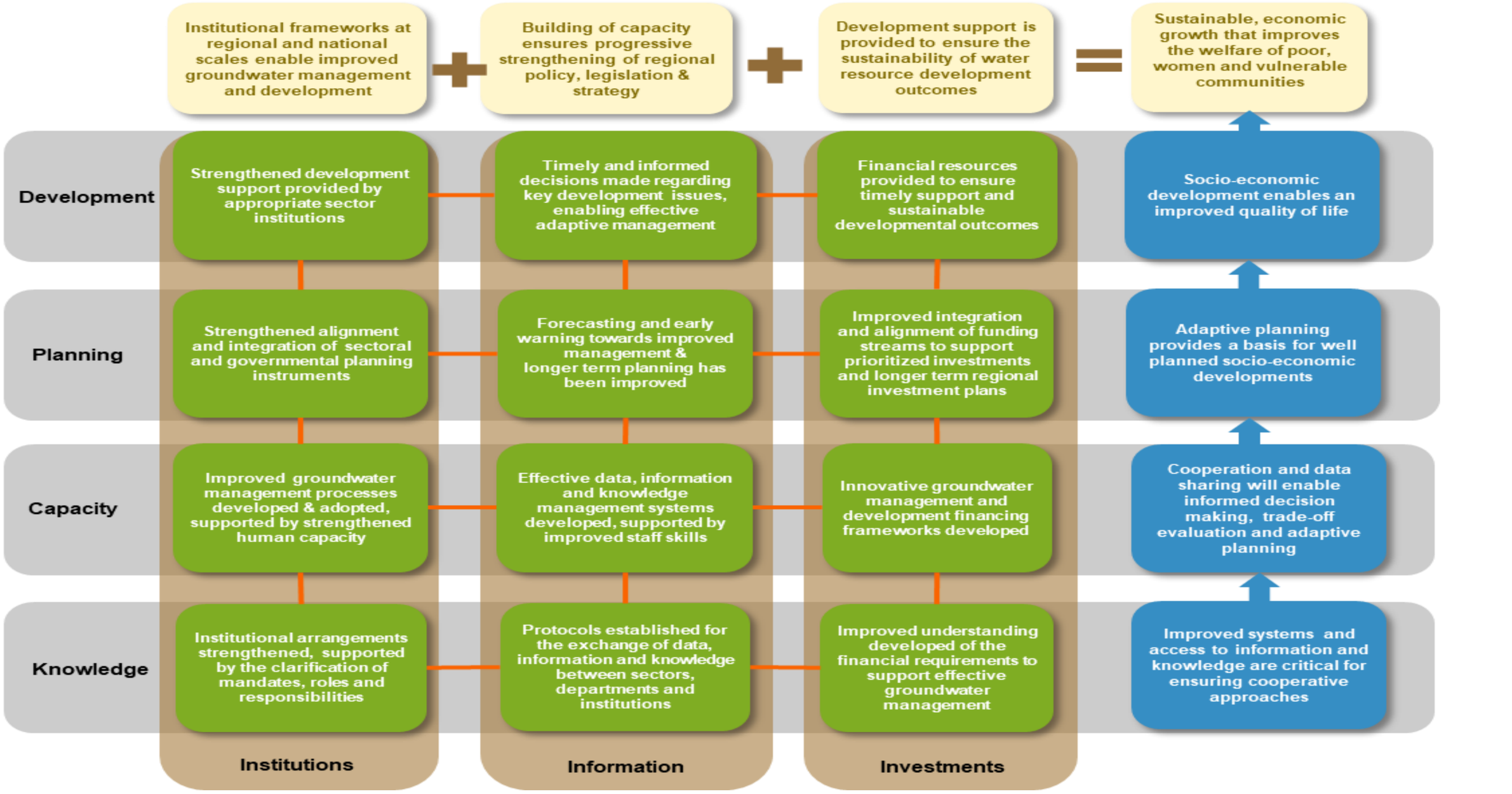
Missing from the Draft Articles:

1. Provision on public participation in the management of shared aquifers
2. Need for gender equity in management of shared aquifers.

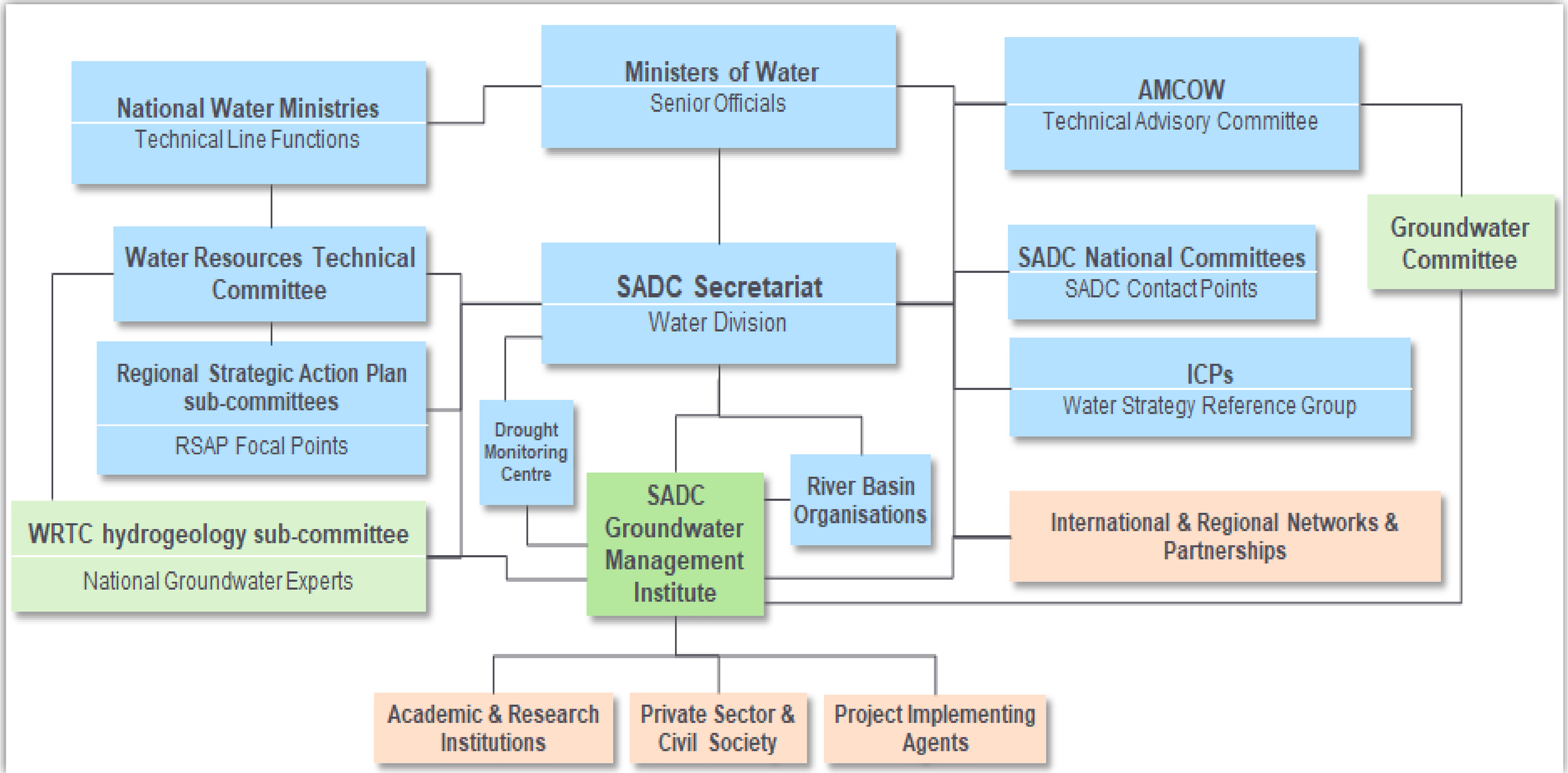
Observations:

1. Although major principles outlined in Draft Articles are already in SADC Protocol, many still require further contextualisation to meet the needs of a sound shared groundwater governance regime.
2. Draft Articles do not represent the state of international law of transboundary aquifers but remain a codification of proposed concepts and principles that have not yet been vetted by the international community (Eckstein, 2017)

Theory of Change for Strengthening GW Governance in SADC



Institutional Landscape for GW Governance in SADC



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Thanks to all the speakers & participants!

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