

“WATER, WATER EVERYWHERE, NOR ANY DROP TO DRINK”:  
AN EXPLORATION OF THE LACK OF A  
FORMAL GLOBAL WATER GOVERNANCE REGIME

A Thesis  
Presented to the Faculty  
of  
The Fletcher School of Law and Diplomacy

By  
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In partial fulfillment of the requirements for the  
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#### **The Global College, Long Island University**

**Southampton, NY, USA**

- B.A. in Interdisciplinary Studies: May 1999
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### PROFESSIONAL EXPERIENCE

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#### **Ministry of Foreign Affairs, Hungary/World Water Council**

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Secretariat of the Budapest Water Summit Drafting Group (Part-time) *June – October 2013*

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#### **United Nations Economic Commission for Europe (UNECE)**

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Coordinator, Water Resources Management Stream

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Thematic Consultation on Water, Post-2015 Development Agenda

- Worked with and coordinated 25 partner organizations for the Water Management Stream of the Thematic Consultation on Water
- Organized and provided substance material for the two-day meeting "Post-2015 Development Agenda Consultation on Water" with over 200 participants from international organizations, civil society, the private sector and representatives from 60 governments, including ministers
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#### **Secretariat of the International Forum Committee (6<sup>th</sup> World Water Forum) Marseille, France**

Political Process Coordinator

*April 2011 – May 2012*

- Coordinated the Political Process of the 6<sup>th</sup> World Water Forum with a particular focus on the Ministerial Process
- Acted as the interlocutor between civil society, private sector, international

organizations and the Political Process

- Coordinated with the other processes of the Forum (Regional and Thematic)
- Drafted initial document and evolving versions of the Ministerial Declaration
- Conceptualization of the terms of reference of all high-level events at the Forum
- Oversaw and coordination of 12 High Level Roundtables (ministerial level), a Water Debate, 6 Trialogues and a High Level Panel
- Served as the IFC focal point for the Opening Ceremony and all high-level events on the first day of the Forum, having to work in conjunction with, inform and coordinate with the Office of the President of France and his invited VIPs, including heads of state
- Managed a budget and small team for the Political Process

**UNESCO International Hydrological Programme (IHP)**

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IHP Water Portal Editor

*April 2007 – December 2011*

- Content editor of the UNESCO-IHP Water Portal and Newsletter

**Comisión Nacional del Agua (CONAGUA)**

**Cancún, Mexico**

Consultant

*November – December 2010*

- Coordinated Synthesis Team for the Dialogs for Water and Climate at the 16<sup>th</sup> Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC)
- Worked with Synthesis Team members to produce the political messages that were the output of the Dialogs for Water and Climate
- Provided input to and aided in the coordination of the High-Level Panel on Water and Climate

**Organization of American States (OAS)**

**Washington, DC, USA**

Consultant

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- Provided technical and operational support to the SAP-Bermejo Project
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**UNESCO International Hydrological Programme (IHP)/  
World Water Council**

**Paris, France**

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5<sup>th</sup> World Water Forum Political Process Coordinator

*April 2007 – May 2009*

- Acted as political advisor to the World Water Council Co-Chair of the 5<sup>th</sup> World Water Forum Political Process Committee (PPC)
- Coordinated Ministerial, Parliamentary and Local Authorities' Political Processes of the 5<sup>th</sup> World Water Forum
- Conceptualized and proposed the Istanbul Water Consensus to the 5<sup>th</sup> World Water Forum Political Process Committee
- Wrote first draft of the Istanbul Water Guide and managed the drafting of the Ministerial Statement that was developed through a Preparatory Committee Meeting (PrepCom) negotiation series
- Liaised with 100+ governments, Regional and Thematic/Topic Coordinators of the 5<sup>th</sup> World Water Forum for their contributions to the Political Process
- Coordinated the active participation of stakeholders in the Political Process of the 5<sup>th</sup> World Water Forum

**Universities Partnership for Transboundary Waters,  
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Consultant

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- Coordinated international hydrodiplomacy conferences in Oregon, Costa Rica and Italy
- Researched and wrote case studies and theory related to transboundary waters
- Coordinated the organization of young professionals in the field of transboundary waters with the future goal of forming a young professionals' association

**UNESCO Centre for Water Law, Policy and Science**

**Dundee, Scotland**

Research Associate

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- Conducted legal research on the Brahmaputra, Tajo, Danube and Se San River basins for Striver and TwinBasin projects

**Peipsi Center for Transboundary Cooperation**

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Intern

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- Analyzed and critiqued the UNDP/GEF project "Development and Implementation of the Lake Peipsi/Chudskoe Basin Management Program", a two-year program designed to create an international water management plan for the basin

**RESOLVE, Inc.**

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Dispute Resolution Associate

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- Assisted Senior Mediators and Facilitators in all aspects of public policy dispute resolution work including mediation, facilitation, training, research projects, outreach, marketing and business development

**Pike Interagency Hotshot Crew (United States Forest Service)**

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Wildland Firefighter

*2001 – 2002*

- Worked in a team of twenty crew members to carry out initial attack fire suppression activities, fireline construction, burnout operations, engine and pump operations, tree-felling and holding/mop-up/patrol operations

**Fulbright Fellowship**

**La Paz, Bolivia**

Fellow

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- Conceptualized and designed international conference to explore opportunities for Peru and Bolivia to collaborate on the management of Lake Titicaca
- Worked with the Bi-national Lake Titicaca Authority and the Specialized Center for Political and Environmental Law (CEDPA), a local NGO, to ensure optimal design and stakeholder participation

**Israel/Palestine Center for Research and Information (IPCRI)**

**Jerusalem, Israel**

Intern

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- Initiated research on the Israeli-Palestinian Joint Water Committee to help improve dialogue between Israelis and Palestinians with regards to the ongoing dispute
- Conducted interviews with major Israeli, Palestinian and international stakeholders and actors involved in the water management in the region
- Reviewed literature of the Israeli-Palestinian water dispute and transboundary water cooperation

**Instituto Internacional de Derecho y Medio Ambiente****Barcelona, Spain**

Research Associate

*Summer 1998*

- Created socio-economic and ecological diagnostic tool of shared water basins between Portugal and Spain. The diagnostic was used as foundation for a bilateral sustainable management plan

**Centro de Economía y de Legislación del Agua y Ambiente****Mendoza, Argentina**

Intern

*Spring 1998*

- Conducted study of regulatory entity preparation prior to privatization of water services in the Province of Mendoza

**Centro de Información y Formación para el Ordenamiento Territorial****Mendoza, Argentina**

Intern

*Fall 1997*

- Carried out study of environmental and social impacts of proposed Proyecto Hipocampo, an urbanization project for an aqueduct running from the río Mendoza to the unpopulated piedmont area above the city of Mendoza

**Instituto de Ecología Política****Santiago, Chile**

Research Associate

*Summer 1997*

- Created indicators of the maintenance of green areas in lower socioeconomic areas of Santiago de Chile

**East Hampton Town Department of Natural Resources****East Hampton, NY, USA**

Intern

*Fall 1996*

- Conducted biological inventory of species in the bays of the Town of East Hampton, NY using Geographic Information Systems (GIS)

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**PUBLICATIONS**

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Kanwar, Shalini, Ashim Das Gupta and **Joshua Newton** (2009). "Background on the Concepts of Vulnerability and Resilience as Applied to the South and Southeast Asian Regions." In *Hydropolitical Vulnerability and Resilience along International Waters: Asia*. United Nations Environment Programme (UNEP) and Oregon State University.

Meier, Patrick and **Joshua Newton** (2005). Reviewed "Coping with Extreme Climate Events" for *Science & Culture special issue* on Flood Disaster Risk Reduction in Asia.

Najam, Adil et al. (2005). "Negotiating Simulation on Global Forest Management and Conservation". United Nations Institute for Training and Research (UNITAR), Geneva. Co-authored as part of a writing team led by Prof. Adil Najam.

**Newton, Joshua** (2013). "Amazon Basin". In Loures, Flavia and Alistair Rieu-Clarke (Eds.), *The UN Watercourses Convention in Force: Strengthening International Law for Transboundary Water Management*. London: Routledge.

**Newton, Joshua** (2008). "Hydropolitical Vulnerability of South America's International Water Resources." In *Hydropolitical Vulnerability and Resilience along International Waters: Latin America*. United Nations Environment Programme (UNEP), Oregon State University and CEMEDE.

**Newton, Joshua** (2008). "Book Review: El otro lado del río: Ambientalismo y política entre uruguayos y argentinos." *Americas Quarterly*, Winter 2008.

**Newton, Joshua** (2006). "Stakeholder Participation in Transboundary Water Management: The North American Great Lakes System." In Earle, Anton and Daniel Malzbender (Eds.), *Stakeholder Participation in Transboundary Water Management - selected case studies*. Inwent and ACWR, Cape Town. Available online at: [http://www.acwr.co.za/pdf\\_files/06.pdf](http://www.acwr.co.za/pdf_files/06.pdf)

**Newton, Joshua** (2006). "Visions of the future: the management of the Lake Peipsi/Chudskoe". In Roll, Gulnara (Ed.), "From cross-border to transnational cooperation – experiences of cooperative initiatives by Estonian organisations in Russia and other CIS countries." Peipsi Center for Transboundary Cooperation. Available online at: [http://www.ctc.ee/pub/Peipsi\\_Forum\\_2005\\_report\\_ENG.pdf](http://www.ctc.ee/pub/Peipsi_Forum_2005_report_ENG.pdf)

**Newton, Joshua** and Aaron Wolf (2008). "Annex: Case Studies." In Delli Priscoli, Jerome and Aaron Wolf, *Managing and Transforming Water Conflicts*. International Hydrology Series, Cambridge University Press.

**Newton, Joshua** and Aaron Wolf (2006). "Sharing Water, Sharing Benefits Developments in International Waters 2003-2005." In *The 2<sup>nd</sup> World Water Development Report: Water, A Shared Responsibility*, United Nations Educational, Scientific and Cultural Organization UNESCO, Berghahn Books.

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## COURSES TAUGHT

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- "Elements of International Environmental Policy". United Arab Emirates Diplomatic Training Program. Fletcher School of Law and Diplomacy, Tufts University, November 2008.

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## PERSONAL

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- Languages: Spanish (Bilingual), French (Advanced)
- Interests: Mountaineering/hiking, travel, reading

## **Abstract**

Global water governance<sup>1</sup> has only recently emerged as a focus of study. This is in large part due to a lack of recognition of the importance of water at the global level, because historically water has always been dealt with at the local, national and basin levels. Global processes impact water use in basins more today than ever before. Because of globalization, there is increasing mutual interdependencies between states and their water resources and increased competition over resources due to growing populations and economic development. Global water governance will be an important factor in addressing water issues in the future as it has the ability to optimize water resource use through coordination, stewardship and knowledge exchange.

While global water governance exists informally through a patchwork of principles, practice and actors, why does a more formal global water governance regime not exist? Could a more formal global water governance regime help address the emerging global water crisis?

To answer these questions, interviews were conducted with over 130 water professionals from international organizations, governments, NGOs and the private sector, exploring the influence and impacts of events, organizations and issues on the trajectory of global water governance. Through their experiences in and perceptions of the current global water situation, a view emerged of how the world has arrived at the fragmented, piecemeal governance system that exists for water.

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<sup>1</sup> Defined as the “range of political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services, at different levels of society.” Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, “Governance and the Global Water System: A Theoretical Exploration,” *Global Governance* 14 (2006).

Water, a means to many ends, is not an easy resource to govern because it serves many purposes and does not respect political borders yet is viewed by many as a key to national security. Issues of sovereignty and competition, both at international and organizational levels, dominate the water community and combined with the complex nature of water, lack of leadership and how water has been dealt with through a sectoral approach, the world has yet to come together in a cohesive, coordinated manner to address the emerging global water crisis.

A qualitative analysis of the interviews showed that water governance at the global level should not aim to create a single UN agency for water or a global water convention, but to “enhance the patchwork” through capitalizing on the increasing convergence and coordination in the water community and on key issues and priorities that has occurred through the Post-2015 Development Agenda process, that can lead to a flexible, comprehensive governance framework that optimizes action amongst myriad actors.



## **Acknowledgements**

I would first like to acknowledge my friends. Without them, during the ups and downs of the past eight years (yes, that long), this doctorate would have not been possible. Thank you for all the jokes, the ribbing, the couches slept on, the wonderful companionship and full-fledged support. A PhD is a solitary process, but I did not feel alone.

The only reason I am where I am today, in my professional and academic careers, is because of so many great mentors I've had over the years. I feel truly blessed in this regard. Their willingness to spend time with a young student and mentee and pass along their wisdom and experience has made me the professional I am today and has encouraged me to do the same with the younger generation. These mentors are, in the order they appeared in my life, Bernardo Reyes, Peter Thomas, Gershon Baskin, Aaron Wolf, Shane Greer, Bill Moomaw, Adil Najam, Andras Szöllösi-Nagy, Daniel Zimmer, Francois Lacroix and Francesca Bernardini.

I would also like to thank my water colleagues, my water community. Finally, you can stop asking me coyly about the progress of my PhD and I can join your ranks full-time now. Your support has been so welcome and I look forward to working with you for the decades to come. There is definitely enough work to do.

Amongst my water community, and beyond, are those that I interviewed for this thesis. Doing so was an amazing experience and I very much thank you for your open and honest answers and the trust you put in me with your responses. Even though your answers were often depressing, it gives me hope that we have such people working towards solving the water problems of the present and the future.

I would mostly like to thank my PhD committee for their patience (see timeframe above). I never felt pressured, only supported, no matter how many distractions, good and bad, crossed my path in leading me to this final document. It was a pleasure to work with you.

I could not have finished as quickly as I did without those who helped me transcribe my interviews. A specific shout-out goes to my good friend Christine Kozobarich, who transcribed the lion's share of the interviews. A shout-out to those who helped me proofread the thesis as well. My English could use some work.

Finally, I'd like to thank my mother. Without her courage and confidence in letting her reserved teenage boy out the door to gallivant around the world, most of my life's achievements up until now would have never happened.

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## Bibliography

## Annex I

## Abbreviations

ACC	Administrative Committee on Coordination
AMCOW	African Ministers' Council on Water
CBD	Convention on Biological Diversity
CEB	Chief Executives Board
ECOSOC	Economic and Social Council
EU	European Union
FAO	Food and Agricultural Organization
GEF	Global Environment Facility
GWI	Global Water Initiatives
GWP	Global Water Partnership
GWSP	Global Water Systems Project
IAHR	International Association for Hydro-Environment Engineering and Research
IAHS	International Association of Hydrological Sciences
ICID	International Commission on Irrigation and Drainage
ICOLD	International Commission on Large Dams
ICWE	International Conference on Water and the Environment
IHA	International Hydropower Association
IIL	Institute for International Law
ILA	International Law Association
ILC	International Law Commission
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IRBM	Integrated River Basin Management
ISGWR	Inter-Secretariat Group for Water Resources
IUCN	International Union for Conservation of Nature
IWA	International Water Association
IWMI	International Water Management Institute
IWRA	International Water Resources Association
IWRM	Integrated water resources management
MDG	Millennium Development Goals
MPAP	Mar del Plata Action Plan
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the High Commissioner for Human Rights
SADC	Southern African Development Community
SBSTA	Subsidiary Body for Scientific and Technological Advice
SEI	Stockholm Environment Institute
SIDS	Small Island Developing States
SIWI	Stockholm International Water Institute
TNC	The Nature Conservancy
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCSD	United Nations Commission on Sustainable Development

UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
UNSGAB	United Nations Secretary General's Advisory Board on Water and Sanitation
UNWC	United Nations Watercourses Convention
WASH	Water, sanitation and hygiene
WB	World Bank
WBCSD	World Business Council on Sustainable Development
WCD	World Commission on Dams
WCED	World Commission on Environment and Development
WEF	World Economic Forum
WHO	World Health Organization
WMO	World Meteorological Organization
WRG	Water Resources Group
WSSCC	Water Supply and Sanitation Collaborative Council
WSSD	World Summit on Sustainable Development
WWAP	World Water Assessment Programme
WWDR	World Water Development Report
WWC	World Water Council
WWF	World Wildlife Fund



## Chapter 1 Introduction

### 1.1 Context

One of the most popular phrases that politicians use when talking about water is that “water is life.” While it is true that there is no life, human or otherwise, without water, the statement ends up serving as a “lowest common denominator” – spoken, but rarely acted upon. No one can argue with this statement, yet there has been little commitment associated with it either.

If politicians and decision-makers actually acted in a way commensurate to the value of water for life, livelihoods and the environment, neither this thesis, nor the combined existing efforts of people and organizations around the world would need to raise awareness both among decision-makers and the public who use water on a daily basis. Millions of people would not be dying each year from water-borne diseases and water-related natural disasters. Girls and women would not have to walk an average of 6 km a day to retrieve water for domestic use instead of going to school and using their time in another way such as being employed. Pithy adages aside, the overarching context within which water sits on the international agenda today is this: water has not been a priority.

Water *is* life, but water is *for* life as well. This concept goes beyond what is necessary for living beings to survive physiologically, but also for the livelihoods of people and habitat for flora and fauna. There is even a United Nations Decade named “Water for Life.”<sup>2</sup> The centrality of water for life is unmistakable.<sup>3</sup> Water is

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<sup>2</sup> “International Decade for Action, “Water for Life”, 2005–2015.” United Nations, 2003.

<sup>3</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), 216.

critical for food and energy security,<sup>4</sup> health<sup>5</sup> and economic growth;<sup>6</sup> it is a key precondition in development and poverty reduction,<sup>7</sup> underpins sustainable development,<sup>8</sup> adaptation and resilience to climate change<sup>9</sup> and environmental

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<sup>4</sup> Global Water Partnership, "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda," *The World We Want* (2013), 3; GWSP, *The Global Water System Project*, ESSP Report No. 3, GWSP Report No. 1, February, 2005, 47; Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, "Introduction: Global Water Governance," *Global Governance* 14 (2008): 405; Mark W. Rosegrant, Ximing Cai and Sarah A. Cline, *Global Water Outlook to 2025: Averting and Impending Crisis*, International Food Policy Research Institute and International Water Management Institute, Food Policy Report, September 2002, 1; United Nations, *SEEA-Water: System of Environmental-Economic Accounting for Water* (New York: United Nations, 2012), 1; and WWAP, *The United Nations World Water Development Report 3: Water in a Changing World* (London: Earthscan/UNESCO Publishing 2009), 6.

<sup>5</sup> Bryson Bates, Zbigniew Kundzewicz, Shaohung Wu and Jean Palutikof, eds., *Climate Change and Water*, Intergovernmental Panel on Climate Change Technical Paper VI (Geneva: IPCC, 2008), 67; Roberto Lenton, Albert M. Wright and Kirsten Lewis, "Health, dignity, and development: what will it take?" UN Millennium Project Task Force on Water and Sanitation (London: Earthscan, 2005), 1; and Claudia Pahl-Wostl et al, "Introduction: Global Water Governance," 405.

<sup>6</sup> Alfred M. Duda and Mohamed T. El-Ashry, "Addressing the Global Water and Environment Crises through Integrated Approaches to the Management of Land, Water and Ecological Resources," *Water International* 25, no. 1 (2000): 115; GWSP, *The Global Water System Project*, ESSP Report No. 3, GWSP Report No. 1, February, 2005, 47; Roberto Lenton et al, "Health, dignity, and development: what will it take?" 19; and 2030 Water Resources Group, *The Water Resources Group: Background, Impact and the Way Forward*, Briefing report prepared for the World Economic Forum Annual Meeting 2012 in Davos-Klosters, Switzerland, January 26, 2012.

<sup>7</sup> Global Water Partnership, "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda," 7; UNDP, *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis* (New York: Palgrave Macmillan, 2006), 2; United Nations, *SEEA-Water: System of Environmental-Economic Accounting for Water*, 1; WWAP, *The United Nations World Water Development Report 2: Water, a Shared Responsibility* (Paris: Berghahn Books/UNESCO Publishing, 2006), 6; and Gordon J. Young, James C.I. Dooge and John C. Rodda, *Global Water Resource Issues* (Cambridge: Cambridge University Press, 2004), 11-12.

<sup>8</sup> Global Water Partnership, "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda," *The World We Want* (2013), 11; Miguel Solanes and Andrei Jouravlev, *Water governance for development and sustainability*, Economic Commission for Latin America and the Caribbean (ECLAC), Serie recursos naturales e infraestructura No. 111, Santiago, Chile, June 2006, 8-9; UNDESA-UNDP, *TST Issues Brief: Water and Sanitation*, Technical Support Team, Post-2015 Development Agenda, May, 2013, 1; United Nations, *The future we want*, Outcome of the Rio+20 United Nations Conference on Sustainable Development, A/CONF.216/L.1, June 19, 2012, 23, paragraph 19; and WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), viii.

<sup>9</sup> Erica Brown Gaddis, Paul Roger Glennie, Yi Huang and Walter Rast, "Chapter 4: Water," in *Global Environment Outlook 5: Environment for the Future We Want*, UNEP (Malta: UNEP, 2012), 100; 2030 Water Resources Group, *The Water Resources Group: Background, Impact and the Way Forward*, 17; and WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk*, 29.

sustainability and ecosystem services.<sup>10</sup> Water has no substitute or replacement, which therefore makes it a limiting factor for, well, everything.

Water resources are not simply impacted by other problems such as climate change, energy, food supplies and prices and financial markets;<sup>11</sup> but also if a water crisis occurs, it immediately precipitates crises in those other areas as well. Water can be a potential solution to bring stability to these other sectors. It is the only medium through which major global crises (food, energy, health, climate change, environmental degradation and economy) can be jointly addressed.<sup>12</sup> Water is a means to almost everything, but not an end unto itself.<sup>13</sup>

It would take several pages of footnotes to cite every reference that mentions that there is an emerging “global water crisis.” The only point of contention with regards to this idea is whether it is already happening or not. It is true that the future is not a promising one. In “Charting our Water Future,” the newly formed Water Resources Group cites how, by the year 2030, demand for freshwater will outreach supply by 40 percent,<sup>14, 15</sup> “placing water, energy and food security at risk, increasing public health costs, constraining economic development, leading to social

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<sup>10</sup> Erica Brown Gaddis et al, “Chapter 4: Water,” 98; Roberto Lenton et al, “Health, dignity, and development: what will it take?” 3; Claudia Pahl-Wostl et al, “Introduction: Global Water Governance,” 405; Mark W. Rosegrant et al, *Global Water Outlook to 2025: Averting and Impending Crisis*, 3; and WWAP, *The United Nations World Water Development Report 2: Water, a Shared Responsibility*, 159.

<sup>11</sup> WWAP, *The United Nations World Water Development Report 3: Water in a Changing World*, 3

<sup>12</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk*, 1

<sup>13</sup> Interview Nos. 505 and 763

<sup>14</sup> 2030 Water Resources Group, *Charting our Water Future: Economic frameworks to inform decision-making* (2009), 6.

<sup>15</sup> Note: In practice, this cannot actually happen. Use can never exceed 100% of supply. The primary issue is the closer the demand reaches supply, the more stressed the situation becomes, including death, displacement and environmental degradation.

and geopolitical tensions and causing lasting environmental damage.”<sup>16</sup> It is a worrying picture, even if the precise figures and predictions are off their mark. In the 20<sup>th</sup> Century, water use already outpaced population growth by a factor of two.<sup>17</sup> Ultimately, water supply and demand will be dictated by global-scale changes in population and economic development much more than a changing climate.<sup>18</sup>

In 1989, renowned Swedish hydrologist Malin Falkenmark developed what is called the Water Stress Indicator<sup>19</sup> where countries’ levels of water stress are measured in how much water availability they have per capita per year. A measurement of 1,700 m<sup>3</sup>/per capita/year or below marks a country that is “water stressed.” Below 1,000 m<sup>3</sup>/per capita/year is considered “absolute water scarcity.”<sup>20</sup> According to UN-Water, by 2025, 1.8 billion inhabitants around the globe will live under “absolute water scarcity” and roughly two-thirds of the world’s population will reside within “water stressed” conditions.<sup>21, 22</sup>

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<sup>16</sup> SIWI, *The Stockholm Statement to the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro (Rio+20 Summit)*, Stockholm World Water Week, 21-27 August, 2011.

<sup>17</sup> FAO, *Coping with water scarcity: An action framework for agriculture and food security*, FAO Water Reports No. 38 (Rome: FAO, 2008), ix.

<sup>18</sup> Charles J. Vörösmarty, Pamela Green, Joseph Salisbury and Richard Lammers, “Global Water Resources: Vulnerability from Climate Change and Population Growth,” *Science* 289, no. 5477 (July 14, 2000): 285.

<sup>19</sup> The term “Water Stress Index” is also used interchangeably with “Water Stress Indicator.”

<sup>20</sup> Malin Falkenmark, Jan Lundquist and Carl Widstrand, “Macro-scale Water Scarcity Requires Micro-scale Approaches: Aspects of Vulnerability in Semi-arid Development,” *Natural Resources Forum*, Vol. 13, No. 4 (1989): 258–267.

<sup>21</sup> UN-Water, *Coping with Water Scarcity: A strategic issue and priority for system-wide action*, UN-Water Thematic Initiatives (August, 2006), 2.

<sup>22</sup> Note: While the Water Stress Index is good in terms of an indicator, it is still limited as to demonstrating the true situation on the ground. Many factors contribute to a country’s water endowment that are not included in this figure, including water coming from outside a country’s borders, climate variability, the degree of intensity of agriculture and the level of economic development of the country.

Some have described our global water situation as a “hydro-climatic time bomb.”<sup>23</sup> The planetary boundary for freshwater use is estimated at 4,000 km<sup>3</sup>/year. In 2009, freshwater usage clocked in at 2,600 km<sup>3</sup>/year, but according to Johan Rockström and colleagues who developed the planetary boundary concept, the remaining threshold for water may be “largely committed already to cover necessary human water demands in the future,” such as irrigation for food production.<sup>24</sup> And while there may be a planetary boundary for water, inefficiencies in the world’s social, economic, water management and political systems would not allow for us to use 4,000 km<sup>3</sup>/year in an optimal manner.

Already there is growing competition among users for water<sup>25</sup> caused by water demand for human activities,<sup>26</sup> increased contamination of water resources<sup>27</sup> and climate change. Human activities such as agriculture and industry, along with human development and economic growth, are the primary driver affecting the planet’s water systems,<sup>28</sup> which has “weakened the ability of aquatic ecosystems to perform essential functions, which is compromising human well-being and sustainable development.”<sup>29</sup> Looking at this concept from the other side, the 2006

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<sup>23</sup> Harriet Bigas, ed., *The Global Water Crisis: Addressing an Urgent Security Issue*, Papers for the InterAction Council (Hamilton, Ontario: UNU-INWEH, 2012), 15.

<sup>24</sup> Johan Rockström, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart III Chapin, Eric Lambin, Timothy M. Lenton, Marten Scheffer, Carl Folke, Hans Joachim Schellnhuber, Björn Nykvist Cynthia A. de Wit, Terry Hughes, Sander van der Leeuw, Henning Rodhe, Sverker Sörlin, Peter K. Snyder, Robert Costanza, Uno Svedin, Malin Falkenmark, Louise Karlberg, Robert W. Corell, Victoria J. Fabry, James Hansen, Brian Walker, Diana Liverman, Katherine Richardson, Paul Crutzen and Jonathan Foley, “Planetary boundaries: exploring the safe operating space for humanity,” *Ecology and Society* 14, no. 2 (2009).

<sup>25</sup> UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management* (United Nations Environment Programme, 2012), vi.

<sup>26</sup> Erica Brown Gaddis et al, “Chapter 4: Water,” 100

<sup>27</sup> United Nations, *SEEA-Water: System of Environmental-Economic Accounting for Water*, 137

<sup>28</sup> WWAP, *The United Nations World Water Development Report 3: Water in a Changing World*, 29

<sup>29</sup> UNEP, *Challenges to International Waters: Regional Assessments in a Global Perspective*, The Global International Waters Assessment (GIWA) Final Report, 2006, 7.

Human Development Report, which focused on water, states very strongly: “water insecurity does pose a threat to human development.”<sup>30</sup>

This threat to human security cannot be seen more clearly than in the reality of access to safe drinking water and basic sanitation. Even after the International Drinking Water Supply and Sanitation Decade from 1981 to 1990<sup>31</sup> and the push for the Millennium Development Goals (MDGs) on water and sanitation<sup>32</sup>, which started in the year 2000, there are still 768 million people worldwide without access to improved water sources.<sup>33</sup> From 1990 to 2011, more than 2.1 billion people gained access to improved water sources, which means that the MDG for drinking water was met. To count this as a success, however, is slightly misleading, because while 2 billion people may have gained access to improved sources, there is no assessment of the quality of the water. It is estimated that 2 billion still do not have access to continuous, safe drinking water.<sup>34</sup>

In the realm of sanitation, the numbers are even more sobering. Approximately 2.5 billion people worldwide still do not have access to basic sanitation.<sup>35</sup> Open defecation is still standard practice for more than 1 billion

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<sup>30</sup> UNDP, *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis*, 13

<sup>31</sup> United Nations, *Resolution 35/18 – Proclamation of the International Drinking Water Supply and Sanitation Decade*, 55<sup>th</sup> Plenary meeting of the United Nations General Assembly, November 10, 1980.

<sup>32</sup> United Nations, *Goal 7: Ensure Environmental Sustainability* (accessed October 22, 2013); available from <http://www.un.org/millenniumgoals/envIRON.shtml>.

<sup>33</sup> WHO-UNICEF, *Progress on Sanitation and Drinking Water: 2013 Update*, Joint Monitoring Programme, 2013, 8. The definition of an “improved” water source, per the Joint Monitoring Programme, includes (1) piped water into dwelling, (2) piped water into yard/plot, (3) public tap or standpipe, (4) tubewell or borehole, (5) protected dug well, (6) protected spring or (7) rainwater (collected or harvested).

<sup>34</sup> United Nations, *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development*, The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda (New York: United Nations, 2013), 42.

<sup>35</sup> WHO-UNICEF, *Progress on Sanitation and Drinking Water: 2013 Update*, 4

people, or 15 percent of the global population.<sup>36</sup> The sanitation MDG target remains one that is most off track.

While the number of diarrhea-related deaths has gone down significantly in the past decade, more than 760,000 children die every year from this easily treatable disease.<sup>37</sup> In the poignant words of the United Nations Environment Programme, this is equivalent to 5 Boeing 747s crashing every day for a year, full of children.<sup>38</sup> As one interviewee stated, “It should be a national shame and disgrace if you don’t have 24/7 water supply.”<sup>39</sup>

Why are such figures not in the news every night? More children die from water-borne diseases in any given year than all war-related deaths around the world. “No act of terrorism has generated economic devastation on the scale of the crisis in water, yet the issue barely registers on the international agenda.”<sup>40</sup> The reality is that global water issues remain “unresolved, under-appreciated and under-addressed by governments, the public, corporations, and water managers.”<sup>41</sup>

Given the above, without a doubt there is a looming, creeping water crisis. For the many around the world who suffer on a daily basis from lack of water and sanitation or are vulnerable to water-related natural disasters, who often do not have a voice in public policy circles to address their concerns, the crisis is already happening and has been for some time.

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<sup>36</sup> Ibid., 6

<sup>37</sup> WHO, *Diarrhoeal disease*, (accessed October 22, 2013); available from [www.who.int/mediacentre/factsheets/fs330/en/](http://www.who.int/mediacentre/factsheets/fs330/en/).

<sup>38</sup> UNEP, *Water – In the Transition to a Green Economy: A UNEP Brief* (2009). Adapted for updated numbers of child deaths based on Footnote 33.

<sup>39</sup> Interview No. 276

<sup>40</sup> UNDP, *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis*, 3

<sup>41</sup> Peter H. Gleick and Jon Lane, “Large International Water Meetings: Time for Reappraisal,” *Water International* 30, no. 3 (2005): 410.

Is there enough water for everyone on the planet? Yes. We have not yet reached the planetary boundary for water.<sup>42</sup> There is a problem of water distribution in that where the water falls from the sky is not always, in time and space, evenly distributed for human use.<sup>43</sup> Even with groundwater being a more secure source of water in some places, helping with the distribution issue – falling water tables and polluted aquifers make distribution still a challenge. This difficulty is not to be discounted as moving water in bulk from one place to another – especially between continents – is not easy or cheap. For over a decade, however, the real water crisis has been thought to be one of governance and mismanagement, and not the physical resource itself.<sup>44</sup> Problems with water governance exist at every level, from local to global,<sup>45</sup> and it is necessary to tackle shortcomings at every echelon in order to adequately address the global water crisis. According to the OECD, “Improving public governance by creating supportive legal and institutional frameworks and better managing relations across levels of government is now

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<sup>42</sup> Johan Rockström et al, Planetary boundaries: exploring the safe operating space for humanity”

<sup>43</sup> Peter Rogers, “Facing the Freshwater Crisis,” *Scientific American* 299, no. 2 (2008): 53.

<sup>44</sup> Asit K. Biswas, *Challenging Prevailing Wisdoms*, Stockholm Water Prize Laureate Lecture (Stockholm, 2006). Available from <http://www.thirdworldcentre.org/laureatelecture.pdf>; Global Water Partnership, *Towards Water Security: A Framework for Action* (Stockholm: GWP, 2000), 17; Joyeeta Gupta, “An essay on global water governance research challenges,” in *Principles of good governance at different water governance levels*, eds. Michael R. van der Valk and Penelope Keenan, Papers presented at a workshop held March 22, 2011 in Delft, The Netherlands (2011), 5; Transparency International, *Global Corruption Report 2008: Corruption in the Water Sector* (Cambridge: Cambridge University Press, 2008), xvii; and United Nations, *Report of the High-Level Committee on Programmes at its sixth session*, Chief Executives Board for Coordination, CEB/2003/7, Rome, Italy, September 18-19, 2003 (November 6, 2003), 50.

<sup>45</sup> Janos J. Bogardi, David Dudgeon, Richard Lawford, Eva Flinderbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty, “Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions,” *Current Opinion in Environmental Sustainability* 4 (2012), 35.



considered a prerequisite for sustainable water policy and crucial to achieve water security.”<sup>46</sup>

## 1.2 Notes on this research

### 1.2.1 Terminology

The term “water” can mean many things: saltwater, freshwater, groundwater, etc. For the purposes of this research, this document defines “water” as freshwater, which includes surface water and groundwater. Oceans and saltwater do not fall under the scope of this research, although there are significant and important interactions between freshwater and saltwater, especially in coastal ecosystems. Saltwater and brackish water will also be key in terms of addressing water issues in the future through desalination.

Throughout this document, “water” will also encapsulate both water resources (e.g. river, lakes and aquifers) and water services (e.g. water and sanitation provision), unless otherwise noted. There will be cases when the focus of specific sections and sub-sections will be on either the resource or the services: The difference between the two is important, especially in the case of water governance.

The word “governance” itself is highly contentious. Even the spectrum people who were interviewed for this research had differing definitions of “governance” – and this was true just as much for the general term “governance” as it is for “water governance.”

For the purpose of this research, the definition that will be used is that of Peter Rogers and Alan Hall in a document from the Global Water Partnership in

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<sup>46</sup> OECD, *Water Governance in OECD Countries: A Multi-level Approach*, OECD Studies on Water (Paris: OECD Publishing, 2011), 26.

2003. It is the most referenced definition in the literature and the most used amongst water professionals. Water governance is defined as the “Range of political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services, at different levels of society.”<sup>47</sup>

The term “global water governance” is even more problematic, because it is so new, only having entered the lexicon of water professionals and academics since 2007 – 2008, and is relatively unexamined, both in terms of definition and concept. During the interview process, many experts asked for clarification of the definition of global water governance. The only definition in currently published literature is that of Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry.<sup>48</sup> According to them, global water governance is “the development and implementation of norms, principles, rules, incentives, informative tools and infrastructure to promote a change in behavior of actors at the global level in the area of water governance.”<sup>49</sup>

For the purposes of this document, this is the definition that is used, although there is no universally accepted definition of the term within the water community, so a definition that is widely used may evolve as global water governance becomes more studied. While the GWP definition could be used, as it contains “different levels of society,” the original intention of the definition was not to include global level governance but to target the national and sub-national levels.<sup>50</sup> A more in-

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<sup>47</sup> Peter Rogers and Alan W. Hall, *Effective Water Governance*, Global Water Partnership Technical Committee Background Papers No. 7 (Sweden: Elanders Novum, 2003), 7.

<sup>48</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration.”

<sup>49</sup> Ibid., 422.

<sup>50</sup> Personal communication, Mr. Alan Hall, February 25, 2014

depth perspective on global water governance will be explored in the literature review.

### 1.2.2 Research question

It is an irrefutable fact that water is necessary for all life on the planet. When looking at other environmental issues that the world faces such as air pollution, ozone depletion, desertification, loss of biodiversity, trade in endangered species, climate change, etc., there are very formal global governance regimes that address these issues. While some are more effective and successful than others, these regimes exist and have, in most cases, for more than two decades.

Even though an informal global water governance regime does exist, as will be shown in Chapter 3, but is a piecemeal mix of formal and informal mechanisms with no center of gravity, a formal regime such as those mentioned above does not exist for water.

The focus of this research is to answer the question: Why does a more formal global water governance regime not exist? What has led national governments at the United Nations to avoid a more formal regime and instead create a patchwork of organizations, initiatives and policies that are not coordinated into a meaningful global governance regime? Why is there no general UN Convention on Water? Why is there not an agency within the UN that is dedicated to water?

Why is this question important? As has been mentioned above, there is an emerging global water crisis that many around the world would say has already arrived. The situation is not improving nor will it in the near future. Is it possible that more formal mechanisms of global water governance can help the world

address its water problems? With increasing global interdependencies, is it possible to not have more global governance of water? Should global water governance exist at all?

### 1.2.3 Research design

The main methodological focus of this research was through qualitative interviews with a wide range of actors related to the field of global water governance to uncover the perception of why a more formal global water governance regime does not exist and what influences the trajectory of global water governance. Over the course of 7 months, from July 2012 to January 2013, 137 interviews were conducted with representatives from the United Nations and other international organizations, national governments, civil society, think tanks/academia and the private sector. These specific types of organizations were chosen because they are the major actors that play a role in the existing global water governance regime. A varied representation was attempted both in organization type and the region of origin of the interviewees themselves. With regards to the region of origin, this study relates to global governance, which includes all regions of the world; so all regions should be represented in this research as well.

While this was more successful for the type of organization, regional balance proved difficult, mostly because the majority of representatives from the different types of organizations are European or North American.

The following shows the breakdown between the different types of organization of origin of the interviewees:

Organization type	Number of interviewees	Percentage of total
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Civil society	30	22%
International organization	39	29%
National government	17	12%
Private sector	14	10%
Regional organization	4	3%
Research institute, think tank and academia	33	24%
<b>Total</b>	<b>137</b>	<b>100%</b>

In addition, the following shows a breakdown of where the interviewees were from by region:

<b>Region</b>	<b>Number of interviewees</b>	<b>Percentage of total</b>
Africa	13	9.5%
Asia-Pacific	22	16%
Europe	60	44%
Latin America and Caribbean	13	9.5%
North America	29	21%
<b>Total</b>	<b>137</b>	<b>100%</b>

Of the 137 people that were interviewed, 65 percent came from Western Europe and North America. The other 35 percent were from Africa, Asia-Pacific and Latin America and the Caribbean. The reason for this imbalance is due to the fact that the experts on the subject of international water policy are primarily from Western Europe and North America, even if in positions within organizations, civil society, think tanks, etc. that have an international focus. In addition, most high-level positions in these types of organizations are held by people from those two regions. This does create a bias in terms of the research in that the other three regions are under-represented.

The interviewees were chosen based on their knowledge of the international water policy arena based on both the author's familiarity with those who work in

this community and from recommendations received from other respected sources, including many of the other interviewees themselves. Most of the interviewees were previously known to the author, which, to the author's belief, helped him receive more honest and open responses from the interviewees (at many times the author was surprised at their candor).

All interviews were conducted in confidentiality. Specific quotes of individuals are kept anonymous throughout the text.

The interviews were carried out in three languages (English, Spanish and French) and the majority of the interviews were recorded unless the interviewee did not wish them to be. All recorded interviews were transcribed to conduct the analysis of the research.

Eight questions were asked of each interviewee, which were directly related to the main research question of why it is that the world does not have a more formal global water governance regime. Questions revolved around the influence of certain issues, events and organizations' role in current global water governance, and probed the scope of possible future activities to address issues at the global level that are not already being carried out. A full list of these questions can be found in Annex I.

Several issues arose during the interview process. An overarching one was the issue of bias. For example, if a member of the World Water Council was asked what were the most significant events over the past several decades to influence global water governance and responded: "The World Water Fora," this was taken into account in the analysis, as the World Water Council are co-organizers of the

World Water Fora. It happened on several occasions that rankings of responses were sometimes influenced, either negatively or positively, based on answers given by interviewees with direct interest in or direct knowledge of their organization and/or issue, respectively. This was taken into consideration when analyzing the responses.

An additional difficulty arose when interviewing representatives of national governments. While the author's previous work facilitated access to these representatives, two issues surfaced, both of them pertinent for this research and one of them for the wider international water policy world.

The first challenge was finding representatives who could answer the interview questions. The purpose of finding such interviewees was to get a sense of what national governments believe with regards to global water governance. Obtaining the official view of national governments on global water governance was very difficult. In most cases, the author received the personal opinion of the interviewee as there was no official position on global water governance from the national government. This difficulty was even mentioned explicitly in an interview with a representative from a national government that has participated in global water governance-related discussions in the past.<sup>51</sup> This problem was not anticipated by the author in association with the other types of organizations, because in the end, national governments are the entities deciding on issues of a formal global water governance regime. A national government survey was

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<sup>51</sup> Interview No. 654

attempted, but due to the poor quantity of responses, was not included in this research.

The second issue with regards to national governments is the fact that it is extremely difficult to identify which ministry within a given national government is in charge of water. This is an important consideration, as the coordination and organization of entities addressing water issues at the global level would have to include national governments. Sometimes there is a specific water ministry, but often this is not the case and water is addressed under an environmental, energy or agricultural ministry. Sometimes there is more than one water ministry and often there are a several ministries that deal with water together. Most of the time, the decisions that impact water the most are not made by the ministry in charge of water.<sup>52</sup> Thus, identifying whom, or how many, to interview within a national government is difficult (the same may be said of the challenge of whom to invite to an international conference on water. This issue will also be addressed later on in the research.)

The research interviews were qualitative in nature with no predefined answers provided from which interviewees could select. A hierarchy of responses was made through loosely clustering answers and seeing where they ranked in popularity. The fact that certain answers were given 10 times more often than others has meaning, but the results were not assessed in a quantitative manner. The information is presented in some chapters as most-often mentioned to least. In some cases, there were so many answers to certain questions that some of the

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<sup>52</sup> WWAP, *The United Nations World Water Development Report 3: Water in a Changing World*, xix



responses were grouped to ensure all viewpoints were included. In Chapters 3 and 6, where this was the case, a small section was added to each chapter to present low-frequency responses that nonetheless raised interesting arguments.

#### 1.2.4 The way forward

A few of the interviewees reacted very strongly when asked to discuss global water governance: “Global? Why do we need global?”<sup>53</sup> Chapter 2 will put forth, from documents and the interviews, the case for and against having governance of water at the global level. The question will not be answered in Chapter 2, but the author will give his recommendation on this question in Chapter 8.

Chapter 3 will address the history of global water governance. This will be dealt with in two ways. The first is a timeline of events that comprised the discipline of global water governance since the first global meetings on water in the 1800s. The second is an examination of the results of what interviewees thought were the most important events that influenced the trajectory of global water governance and the discourse of water at the global level.

Organizations play a key role in global water governance, from the United Nations to the World Water Council, to civil society organizations such as the World Wildlife Fund, to businesses such as Nestlé. Chapter 4 will explore the role of organizations in shaping global water governance.

Over the past three decades, there have been several key issues that have not only dominated the discourse within the water community, but also in media outlets. These themes include such topics as dam construction, privatization of

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<sup>53</sup> Interview No. 382

water services and the human right to water and sanitation. Chapter 5 will look at these and other issues and how they have helped or hindered global water governance.

Why is there not a more formal global water governance regime? Chapter 6 will tackle this question, highlighting the major factors that determine why it is that we still do not have a convention on water within the United Nations system nor an organization in the U.N. dedicated to water.

Chapter 7 will present the findings of this research, focusing not only on specific results from the chapter themes, but also looking at cross-cutting answers that emerged from the entirety of the research.

Chapter 8 is a more policy-oriented chapter. Using the interviews, documents and the author's own experience, the author will answer some of the questions posed to the interviewees as well as provide a set of recommendations looking towards the future and suggesting how best to address water issues at the global level. This chapter will also include concluding remarks and thoughts on global water governance.

### 1.3 Literature review

#### 1.3.1 Global governance

James Rosenau was one of the first to put forward the idea of global governance in his book, co-edited with Ernst-Otto Czempiel, when he stated: "Governance is not synonymous with government" and in fact is "more encompassing." He writes that governance "embraces governmental institutions,

but also subsumes informal, non-governmental mechanisms whereby... needs and wants are fulfilled.”<sup>54</sup>

In 1992, just three years after it was established, the United Nations Commission on Global Governance published a report called *Our Global Neighborhood*, which laid the groundwork for furthering the idea of global governance. The report stated that, given that the authority of states had been declining, the effectiveness of intergovernmental institutions in certain areas was not sufficient and there was an increasing amount of interdependence across the globe. The report claimed that these new sources of authority should be harnessed, through the UN, in order to address the challenges faced at the global level.<sup>55</sup>

Around the same time, John Ruggie also started to put forth views on social constructivism and multilateralism, arguing that multilateral norms and institutions, built through social construction, were helping to stabilize a world after the end of the Cold War. He explains that these institutions, due to their multilateral nature, have an increased “durability and ability to adapt to change.”<sup>56</sup> Later, he also suggested that though the UN system was built for a world that primarily dealt with state-to-state interactions, challenges have become more transnational and global in nature. The examples of international friction make this extra-state expansion

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<sup>54</sup> James Rosenau and Ernst-Otto Czempiel, *Governance Without Government: Order and Change in World Politics* (Cambridge: Cambridge University Press, 1992).

<sup>55</sup> Rorden Wilkinson, ed., *The Global Governance Reader*, (London: Routledge, 2005).

<sup>56</sup> John Gerard Ruggie, ed., *Multilateralism Matters: The Theory of Praxis of an Institutional Form* (New York: Columbia University Press, 1993).

obvious, from crime to pollution to the economy; they require a global governance system that is better able to confront these challenges.<sup>57</sup>

Robert Keohane, who has written extensively about institutions, explains that because of an increased number of interactions between institutions and regimes that can be traced to their overlap and proliferation, there is more interdependence at the intergovernmental level.<sup>58</sup> Global governance is a byproduct of these increased interdependencies. Within this structure, states are in a privileged position, because they founded these institutions. Yet they are not the only actors with influence, as NGOs and corporations have increasing roles in the global governance structure.<sup>59</sup> Dingwerth and Pattberg point out this idea, stating, “in essence, global governance implies a multiactor perspective on world politics.”<sup>60</sup> Gordenker and Weiss see global governance “as efforts to bring more orderly and reliable responses to social and political issues that go beyond capacities of states to address individually.”<sup>61</sup>

In his work on “epistemic communities,” Peter Haas extends this idea about how actors outside of governments can influence the actions of governments. Epistemic communities are “networks of knowledge-based experts” that are a factor “in articulating the cause-and-effect relationships of complex problems, helping

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<sup>57</sup> John Gerard Ruggie, “Reconstituting the Global Public Domain – Issues, Actors, and Practices,” *European Journal of International Relations* 10, no. 4 (2004): 499-531.

<sup>58</sup> Robert Keohane, *Power and Governance in a Partially Globalized World* (London: Routledge, 2002).

<sup>59</sup> Robert Keohane, “Global Governance and Democratic Accountability,” in *The Global Governance Reader*, ed. Rorden Wilkinson (London: Routledge, 2005), 120-138.

<sup>60</sup> Klaus Dingwerth and Philipp Pattberg, “Global Governance as a Perspective on World Politics,” *Global Governance* 12 (2006): 191.

<sup>61</sup> Leon Gordenker and Thomas Weiss, “Pluralizing Global Governance: Analytical Approaches and Dimensions,” in *NGOs, the UN, and Global Governance*, eds. Thomas G. Weiss and Leon Gordenker (Boulder: Westview, 1996), 17.

states identify their interests, framing the issues for collective debate, proposing specific policies, and identifying salient points for negotiation,” which help governments move towards cooperation.<sup>62</sup> Their influence comes because of the certain amount of uncertainty that exists surrounding threats that governments do not necessarily have the expertise or knowledge to address, epistemic communities can influence one or more states’ behavior. These communities, in turn, “may influence the behavior of other states, thereby increasing the likelihood of convergent state behavior and international policy coordination.”<sup>63</sup>

These networks or communities that influence states’ and, by extension international, behavior, do not only exist outside of national governments. In some cases, the networks include national governments. One example of such a network is Keck and Sikkink’s “transnational advocacy networks”;<sup>64</sup> another is the “transgovernmental networks.” Transgovernmental networks are made up exclusively of government actors and officials who communicate, share and exchange ideas with their counterparts in other countries.<sup>65</sup>

Private governance is also gaining more attention as a part of the global governance sphere. Participating entities are those not part of the public arena, including non-government organizations and the private sector. Phillip Pattberg finds that two characteristics are “crucial to the concept of private governance institutions: first, they are established among a wide range of private actors from all

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<sup>62</sup> Peter M. Haas, “Introduction: Epistemic Communities and International Policy Coordination,” *International Organization* 46, no. 1 (1992): 2.

<sup>63</sup> *Ibid.*, 4

<sup>64</sup> Margaret E. Keck and Kathryn Sikkink, *Activities Beyond Borders: Advocacy Networks in International Politics* (Ithaca: Cornell University Press, 1998).

<sup>65</sup> Anne-Marie Slaughter, *A New World Order* (Princeton: Princeton University Press, 2004), 10.

segments of transnational society; and second, they function as a mechanism of global governance within the wider context of world politics.”<sup>66</sup>

Rosenau (2000) later published an article that lays out the typology of governance, which he categorizes into six different forms. These categories range from the formal to the informal in terms of structure and the unidirectional to multidirectional relating to processes (see table below). This concept is important for this research as global water governance can be classified as a process that is multidirectional with a mixed of formal and informal structures, also known as “mobius-web” governance.<sup>67</sup>

Table 1: Rosenau’s Governance Typology

		<b>Processes</b>	
		Unidirectional	Multidirectional
<b>Structures</b>	Formal	<i>Top-Down Governance</i> (states, TNCs <sup>68</sup> , IGOs)	<i>Network Governance</i> (states, business, alliances, IGOs)
	Informal	<i>Bottom-Up Governance</i> (mass publics, NGOs, INGOs)	<i>Side-by-Side Governance</i> (NGO and INGO elites, state officials)
	Formal/Informal Mix	<i>Market Governance</i> (states, IGOs, elites, mass publics, TNCs)	<i>Mobius-Web Governance</i> (states, elites, mass publics, TNCs, IGOs, NGOs, INGOs)

<sup>66</sup> Philipp Pattberg, *The Institutionalisation of Private Governance: Conceptualising an Emerging Trend in Global Environmental Politics*, Global Governance Working Paper No. 9, Global Governance Project (May, 2004), 13.

<sup>67</sup> James Rosenau, “The Governance of Fragmentation: Neither a World Republic Nor a Global Interstate System,” *Studia Diplomatica* LIII, no. 5 (2000): 15-39.

<sup>68</sup> Ibid. Abbreviations: IGO (international governmental organizations), INGO (international non-governmental organizations), NGO (subnational/national non-governmental organizations), TNC (transnational corporations).

Rosenau explains that “unidirectional” types of governance are those that have processes that flow in one direction, such as a private company, whereas “multidirectional” processes are those that are “pervaded by nuance, by interactive and multiple flows of influence that may either pass through or by-pass halls of government and thus are too complex and overlapping to justify an essentially unidirectional presumption.”<sup>69</sup> An example of this would be climate change governance.

Dingwerth and Pattberg concur that there are many forms of governance and that global governance “starts from the assumption that a wide variety of forms of governance exist next to each other and that a hierarchy among these various mechanisms is hard, if not impossible to discern,” adding that global governance “captures this plurality of mechanisms that horizontally link activities of various actors.”<sup>70</sup>

Several other theories are linked to global governance, including the work of Stephen Krasner on international regimes, which he defined as a “set of implicit and explicit principles, norms, rules and decision-making procedures around which actor’s expectations converge in a given area of international relations.”<sup>71</sup> However, an overall critique of international regime theory is that it has ignored domestic political processes,<sup>72</sup> because “growing interdependence means that groups at the

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<sup>69</sup> Ibid.

<sup>70</sup> Klaus Dingwerth et al, “Global Governance as a Perspective on World Politics,” 192

<sup>71</sup> Stephen D. Krasner, “Structural Causes and Regime Consequences: Regimes as Intervening Variables,” *International Organization* 36, no. 2 (1982): 186.

<sup>72</sup> Stephan Haggard and Beth A. Simmons, “Theories of international regimes,” *International Organization* 41, no. 3 (1987): 517.

domestic level increasingly have “regime interests”,<sup>73</sup> or national level interests that wish to influence how regimes at the regional and global level are formed.

### 1.3.2 Global environmental governance

The global environmental governance regime, which exists within the sphere of global governance, has spread rapidly since its inception following the United Nations Conference on the Human Environment in Stockholm in 1972 and the creation of the United Nations Environment Programme (UNEP).

Oran Young has written extensively on the topic of global environmental governance within the realm of global governance. Young distinguishes between “governance” and “government”; “governance” being a function of society that manages interdependent groups of individuals and “government” being a construct of formal organizations that creates rules and enforces them. Because of this distinction, he argues against forming a “world government” for resolving international problems, including those pertaining to the environment, but prefers using other types of arrangements, such as international institutions and regimes, to confront these issues,<sup>74</sup> which is based on the work done by Keohane where he supports the use of institutions and regimes, because they facilitate interstate agreement and reduce transactions costs.<sup>75</sup>

Young also argues that it is dangerous to concentrate on only one scale when it comes to environmental regimes and that more needs to be learned on the

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<sup>73</sup> Ibid., 517

<sup>74</sup> Oran Young, *International Governance: Protecting the Environment in a Stateless Society* (Ithaca: Cornell University Press, 1994).

<sup>75</sup> Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy*, (Princeton: Princeton University Press, 1984), 246.



matter.<sup>76</sup> Lemos and Agrawal concur that the multiple scales of environmental issues, which include spatial, sociopolitical and temporal, compounds the problems around governance, especially the fact that many environmental problems cross national borders. As is common, levels of government and administration do not normally fit the environmentally relevant scales, “resulting in inefficiencies, spatial externalities and spillovers.”<sup>77</sup> A multi-level governance approach does not mean that the state is weakened, however, “but rather redefines the scope and scale of state activity.”<sup>78</sup>

States have failed to address the world’s most pressing global problems, triggering hope that a more inclusive global environmental governance paradigm will be more successful.<sup>79</sup> Lemos and Agrawal define “environmental governance” as “the set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes.” They state, as Young does, that governance is not the same as government. It is “varied in form, critical in importance, and near ubiquitous in spread,” meaning it can be found everywhere. They conclude in their text that governance and its impacts are not strictly international or domestic in nature, but are of a “hybrid, multilevel, and cross-sectoral nature” where partnerships and market-based instruments for environmental regulation have become popular.<sup>80</sup> Included in this governance are

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<sup>76</sup> Oran Young, “Vertical Interplay among Scale-dependent Environmental and Resource Regimes,” *Ecology and Society* 11, no. 1 (2006): 27.

<sup>77</sup> Timothy Moss and Jens Newig, “Multi-Level Water Governance and Problems of Scale: Setting the Stage for a Broader Debate,” *Environmental Management* 46, no. 1 (2010): 1.

<sup>78</sup> Michele M. Betsill and Harriet Bulkeley, “Cities and the Multilevel Governance of Global Climate Change,” *Global Governance* 12 (2006): 153.

<sup>79</sup> Maria Carmen Lemos et al, “Environmental Governance,” 301

<sup>80</sup> *Ibid.*, 299

transnational environmental networks<sup>81</sup>, multilateral organizations and emergent civil society<sup>82</sup>, which have all become influential in influencing state action and are “an important site for governing global environmental issues in their own right.”<sup>83</sup>

Like Lemos and Agrawal, Bradley Karkkainen agrees that states have failed to address problems of environmental protection and natural resources management and that these issues have been, “de facto, reassigned to hybrid, polycentric, problem-solving institutional constellations.” He calls this “post-sovereign governance,”<sup>84</sup> which includes characteristics of *non-hierarchy*, *non-exclusivity* and *post-territorialism*.<sup>85</sup>

The process of globalization that the world has experienced over the past few decades also has had its impact on global environmental governance, both positively and negatively. Concerning environmental processes themselves, globalization has had an enormous impact at all levels such as increased consumption, which leads to increased demand and overuse of natural resources, which are then transported longer distances using more greenhouse gas-emitting energy resources. Deforestation and increased pollution, including the amount of plastic used, and discarded without proper considerations for the environment, also have impacts on the environment. These impacts have “contributed to the creation and development

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<sup>81</sup> Michele M. Betsill et al, “Cities and the Multilevel Governance of Global Climate Change,” 148

<sup>82</sup> Paul Wapner, “Politics beyond the state: environmental activism and world civic politics,” *World Politics* 47, no. 3 (1995): 311-40.

<sup>83</sup> Michele M. Betsill et al, “Cities and the Multilevel Governance of Global Climate Change,” 148

<sup>84</sup> Bradley C. Karkkainen, “Post-Sovereign Environmental Governance,” *Global Environmental Politics* 4, no. 1 (2004): 75.

<sup>85</sup> *Ibid.*, 75-77

of new global regimes, institutions, and organizations dedicated to environmental governance.”<sup>86</sup>

James Speth and Peter Haas note that while the amount of effort that has been spent on global environmental governance has been impressive, it has been, unfortunately, inadequate to address the issues that the world is facing. They argue that in order to improve global environmental governance, it is necessary to build an environment of cooperation, build national capacity and heighten concern for environmental issues. New innovations such as a world environment organization, giving the public greater access to global environmental governance and building global issue networks, could prove useful in making the global environmental regime more effective. But, overall, a powerful new set of incentives and disincentives needs to be introduced in order to change individuals’ and institutions’ behavior organically instead of “by decree.”<sup>87</sup>

Peter Haas, Robert Keohane and Marc Levy believe that international institutions will have a positive impact on the environment only if they generate political change, as environmental protection is a political activity. They go on to describe the three “C’s”, which are the three ways that environmental institutions affect the process of political change: They enhance “concern” among national governments, strengthen the “contractual” environment in which international agreements are made and build administrative and political “capacity.” Institutions do not always promote the three “C’s”, but where they have been successful is in

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<sup>86</sup> Maria Carmen Lemos et al, “Environmental Governance,” 300

<sup>87</sup> James Gustave Speth and Peter Haas, *Global Environmental Governance: Foundations of Contemporary Environmental Studies* (Washington DC: Island Press, 2006).

rich, democratic nations with strong environmental NGOs. They do not offer solutions for how to address these issues in developing countries.<sup>88</sup>

Others believe that there is a need to change the current global environmental governance regime. Adil Najam, Mihaela Papa and Nadaa Taiyab state that the current global environmental governance system we have has “outgrown” its original design, much like a child outgrows its clothes, and that it needs to move on from raising the profile of the environment and the development of treaties to “action and implementation.”<sup>89</sup> Yet they note is that there is a lack of leadership, certain nations still want the status quo, there are institutional fiefdoms and there is a lack of political will, among others challenges. They offer several solutions for new models to reform the current global environmental governance regime, from creating a new model outside of UNEP to organizational streamlining, in order to improve coordination and synergy. Ultimately, what is necessary to reform global environmental governance is leadership, knowledge, coherence, performance and mainstreaming.<sup>90</sup>

Frank Biermann and Philipp Pattberg, in their review of literature on global environmental governance, summarize the current literature into several points, most notably that world politics, in terms of global environmental governance, is no longer limited to the nation state, but includes non-state actors such as other levels of government, businesses, NGOs and experts. They also argue that new forms of

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<sup>88</sup> Peter Haas, Robert Keohane and Marc Levy, eds., *Institutions for the Earth: Sources of Effective International Environmental Protection* (Cambridge, MA: MIT Press, 1993).

<sup>89</sup> Adil Najam, Michaela Papa and Nadaa Taiyab, *Global Environmental Governance: A Reform Agenda* (Winnipeg: International Institute for Sustainable Development (2006).

<sup>90</sup> Ibid.

institutions have emerged as a result of the participation of these non-state actors and that global environmental governance is characterized by an increase in the “fragmentation and segmentation of the different layers and clusters of rule making and rule implementing.”<sup>91</sup>

Where international law addresses global governance, Edith Weiss states that the structure has changed and it is no longer as hierarchical as it has been in previous periods. An example of this change can be seen in international environmental law where NGOs have become more prominent in the negotiation and implementation of conventions and treaties. There has also been an increase in the use of legally non-binding instruments, otherwise known as soft law, where agreement is easier to achieve and the transaction costs are much lower. The newest issues Weiss sees surrounding international environmental law at this moment are the proliferation of treaties, which help create “congestion” of law while non-state actors that are involved in these processes are not being held accountable for their actions.<sup>92</sup>

### 1.3.3 Global water governance

#### 1.3.3.1 Water governance

Despite the existence of water governance in various forms for over 5,000 years,<sup>93</sup> the concept of the term was not discussed in policy and academic circles until the 2<sup>nd</sup> World Water Forum in The Hague, Netherlands in 2000 when it was

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<sup>91</sup> Frank Biermann and Philipp Pattberg, “Global Environmental Governance: Taking Stock, Moving Forward,” *Annual Review of Environment and Resources* 33 (2008): 284.

<sup>92</sup> Edith Weiss, “The Emerging Structure of International Environmental Law,” in *The Global Environment: Institutions, Law and Policy*, eds. Norman J. Vig and Regina S. Axelrod (Washington DC: Congressional Quarterly, 1999), 98.

<sup>93</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 419

recognized that the “current water crisis is more a water governance crisis.”<sup>94</sup> Since the 2<sup>nd</sup> World Water Forum, every major global water event has included water governance as a major focus.<sup>95</sup>

The first major documents to emerge on water governance were published by the Global Water Partnership (GWP) in 2002 and, to this day, as was mentioned above, their initial definition of the term is the most widely used.

Alan Hall and Peter Rogers, in a GWP Technical Background Paper (GWP TEC 7), go much further in their exploration of water governance in writing that government is insufficient to establish allocative and regulatory policies, and that both formal and informal institutions should be utilized to achieve the management of resources (natural, economic and social). For “more effective water governance” (which happens to be the title of their paper), they suggest adopting several principled approaches to make things more: (a) open and transparent, (b) inclusive and communicative, (c) coherent and integrative and (d) equitable and ethical. On the performance and operation side, they propose advances in accountability, efficiency, responsiveness and sustainability.<sup>96</sup>

The World Water Development Report (WWDR), which is published by the World Water Assessment Program (WWAP) every three years, stated in its 2<sup>nd</sup> Edition (2006) that water governance has four dimensions: social (equitable use), economic (efficient use), political (equal democratic opportunities) and

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<sup>94</sup> World Water Council, *Final Report: Second World Water Forum and Ministerial Conference*, The Hague – “From Vision to Action,” March 17-22, 2000.

<sup>95</sup> See 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> World Water Fora and Stockholm World Water Week, 2001 to present.

<sup>96</sup> Peter Rogers et al, *Effective Water Governance*, 27-28

environmental (sustainable use).<sup>97</sup> While the Report clearly advocates for improved water governance across the globe and provides characteristics that such governance structures must take into account, the chapter ends by saying that there is “no blueprint for improved governance” and that societies must find their own path<sup>98</sup> as “those who govern water, rivers and watersheds find themselves at the intersection of several different and frequently contradictory normative pulls and pressure.”<sup>99</sup>

### 1.3.3.2 Global water governance

Global water governance as a concept within the water governance sphere did not start gaining attention until 2007 – 2008. It still remains a subject that is severely under-researched<sup>100</sup> and hardly discussed, specifically, even at the highest policy circles that relate to water, including the United Nations and the World Water Fora.

While the first global meetings focused on water issues occurred in the mid-19<sup>th</sup> Century,<sup>101</sup> truly global efforts to address water issues were infrequent well

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<sup>97</sup> WWAP, *The United Nations World Water Development Report 2: Water, a Shared Responsibility*, 46

<sup>98</sup> Ibid., 83

<sup>99</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 375.

<sup>100</sup> Joseph Alcamo, Charles Vörösmarty, Robert Naiman, Dennis Lettenmaier and Claudia Pahl-Wostl, “A grand challenge for freshwater research: understanding the global water system,” *Environmental Research Letters* 3 (2008): 1-6. Claudia Pahl-Wostl et al, “Introduction: Global Governance of Water,” 406; Maria Schnurr, “Global Water Governance: Managing Complexity on a Global Scale,” in *Water Politics and Development Cooperation*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping (Springer-Verlag Heidelberg Berlin, 2008). Robert G. Varady, Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih, “Strengthening Global Water Initiatives,” *Environment* 50, no. 2 (2008), 25.

<sup>101</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” 21. The first major water conferences took place in Europe in the 1800s. These included the International Sanitary Conference (Paris, 1851) and the International Meteorological Conference (Brussels, 1853). See Chapter 3, A Brief History of Global Water Governance, for more information.

into the 20<sup>th</sup> Century.<sup>102</sup> It was not until a few decades after the Second World War and the creation of the United Nations system that global initiatives related to water started to gain momentum. The most successful of these initiatives was UNESCO's International Hydrological Programme (IHP), which emerged as a result of the UN's International Hydrological Decade (1965-1974).<sup>103</sup>

The first worldwide conference on the environment, the United Nations Conference on the Human Environment, took place in Stockholm in 1972, and while water was not a focal point of the final Declaration of the meeting, a precedent was set when Principle 2 of said Declaration stated that, "the natural resources of the earth including air, water, land, flora and fauna... must be safeguarded for the benefit of the present and future generations."<sup>104</sup>

Five years later, in 1977, the only full intergovernmental meeting to date that specifically related to water took place in Mar del Plata, Argentina. The United Nations Water Conference kicked off what would be the beginning of an era of a proliferation of global activity related to water, which especially gained momentum after 1996 when the World Water Council and Global Water Partnership were established. A more complete history of global water governance can be found in Chapter 3.

Even with the recent proliferation of actions at the global level related to water, it took some time before organizations and researchers started to recognize that little work had been done on what global water governance was or its potential

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<sup>102</sup> Ibid., 21-22

<sup>103</sup> Ibid., 21

<sup>104</sup> United Nations, *Report of the United Nations Conference on the Human Environment*, A/CONF.48/14/Rev.1, Stockholm, June 5-16, 1972, 17-18.



impact on the world's water resources. Nonetheless, global water governance is already happening,<sup>105</sup> and although there is “no global, comprehensive, intergovernmental structure for water, there is a very dynamic process of advancing international understanding and cooperation on water for sustainable development.”<sup>106</sup>

Ken Conca states that the “world's water is indeed subject to deeply and increasingly transnational forms of governance.” Rules, roles and practice have become further embedded in water-related policy decisions. “If those acts include such things as the framing of policy, the setting of standards and the mobilization and allocation of resources, then water is indeed subject to governance that is increasingly, though certainly not exclusively, global.”<sup>107</sup>

In 2003, the global community took its first major steps to address governance and the global water system through the development of the Global Water System Project (GWSP)<sup>108</sup>, which was launched in 2005. The GWSP remains one of the only institutions that carries out research on this subject.

Pahl-Wostl, head of the GWSP, Gupta and Petry define global water governance as “the development and implementation of norms, principles, rules, incentives, informative tools and infrastructure to promote a change in behavior of actors at the global level in the area of water governance.”

Pahl-Wostl, Gupta and Petry have their definition of global water governance

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<sup>105</sup> Joyeeta Gupta, “Global Water Governance (GWG) and Prospects” (presentation, UNESCO workshop on Water Governance, Delft, The Netherlands, March 11, 2011).

<sup>106</sup> WEHAB, *A Framework for Action on Water and Sanitation*, WEHAB Working Group, World Summit on Sustainable Development, Johannesburg, South Africa (August, 2002), 25.

<sup>107</sup> Ken Conca, *Governing Water*, 5

<sup>108</sup> See <http://www.gwsp.org>

that was presented earlier in this chapter,<sup>109</sup> but there are others who try to give other perspectives. Robert Varady, Katherine Meehan and Emily McGovern, who work extensively on global water initiatives (GWIs), a subset of GWG, argue that the structure of GWG is “not characterized by an even or smooth distribution of power, decision-making or policy across space.” They continue to explain that this type of governance happens in specific places such as the location of UN agencies/international organizations or the World Water Fora through “networks of knowledge transfer and communication.”<sup>110</sup>

Pahl-Wostl et al. expand on this view to state that GWG is actually a form of the aforementioned “mobius-web” typology of governance<sup>111</sup> that James Rosenau describes as a “web-like process that neither begins nor culminates at any level or any point in time,”<sup>112</sup> where a “number of top-down, bottom-up, network, and side-by-side governance elements exist in parallel.”<sup>113</sup> Conca reinforces the idea that this form of global governance for water is not a “neat, uncontested set of water norms.”<sup>114</sup> Gupta calls this system “less subject to control, less predictable, less in line with good governance principles, but more flexible, more reflective of power structures, more adaptive, more efficient and, at times, more effective.”<sup>115</sup> He adds that because the system consists of both formal and informal rules, organizations,

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<sup>109</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 422

<sup>110</sup> Robert G. Varady, Katharine Meehan and Emily McGovern, “Charting the emergence of “global water initiatives” in world water governance,” *Physics and Chemistry of the Earth* 34, no. 3 (2008): 155.

<sup>111</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 419

<sup>112</sup> James Rosenau, “The Governance of Fragmentation: Neither a World Republic Nor a Global Interstate System,” 27.

<sup>113</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 427

<sup>114</sup> Ken Conca, *Governing Water*, 5

<sup>115</sup> Joyeeta Gupta, “An essay on global water governance research challenges,” 8.

and arrangements,”<sup>116</sup> it has “created a space for a broader, less state-based discursive process.”<sup>117</sup>

Within this web-like structure Pahl-Wostl et al. believe there are six elements:<sup>118</sup>

1. International law;
2. Global intergovernmental agencies;
3. Regional bodies;
4. Non-state actors/stakeholders;
5. Private sector; and
6. Global communities of scientists and water professionals.

A prestigious team of experts led by Joyeeta Gupta says that global water governance can be divided into five fragmented arenas: water law, water policy, hybrid (public-private) policy making, the framing of water as an economic good, and the human rights arena.<sup>119</sup> Yet these arenas are characterized by (1) more conflict than consensus, (2) a proliferation of organizations with no coordination agency, (3) UN internal coordination through UN-Water that has a limited mandate and (4) works under several over-arching shifts in water governance: (a) consensus forums to non-consensus forums (World Water Fora), (b) centralized public law treatment of a social good to private law treatment of a commodity and (c) pluralistic and multilevel governance systems of water management.<sup>120</sup>

Robert Varady, of the University of Arizona, has done a significant amount of research on GWIs, which he defines as a broad “institutional network of

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<sup>116</sup> Robert Weiner, “World Water, A Crisis of Global Governance?” *New England Journal of Public Policy* 21, no. 2, art. 12 (2007): 129.

<sup>117</sup> Ken Conca, *Governing Water*, 139

<sup>118</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 425-427

<sup>119</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013).

<sup>120</sup> Joyeeta Gupta, “An essay on global water governance research challenges,” 7-8

organizations and events that spans and stretches beyond the United Nations system, including regional bodies, professional and scientific associations, trade and business associations, philanthropic institutions and developmental bodies,” – in other words a “global constellation of goals, interests, topics, specialties, and expertise.”<sup>121</sup> He and his team have also created a typology of GWIs that is comprised of the following groups: (1) professional scientific societies (e.g. International Water Resources Association), (2) designated time periods (e.g. International “Water for Life” Decade), (3) organized events (e.g. World Water Fora) and (4) issue-oriented organizations (e.g. Global Water Partnership), which he claims, similar to Pahl-Wostl and Conca, act as a decentralized network, which connect, disconnect and overlap<sup>122</sup> existing initiatives.

Other authors call the global water governance regime “not fully legitimized,”<sup>123</sup> “diffuse” and charge that it reflects “fuzzy governance, one that scarcely qualifies to be called a global water governance regime.”<sup>124</sup> It is a regime that is “fragmented,” has no leadership<sup>125</sup> or coordination<sup>126</sup> nor a “natural center of gravity” with “competing actors and interests and...no real consensus process to

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<sup>121</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” 20

<sup>122</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” and Robert G. Varady and Matthew Iles-Shih, “Global Water Initiatives: What do the Experts Think? Report on a Survey of Leading Figures in the World of Water,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009).

<sup>123</sup> F. G. Mukhtarov, “Global Water Governance and the Concept of Legitimacy,” Proceedings of the GRSC/GARNET International Conference on “Pathways to Legitimacy.” University of Warwick, September 17-19, 2007, 2.

<sup>124</sup> Joseph W. Dellapenna and Joyeeta Gupta, “The Evolution of Global Water Law,” in *The Evolution of the Law and Politics of Water*, eds. Joseph W. Dellapenna and Joyeeta Gupta (Springer Science + Business Media B.V., 2009), 9.

<sup>125</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 427

<sup>126</sup> Claudia Pahl-Wostl, “Governance and Water Needs Issues” (presentation, Natural and Social Capital (NASCap), International Institute for Sustainable Development, 2012).

deal with water science.”<sup>127</sup> Water is “a rising issue of global governance characterized by comparatively young and immature structures and processes that have slowly evolved over the past two decades,<sup>128</sup> but where still no global policy framework exists.<sup>129</sup>

Where there are gaps in the literature is an explanation of why there is a “Möbius-web” type of governance for water at the global level and not a more formal regime. Is it necessary to have this formal/informal regime or would it be more effective to have a more formal regime? How do the various organizations – UN-Water, the World Water Council, SIWI, the World Bank, etc. – impact the trajectory of global water governance? What specific water-related issues have influenced the discourse of water at the global level? And, ultimately, what is missing? What is not there that could improve the global water situation and relieve the emerging crisis?

Based on the literature presented above, the authors argue that a global water governance regime already exists, but it’s piecemeal, a mix of both formal and informal mechanisms, as will be seen in Chapter 3. The purpose of this research is to answer the question of why, when water is so critical to the livelihood of the planet and its inhabitants, there is not a more formal structure to govern water at the global level. It also aims to show what is the current trend in global water governance and what is influencing that trend. To begin, it must be explored

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<sup>127</sup> Joyeeta Gupta et al, “Policymakers’ Reflections on Water Governance Issues”

<sup>128</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System: A Theoretical Exploration,” 427

<sup>129</sup> Joseph W. Dellapenna et al, “The Evolution of Global Water Law,” 6

whether global water governance is even necessary, which will follow in the next chapter.

## **Chapter 2    Do we need global water governance?**

During the research process, there were at times confused, incredulous looks when the interview question was asked, “Do we need global water governance?” For some, it is impossible to think of managing or governing water beyond the local, national or river basin level. Some immediately thought that a world government was being evoked and the knee-jerk reaction, even among internationalized professionals in the water community, was to reject such an idea. No United Nations member states, much less local communities within those states, would allow a supranational entity to govern their water resources.

World government does not equal global governance, especially global water governance as can be seen in how global water governance has been previously characterized. But, still the question remains, what is the most appropriate level at which water should be governed? Is there a need for governance of water at the global level?<sup>1</sup>

### **2.1    Arguments for why global water governance is not needed**

While global water governance as an idea has been gaining more attention in the past several years, there are still many arguments why water issues should not be governed at the global level. This has been expressed both in the literature and the interviews.

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<sup>1</sup> The following section is the result of both a review of literature and interviews. Looking at the bigger picture of the responses, those in favor of global water governance came out to be more numerous. Concerning the literature, this is understood as there are very few articles or documents, which are specifically aimed at refuting the idea of global water governance. That space has not been developed yet. However, there are many documents, which support global action, whether through governance or otherwise, because of the global water issue. As for the interviews, an equal opportunity was given to all interviewees to come out in favor or against global water governance.

### 2.1.1 Global is not the appropriate scale

One of the mainstay principles within the international water sphere has been the principle of subsidiarity, which states that issues should be addressed by the lowest authority capable of addressing those problems. Within international water policy, this principle was first codified in the Dublin Principles, adopted during the International Conference on Water and the Environment (ICWE) in 1992 (see Chapter 3), which clearly state that decisions about water should be taken at the lowest appropriate level.<sup>2</sup>

Within the United Nations Commission on Sustainable Development (UNCSD), this concept, especially along the lines of the river basin scale, was reiterated several times. Chapter 18 of Agenda 21, the outcome document of the United Nations Conference on the Environment and Development (UNCED) in 1992 states that water management should be “carried out at the level of the catchment basin or sub-basin.”<sup>3</sup> At the 6<sup>th</sup> Meeting of the UNCSD in 1998, it was approved in the final document that governments should “devolve responsibilities to the lowest appropriate level for the organization and management of public water supply, sanitation services and irrigation systems, as well as water resources management.”<sup>4</sup> At the World Summit on Sustainable Development (WSSD), or Rio+10, in 2002, the Johannesburg Plan of Implementation declares that nations

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<sup>2</sup>International Conference on Water and Environment, “The Dublin Statement on Water and Sustainable Development,” available from

<http://www.wmo.int/pages/prog/hwarp/documents/english/icwedece.html>.

<sup>3</sup>UNCED, “Agenda 21 - Chapter 18: Protection Of The Quality And Supply Of Freshwater Resources: Application Of Integrated Approaches To The Development, Management And Use Of Water Resources,” available from <http://www.un-documents.net/a21-18.htm>.

<sup>4</sup>UNCSD, “Report of the Sixth Session,” Economic and Social Council, Official Records, Supplement No. 9, December 22, 1997 and April 20 – May 1, 1998, 8.



should “develop and implement integrated river *basin* and *watershed* management strategies for all major water bodies.”<sup>5</sup> For international water policy circles, these are three of the most important documents to emerge in the past two decades and they reinforce the idea that the scale at which water should be addressed is, well, not the global, but towards the local or basin level.

Four levels are given precedent over the global level: local, national, river basin and regional, each one of which will be elaborated on below:

#### 2.1.1.1 Local

Along the lines of subsidiarity, the lowest appropriate level is the local level and there are many arguments why water should be governed locally.

Despite the attempt to globalize the water and sanitation issues, it is a very local issue and even sometimes localized issue. There can be some global experiences and solutions but the solution must be appropriate to the local situation, local problem and the local institutions. The global platform does not provide the answers to the local problems and it is a paradox that a global solution is often sought for a problem whose solution lies in local knowledge.<sup>6</sup>

For some, the current water crisis is not a global issue, but is comprised of a plethora of local scarcity issues around the world,<sup>7</sup> so while there is plenty of water at a global scale, the issue of governance of water where there are problems is more of a local issue. Per Arjen Hoekstra, “the issue is rather the mismatch between

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<sup>5</sup> UNCSO, “Plan of Implementation of the World Summit on Sustainable Development,” available from [http://www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/WSSD\\_PlanImpl.pdf](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf).

<sup>6</sup> Gourisankar Ghosh, “Megaconferences: Serious or Circus? An Unscientific and Personal View,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 133

<sup>7</sup> Imme Scholz, “Global Environmental Governance and its Influence on National Water Policies,” in *Water Politics and Development Cooperation: Local Power Plays and Global Governance*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping (Springer-Verlag Berlin Heidelberg, 2008), 88.

water demand and supply at smaller spatial scale at particular periods of the year.”<sup>8</sup> Even though water is part of a global hydrological cycle, the key is how it is managed locally.<sup>9</sup>

The concept that water is a local issue<sup>10</sup> has been around for millennia and “anthropologists and others continue to argue that one needs to understand local rights, needs, and stakeholders in order to effectively address governance issues.”<sup>11</sup> “Even if you had a Caesar Augustus, still water would have to be handled at the very local level.”<sup>12</sup> In the end, there is no “one size fits all” solution for water, because of local conditions and customs.

#### 2.1.1.2 National

The United Nations is made up of national governments, or Member States, and, ultimately, the system that has been created is that national sovereignty still is the main principle of international relations, meaning that governments make the decisions as to what happens within their borders, including over their water resources. This perspective reflects that domestic interests over water resources are primary for the benefit of the national economy and society.<sup>13</sup>

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<sup>8</sup> M.P. Verkerk, A.Y. Hoekstra and P.W. Gerbens-Leenes, “Global Water Governance: Conceptual Design of Global Institutional Arrangements,” Value of Water Research Report Series No. 26, UNESCO-IHE (March, 2008), 7.

<sup>9</sup> Sandra Postel, *Last Oasis: Facing Water Scarcity* (New York: W.W. Norton and Company, 1992), 22.

<sup>10</sup> Interview Nos. 73, 136, 212, 240, 261, 276, 391, 456, 496, 512, 554, 601, 734, 752 and 810

<sup>11</sup> Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, “Governance and the Global Water System: A Theoretical Exploration,” *Global Governance* 14 (2008): 421.

<sup>12</sup> Interview No. 743

<sup>13</sup> Claudia Pahl-Wostl et al, “Governance of the Global Water System: A Theoretical Exploration,” 421

One prominent researcher asked, “Why can’t countries pick and choose governance methods that work for them rather than being judged against global norms that might go against already effective practices?”<sup>14</sup>

From the point of view of a national government, they do not want someone in New York at the United Nations deciding how they manage their water resources.<sup>15</sup> In addition, countries are so different in their political systems and how they use and consume water that even the starting point for something global does not make sense, because of each country’s uniqueness.<sup>16</sup> In the end, the decisions and actions<sup>17</sup> are going to be taken by states and what is best for them and their interests based on their situation even if that is a mechanism that is global.<sup>18</sup>

#### 2.1.1.3 Basin, including transboundary waters

As cited above, some of the most significant documents at the international level addressing water resources call for action to be taken at the basin level. Dating back to the late 1950s, there are United Nations documents that advocate for addressing the issue of managing water, in an integrated manner, at the river basin scale.<sup>19</sup>

In some ways this was codified by the work of the International Law Association in the 1960s, which resulted in the Helsinki Rules on the Uses of Water of International Rivers<sup>20</sup> that laid the foundation for the negotiations and eventual

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<sup>14</sup> Interview No. 50

<sup>15</sup> Interview No. 714

<sup>16</sup> Interview No. 421

<sup>17</sup> Interview No. 73

<sup>18</sup> Interview No. 391

<sup>19</sup> United Nations, *Integrated River Basin Development: A Report by a Panel of Experts* (Sales No. 58.II.B.3, 1958)

<sup>20</sup> Heretofore known as the “Helsinki Rules”

signing of the United Nations Convention on the Non-Navigational Uses of International Watercourses<sup>21</sup> in 1997. Both documents reflect addressing management as the basin level.<sup>22</sup> The focus of these two documents is on transboundary water resources, which are, of course, included in the basin scale even if there are political borders that divide the waters into different political jurisdictions.

For the resource itself, catchment or basin-level management is a “logical planning unit...from a natural system perspective”<sup>23</sup>, which combines “notions of efficiency with a hydrological systems approach.”<sup>24</sup> If there is any action or activity in one part of the basin, it will impact another part of the basin<sup>25</sup> and this has been the traditional view in hydrology and water resources management.<sup>26</sup> What happens in a river basin does not have any impact or bearing on what happens in another basin in another part of the world.<sup>27</sup>

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<sup>21</sup> Heretofore known as the “United Nations Watercourses Convention” or UNWC

<sup>22</sup> As is defined in the UNWC, a “watercourse” is “a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus.” See Article 2(a). United Nations, *Convention on the Law of the Non-Navigational Uses of International Watercourses*, New York, May 21, 1997. This is important to note as the UNWC addresses the relationship between surface waters and groundwaters as a unitary “whole,” which is not always the case in the water community.

<sup>23</sup> Global Water Partnership, *Integrated Water Resources Management*, Global Water Partnership Technical Committee Background Papers No. 4 (Denmark: Global Water Partnership, 2000), 24.

<sup>24</sup> Claudia Pahl-Wostl et al, “Governance of the Global Water System: A Theoretical Exploration,” 421

<sup>25</sup> Claudia W. Sadoff and David Grey, “Beyond the river: the benefits of cooperation on international rivers,” *Water Policy* 4, no. 5 (2002): 390.

<sup>26</sup> Erik Gawel and Kristina Bernsen, “Globalization of Water: The Case for Global Water Governance?” *Nature and Culture* 6, no. 3 (2011): 207.

<sup>27</sup> Gordon J. Young, James C.I. Dooge and John C. Rodda, *Global Water Resource Issues* (Cambridge: Cambridge University Press, 2004), 18.

The river basin concept has been the “fulcrum of water resources development”<sup>28</sup> and this has “long become the dominant paradigm for selecting the relevant water governance scale.”<sup>29</sup>

The interviews also reflected this belief. The river basin scale is the best level at which to both manage and govern water resources,<sup>30</sup> especially for creating a strategic vision of the stakeholders in the basin<sup>31</sup> and breaking through the piecemeal approach that is often found at higher levels.<sup>32</sup> One interviewee talks about combining river basin level governance with global water governance:

If we have river basin management in optimum form, in every river basin in the world, then we actually have good global water governance. And that takes into account all local and regional aspects, cultural aspects, industrial aspects, development aspects within the river basin.<sup>33</sup>

#### 2.1.1.4 Regional

The regional approach benefits from those that make up these geographic areas having more in common with one another than from the global perspective. While not homogenous, regions still have specific and similar characteristics<sup>34</sup> where it makes more sense to create arrangements on this level to cope with adversity than at the global level.<sup>35</sup>

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<sup>28</sup> Ludwik A. Teclaff, “Evolution of the River Basin Concept in National and International Water Law,” *Natural Resources Journal* 36, no. 2 (1996): 387.

<sup>29</sup> Timothy Moss and Jens Newig, “Multi-Level Water Governance and Problems of Scale: Setting the Stage for a Broader Debate,” *Environmental Management* 46, no. 1 (2010): 2.

<sup>30</sup> Interview Nos. 16, 96, 402, 420, 601, 624, 734, 807, 810 and 985

<sup>31</sup> Interview No. 654

<sup>32</sup> Interview No. 915

<sup>33</sup> Interview No. 734

<sup>34</sup> Interview Nos. 14 and 121

<sup>35</sup> Interview No. 14

This can be seen by the number of regional agreements and activities related to water that exist today. For example, Europe has both the European Water Framework Directive<sup>36</sup> and the United Nations Economic Commission for Europe's (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes.<sup>37</sup> The African Ministers' Council on Water (AMCOW) coordinates Africa as a region,<sup>38</sup> but the Southern African Development Community (SADC) has their 1995 Protocol on Shared Watercourse Systems<sup>39</sup> (revised in 2000<sup>40</sup>).

While Asia and the Americas do not have agreements, stakeholders, including government representatives, from those regions meet regularly at large fora to discuss priorities. Asia convenes the Asia-Pacific Water Summit,<sup>41</sup> whereas in the Americas, the Water Forum of the Americas is held.<sup>42</sup>

Each region has different priorities, problems and ways of addressing those issues that are not the same from region to region.<sup>43</sup> Regional and continental discussions can be a more effective way of tackling problems rather than a global approach.<sup>44</sup>

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<sup>36</sup> See <http://ec.europa.eu/environment/water/water-framework/>

<sup>37</sup> UNECE Water Convention; heretofore UNECE Water Convention; Note: While a regional convention, on February 6, 2013, parties to the UNECE Water Convention agreed that this convention would be open for ratification for countries outside the UNECE region: UNECE, "UNECE Water Convention goes global," February 6, 2013; available from <http://www.unece.org/index.php?id=32154>.

<sup>38</sup> See <http://www.amcow-online.org/index.php?lang=en>

<sup>39</sup> See <http://www.icp-confluence-sadc.org/documents/sadc-protocol-shared-watercourses-original-1995>

<sup>40</sup> See [http://www.sadc.int/files/3413/6698/6218/Revised\\_Protocol\\_on\\_Shared\\_Watercourses\\_-\\_2000\\_-\\_English.pdf](http://www.sadc.int/files/3413/6698/6218/Revised_Protocol_on_Shared_Watercourses_-_2000_-_English.pdf)

<sup>41</sup> The Asia-Pacific Water Summit is organized by the Asia-Pacific Water Forum, the last occurring in May 2013. See <http://www.apwf.org>

<sup>42</sup> See <http://www.waterforumoftheamericas.org>

<sup>43</sup> Interview No. 444

<sup>44</sup> Interview No. 797

Interviewees who perceived that the regional approach was better than a global approach<sup>45</sup> argued that it is important to have a regional-level understanding to confronting issues that are shared in the region,<sup>46</sup> which is much easier to do than with all the nations of the UN. In some ways, the “regional dimension benefits from being kind of in between (the global and national levels),... so still closer to the national dimension, but can benefit from global processes, and try and make the link, the bridge, between global and national.”<sup>47</sup>

### 2.1.2 Cross-cutting nature

The fact that water is so important and so diffuse<sup>48</sup> makes it very difficult to isolate from other issues such as energy, food, health, climate change, etc. There is skepticism that this could be done in a valid manner whereby these other issues could be properly addressed by the organizations and people working in those fields, if all water work were done under one umbrella.<sup>49</sup> Given the current structure of water in the United Nations, embedded as it is in many different agencies and programs, there would be “enormous resistance” to changing the *status quo*.<sup>50</sup> It turns out that water could be so complex in terms of how it integrates with other issues that “perhaps it’s not suited to full-scale global governance”<sup>51</sup> and it would difficult to “coalesce around” a single instrument or body.<sup>52</sup>

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<sup>45</sup> Interview Nos. 16, 240, 276, 402, 512, 564, 581, 662, 807, 810, 811, 927 and 985

<sup>46</sup> Interview No. 811

<sup>47</sup> Interview No. 121

<sup>48</sup> Interview No. 935

<sup>49</sup> Interview No. 673

<sup>50</sup> Interview No. 303

<sup>51</sup> Interview No. 802

<sup>52</sup> Interview No. 16

### 2.1.3 Little added value

What can global water governance add that is not already being done by a number of actors at different levels? What would such a regime do? The perception of some of the interviewees was that there would be little added value to such a global regime for water.<sup>53</sup> There is apparently nothing to be gained by such an approach.

“This isn’t the century when setting up an international organization would necessarily have much impact on national practice,”<sup>54</sup> states one international water policy leader, which reflects a growing sentiment by many, especially following the continued divides and relative weak outcomes of the Rio+20 Summit of the UNCSD in 2012.<sup>55</sup>

“I can’t see the need for a global convention because it would be so vague that it would be hard to enforce, and really wouldn’t lend much other than awareness-raising.”<sup>56</sup> Especially with the fact that the concept of integrated water resources management (IWRM) is accepted and promoted by the United Nations and incorporated within national policies by governments,<sup>57</sup> what more could be gained by yet another set of rules?

### 2.1.4 Institutional impediments

Others argue that there are simply too many institutional obstacles in the way to creating a global water governance regime, whether that is trying to develop

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<sup>53</sup> Interview Nos. 16, 50, 391, 612, 641, 810 and 881

<sup>54</sup> Interview No. 531

<sup>55</sup> George Monbiot, “After Rio, we know. Governments have given up on the planet,” *The Guardian*, June 25, 2012; available from <http://www.theguardian.com/commentisfree/2012/jun/25/rio-governments-will-not-save-planet>.

<sup>56</sup> Interview No. 152

<sup>57</sup> Imme Scholz, “Global Environmental Governance and its Influence on National Water Policies,” 88



a new agency within the United Nations system dedicated to water or a global convention on water.

For one, there is a certain level of fatigue that comes with international governance at this moment in time.<sup>58</sup> Governments have to spend more and more time and resources, both financial and human, going to meetings and conferences related to international issues. This is on top of their domestic duties. Within the environment sphere, many developing countries simply do not have the resources to attend all the meetings and it is often just one or two people that are responsible to cover many areas such as climate change, biodiversity, water, etc. It would not be possible for a good number of countries to attend yet another series of meetings if there were to be a more formal global water governance structure. Those who are going now already feel “slightly beaten down”<sup>59</sup> because of all the negotiations they have to attend. At this point in time, it is just not realistic because of this fatigue against “any kind of new global conventions or legal instruments,”<sup>60</sup> which would mean creating a new secretariat, a new structure.<sup>61</sup>

Another issue along this line is that many countries do not want to see yet another layer of bureaucracy that they have to deal with as “Member States have a rather dim view of UN bureaucracies.” This is especially true for developing countries.<sup>62</sup>

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<sup>58</sup> Interview No. 402

<sup>59</sup> Interview No. 617

<sup>60</sup> Interview No. 579

<sup>61</sup> Interview No. 402

<sup>62</sup> Interview No. 471

There is also the concern that the process of creating such a new regime would get “bogged down” fairly quickly<sup>63</sup> and would then postpone for years what needs to be done in the near future for water in trying to create these structures.<sup>64</sup>

#### 2.1.5 Others

There are other issues that some have argued for why there should not be a global water governance regime. For one, global water governance has the possibility to be too restrictive,<sup>65</sup> not allowing for the specific conditions at the local, national, basin and regional levels be addressed under a wider perspective.

The focus of the above has been strictly on jurisdictional/geographical scales, but this often does not take into consideration the stakeholders that are involved in the governance of water, which, by definition, goes beyond public authorities. Each set of stakeholders can be divided into their purposes, whether those are NGOs, the private sector or farmers, and are also different in terms of where they are situated geographically. Water managers in Canada have different issues than water managers in Namibia. And all of these stakeholders value water in different ways. All of these differences make it increasingly difficult to have something at the global level.<sup>66</sup> These differences do not tie people together enough to merit a global water governance regime.<sup>67</sup>

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<sup>63</sup> Interview No. 341

<sup>64</sup> Interview No. 121

<sup>65</sup> Interview No. 734

<sup>66</sup> Interview No. 131

<sup>67</sup> Interview No. 624

There is also the concern that the United Nations just simply could not deliver such a regime, whether a global architecture is needed or not.<sup>68</sup> Even in the non-binding arena of the World Water Fora, it is not easy to come to an agreement on a “common agenda for global water research and policy,” because of the “numerous and conflicting interests”<sup>69</sup> and this is no different within the UN system.

A last set of arguments set forth by Gawel and Bernsen is that widespread water problems around the world do not equate to a truly global issue such as climate protection, because “the scope of its benefits and externalities is still mostly local or regional.” Additionally, there is the danger that there will be a “problem of fit” in that certain water issues, if addressed globally, the solutions at the global level will not fit the solutions needed at other levels.<sup>70</sup>

## 2.2 Arguments for why global water governance is needed

...water governance frameworks at local, national and regional levels must be complemented by global governance processes, frameworks and institutions that can appropriately address the global dimensions of the benefits of water resources beyond the basin. Water has long ceased to be solely a local issue.<sup>71</sup>

It may have long ceased to be solely a local issue, but in terms of humans addressing water as a global issue, “it has only recently been recognized that water resources are both subject to and an integral part of global change and

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<sup>68</sup> Interview No. 617

<sup>69</sup> Joseph Alcamo, Charles Vorosmarty, Robert Naiman, Dennis Lettenmaier and Claudia Pahl-Wostl, “A grand challenge for freshwater research: understanding the global water system,” *Environmental Research Letters* 3 (2008): 4.

<sup>70</sup> Erik Gawel et al, “Globalization of Water: The Case for Global Water Governance?” 213-4

<sup>71</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), 39-40.

globalization.”<sup>72</sup> While there has been movement from water being just a local issue to an international one,<sup>73</sup> Arjen Hoekstra and Ashok Chapagain believe there is still an existing consensus that water issues should be addressed at the basin level, but argue that it is more and more critical to place freshwater issues in a global context,<sup>74</sup> because the river basin level is not always sufficient due to a “(sub)continental or even global dimension.”<sup>75</sup> Focusing solely on local processes while neglecting crucial, global dynamics potentially invites serious repercussions that are large and irreversible.<sup>76</sup>

This next section will focus on why we do need global water governance. The first part will capture the overarching picture, focusing on the literature, while the second part will focus on specific issues based on both the literature and interviews.

### 2.2.1 Overarching picture

Research began to focus on water governance at the global level, because some researchers believed that addressing water problems at other levels, namely, local, national, regional and basin (including transboundary), is not sufficient.<sup>77</sup> As

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<sup>72</sup> Holger Hoff, “Global water resources and their management,” *Current Opinion in Environmental Sustainability* 1, no. 2 (2009): 141.

<sup>73</sup> World Bank, “Water Resources Sector Strategy: Strategic Directions for World Bank Engagement” (Washington DC: World Bank, 2004), 12.

<sup>74</sup> Arjen Hoekstra and Ashok Chapagain, *Globalization of Water: Sharing the Planet’s Freshwater Resources* (Oxford: Blackwell Publishing, 2008), 2.

<sup>75</sup> Arjen Y. Hoekstra, “The Global Dimension of Water Governance: Why the River Basin Approach Is No Longer Sufficient and Why Cooperative Action at Global Level Is Needed,” *Water* 3, no. 1 (2011), 22.

<sup>76</sup> Joseph Alcamo et al, “A grand challenge for freshwater research: understanding the global water system,” 1

<sup>77</sup> Joseph Alcamo et al, “A grand challenge for freshwater research: understanding the global water system,” 3; A.Y. Hoekstra, “The Global Dimension of Water Governance: Nine Reasons for Global Arrangements in Order to Cope with Local Water Problems,” Value of Water Research Report Series No. 20, UNESCO-IHE (July, 2006); Claudia Pahl-Wostl et al, “Governance of the Global Water System: A Theoretical Exploration,” 419; and Luis Veiga de Cunha, “The Challenges of Global Water Governance” (presentation, Expo Zaragoza, July 8, 2008).

Ken Conca described “...threats to these systems are indeed “global” problems demanding “global” governance...”<sup>78</sup>

There are, however, many opinions as to why global water governance is necessary. Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry give four clear reasons why we require such a regime: (1) the hydrological system is a global system, (2) driving forces of water-related problems are found at the global level, (3) local environmental and social phenomena surrounding water are situated in global dynamics<sup>79</sup> and (4) direct and indirect impacts of quantities and qualities of water will be global in nature.<sup>80</sup>

Arjen Hoekstra, who has done a significant amount of research on virtual water and water footprints, argues that there are nine developments that require global water governance, or “arrangements” as he describes them: (1) global climate change’s impact on local water conditions, (2) local water pollution is often inherent in the structure of the global economy, (3) multinationals’ presence in water supply, (4) inter-basin water transfers, (5) virtual water, (6) global water use efficiency, (7) externalization of water footprints, (8) fairness and sustainability of water footprints and because (9) water is a geopolitical resource.<sup>81</sup> He adds later “that neglecting the global dimension of water governance would carry the risk that developments outside the domain of water governance could overrule and possibly

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<sup>78</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 6.

<sup>79</sup> Conca adds to this by saying that accumulating local problems are in fact global in nature because “if we think of the natural world not only as a spatial distribution of locales, but also as a set of life-supporting natural cycles and ecosystem services, the genuinely global dimension of local ecosystem health becomes apparent.” Ken Conca, *Governing Water*, 16.

<sup>80</sup> Claudia Pahl-Wostl et al, “Governance of the Global Water System: A Theoretical Exploration,” 421-2

<sup>81</sup> A.Y. Hoekstra, “The Global Dimension of Water Governance: Nine Reasons for Global Arrangements in Order to Cope with Local Water Problems,” 11-19

even nullify the good intentions in the domain of water governance.”<sup>82</sup> (Hoekstra 1, p. 22)

Luis Veiga de Cunha also argues that global water governance is necessary, as Pahl-Wostl, Gupta and Petry do, because the hydrological scale is global and socio-economic impacts of water use at lower scales are felt globally, and he adds that “socio-economic globalization may generate worldwide conditions that fall out of national control by individual states and drive water problems beyond the boundaries of regional water governance.”<sup>83</sup>

Maria Schnurr, in support of GWSP, cites five reasons why nations would address problems at the global level: (1) large-scale perspective (global hydrological cycle), (2) transboundary waters, (3) states’ interdependence, (4) “mutuality” or global stewardship and (5) international goals, (i.e., Millennium Development Goals (MDGs)).<sup>84</sup>

### 2.2.2 Virtual water<sup>85</sup>

Tony Allan first presented the idea of “virtual water” in 1998 when explaining conflict over water in the Middle East. Allan first described virtual water as “water contained in the food that the region (Middle East) imports,”<sup>86</sup> but this is more widely perceived now looking beyond just agriculture imports and exports,

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<sup>82</sup> Arjen Y. Hoekstra, “The Global Dimension of Water Governance: Why the River Basin Approach Is No Longer Sufficient and Why Cooperative Action at Global Level Is Needed,” 22

<sup>83</sup> Luis Veiga de Cunha, “The Challenges of Global Water Governance,” 5

<sup>84</sup> Maria Schnurr, “Global Water Governance: Managing Complexity on a Global Scale,” in *Water Politics and Development Cooperation*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping (Springer-Verlag Heidelberg Berlin, 2008), 109.

<sup>85</sup> Note: The headings of these sections are listed in the order of the popularity of the number of responses by the interviewees.

<sup>86</sup> Tony Allen, “Watersheds and Problemsheds: Explaining the Absence of Armed Conflict Over Water in the Middle East,” *Middle East Review of International Affairs* 2, no. 1 (1998): 49.

but at all products (although still primarily agriculture). According to Hoekstra and Chapagain, 16% of all water use is for exported products.<sup>87</sup>

Allan goes on to describe the issue as one of “problemsheds,” where basins are not able to support the people that reside within them, so they depend on imports to make up the water deficit.<sup>88</sup> As mentioned above, the sources of this virtual water originates from not only the regional level, but the global as well.

As the World Water Development Report states, “...(water is) truly a global issue through “virtual water.””<sup>89</sup> The fact is that countries are meeting their water needs externally through virtual water. The problem with this is that there is an imbalance with international trade agreements and international agreements on sustainable water use. Trade agreements are strong and water agreements non-existent;<sup>90</sup> therefore this would be a key area of global water governance, because the demand for water just through food alone will increase significantly by 2050 when there are 9 billion inhabitants on the planet.<sup>91</sup> This is truly a global phenomenon: “There are no countries in the world where the pattern of trade does not influence the pattern of domestic water use.”<sup>92</sup>

Where once food security was addressed nationally, then it was regionally and now it is globally<sup>93</sup> as there is an interconnected global economy that of which

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<sup>87</sup> Arjen Hoekstra et al, *Globalization of Water: Sharing the Planet's Freshwater Resources*, 22

<sup>88</sup> Tony Allen, “Watersheds and Problemsheds: Explaining the Absence of Armed Conflict Over Water in the Middle East,” 49

<sup>89</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk*, 4

<sup>90</sup> Arjen Y. Hoekstra, “The relation between international trade and freshwater scarcity,” World Trade Organization, Economic Research and Statistics Division Staff Working Paper (2010), 2.

<sup>91</sup> Interview No. 636

<sup>92</sup> Arjen Hoekstra et al, *Globalization of Water: Sharing the Planet's Freshwater Resources*, 1

<sup>93</sup> Interview No. 881

agricultural products make a major part<sup>94</sup>. Due to the nature of the global trade of products that have water embedded in them and used for their production, whether agricultural or industrial, there is a need for mechanisms to address sustainable water use at the global level<sup>95</sup>. Some of the proposals made by interviewees went from the complete liberalization of trading of agricultural products<sup>96</sup> to stopping the speculation in agricultural products, because, in essence, that means speculation in water.<sup>97</sup>

### 2.2.3 Coordination/collective action

“The need for global coordination of water management seems more urgent each day.”<sup>98</sup> This is not something that is necessarily new either. The United Nations Water Conference (UNWC) in Mar del Plata in 1977 called for increased coordination between United Nations agencies<sup>99</sup> and almost twenty years following that, when discussions were happening about the creation of a world water council, the Secretary-General of the UNWC, Yahia Abdel Mageed, and Gilbert White, one of the legends of geography, stated “the need for improved institutional arrangements for international cooperation in assessment and management of world water resources has been recognized for many years,”<sup>100</sup> yet we are still in a similar position.

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<sup>94</sup> Interview No. 927

<sup>95</sup> Interview Nos. 86, 132, 227, 413, 807, 815, 821 and 983

<sup>96</sup> Interview No. 201

<sup>97</sup> Interview No. 797

<sup>98</sup> Robert G. Varady, Katharine Meehan and Emily McGovern, “Charting the emergence of “global water initiatives” in world water governance,” *Physics and Chemistry of the Earth* 34, no. 3 (2008): 151.

<sup>99</sup> United Nations, *Water Development and Management: Proceedings of the United Nations Water Conference*, Water Development, Supply and Management Series (Oxford: Pergamon Press, 1978), 322.

<sup>100</sup> Y.A. Mageed and Gilbert F. White, “Critical Analysis of Existing Institutional Arrangement,” *International Journal of Water Resources Development* 11, no. 2 (1995): 103.



One of the main issues of the 21<sup>st</sup> Century will be water and the much better coordination that is needed between its various actors,<sup>101</sup> both in and outside the water community and in and outside government. The range and diversity of actors, agencies, coalitions is striking and there needs to be an effort to “de-clutter the sector”<sup>102</sup>, or the “loose bag of organizations that we have addressing water,”<sup>103</sup> with some architectural changes. “A global framework for action is essential in order to ensure greater focus and coordination of efforts, to confer authority on the key stakeholders to act, and to increase the accountability of actors at national and international levels.”<sup>104</sup>

Over the past decade alone, the world community has elevated ‘water’ as a global communal concern, through the series of World Water Forum and initiatives such as the Global Water Partnership, the Global Agenda Council of the World Economic Forum, UN-Water, and others. This growing international consensus on the need to work together across boundaries to address water challenges is the genesis of collective action and provides compelling evidence of the emergence of global and regional hydrosolidarity as a guiding concept at the policy level and as a driver in the evolution of legal regimes.<sup>105</sup>

Global water governance is needed to “make more rational the system that allocates water management responsibilities among international institutions,” which exists in the form of UN-Water. UN-Water only coordinates UN agencies and partners; however, they still have not arrived at a level where they are a large force

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<sup>101</sup> Interview No. 55

<sup>102</sup> Interview No. 462

<sup>103</sup> Interview No. 109

<sup>104</sup> WaterAid-Tearfund, “Sanitation and water: Why we need a global framework for action” (2008), 8.

<sup>105</sup> Patricia Wouters, Sergie Vinogradov and Bjørn-Oliver Magsig, “Water Security, Hydrosolidarity, and International Law: A River Runs Through It...,” *Yearbook of International Environmental Law* 19, no. 1 (2009): 129.

behind wider coordination<sup>106</sup> or a “big road-setting instrument”<sup>107</sup> that coordinates “large-scale activities,”<sup>108</sup> a place where water issues can come together under one entity.<sup>109</sup> Global water governance needs to help set the framework for coordination.<sup>110</sup>

#### 2.2.4 Global connection/mutual interdependence

The most fundamental global connection for water is that of the hydrological cycle on which all humanity and life on Earth depends. In addition to this, after a wave of globalization over the last few decades, the world today is replete with unprecedented mutual interdependencies and this has major consequences for water. Due to the interdependence of financial, food and energy systems across the world, shocks and instability with regards to these systems can have a large impact on water resources. “What this means for water is that people in one part of the world are dependent upon and vulnerable to water availability, management and use in another part of the world.”<sup>111</sup> Because these global processes do have an impact on local issues, “there seems to be clearly an increasing need to have some degree of global governance on water.”<sup>112</sup>

There are those that believe just because of the global hydrological cycle alone that there should be a global water governance system.<sup>113</sup> But, going beyond

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<sup>106</sup> Interview No. 109

<sup>107</sup> Interview No. 701

<sup>108</sup> Interview No. 935

<sup>109</sup> Interview No. 747

<sup>110</sup> Interview No. 201

<sup>111</sup> WWF-DFID, “International Architecture for Transboundary Water Resources Management: Policy Analysis and Recommendations” (February 2010), 5.

<sup>112</sup> Joyeeta Gupta, “Global Water Governance,” in *The Handbook of Global Climate and Environmental Policy*, Handbooks of Global Policy Series, ed. Robert Falkner (West Sussex: Wiley-Blackwell, 2013), 31.

<sup>113</sup> Interview No. 55

that, the Global Water System Project (GWSP) developed the concept of the “global water system,” which is defined as a set of processes that take place: physical, biological/biogeochemical and human-mediated;<sup>114</sup> therefore looking beyond simply the global hydrological cycle to other processes such as social and political.<sup>115</sup> “Water crosses boundaries – physical, political, cultural, spiritual, which... makes... for a globally-aligned approach....”<sup>116</sup> Other global systems such as trade, banking, weather, fisheries, postal services and telecommunications support this approach.

“Teleconnections,” biophysical, socio-economic and institutional,<sup>117</sup> exist in the global water system<sup>118</sup> where there are “causes and effects on water resources over long distances and may result in severe disturbance or even breakdown of water-dependent social–ecological systems.”<sup>119</sup> Since these “interrelationships are global in character... they can be best understood and then resolved within a global framework.”<sup>120</sup>

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<sup>114</sup> Joseph Alcamo et al, “A grand challenge for freshwater research: understanding the global water system,” 1. Full definition: “...an interacting global water system—defined as a confederation of major players: *physical processes* in the traditional ‘water cycle’; *biological and biogeochemical processes* supported by biodiversity; and *human-mediated processes* associated with water management and governance with strong links to the global economy.”

<sup>115</sup> Interview No. 747

<sup>116</sup> Interview No. 399

<sup>117</sup> Holger Hoff, “Global water resources and their management,” 142

<sup>118</sup> Joseph Alcamo et al, “A grand challenge for freshwater research: understanding the global water system,” 2

<sup>119</sup> Holger Hoff, “Global water resources and their management,” 142

<sup>120</sup> Asit K. Biswas, “Mar del Plata: Twenty Years Later – Concluding Remarks,” in *Proceedings: Mar del Plata 20 Year Anniversary Seminar*, Stockholm, August 16, 1997, 129.

Only a few countries in the world can be completely self-sufficient in terms of water resources, so there is truly a global community when it comes to water resources and a sense of responsibility that goes with that.<sup>121</sup>

#### 2.2.5 Unified principles and vision

What emerged in a significant manner from the interviews, which was almost non-existent in the literature, was that global water governance could bring unified principles and/or a unified vision that does not exist right now worldwide. The water community is a very fragmented one that lacks a unified position on how to move forward towards a more “water-secure world.”<sup>122</sup> This “call” from the interviewees came from all organization types: international organizations, NGOs, think tanks, national governments and the private sector.

While there are many principles regarding water management, most of these are contested,<sup>123</sup> which has a tendency to prevent international regime formation.<sup>124</sup> The purpose behind having global principles is to guide action and behavior at the local and national level, where these principles will be implemented differently,<sup>125</sup> especially when it is time to make national water policies or water management plans.<sup>126</sup> Also, “Most water disputes are impacted, if not resolved ...in accordance with what is perceived to be ...generally applicable rules and principles of international law.”<sup>127</sup>

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<sup>121</sup> Interview No. 336

<sup>122</sup> Swiss proposal for the name of the potential water goal in the post-2015 Development Agenda discussion

<sup>123</sup> See Chapter 6 for a discussion on contested principles

<sup>124</sup> Ken Conca, *Governing Water*, 22

<sup>125</sup> Interview No. 763

<sup>126</sup> Interview No. 682

<sup>127</sup> Interview No. 649 – See also Chapter 5 for a discussion on international water law

Many believe that there should be a move towards global principles on water,<sup>128</sup> which is sometimes the only action at the global level,<sup>129</sup> which need stronger emphasis<sup>130</sup> to bring people together to work towards a common goal.<sup>131</sup> Principles were asked for on specific issues, such as allocation of uses,<sup>132</sup> water resources management,<sup>133</sup> water quality<sup>134</sup> and the human right to water and sanitation.<sup>135</sup>

Having and implementing principles requires a vision, something that is also currently lacking in the water community. Global water governance is “about sharing a vision, a common vision about what should be done.” Once there is a vision, incentives can be given to take action on the local and national level in a consistent and coherent way.<sup>136</sup>

#### 2.2.6 Climate change

As is stated in the throughout the publications by UN-Water, “Water is the primary medium through which climate change influences Earth’s ecosystem and thus the livelihood and well-being of societies.”<sup>137</sup> This is mostly felt through increased flood and drought frequency. It is through climate change that you can see the link between water and the global level.<sup>138</sup>

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<sup>128</sup> Interview Nos. 191, 374, 512, 747, 763, 811 and 976

<sup>129</sup> Interview Nos. 199 and 834

<sup>130</sup> Interview No. 227

<sup>131</sup> Interview No. 21

<sup>132</sup> Interview Nos. 496, 512, 579 and 906

<sup>133</sup> Interview Nos. 505, 579 and 719

<sup>134</sup> Interview No. 512

<sup>135</sup> Interview Nos. 505 and 512

<sup>136</sup> Interview No. 601

<sup>137</sup> UN-Water, *Climate Change Adaptation: The Pivotal Role of Water* (UN-Water, 2010), 3.

<sup>138</sup> Interview Nos. 55, 719, 807 and 997

Climate change is a worldwide phenomenon that threatens consequences on a regional and global scale. Individual state action, whether mitigating or adaptive, is unlikely to achieve the scale of relief necessary to diminish the consequences expected from this unprecedented situation. Only a concerted, collaborative, and large-scale effort based on cooperation and an objective of developing resilience and adaptive capacity will produce the strategies and responses needed to meet the oncoming challenge. Anything less is likely to result in disjointed efforts that exacerbate scarcity and water stress regionally and even globally.<sup>139</sup>

The impact that climate change will have on the world's water makes it "imminently necessary to have a (global) mechanism in place to safeguard... our water for use in the world."<sup>140</sup> Climate change's influence on water has a direct bearing on many issues of security for the world's nations, such as food security, energy security, even military security.<sup>141</sup> Just the impacts of climate change, which are caused by global processes, on water-specific issues such as sea level rise impacting aquifers or floods and storms damaging water infrastructure, is a justification for global water governance.<sup>142</sup> This is especially the case for countries where the causes of these impacts happen outside their borders, as is the case of many developing nations, in particular small island developing states (SIDS).

### 2.2.7 Transboundary waters

While a more in-depth discussion will take place on how the issues of transboundary waters and international water law have impacted the trajectory of global water governance in Chapter 5, this section will focus on why interviewees thought global water governance is necessary, *because* of transboundary waters.

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<sup>139</sup> Gabriel Eckstein, "Water Scarcity, Conflict, and Security in a Climate Change World: Challenges and Opportunities for International Law and Policy," *Wisconsin International Law Journal* 27, no. 3 (2010): 436.

<sup>140</sup> Interview No. 927

<sup>141</sup> Interview No. 983

<sup>142</sup> Interview No. 116

To a certain extent, the argument could be made that this is the most advanced area of global water governance. There is the United Nations Watercourses Convention, while not in force, still represents a codification of customary international water law. At a regional level, there are the UNECE Water and the SADC Revised Protocol, the UNECE convention having gone global in February of 2013, with no ratifications outside its own region yet. In addition to this, there are over 3,600 bi- and multi-lateral treaties worldwide concerning transboundary water systems.<sup>143</sup>

A primary purpose of global water governance as it relates to transboundary waters is conflict resolution,<sup>144</sup> especially considering the future rise in the demand for water.<sup>145</sup> “When a conflict crosses international borders, it requires, if not global oversight, it certainly requires common international principles....”<sup>146</sup> An international issue also requires an international response. You cannot disassociate the nature of the problem from the solution to the problem.<sup>147</sup> The linkages with peace and stability, economic development and regional integration are very much international so require principles, organizations and institutions.<sup>148</sup> To better address the issues that transboundary waters raise, a global water governance regime is necessary.<sup>149</sup> For some, however, focusing on transboundary waters,

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<sup>143</sup> FAO, *Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases by Basin: Volume I*, Legislative Study No. 15 (Rome: 1978) and FAO, *Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases, by Basin: Volume II*, Legislative Study No. 34 (Rome: 1984).

<sup>144</sup> Interview Nos. 418, 846 and 976

<sup>145</sup> Interview Nos. 261 and 612

<sup>146</sup> Interview No. 976

<sup>147</sup> Interview No. 682

<sup>148</sup> Interview No. 821

<sup>149</sup> Interview No. 78, 493, 542, 682 and 881

unifying approaches to international waters management, would be the only value that global water governance would have.<sup>150</sup>

#### 2.2.8 Data

Also, part of the “informative tools” would be data, which is critical to decision-making, especially for water, both managing the resource and in the provision of water and sanitation. Why is there a need for governance of water at the global level? This would help with both data collection and dissemination.

A global water governance framework could help with both (a) the standardization of data,<sup>151</sup> a “coherent information system,”<sup>152</sup> which does not yet exist, and (b) creating a “comprehensive open-source data collection and sharing on water,”<sup>153</sup> making water data public,<sup>154</sup> the two potentially being inextricably linked.

#### 2.2.9 Scarce/finite resource

Water is a finite resource and sometimes a scarce resource. And, because there is no other resource besides air that is more important, or essential, for the survival of humanity, there should be global governance for water.<sup>155</sup> Because it is finite and often contested, likely more so in the future with population growth and economic development, there is a need for global water governance.<sup>156</sup>

In addition, whether it is water resources or drinking water supply, it will increasingly “become one of the major constraints on human, political and economic

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<sup>150</sup> Interview Nos. 261 and 612

<sup>151</sup> Interview No. 564

<sup>152</sup> Interview No. 797

<sup>153</sup> Interview No. 976

<sup>154</sup> Interview No. 276

<sup>155</sup> Interview No. 399

<sup>156</sup> Interview Nos. 16, 282, 317 and 941



development on the planet as whole.”<sup>157</sup> Supplies are becoming scarcer by the day due to pollution and demands are increasing. If the planet were to be managed sustainably, then global water governance would be useful.<sup>158</sup>

#### 2.2.10 Level playing field

What is clear in the international sphere, and at the basin level, is that there are hegemonic states<sup>159</sup> and what some interviewees thought is that global water governance could help level the playing field. Global water governance would also help small states with issues like poverty and equality between countries.<sup>160</sup>

There needs to be “some level of consistency between the way countries treat each other over water,” especially in transboundary basins where hegemons get to “completely rule the roost, in a fairly negative way.”<sup>161</sup> There are big “big power asymmetries and norms will help to level that even if they help ever so slightly.”<sup>162</sup> “The global context can balance the politics of the national context – it can help to support the smallholders whose rights may be affected by intensive water uses.”<sup>163</sup>

#### 2.2.11 Knowledge exchange

Part of Pahl-Wostl, Gupta and Petry’s definition of global water governance is “informative tools.” Some interviewees, amongst them some governments, which

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<sup>157</sup> Interview No. 133

<sup>158</sup> Interview No. 927

<sup>159</sup> See, for example, Mark Zeitoun and Jeroen Warner, “Hydro-hegemony – a framework for analysis of transboundary water conflicts,” *Water Policy* 8, no. 5 (2006): 435-460.

<sup>160</sup> Interview Nos. 636 and 797

<sup>161</sup> Interview No. 797

<sup>162</sup> Interview No. 5

<sup>163</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013).

clearly indicate their hesitancy for global water governance, saw this as the only form of global action that they would like to see.

Respondents supported international fora and platforms for exchanging knowledge, ideas, solutions, best practices and approaches.<sup>164</sup> The purpose being to educate, inform and share lessons learned to differentiate between the “good stories... and the horror stories,” so governments can make informed decisions.<sup>165</sup> Organizations such as the United Nations, the World Bank and the World Water Council play a key role in this.<sup>166</sup>

#### 2.2.12 Others

While the profile of water has been gaining more attention in recent years, the importance of water is still not understood by many decision-makers, especially those with power to make decisions about water, but yet not necessarily in the “water community,” such as finance or planning ministers. Having a more formal global water governance regime could raise the profile of water in other discourses, especially within development.<sup>167</sup> Governance is about “mobilization of ideas, resources and sensitivity”<sup>168</sup> and this is what global water governance could do for water.

Global water governance can be helpful to the other jurisdictional levels as well. Global level activities help spur change at the national level<sup>169</sup> as well as give water experts in national governments a chance to leverage water within their own

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<sup>164</sup> Interview Nos. 136, 291, 356, 402 and 752

<sup>165</sup> Interview No. 714

<sup>166</sup> Interview Nos. 291 and 714

<sup>167</sup> Interview Nos. 698, 864 and 990

<sup>168</sup> Interview No. 245

<sup>169</sup> Interview No. 963

national governments.<sup>170</sup> It can also help the local governments as the capacity for local,<sup>171</sup> and even sometimes national, governments to develop standards/guidelines<sup>172</sup> for different aspects of water, from quality to wetland protection, is not always sufficient, so to have something at the global level that national and local governments can turn to can be an aid.

And, this is not only for governments, but for companies that are involved in water around the globe as well. Governments' laws, regulations and standards vary from country to country and this can be difficult and confusing for the private sector, because of their proliferation,<sup>173</sup> and something at the global level would help them know what is expected of them.<sup>174</sup> The emergence of the multitude of global water initiatives for businesses<sup>175</sup> is an example of trying to make this happen,<sup>176</sup> but there is no central entity coordinating this activity, which would be beneficial.

As will be discussed in Chapter 6, some feel that there is not a more formal global water governance regime, because there is no "water champion," an organization, or even a person, who can galvanize action on water. Since water is spread out through so many areas, there has not been a champion; therefore global

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<sup>170</sup> Interview Nos. 227 and 374

<sup>171</sup> Interview Nos. 170 and 341

<sup>172</sup> Interview Nos. 493, 527, 673 and 701

<sup>173</sup> Interview No. 903

<sup>174</sup> Interview No. 701

<sup>175</sup> For example: UN CEO Water Mandate, World Economic Forum, World Business Council on Sustainable Development, Alliance for Water Stewardship, Water Footprint Network, CDP Water Disclosure, Ceres Aqua Gauge, amongst others.

<sup>176</sup> Interview No. 21

water governance would help create that singular entity, that leader/champion that can fight for the cause of water.<sup>177</sup>

Now that the human right to water and sanitation has been recognized in the United Nations General Assembly<sup>178</sup>, “some standard understanding of what that means internationally would require not 200 different national interpretations, but a common goal or interpretation,”<sup>179</sup> which can be a basis for a more formal type of structure within the United Nations system.<sup>180</sup>

The movement of water outside the national and basin context is also another reason why there should be global water governance. Inter-basin transfers and the exportation of bulk water, which both already occur to some extent, is becoming a larger issue as certain regions deal with water scarcity.<sup>181</sup>

The counter-argument to the previous section’s claim that water is too cross-cutting for global water governance is also a reason why one interviewee said there should be such governance. “What you see is a management mess,” but if you create a framework, it can help people to communicate better, throughout the different levels, streamline efforts and find common ground on contested issues.<sup>182</sup>

There are also some big, systemic structural weaknesses worldwide in the water sector, which require some sort of global body to address them. None have been resolved satisfactorily at the national level. Financing for the water, sanitation and hygiene (WASH) sector, for example, is “extremely poor in being transparent,

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<sup>177</sup> Interview Nos. 170 and 569

<sup>178</sup> United Nations, *Resolution 64/292 – The human right to water and sanitation*, Sixty-fourth session of the United Nations General Assembly, July 28, 2010.

<sup>179</sup> Interview No. 976

<sup>180</sup> Interview No. 78

<sup>181</sup> Interview Nos. 701 and 983

<sup>182</sup> Interview No. 701

open and clear about what it was spending on sanitation, for instance, as opposed to water generally.” These issues were in common at the global level so can only be resolved at the global level.<sup>183</sup>

### 2.3 Multi-level governance

In reality, the world is not so black and white where the answer to whether there is a need for global water governance or not is a “yes” or “no” answer. A third approach is that of a multi-level governance framework, which includes all levels.

Greater recognition is needed of the fact that water is not solely a local, national or regional issue that can be governed at any of those levels alone. On the contrary, global interdependencies are woven through water, and decisions to water use on a local, national, river basin or regional level often cannot be isolated from global drivers, trends and uncertainties.<sup>184</sup>

To best address water issues, all levels are needed.<sup>185</sup> All levels have their responsibilities.<sup>186</sup> “The global ‘water crisis’ is ultimately a ‘governance crisis’ extending from the local to the planetary scale.”<sup>187</sup> Joyeeta Gupta calls this “Glocal Water Governance,” which “refers to the processes by which policymakers and other social actors manage their water resources at global through to local

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<sup>183</sup> Interview No. 462

<sup>184</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk*, 2

<sup>185</sup> Interview Nos. 16, 121, 387, 564, 601, 661 and 935

<sup>186</sup> Alfred M. Duda and Mohamed T. El-Ashry, “Addressing the Global Water and Environment Crises through Integrated Approaches to the Management of Land, Water and Ecological Resources,” *Water International* 25, no. 1 (2000): 124.

<sup>187</sup> Janos J. Bogardi, David Dudgeon, Richard Lawford, Eva Flinterbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty, “Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions,” *Current Opinion in Environmental Sustainability* 4 (2012), 38.

levels.”<sup>188</sup> All of these levels are not mutually exclusive.<sup>189</sup> Historically there has been a focus in public policy circles to focus on one at a time,<sup>190</sup> in a siloed approach, but in fact they must coordinate and work together in order to achieve optimal results.

Water is a global concern yet management of this important resource is as much a household issue as it is a community, national, transboundary and global issue. It is imperative that intervention towards water governance should be inclusive and integrate all concerned since each one of us is a stakeholder.<sup>191</sup>

In the end, it is a multi-level topic that necessitates different actions at different levels.<sup>192</sup>

## 2.4 Conclusion

This chapter has shown that there are varied arguments for why or why not there is a need for global water governance. Although there is much support for global water governance, in some instances, it seems that it depends what the global water governance would look like whether there would be backing for such an idea or not. This will be explored in Chapter 8.

The challenge in governing water resources is striking a balance between the principles of subsidiarity and global governance, bearing in mind the messy middle of institutional overlaps, power, and politics.<sup>193</sup>

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<sup>188</sup> Joyeeta Gupta, “Glocal water governance: Controversies and choices,” in *Water for a Changing World – Developing Local Knowledge and Capacity*, eds. G.J. Alaerts and N.L. Dickinson (London: Taylor & Francis Group, 2009), 101.

<sup>189</sup> Claudia Pahl Wostl et al, “Governance of the Global Water System: A Theoretical Exploration,” 422

<sup>190</sup> Robert G. Varady, Frank van Weert, Sharon B. Megdal, Andrea Gerlak, Christine Abdalla Iskandar and Lily House-Peters, “Groundwater Policy and Governance,” FAO/GEF Thematic Paper No. 5 – Groundwater Governance: A Global Framework for Country Action (June, 2012), 11.

<sup>191</sup> Interview No. 93

<sup>192</sup> Interview Nos. 855 and 976

<sup>193</sup> Lyla Mehta, “Problems of Publicness and Access Rights: Perspectives from the Water Domain,” in *Providing Global Public Goods: Managing Globalization*, eds. Inge Kaul, Pedro Conceição, Katell Le Goulven and Ronald U. Mendoza (New York: Oxford University Press, 2003), 570.

In the end, whether global water governance exists or not, there is always a prerequisite that implementation must occur at the local, national and river basin levels. Those solutions need to be tailored to the “culture, to the legal and ethical principles that apply within a given watershed...”<sup>194</sup> Otherwise, such a concept would be impossible to make happen, which gives birth to the concept of multi-level governance, from the local to the global and optimizing the interrelationships between these levels to better sustainably manage water at all levels.

Now that the viewpoints from the interviewees have been discussed on whether global water governance is necessary or not, the next chapter will focus on the history of global water governance, both laying out what has occurred until present as well as responses from interviewees about which particular events have had an impact on the trajectory of global water governance.

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<sup>194</sup> Interview No. 834

### **Chapter 3    A brief history of global water governance**

While the study of global water governance is only a very recent occurrence, events and activities within global water governance have been taking place for well over 100 years. The majority of these events have come since the 1990s, but there is a timeline to show in terms of what has happened at the global level with regards to water. It is important to examine these events to not only see where we have been, but to see what our path is for the future.

This chapter will contain two sections. The first will be a timeline of events from the late 1800s to present including a brief explanation of certain authors' classification of time periods of water management and governance at the global level. The sources of this section will come from the literature and documents related to the events themselves.

The second part will focus on the interviews conducted; specifically the observations of the interviewees in terms of what their perception is of the events that most had an influence over both the trajectory of global water governance and the global discourse on water. In some cases, these points of view will be supported by documents and the literature.

#### **3.1    A look back at global water governance**

Activities related to water at the global level have been gaining momentum over the past century. It could be said that there has been exponential growth of the number of events and organizations that address global water issues. The following section will describe these events that loosely make up part of the current piecemeal, both informal and formal global water governance regime.



The first water-related intergovernmental meeting took place in Paris in 1851, known as the International Sanitary Conference, which began a series of 14 conferences on the subject that occurred at irregular intervals until 1938 and the beginning of World War II. These conferences provided the spirit behind which the World Health Organization (WHO) was founded in 1948.<sup>1</sup> While several initiatives were put forth to the conference on the spread of cholera and other communicable diseases, the conferences were fairly unsuccessful until the 7<sup>th</sup> Conference in 1892 when a treaty was approved to establish maritime quarantine regulations.<sup>2</sup>

In 1873, the precursor to the World Meteorological Organization (WMO), the International Meteorological Organization was founded after the first international meeting on meteorology in Brussels in 1853, which was designed to share weather information between states.<sup>3</sup>

Following World War I, and directly related with the initiatives of the League of Nations, water started to appear on the international agenda, specifically with regards to navigation and hydropower.

The first convention on water was the Convention and Statute on the Regime of Navigable Waterways of International Concern, signed in Barcelona in 1921,<sup>4</sup> which set minimum standards for navigation<sup>5</sup> and stated that “Each riparian State is bound, on the one hand, to refrain from all measures likely to prejudice the

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<sup>1</sup> Harvard University, *International Sanitary Conferences* (accessed October 22, 2013); available from <http://ocp.hul.harvard.edu/contagion/sanitaryconferences.html>.

<sup>2</sup> Ibid.

<sup>3</sup> John C. Rodda, “Whither World Water?” *Water Resources Bulletin* 31, no. 1 (1995): 3.

<sup>4</sup> League of Nations, *Convention and Statute on the Regime of Navigable Waterways of International Concern*, Treaty Series, Vol. VII, Barcelona, April 20, 1921.

<sup>5</sup> Katak B. Malla, *The Legal Regime of International Watercourses: Progress and Paradigms Regarding Uses and Environmental Protection* (Stockholm: Stockholm University, 2005), 35.

navigability of the waterway....”<sup>6</sup> While this Convention and Statute, which was signed by 40 states,<sup>7</sup> was groundbreaking in being the first such treaty, it failed, because the convention did not have a truly global perspective in that it did not “...effectively combine the different approaches to the principle of freedom of navigation that had emerged on different continents....”<sup>8</sup>

Shortly thereafter, the first convention on non-navigable uses was signed, which was the Convention Relating to the Development of Hydraulic Power Affecting More Than One State in 1923.<sup>9</sup> This convention encouraged states to take into consideration the interests of other riparian states when carrying out hydropower projects on shared rivers<sup>10</sup> and promoted cooperation where possible.<sup>11</sup>

It was also around this time that international professional and scientific societies and organizations related to water began to emerge, most of which are still in existence today. The first was the International Association of Hydrological Sciences (IAHS) in 1922, an organization that is dedicated to expanding the knowledge of the science of hydrology.<sup>12</sup> In 1928, the International Commission on

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<sup>6</sup> League of Nations, *Convention and Statute*, Article 10

<sup>7</sup> UN Treaty Collection, *Convention and Statute on the Regime of Navigable Waterways of International Concern* (accessed October 22, 2013); available from <http://treaties.un.org/Pages/LONViewDetails.aspx?src=LON&id=555&lang=en>.

<sup>8</sup> Laurence Boisson de Chazournes, “Freshwater and International Law: The Interplay between Universal, Regional and Basin Perspectives,” World Water Assessment Programme Side publication series, World Water Development Report 3 (2009), 2.

<sup>9</sup> League of Nations, *Convention relating to the Development of Hydraulic Power affecting more than one State, and Protocol and Signature*, Treaty Series XXXVI, Geneva, December 9, 1923.

<sup>10</sup> Laurence Boisson de Chazournes, “Freshwater and International Law: The Interplay between Universal, Regional and Basin Perspectives,” 3

<sup>11</sup> League of Nations, *Convention relating to the Development of Hydraulic Power*, Article 3

<sup>12</sup> See <http://www.iahs.info>

Large Dams (ICOLD)<sup>13</sup> was founded followed in 1935 by the International Association of Hydraulic Engineering Research (IAHR).<sup>14</sup>

It was not until after World War II and the creation of the United Nations when global activity on water issues truly commenced. The desire to avoid a new war of global proportions brought the nations of the world together to create the United Nations. This spirit was embodied in the preamble of UNESCO's constitution, which states, "Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed."<sup>15</sup>

In realization that many of the world's issues cross national borders, the UN was brought together to reduce the amount of conflict by improving the well-being of the world's citizens through the creation of the UN's many specialized agencies<sup>16</sup> such as WHO, UNESCO, the Food and Agricultural Organization (FAO), etc. Given the post-war boom in development in developed countries, this period was also marked by large, ambitious water-related projects such as dams, tidal barrages, hydroelectric plants, irrigations schemes, tidal barrages, river diversions, the draining of wetlands and inter-basin transfers.<sup>17</sup>

Following the proliferation of UN agencies, UNESCO's International Hydrological Decade, from 1965 to 1974, was "man's first concerted attempt to take stock of his diminishing available resources of fresh water and to co-ordinate world-

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<sup>13</sup> See <http://www.icold-cigb.org>

<sup>14</sup> See <http://www.iahr.org>. Now known as the International Association for Hydro-Environment Engineering and Research

<sup>15</sup> UNESCO, *UNESCO Constitution*, November 16, 1945 (accessed October 22, 2013); available from: [http://portal.unesco.org/en/ev.php-URL\\_ID=15244&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=15244&URL_DO=DO_TOPIC&URL_SECTION=201.html)

<sup>16</sup> Robert G. Varady, Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih, "Strengthening Global Water Initiatives," *Environment* 50, no. 2 (2008), 22.

<sup>17</sup> Ibid.

wide research on ways of making better use of them.”<sup>18</sup> According to Varady and Iles-Shih, who conducted a survey asking about the most influential events in global water management history, the UNESCO Decade was seen as the most influential,<sup>19</sup> a “catalyst for many subsequent developments in hydrological science, education, training, and implementation.”<sup>20</sup> One of the Decade’s main objectives was to make an “appraisal of the state of knowledge of the hydrology and water resources of the world.”<sup>21</sup> A comprehensive inventory was finished in 1978 allowing for the first time to examine the state of the world’s freshwater availability.<sup>22</sup> During the Decade over 3,000 basic studies of water flow were carried out.<sup>23</sup>

At the same time that international organizations started to focus on water, organizations that concentrated on international law were starting to turn their attention to international water issues. While the Institute of International Law (IIL), a non-governmental organization, put forward the Madrid Declaration in 1911 prohibiting activities that might hurt other riparian nations within shared river basins,<sup>24</sup> the real push came from the International Law Association (ILA) in 1956

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<sup>18</sup> Raymond L. Nace, *The International Hydrological Decade: Water and man; a world view*, UNESCO (Paris: Imprimeries Oberthur, 1969), 6.

<sup>19</sup> Although the decade was only being compared against the 1981-1990 International Decade of Drinking Water and Sanitation (see later this chapter) and the International Year of Freshwater.

<sup>20</sup> Robert G. Varady and Matthew Iles-Shih, “Global Water Initiatives: What do the Experts Think? Report on a Survey of Leading Figures in the World of Water,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 38.

<sup>21</sup> Raymond L. Nace, *The International Hydrological Decade: Water and man; a world view*, 38-39. The other objectives were the (2) standardization of instrument observations; (3) establishment of networks for data collection; (4) research on hydrological systems; (5) research on specific hydrological problems, (6) training and education in hydrology; and (7) systematic exchanges of information.

<sup>22</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” 21

<sup>23</sup> Robin Clarke, *Water: The International Crisis* (London: Earthscan Publications, 1991), 170.

<sup>24</sup> The Madrid Declaration was subsequently replaced by the IIL’s Salzburg Resolution in 1961. Institute of International Law, *International Regulation regarding the Use of International Watercourses for Purposes other than Navigation*, Declaration of Madrid, 20 April 1911 and Institute of International Law, *Resolution on the Use of International Non-Maritime Waters*, Salzburg, 11 September 1961.

and 1958 with its Dubrovnik Statement and the more refined New York Resolution, respectively.<sup>25</sup> The New York Resolution introduced the terminology that is still used today emphasizing that “each co-riparian State is entitled to a reasonable and equitable share in the beneficial uses of the waters of the drainage basin.”<sup>26</sup> This was the same year that the United Nations was conducting work on “integrated river basin management.”<sup>27</sup> The ILA’s work continued over the next 8 years, finishing at a meeting in Helsinki in 1966, whose outcome was the “Helsinki Rules on the Uses of the Waters of International Rivers.”<sup>28</sup> It was in these rules that the principle of “equitable utilization” was established and became the “guiding rule for the work of the ILA in the field of international rivers.”<sup>29</sup> Also of note within the Helsinki Rules was the first mention of groundwater in any global legal instrument.<sup>30</sup>

By the late 1960s, many countries, both developed and developing, were starting to feel the impacts of humans on the environment, most notably in terms of pollution, and they needed to be addressed urgently. In an attached memorandum in a letter from the Swedish Permanent Representative to the United Nations to the Secretary-General, it stated that these problems could only be solved through

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<sup>25</sup> Salman M.A. Salman, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law,” *International Journal of Water Resources Development* 23, no. 4 (2007): 628.

<sup>26</sup> ILA, *Resolution on the Use of the Waters of International Rivers*, Report of the 48<sup>th</sup> Conference, New York, 1958.

<sup>27</sup> United Nations, *Integrated River Basin Development: A Report by a Panel of Experts* (Sales No. 58.II.B.3, 1958)

<sup>28</sup> ILA, *The Helsinki Rules on the Uses of the Waters of International Rivers*, Report of the 52<sup>nd</sup> Conference, Helsinki, August, 1966.

<sup>29</sup> Salman M.A. Salman, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law,” 629

<sup>30</sup> ILA, *The Helsinki Rules on the Uses of the Waters of International Rivers*, Article I

international cooperation and proposed to convene a conference under the auspices of the UN to develop solutions.<sup>31</sup> On 3 December 1968, the UN General Assembly (UNGA) decided, in resolution 2398 (XXIII) to convene a United Nations Conference on the Human Environment,<sup>32</sup> which was to be held on 5–16 June 1972 in Stockholm, Sweden.

Overall, the Stockholm Conference was a huge success. The goal of the conference was to raise awareness about the environment and, because of the preparatory process, this was achieved before the meeting took place. The Stockholm Conference also legitimized the environment as a national and international concern, was instrumental in building national and international instruments in the field of environment, established a framework for treaty making, was the first UN event where civil society participated and had an impact on the outcome and became a model for UN conferences.<sup>33</sup>

While issues surrounding water did not play a prominent role in the Declaration of the conference itself, they were more noticeable in the Action Plan where there were five water-related recommendations focused on (1) river basin cooperation, including commissions, with due notice to issues of sovereignty, (2) UN bodies to support government action with regards to water resources, (3) UN bodies to support governments technically and financially, (4) evaluation of environmental impacts of water projects and (5) assessing the impacts of water

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<sup>31</sup> United Nations, *Declaration of the United Nations Conference on the Human Environment*, United Nations Audiovisual Library of International Law; available from [http://legal.un.org/avl/pdf/ha/dunche/dunche\\_ph\\_e.pdf](http://legal.un.org/avl/pdf/ha/dunche/dunche_ph_e.pdf).

<sup>32</sup> Ibid.

<sup>33</sup> Lars-Göran Engfeldt, "From Stockholm to Johannesburg and beyond: the evolution of the international system for sustainable development governance and its implications" (Stockholm: Swedish Ministry of Foreign Affairs, 2009), 86-87.

management on oceans.<sup>34</sup> While some have called these recommendations “rather selective and vague”,<sup>35</sup> others have noted the importance of the principles of prior notification and efficient management of water.<sup>36</sup>

It was about this time as well that the UNGA, in 1970, asked the International Law Commission (ILC) to study the topic of international watercourses. In 1971 they started working on a draft Convention that would take almost three decades to finish.<sup>37</sup>

In the same year, the Convention on Wetlands of International Importance especially as Waterfowl Habitat was signed, also known as the Ramsar Convention for the city where the convention was established (Ramsar, Iran). It has 168 contracting parties, and protects over 2,100 wetlands covering over 205,000,000 hectares.<sup>38</sup> Although not a United Nations convention, Ramsar primarily focuses on the protection, conservation and wise use of wetlands for waterfowl,<sup>39</sup> although this has expanded to include all uses of wetlands.<sup>40</sup>

In 1971, the Committee on Natural Resources of the UN, in its first session, started to discuss the possibility of convening a major water conference initially

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<sup>34</sup> United Nations, *Report of the United Nations Conference on the Human Environment*, A/CONF.48/14/Rev.1, Stockholm, June 5-16, 1972, 17-18.

<sup>35</sup> Waltina Scheumann and Axel Klaphake, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10,” (Bonn: Deutsches Institut für Entwicklungspolitik, 2001).

<sup>36</sup> H.H.G. Savenije and A.Y. Hoekstra, “Water Resources Management,” in *Knowledge for sustainable development: An insight into the encyclopedia of life support systems*, Volume II, UNESCO Publishing/EOLSS Publishers, 2003, 4.

<sup>37</sup> Salman M.A. Salman, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law,” 631

<sup>38</sup> See <http://www.ramsar.org>

<sup>39</sup> Ramsar Conference, *The Final Act of the International Conference on Conservation of Wetlands and Waterfowl*, Ramsar, Iran, January 30 – February 3, 1971.

<sup>40</sup> Alejandro Iza, ed., *International Water Governance: Conservation of Freshwater Ecosystems: Volume I – International Agreements Compilation and Analysis*, IUCN International Law Programme, IUCN Environmental Policy and Law Paper No. 55 (Gland: IUCN, 2004).

with the idea to share experiences in water management between countries. After several more discussions and the Economic and Social Council (ECOSOC)'s approval, Resolution 3513 was passed in the UNGA in 1975 to organize such a meeting.<sup>41</sup> One of the "...principal purposes of the Conference was to alert the international community to the world's water situation and to create a state of preparedness, which would, it was hoped, prevent world water stringencies from assuming crisis proportions."<sup>42</sup>

The United Nations Water Conference, held in Mar del Plata, Argentina from 14–25 March 1977, was the first global water meeting of its kind, with participants from a high policy-making level,<sup>43</sup> and helped focus attention exclusively on water for the first time.<sup>44</sup> The outcome was the 60-page Mar del Plata Action Plan (MPAP), full of recommendations ranging from assessment of water resources to training and research, and culminating with 10 resolutions.

The overall reaction to Mar del Plata was very positive and is considered today a "major milestone"<sup>45</sup> and a "major benchmark in the area of water development and management",<sup>46</sup> producing a wealth of knowledge<sup>47</sup> and resulting

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<sup>41</sup> Asit K. Biswas, "United nations water conference action plan," *International Journal of Water Resources Development* 4, no. 3 (1988): 148-149.

<sup>42</sup> Enzo Fano, "Beyond the United Nations Water Conference," *Natural Resources Forum* 1, no. 4 (1977): 379.

<sup>43</sup> WMO-UNESCO, *Report on Water Resources Assessment: Progress in the Implementation of the Mar del Plata Action Plan and a Strategy for the 1990s* (1991), 13.

<sup>44</sup> Salman M.A. Salman, "From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?" *Water International* 28, no. 4 (2003): 492.

<sup>45</sup> Peter H. Gleick and Jon Lane, "Large International Water Meetings: Time for Reappraisal," *Water International* 30, no. 3 (2005): 411.

<sup>46</sup> Asit K. Biswas, "From Mar del Plata to Kyoto: an analysis of global water policy dialogue," *Global Environmental Change* 14, supplement (2004): 82.

<sup>47</sup> Asit K. Biswas, "Impacts of Megaconferences on Global Water Development and Management," in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 6.



in the beginning of a global epistemic community for water,<sup>48</sup> which marked the beginning of a global water policy process.<sup>49</sup>

However, the implementation and follow-up was less than ideal, some say a major failure,<sup>50</sup> and momentum was not maintained.<sup>51</sup> Progress on the MPAP was very slow and entirely missing in some parts of the world, and ignored by others.<sup>52</sup> Much of this can be attributed to the fact that it was fully 13 years after Mar del Plata before the UN system started to talk about implementation,<sup>53</sup> which made some of the recommendations outdated as the efforts were being overtaken by population growth, urbanization and industrialization.<sup>54</sup> Failure to implement these recommendations was further exacerbated by the recession in the 1980s.<sup>55</sup>

One of the main outcomes of the UN Water Conference was that “...governments commit to provide all people with water of safe quality and adequate quantity and basic sanitary facilities by 1990”,<sup>56</sup> as the Conference stated that “...all peoples, whatever their stage of development and their social and

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<sup>48</sup> F. G. Mukhtarov, “Global Water Governance and the Concept of Legitimacy,” *Proceedings of the GRSC/GARNET International Conference on "Pathways to Legitimacy."* University of Warwick, September 17-19, 2007, 6.

<sup>49</sup> Pierre Najlis and Johan Kuylensstierna, “Twenty Years After Mar del Plata – Where do we stand and where do we go?” in *Proceedings: Mar del Plata 20 Year Anniversary Seminar*, Stockholm, August 16, 1997, 20.

<sup>50</sup> Malin Falkenmark, “Global Water Issues Confronting Humanity,” *Journal of Peace Research* 27, no. 2 (1990): 185.

<sup>51</sup> Anthony Milburn, “International Water Conferences and Water Sector Reform: A Different Approach,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 116.

<sup>52</sup> John C. Rodda, “Whither World Water?” 4

<sup>53</sup> Malin Falkenmark, “Global Water Issues Confronting Humanity,” 186

<sup>54</sup> Malin Falkenmark, “Mar del Plata Anniversary Seminar: Analytical Summary,” in *Proceedings: Mar del Plata 20 Year Anniversary Seminar*, Stockholm, August 16, 1997, 7.

<sup>55</sup> Terrence Lee, “Water management since the adoption of the Mar del Plata Action Plan: Lessons for the 1990s,” *Natural Resources Forum* 16, no. 3 (1992): 202.

<sup>56</sup> United Nations, *Water Development and Management: Proceedings of the United Nations Water Conference*, Water Development, Supply and Management Series (Oxford: Pergamon Press, 1978), 320.

economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic needs.”<sup>57</sup> The main mechanism of this was the International Drinking Water Supply and Sanitation Decade (1981–1990), which was proposed first at the United Nations Conference on Human Settlements in 1976 and reiterated in the Mar del Plata Action Plan.<sup>58</sup>

Although cooperation had existed between water-related UN bodies and agencies since the 1950s through the Committee on Natural Resources and the Administrative Sub-Committee on Coordination,<sup>59</sup> Mar del Plata caused a more formal approach to be taken most notably in the form of the UN Intersecretariat Group for Water Resources (ISG-WR) in 1979. At the time, there were 24 UN entities that were part of the ISG-WR,<sup>60</sup> which resided under the ACC. The purpose of the ISG-WR was to (1) cooperate in the monitoring of the progress of the MPAP, (2) promote cooperation over water-related activities within the UN system and (3) assist in coordinating activities at the country and regional levels.<sup>61</sup>

The goal of universal access to water and sanitation was a lofty one, which still has not been achieved today and is not likely to be reached for several decades. While a major effort was made, resulting in 1.4 billion people receiving access to water and 748 million to sanitation from 1981 to 1990, population growth and low economic growth impacted governments’ ability to implement actions and stymied

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<sup>57</sup> Ibid., 319

<sup>58</sup> Ibid., 278

<sup>59</sup> Y.A. Mageed and Gilbert F. White, “Critical Analysis of Existing Institutional Arrangement,” *International Journal of Water Resources Development* 11, no. 2 (1995): 103.

<sup>60</sup> John C. Rodda, “Whither World Water?” 4

<sup>61</sup> Y.A. Mageed et al, “Critical Analysis of Existing Institutional Arrangement,” 105

the efforts of the Decade.<sup>62</sup> The United Nations recognized that this failure indicated that an intensification of efforts would be needed through national governments and international cooperation.<sup>63</sup> However, the Decade did create awareness about the importance of water and sanitation and its potential impact on economic development.<sup>64</sup>

At the end of the Decade a meeting was convened in New Delhi in 1990,<sup>65</sup> which was the first truly global meeting on water and sanitation,<sup>66</sup> and seen as a follow-up to the Decade. One-third of the world's population still lacked water and sanitation, "these two most basic requirements for health and dignity."<sup>67</sup> The New Delhi Statement, evoking the theme "Some for all rather than more for some," endorsed four guiding principles focusing (1) on environmental protection, (2) institutional reforms promoting integrated approaches, including the full participation of women, (3) community management of services and (4) sound financial practices.<sup>68</sup> Overall, the document goes beyond simply water and focuses on a broader construction of the issues.<sup>69</sup> The end of the Decade also produced a resolution by the United Nations that created the Water Supply and Sanitation

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<sup>62</sup> Pierre Najlis and Anthony Edwards, "The International Drinking Water Supply and Sanitation Decade in retrospect and implications for the future," *Natural Resources Forum* 15, no. 2 (1991): 111-113.

<sup>63</sup> United Nations, *International Drinking Water Supply and Sanitation Decade*, A/RES/45/181, 71<sup>st</sup> Plenary Meeting, United Nations General Assembly, December 21, 1990.

<sup>64</sup> Pierre Najlis et al, "The International Drinking Water Supply and Sanitation Decade in retrospect and implications for the future," 110 and H.H.G. Savenije et al, "Water Resources Management," 4.

<sup>65</sup> UNDP Global Consultation on Safe Water and Sanitation for the 1990s, 10-14 September 1990.

<sup>66</sup> Martin G. Beyer, "The Global Consultation on Safe Water and Sanitation for the 1990s," *Natural Resources Forum* 15, no. 2 (1991): 119.

<sup>67</sup> United Nations, *New Delhi Statement: Some for all rather than more for some*, A/C.2/45/3, Forth-fifth session, United Nations General Assembly, October 11, 1990.

<sup>68</sup> Ibid.

<sup>69</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 131 and UNU-INWEH, *Deep Words, Shallow Words: An Initial Analysis of Water Discourse in Four Decades of UN Declarations* (Hamilton, Ontario: UNU-INWEH, 2011), 34.

Collaborative Council (WSSCC), which was charged with completing the work that was unfinished by the 1981–1990 Decade.<sup>70</sup>

A ten-year review of the 1972 Stockholm Conference by the United Nations Environment Programme (UNEP), which was created following the conference, concluded that while awareness of environmental problems were at an all-time high, environment was still considered a very low priority for national governments and progress was slow. As a result of this review, the independent World Commission on Environment and Development (WCED), otherwise known as the Brundtland Commission after its chair, Dr. Gro Harlem Brundtland, Prime Minister of Norway, was established with the goal of unifying the international community towards cooperative action on sustainability. The major breakthrough of the Commission was “...that it operationalized the concept of sustainable development in political, economic and institutional terms and also give it a strong political impetus.”<sup>71</sup>

Unfortunately, while the Brundtland Commission put sustainable development on the global agenda, water, even though mentioned throughout the report, was not a major or even minor focus of the Commission,<sup>72</sup> which many people attribute to a “water blindness” that took place during the decade of the 1980s.<sup>73</sup> This showed a gap between international water experts and the

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<sup>70</sup> United Nations, *International Drinking Water Supply and Sanitation Decade*; see also <http://www.wsscc.org>

<sup>71</sup> Lars-Göran Engfeldt, “From Stockholm to Johannesburg and beyond,” 107-110

<sup>72</sup> WCED, *Our Common Future* (New York: Oxford University Press, 1987).

<sup>73</sup> FAO, *New Dimensions of Water Security: Water, society and ecosystem services in the 21<sup>st</sup> Century*, Land and Water Division (Rome: FAO, 2000), 28 and Asit K. Biswas, “Deafness to Global Water Crisis: Causes and Risks,” *Ambio* 27, no. 6 ((1998): 493.

environmental and development community that “led to an underestimation of the seriousness of the global water situation.”<sup>74</sup>

While the 1980s is considered by some to be the “lost decade” for international water policy,<sup>75</sup> the 1990s is when water truly started to gain attention and momentum at the global level.

Following New Delhi, the next major global conference on water was the International Conference on Water and the Environment (ICWE), held in Dublin, Ireland in the beginning of 1992. The purpose of ICWE was to prepare for the primary input from the water community to the United Nations Conference on Environment and Development (UNCED), otherwise known as the Earth Summit, in Rio di Janeiro, Brazil, which was to take place later that year.

ICWE was hosted by the Irish Government and organized by the UN ACC- ISGWR, whose chair at the time was WMO, which was administratively responsible and housed the ICWE Secretariat in Geneva.<sup>76</sup> The United Nations was the convening entity, but it was not a normal UN meeting in that the participants were government-nominated experts as the participants did not want to pre-empt their governments’ positions at the preparatory meetings to UNCED. This meant that the outcome of the meeting, which was officially not intergovernmental, did not have to be taken into account during the UNCED process.<sup>77</sup> Some saw this as a failure of the

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<sup>74</sup> Waltina Scheumann et al, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10”

<sup>75</sup> Waltina Scheumann et al, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10”

<sup>76</sup> Gordon J. Young, James C.I. Dooge and John C. Rodda, *Global Water Resource Issues* (Cambridge: Cambridge University Press, 2004), 34.

<sup>77</sup> Ibid., 32-33

conference.<sup>78</sup> Also critical factors in its lack of success on influencing the Earth Summit was the weak participation of developing countries, that it was held less than four months before UNCED<sup>79</sup> and that it did not take into consideration the outcomes of Mar del Plata.<sup>80</sup>

The major outcome of Dublin was what is known as the Dublin Principles, which have been heavily referenced ever since the conference. In brief, they are:<sup>81</sup>

1. Freshwater is a finite and vulnerable resource, essential to sustain life, development and the environment;
2. Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels;
3. Women play a central part in the provision, management, and safeguarding of water; and
4. Water has an economic value in all its competing uses, and should be recognised as an economic good.

The Dublin Principles “can be judged as one of the clearest, most comprehensive and far-reaching statements of water management up to today”<sup>82</sup> and have had a large impact on shaping water governance.<sup>83</sup> Even though the concept of integrated water resources management (IWRM) had been discussed for many years, Dublin was the first time that this concept was adopted by the

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<sup>78</sup> Asit K. Biswas, “Impacts of Megaconferences on Global Water Development and Management,” 9 and Muhammad Mizanur Rahaman and Olli Varis, “Integrated water resources management: evolution, prospects and future challenges,” *Sustainability: Science, Practice and Policy* 1, no. 1 (2005): 16.

<sup>79</sup> Ibid.

<sup>80</sup> Asit K. Biswas, “From Mar del Plata to Kyoto: an analysis of global water policy dialogue,” 83

<sup>81</sup> International Conference on Water and Environment, “The Dublin Statement on Water and Sustainable Development,” available from <http://www.wmo.int/pages/prog/hwarp/documents/english/icwedece.html>.

<sup>82</sup> Waltina Scheumann et al, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10”

<sup>83</sup> Joyeeta Gupta, “Global Water Governance,” in *The Handbook of Global Climate and Environmental Policy*, Handbooks of Global Policy Series, ed. Robert Falkner (West Sussex: Wiley-Blackwell, 2013), 23.

international community and codified in the first two principles.<sup>84</sup> According to the Global Water Partnership, IWRM is “...a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.”<sup>85</sup> IWRM continues to be the primary theoretical management paradigm for water.<sup>86</sup>

The Dublin Principles are not without controversy. First was the issue of how to implement the principles. There was no discussion about the operationalization of the principles<sup>87</sup> and it has been found that their application is difficult.<sup>88</sup> While the role of women is featured in the 3<sup>rd</sup> Principle, in subsequent documents promoting IWRM, they continue to be left out.<sup>89</sup> The 4<sup>th</sup> Principle has also created some issues, as it would seem that the idea of water as an “economic good” diverges from the outcome of the UN Water Conference, which stated that water was a human right<sup>90</sup> or the view from some of the Muslim world that water is something given by God and cannot be owned. This is one of water’s “contested principles” that will be addressed in Chapter 6.

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<sup>84</sup> H.H.G. Savenije et al, “Water Resources Management,” 4

<sup>85</sup> Global Water Partnership, *Integrated Water Resources Management*, Global Water Partnership Technical Committee Background Papers No. 4 (Denmark: Global Water Partnership, 2000), 22.

<sup>86</sup> See Chapter 5 for further discussion

<sup>87</sup> Asit K. Biswas, “From Mar del Plata to Kyoto: an analysis of global water policy dialogue,” 84

<sup>88</sup> Saeed Rana and Lauren Kelly, “The Global Water Partnership: Addressing Challenges of Globalization – An Independent Evaluation of the World Bank’s Approach to Global Programs,” The World Bank Operations Evaluation Department (Washington DC: The World Bank, 2004), 8.

<sup>89</sup> See Miguel Solanes and Fernando Gonzalez-Villarreal, *The Dublin Principles for Water as Reflected in a Comparative Assessment of Institutional and Legal Arrangements for Integrated Water Resources Management*, Global Water Partnership Technical Committee Background Papers No. 3 (Sweden: Global Water Partnership, 1999) and World Bank, “Water Resources Sector Strategy: Strategic Directions for World Bank Engagement” (Washington DC: World Bank, 2004).

<sup>90</sup> Ken Conca, *Governing Water*, 142

Twenty years after Stockholm and a few short months after Dublin, the Earth Summit took place in Rio in June 1992 capping off a three-year negotiation process whose aim it was to create “a blueprint for action to achieve sustainable development worldwide.”<sup>91</sup> During the previous 20 years, the polarizing interests and concerns related to sustainable development of developing and developed countries had increased a significant amount, which was one of the major obstacles heading into UNCED.<sup>92</sup>

Outside of the Rio Declaration and the three Rio Conventions<sup>93</sup>, the primary outcome of the Earth Summit was Agenda 21, a “handbook for action” that not only had specific implementation language, but also provided cost estimates for such implementation.<sup>94</sup> While water was not one of the main focuses of the negotiations,<sup>95</sup> and received not a single mention in the Rio Declaration,<sup>96</sup> a full chapter<sup>97</sup> was spent outlining water-related activities for the coming decades, “...by and large, an elaboration of the Mar del Plata Action Plan....”<sup>98</sup>

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<sup>91</sup> United Nations, *UNCED Conference*, (accessed October 22, 2013); available from <http://www.un.org/geninfo/bp/enviro/html>.

<sup>92</sup> Lars-Göran Engfeldt, “From Stockholm to Johannesburg and beyond,” 141

<sup>93</sup> (1) UN Framework Convention on Climate Change (UNFCCC), (2) UN Convention to Combat Desertification (UNCCD) and (3) Convention on Biological Diversity (CBD).

<sup>94</sup> Lars-Göran Engfeldt, “From Stockholm to Johannesburg and beyond,” 161

<sup>95</sup> Waltina Scheumann et al, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10”

<sup>96</sup> UNCED, *Rio Declaration on Environment and Development*, United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, June 3-14, 1992.

<sup>97</sup> UNCED, *Agenda 21 - Chapter 18: Protection Of The Quality And Supply Of Freshwater Resources: Application Of Integrated Approaches To The Development, Management And Use Of Water Resources*, available from <http://www.un-documents.net/a21-18.htm>.

<sup>98</sup> Salman M.A. Salman, “From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?” 493



On the whole, the most controversial water topics were left out of Chapter 18, namely the mention of large infrastructure (dams), privatization and pricing.<sup>99</sup> In addition, there was weak language for transboundary water issues. The issue of water as an economic good was revisited and the wording from the Dublin Principles was softened, due to pressure by a number of developing countries<sup>100</sup> to include mention of water as both an economic *and* social good.<sup>101</sup> Overall, Agenda 21 was not successful in creating a strategic approach to international water policy<sup>102</sup> and failed to ascribe a great deal of urgency or priority to water issues,<sup>103</sup> but still remains a cornerstone in global water governance as will be made clear later in this chapter.

Shortly after the Earth Summit, the UNGA passed a resolution, based on a recommendation of UNCED, to observe a World Water Day, held every year on 22 March, and which invites countries to devote a day to public awareness with regard to water and the recommendations coming from Agenda 21.<sup>104</sup> Each year thousands of events worldwide are organized by local, national, regional and international bodies, from all sectors, promoting general water issues and a theme selected by

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<sup>99</sup> Ken Conca, *Governing Water*, 145

<sup>100</sup> Waltina Scheumann et al, "Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10"

<sup>101</sup> UNCED, *Agenda 21 - Chapter 18*, sections 18.8, 18.15, 18.17.

<sup>102</sup> Ayşegül Kibaroglu, *Building a Regime for the Waters of the Euphrates-Tigris River Basin*, International and National Water Law and Policy Series (London: Kluwer Law International, 2002), 82.

<sup>103</sup> Brian Grover and Asit K. Biswas, "It's Time for a World Water Council," *Water International* 18, no. 2 (1993): 81.

<sup>104</sup> United Nations, *Observance of World Day for Water*, A/RES/47/193, 93<sup>rd</sup> Plenary meeting, United Nations General Assembly, December 22, 1992.

UN-Water.<sup>105</sup> During the same period, the predecessor of UN-Water (see below) was changed from the ISGWR to the ACC Sub-Committee on Water Resources.<sup>106</sup>

1991 was the year that a tradition began in the water community with the first ever World Water Week. This annual event held in Stockholm was originally organized by the city of Stockholm, but through the Week's development, the Stockholm International Water Institute (SIWI) was established and took over its organization. World Water Week is important, because it has been an informal platform now for over two decades for the exchange of ideas, fostering new thinking and linking best practices, scientific understanding and decision-making.<sup>107</sup> Today it is the most significant yearly global event on water.

In the "follow-up" section of the Dublin Statement, the proposal was made to consider a "world water council" in which all stakeholders could participate in.<sup>108</sup> At the 1994 International Water Resources Association's World Water Congress, a special session agreed to create the World Water Council. This World Water Council was to serve as an umbrella organization uniting various stakeholders to be a think tank with global reach in a position to alert political leaders to give water a priority that had not existed before.<sup>109</sup> In 1996, the World Water Council became a reality with its headquarters established in Marseille, France.<sup>110</sup>

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<sup>105</sup> See UN-Water, *World Water Day* (accessed October 22, 2013); available from <http://www.unwater.org/wwd.html>.

<sup>106</sup> John C. Rodda, "Whither World Water?" 7

<sup>107</sup> SIWI, "World Water Week Celebrates Twenty Years," Stockholm International Water Institute (2010).

<sup>108</sup> International Conference on Water and Environment, "The Dublin Statement on Water and Sustainable Development"

<sup>109</sup> René Coulomb, *The World Water Council: From its Origins through the World Water Forum in the Hague* (Paris: Editions Johanet, 2011), 18-19.

<sup>110</sup> See the section on the World Water Council in Chapter 4

During the same period a second initiative was brewing in the corridors of the World Bank and UNDP. Upon the invitation of those two organizations, contributions were sent to develop the Global Water Partnership (GWP), which was founded also in 1996 with the concept to develop the conceptual framework of IWRM and to establish regional Technical Advisory Committees to promote IWRM in the regions. In 2002, GWP officially became an intergovernmental organization in Sweden.<sup>111</sup>

While GWP is known for its championing of IWRM, the World Water Council is most recognized for organizing of the World Water Forum every three years in partnership with a host country. With no such meeting place in the United Nations for water, the Fora have filled a gap where not only national governments, but also other stakeholders can come together to discuss the most pressing issues within the water community. What follows is a brief description of each of the Fora:<sup>112</sup>

*Marrakech (1997) "Vision for Water, Life and Environment"*

The primary purpose of the 1<sup>st</sup> World Water Forum was to raise awareness about water issues to global leaders.<sup>113</sup> The Marrakech Declaration that was issued at the Forum called on governments to put into practice the results of the Mar del Plata, Dublin and Rio meetings in order to "...initiate a "Blue Revolution....""<sup>114</sup> The Forum mandated the WWC to spend three years developing a "Vision for Water, Life and Environment" to "offer policy-relevant conclusions and recommendations for

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<sup>111</sup> See Global Water Partnership, *History* (accessed October 21, 2013); available from <http://www.gwp.org/en/About-GWP/History>.

<sup>112</sup> A more in-depth analysis of the World Water Fora as a whole will be given in Chapter 4.

<sup>113</sup> René Coulomb, *The World Water Council*, 38

<sup>114</sup> 1<sup>st</sup> World Water Forum, *Marrakech Declaration*, Marrakech, Morocco, March 22, 1997.

action to be taken up by the world's leaders to meet the needs of future generations."<sup>115</sup>

*The Hague (2000) "From Vision to Action"*

In 1998, the World Commission on Water for the 21<sup>st</sup> Century was created to produce the Vision that was to be presented at the 2<sup>nd</sup> World Water Forum. In addition to the World Commission's Report, entitled "A Water Secure World", several major reports were also presented at the Hague Forum, including the Global Water Partnership's (GWP) "Towards Water Security: A Framework for Action", Green Cross International's "National Sovereignty and International Watercourses" and the World Water Vision's "Making Water Everybody's Business." This cacophony of "visions" for the future did not create a consensus in the end.

While the official documents presented a global water regime,<sup>116</sup> the civil society organizations at the Forum produced their own response to the World Water Vision and the Framework for Action, which challenged the transparent nature of the processes developing the Vision and Framework and called for water and sanitation as universal rights.<sup>117</sup> Others protested how the "official publications favored an agenda of privatization, economic valuation of water and the power of the global market"<sup>118</sup> and supported for profit corporations.<sup>119</sup>

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<sup>115</sup> Ibid.

<sup>116</sup> Ken Conca, *Governing Water*, 2

<sup>117</sup> 2<sup>nd</sup> World Water Forum, *NGO Major group statement to the Ministerial Conference*, The Hague, The Netherlands, March 21, 2000.

<sup>118</sup> Jon Lane, "Global Water Conferences: A Personal Reflection," in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 104.

<sup>119</sup> Maude Barlow and Tony Clarke, *Blue Gold: The Fight to Stop the Corporate Theft of the World's Water* (New York: New Press, 2002), 79.

The 2<sup>nd</sup> World Water Forum also produced a ministerial statement<sup>120</sup> that would become one of the regular outputs of the Fora to come, resulting from a non-binding ministerial conference. The Hague Forum's statement lacked any commitment, but called for stakeholders to work together to develop a stronger water culture, for the Global Environment Facility (GEF) to expand activities in relation to freshwater and for the Secretary-General of the United Nations to improve the coordination of activities within the UN system.<sup>121</sup>

*Kyoto (2003) "A Forum with a Difference"*

While the Marrakech Forum focused on raising awareness and the Hague Forum on creating a vision, the next step was for the 3<sup>rd</sup> World Water Forum to initiate action. As a result, in preparation for the Kyoto Forum, the World Water Council created a Water Action Unit to create a compendium of actions, titled "Making Water Flow for All", to "serve as a guide to individuals and organizations working on common themes, introduce them to each other, and facilitate synergies and partnerships."<sup>122</sup>

Kyoto marked the launch of the 1<sup>st</sup> World Water Development Report (WWDR),<sup>123</sup> a product of the World Water Assessment Programme (WWAP), which is an organization under the auspices of UNESCO that works with all the UN

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<sup>120</sup> 2<sup>nd</sup> World Water Forum, *Ministerial Declaration of The Hague on Water Security in the 21st Century*, The Hague, The Netherlands, March 22, 2000.

<sup>121</sup> Ibid.

<sup>122</sup> François Guerquin, Tarek Ahmed, Mi Hua, Tetsuya Ikeda, Vedat Ozbilen and Marlies Schuttelaar, *World Water Actions: Making Water Flow for All*, World Water Council Water Action Unit (London: Earthscan, 2003), 3.

<sup>123</sup> WWAP, *The United Nations World Water Development Report 1: Water for People, Water for Life* (Barcelona: UNESCO/Berghahn Books, 2003). The World Water Development Report was released every three years on World Water Day during the World Water Forum until the 4<sup>th</sup> edition in 2012. From then, a variety of reports will be produced by WWAP at regular intervals.

agencies related to water, charged with developing a comprehensive assessment of the world's freshwater resources.<sup>124</sup>

"Financing Water for All"<sup>125</sup> was another report that was released at the 3<sup>rd</sup> World Water Forum that was sponsored by the World Water Council and written by a commission headed by Michel Camdessus, former Managing Director of the International Monetary Fund (IMF). The report came up with an impressive list of proposals for financing water, from water governance and sector reform to promoting local capital markets and savings to sustainable cost recovery.<sup>126</sup> The report raised concerns with various stakeholders, however, because their solutions included a major role for the private sector.<sup>127</sup>

The 3<sup>rd</sup> Forum also produced a ministerial statement,<sup>128</sup> but while, in theory there was the expectation that this statement would build on the 2<sup>nd</sup> Forum's statement, this was not the case and the wording in the document was weaker, replacing the "will" statements with "should" and "reaffirm", citing no action or implementation. The declaration was "awash in compromises and generalizations and lacking in specificity."<sup>129</sup>

#### *Mexico (2006) "Local Actions for a Global Challenge"*

The newest innovation of the 4<sup>th</sup> World Water Forum was to include meetings of both local authorities and parliamentarians, two groups who play a

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<sup>124</sup> See WWAP, *World Water Assessment Programme* (accessed 22 October, 2013); available from <http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/>.

<sup>125</sup> James Winpenny, "Financing Water for All: Report of the World Panel on Financing Water Infrastructure," World Water Council (March, 2003).

<sup>126</sup> Ibid., 13-35

<sup>127</sup> Salman M.A. Salman, "From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End – Part Two," *Water International* 29, no. 1 (2004): 15-16.

<sup>128</sup> 4<sup>th</sup> World Water Forum, *4<sup>th</sup> World Water Forum Ministerial Declaration*, March 22, 2006.

<sup>129</sup> Ibid.

significant role in water governance. The local authorities produced a declaration asking for the recognition of the role of local governments and encouraging decentralization<sup>130</sup> while the parliamentarians, in their Mexico Declaration, committed to transferring the initiative created at the World Encounter of Water Legislators to their own parliaments to create a “coalition of water-related legislative commission members.”<sup>131</sup>

*Istanbul (2009) “Bridging Divides for Water”*

In the 5<sup>th</sup> World Water Forum, both the participation of local authorities and parliamentarians became even more focused through two separate gatherings known as “Local and Regional Authorities’ Days” and “Parliaments for Water”, respectively.

The Local Authorities’ Process produced the Istanbul Water Consensus,<sup>132</sup> a voluntary compact that local and regional authorities from around the world can sign up to in order to set targets for combatting such issues as climate change, urban growth and pollution. The number of cities signed up to the Consensus now numbers more than 1,000.

For the first time at a Forum, there was a meeting of Heads of State, of which 11 were in attendance. They came together to endorse the Heads of State Appeal for Action, in which they made an “appeal to all national governments, international organizations and other stakeholders to generate a common vision and framework

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<sup>130</sup> 4<sup>th</sup> World Water Forum, *Synthesis of the 4<sup>th</sup> World Water Forum* (Mexico: Comisión Nacional de Agua, 2006), 101.

<sup>131</sup> 4<sup>th</sup> World Water Forum, “World Encounter of Water Legislators – Mexico Declaration,” Mexico City, March 20, 2006.

<sup>132</sup> 5<sup>th</sup> World Water Forum, *Istanbul Water Consensus: For Local and Regional Authorities*, Istanbul, Turkey, March 15, 2009.

to develop and manage water resources in a sustainable manner and to secure access to safe water and sanitation for all.”<sup>133</sup>

The Ministerial Process of the 5<sup>th</sup> Forum not only produced a statement,<sup>134</sup> but also developed the Istanbul Water Guide,<sup>135</sup> a compilation of 150 recommendations to address water issues in the context of sustainable development amidst global changes.

*Marseille (2012) “The Time for Solutions”*

The 2012 Forum also produced yet another ministerial statement,<sup>136</sup> but the main focus of the 6<sup>th</sup> World Water Forum was on solutions. Through the creation of a Platform of Solutions,<sup>137</sup> stakeholders from around the world were allowed to upload potential solutions for the 160 targets<sup>138</sup> that were presented at the beginning of the Marseille Forum process. Both the Thematic and Regional Process sessions were made up of solutions from each of the targets.

While the WWC and GWP were being conceptualized and established, other global events and meetings were taking place around the world with regard to water. In 1994, after 23 years of work, the ILC finally adopted articles for a draft convention on international watercourses, which they then submitted to the

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<sup>133</sup> 5<sup>th</sup> World Water Forum, *5<sup>th</sup> World Water Forum Heads of State Appeal*, Istanbul, Turkey, March 16, 2009.

<sup>134</sup> 5<sup>th</sup> World Water Forum, *Istanbul Ministerial Statement*, Istanbul, Turkey, March 22, 2009.

<sup>135</sup> 5<sup>th</sup> World Water Forum, *Istanbul Water Guide*, Istanbul, Turkey, March 22, 2009.

<sup>136</sup> 6<sup>th</sup> World Water Forum, *The Ministerial Declaration of the 6<sup>th</sup> World Water Forum*, Marseille, France, March 13, 2012.

<sup>137</sup> See the Platform of Solutions; available from <http://www.solutionsforwater.org/>.

<sup>138</sup> 100 targets for the Thematic Process and 60 targets for the Regional Process. See the website of the 6<sup>th</sup> World Water Forum; available from <http://www.worldwaterforum6.org/en/>.



UNGA.<sup>139</sup> The 6<sup>th</sup> Committee of the UN (Legal Committee) spent three years deliberating and the General Assembly adopted the Watercourses Convention on 21 May 1997 with 103 countries voting in favor, 3 against (Burundi, China and Turkey), with 27 abstentions and 52 not present for the vote. The Convention was then open for a period of three years for signature during which time 16 countries did so. At the time of this research (2014), 17 years following the adoption of the Watercourses Convention, 33 countries have acceded to the Convention; therefore it remains not in force for which 35 ratifications are needed.

Even though not in force, it still represents the “most authoritative document codifying the rules of international water law.”<sup>140</sup> It is also the first global legal mechanism that makes clear the duty to cooperate as a general principle of international water law;<sup>141</sup> therefore a significant part of the current global water governance regime. The primary principles laid out in the Watercourses Convention are those of equitable utilization, significant harm and dispute settlement.<sup>142</sup>

Above all, though, the Watercourses Convention is a framework convention that is designed to act as a guideline for countries when they develop their own bi- and multi-lateral treaties over international watercourses.

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<sup>139</sup> ILC, *Draft articles of the law of non-navigational uses of international watercourses and commentaries thereto and resolution on transboundary confined groundwater*, Report of the forty-sixth session of the International Law Commission (1994).

<sup>140</sup> Christina Leb, “The UN Watercourses Convention: the éminence grise behind cooperation on transboundary water resources,” *Water International* 38, no. 2 (2013): 150.

<sup>141</sup> Ibid.

<sup>142</sup> See Articles 5, 7 and 33, respectively. United Nations, *Convention on the Law of the Non-Navigational Uses of International Watercourses*, New York, May 21, 1997.

In March 1994, the Dutch Government hosted the Inter-Ministerial Conference on Drinking Water Supply and Environmental Sanitation to raise awareness of water and sanitation issues at the highest political levels.<sup>143</sup>

1998 saw several water meetings, including the International Conference on Water and Sustainable Development, organized by the French Government, where over 120 ministers and high-level officials attended, including French President Jacques Chirac, to elaborate strategies for improving water resources conservation and management to guarantee improved provision of drinking water supply, sanitation and irrigation.<sup>144</sup>

Later that year, the 6<sup>th</sup> Session of the UN Commission on Sustainable Development (UNCSD), which was a body set up by the UNGA to “ensure effective follow-up” to the Earth Summit,<sup>145</sup> met to review the progress made on “Strategic Approaches to Freshwater Management.” Amongst other recommendations, UNCSD encouraged governments to improve integrated water resources management and invited the ACC Sub-Committee on Water Resources to be more transparent in their actions, to enhance coordination within the UN system and accelerate implementation of Chapter 18.<sup>146</sup>

During the 1990s and into the early part of the new millennium, one of the most controversial issues was the privatization of the provision of water and

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<sup>143</sup> WEHAB, *A Framework for Action on Water and Sanitation*, WEHAB Working Group, World Summit on Sustainable Development, Johannesburg, South Africa (August, 2002), 28.

<sup>144</sup> IISD, “Summary Report of the International Conference on Water and Sustainable Development,” *Sustainable Developments* 13, no. 4 (March 22, 1998): 1.

<sup>145</sup> See UNCSD, *Commission on Sustainable Development (CSD)* (accessed October 22, 2013); available from <http://sustainabledevelopment.un.org/csd.html>.

<sup>146</sup> UNCSD, “Report of the Sixth Session,” Economic and Social Council, Official Records, Supplement No. 9, December 22, 1997 and April 20 – May 1, 1998, 12-13.

sanitation services, which was increasing with the neo-liberal policies of the time. The predominant paradigm of the decade, led by the World Bank and other international organizations, was that the public sector was too bureaucratic, inefficient and corrupt;<sup>147</sup> therefore the private sector should get involved to “enable the public sector to increase its efficiency while at the same time promoting a process of commodification of water.”<sup>148</sup> The high-profile failures of privatization of water services such as in Cochabamba, Bolivia, brought the issue to the forefront at a global level and caused a re-evaluation of such approaches.<sup>149</sup>

The momentum of the 1990s kept going right into the early 2000s for global activity related to water. Within the first three years of the new millennium, four major events took place that helped shape how we govern water today: the World Commission on Dams (WCD), the Millennium Declaration, the International Conference on Freshwater and the World Summit on Sustainable Development (Rio+10).

During the latter part of the 20<sup>th</sup> Century, opposition to large dams started to grow, because of the impacts on people, river basins and ecosystems. At first, this opposition was limited to the local areas that were affected by large dams,<sup>150</sup> but then coalesced into a well-networked worldwide movement in the mid-1990s.<sup>151</sup> The World Bank, financiers of large infrastructure projects across the globe, became

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<sup>147</sup> Lyla Mehta, “Problems of Publicness and Access Rights: Perspectives from the Water Domain,” in *Providing Global Public Goods: Managing Globalization*, eds. Inge Kaul, Pedro Conceição, Katell Le Goulven and Ronald U. Mendoza (New York: Oxford University Press, 2003), 563.

<sup>148</sup> Bernard de Gouvello and Christopher A. Scott, “Has water privatization peaked? The future of public water governance,” *Water International* 37, no. 2 (2012): 88.

<sup>149</sup> See Chapter 5 for more information

<sup>150</sup> World Commission on Dams, *Dams and Development: A New Framework for Decision-making*, The Report of the World Commission on Dams (London: Earthscan, November, 2000), xxx.

<sup>151</sup> Ken Conca, *Governing Water*, 184

the main focal point of the protestor's movement. To respond to the "growing paralysis of dam-building efforts around the world",<sup>152</sup> the World Bank and the World Conservation Union (IUCN) convened a multi-stakeholder meeting in 1997 that formally created the World Commission on Dams, a two-year, 12-member commission that was charged with (1) reviewing the development effectiveness of large dams and assess alternatives for water resources and energy development and (2) developing internationally acceptable criteria, guidelines, and standards for planning, design, appraisal, construction, operation, monitoring, and decommissioning of dams.<sup>153</sup>

The WCD presented their findings in 2000,<sup>154</sup> recommending a set of 26 guidelines for "good practice" in the implementation of dam projects.<sup>155</sup> The results of the Commission varied widely, from "fully supportive and enthusiastic to disparaging."<sup>156</sup> NGO groups pressed for implementation of the guidelines, while governments and industry provided a mixed response with some governments willing to provide financial support to implement the guidelines. The World Bank responded cautiously at first<sup>157</sup> and then rejected the guidelines claiming the "multistage, negotiated approach to project preparation recommended by the World Commission of Dams is not practical and would virtually preclude the construction

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<sup>152</sup> Ken Conca, *Governing Water*, 191

<sup>153</sup> World Commission on Dams, *Dams and Development: A New Framework for Decision-making*, xxx

<sup>154</sup> Ibid.

<sup>155</sup> Ibid., 278

<sup>156</sup> Katherine Kao Cushing, "The World Commission on Dams Report: What Next?" in *The World's Water: The Biennial Report on Freshwater Resources 2002-2003* (Washington DC: Island Press, 2002), 155.

<sup>157</sup> Ken Conca, *Governing Water*, 203

of any dam.”<sup>158</sup> As a result, the implementation of the guidelines has been limited, but they still have been influential.<sup>159</sup>

A few months before the release of the WCD findings, the United Nations Millennium Summit was held in New York in 2000 at its 55<sup>th</sup> General Assembly where the world’s nations released the “Millennium Declaration”, a set of 8 goals, the Millennium Development Goals (MDGs), with corresponding targets that are indicators for improving the lives of people in developing countries.

Target 7.C under Goal 7 “Ensure Environmental Sustainability” was set for water to “Halve the proportion of the population without access to safe drinking water by 2015.”<sup>160</sup> The inclusion of this target is important, because water (and sanitation) is directly linked to human health, overall economic development and equity.<sup>161</sup> While not a binding agreement it has been “a vital instrument which led to a new global focus, led to the formulation of national policies and priorities, stimulated increased knowledge and capacity, and resulted in increased funding streams for investments in water and sanitation.”<sup>162</sup> There is a water-centric view of the MDGs that the achievement of all the targets cannot be achieved unless you

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<sup>158</sup> World Bank, “Water Resources Sector Strategy: Strategic Directions for World Bank Engagement” (Washington DC: World Bank, 2004), 38.

<sup>159</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013).

<sup>160</sup> See United Nations, *Goal 7: Ensure Environmental Sustainability* (accessed October 22, 2013); available from <http://www.un.org/millenniumgoals/envIRON.shtml>.

<sup>161</sup> Roberto Lenton, Albert M. Wright and Kirsten Lewis, “Health, dignity, and development: what will it take?” UN Millennium Project Task Force on Water and Sanitation (London: Earthscan, 2005), 15.

<sup>162</sup> World We Want, *Post 2015 Water Thematic Consultation Report* (2013), 9; available from <http://www.worldwewant.org/node/366798>.

achieve the water, and later sanitation, targets. Water underpins all 8 goals<sup>163</sup> and is “embedded, at least implicitly, in nearly all the MDGs.”<sup>164</sup>

The MDGs are not without their detractors. Some find them not adequate and not achievable<sup>165</sup> and others believe that they were a huge step backwards, because no country has ever emerged from poverty based on social outcomes, without instead addressing issues of infrastructure, transport, energy, etc.<sup>166</sup>

Much like Dublin was in preparation for the Earth Summit, the German Government convened the International Conference on Freshwater in 2001 to prepare for the World Summit on Sustainable Development (WSSD) in Bonn by building a bridge between all the water activities that were occurring outside the United Nations and UNCSD process leading to Johannesburg.<sup>167</sup>

The outcome of the Bonn conference was called the “Bonn Keys”,<sup>168</sup> which highlighted meeting water security needs for the poor, decentralization, new partnerships, cooperative agreements in shared river basins and better governance

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<sup>163</sup> Bryson Bates, Zbigniew Kundzewicz, Shaohung Wu and Jean Palutikof, eds., *Climate Change and Water*, Intergovernmental Panel on Climate Change Technical Paper VI (Geneva: IPCC, 2008), 131; Roberto Lenton et al, “Health, dignity, and development: what will it take?” 129; UNDP, *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis* (New York: Palgrave Macmillan, 2006), 22; and UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management* (United Nations Environment Programme, 2012), 3.

<sup>164</sup> Janos J. Bogardi, David Dudgeon, Richard Lawford, Eva Flinderbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty, “Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions,” *Current Opinion in Environmental Sustainability* 4 (2012), 36.

<sup>165</sup> Joseph W. Dellapenna and Joyeeta Gupta, “The Evolution of Global Water Law,” in *The Evolution of the Law and Politics of Water*, eds. Joseph W. Dellapenna and Joyeeta Gupta (Springer Science + Business Media B.V., 2009), 5. Note that the target on drinking water has been met.

<sup>166</sup> Jerome Delli Priscoli, “Invited opinion interview: Two decades at the center of world water policy,” *Water Policy* 13, no. 2 (2011), 150-151.

<sup>167</sup> Jon Lane, “Global Water Conferences: A Personal Reflection,” 105

<sup>168</sup> International Conference on Freshwater, *Conference Report: Water – a Key to Sustainable Development*, December 3-7, 2001 (Bonn: Lemmens Verlags & Mediengesellschaft mbH, 2001), 22.

arrangements. Although the outcome of Bonn was claimed to be nothing groundbreaking,<sup>169</sup> the conference came out with 27 recommendations for action that were successful in connecting the views of developed and developing countries<sup>170</sup> and bringing together the results of previous water meetings as a contribution to the WSSD preparatory process.<sup>171</sup>

The WSSD in Johannesburg, South Africa in 2002, a follow-up meeting within the UNCSD process to the Earth Summit ten years earlier, was important for water for two major reasons. First, a target on sanitation was added to the MDGs, also with the objective to “Halve the proportion of the population without access to basic sanitation by 2015.”<sup>172</sup> The sanitation target was seen as missing from the first version of the MDGs and inextricably linked to drinking water supply, as had been the case during the International Drinking Water Supply and Sanitation Decade.

The second reason was that a new target was set, although not part of the MDGs, to “Develop integrated water resources management and water efficiency plans by 2005.”<sup>173</sup> This gave additional support to developing countries to implement IWRM and reinforced the focus of such organizations as the Global Water Partnership. While the target was never met with still much work to go,<sup>174</sup>

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<sup>169</sup> Asit K. Biswas, “From Mar del Plata to Kyoto: an analysis of global water policy dialogue,” 86

<sup>170</sup> Muhammad Mizanur Rahaman et al, “Integrated water resources management: evolution, prospects and future challenges,” 17

<sup>171</sup> Jon Lane, “Global Water Conferences: A Personal Reflection,” 106

<sup>172</sup> UNCSD, “Plan of Implementation of the World Summit on Sustainable Development,” available from [http://www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/WSSD\\_PlanImpl.pdf](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf).

<sup>173</sup> Ibid., 15

<sup>174</sup> See UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management*

integrated approaches to water resources management is still seen as a key to achieving sustainable development.<sup>175</sup>

In December 2000, the UNGA had declared 2003 the “International Year of Freshwater”, which was supposed to drive UN activity to “increase awareness of the importance of freshwater and to promote action at the local, national, regional and international levels.”<sup>176</sup> Unbeknownst to the General Assembly in 2000, who directed the ACC Sub-Committee on Water Resources to coordinate the Year, the ACC Subcommittee would no longer be in existence in 2003.

In 2001, ECOSOC renamed the Administrative Committee on Coordination (ACC) the Chief Executives Board (CEB) for Coordination and all subsidiary bodies of the ACC ceased to exist at that time.<sup>177</sup> This meant that the ACC Subcommittee on Water Resources was effectively abolished. It was suggested that an *ad hoc* approach would be the best way to move forward to address inter-agency coordination.<sup>178</sup>

Some of the water programme directors of the UN agencies did indeed continue to meet following the ACC SWR’s demise. Through the effort of several individuals, the idea was floated to create a more formalized coordination entity within the UN to organize the activities of the agencies doing water work with the UN system and following Johannesburg, the CEB confirmed the creation of UN-

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<sup>175</sup> See United Nations, *The future we want*, Outcome of the Rio+20 United Nations Conference on Sustainable Development, A/CONF.216/L.1, June 19, 2012.

<sup>176</sup> United Nations, *Resolution 65/154 - International Year of Water Cooperation, 2013*, Sixty-fifth session of the United Nations General Assembly, December 20, 2010, 1-2.

<sup>177</sup> United Nations, *Reports of the Administrative Committee on Coordination (ACC)*, (accessed 22 October, 2013); available from <http://www.unsceb.org/content/reports-acc>.

<sup>178</sup> UN-Oceans, “The demise of the ACC Sub-Committee on Oceans and Coastal Areas and ICP Proposal for a New Mechanism for Coordination” (2008), 1.



Water, an inter-agency mechanism to follow up the water-related decisions of the WSSD.<sup>179</sup>

The primary goal of UN-Water is to “identify strategic issues and priorities for system-wide action, and facilitate timely, coordinated and effective responses by the UN System and its partners at global, regional and country levels in relation to both policy development and implementation”, but also has specific roles in facilitating inter-agency information exchange, dissemination of UN positions on water, communicate with stakeholders, facilitate work being done at the regional and sub-regional level as well as contribute to the coherency of UN policies at the national level.<sup>180</sup> Since Mar del Plata, many declarations asked for strengthened coordination within the UN and, in 2003, they got their wish.<sup>181</sup>

In 2004, after 8 years of work, the ILA approved the “Berlin Rules on Water Resources”,<sup>182</sup> a “revised version of earlier conventions, including the Helsinki Rules.”<sup>183</sup> The major difference between the Berlin Rules and the Helsinki Rules is that the Berlin Rules, also non-binding in nature, do not just consider international drainage basins, but national ones as well,<sup>184</sup> “integrating domestic and international water law.”<sup>185</sup> Another difference is that environmental issues are

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<sup>179</sup> United Nations, *Summary of conclusions of the United Nations System Chief Executives Board for Coordination at its second regular session of 2003*, CEB/2003/2, UN Headquarters, October 31 – November 1, 2003 (December 5, 2003).

<sup>180</sup> UN-Water, “Terms of Reference” (2012), 2.

<sup>181</sup> Most notably, the Bonn Keys and the 2<sup>nd</sup> World Water Forum Ministerial Declaration.

<sup>182</sup> ILA, *Berlin Conference (2004) – Water Resources Law* (2004).

<sup>183</sup> Bellie Sivakumar, “Water crisis: From conflict to cooperation – an overview,” *Hydrological Sciences Journal* 56, no. 4 (2011): 542.

<sup>184</sup> Salman M.A. Salman, “The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law,” 635

<sup>185</sup> Joseph Dellapenna and Joyeeta Gupta, “Toward Global Law on Water,” *Global Governance* 14 (2008): 448.

taken into account more explicitly as are the role of stakeholders in decision-making and suggestions for the remedies of damages.<sup>186</sup> From the outset of the Berlin Rules, the probability that states would use them was drawn into question, because of how modern some of the legal concepts were<sup>187</sup> and to this day that question remains.

After a UN resolution on 23 December 2003, sponsored by the Government of Tajikistan, the United Nations proclaimed that the decade of 2005 to 2015 would be the International Decade for Action – Water for Life where the goals of the Decade should be:<sup>188</sup>

...a greater focus on water-related issues at all levels and on the implementation of water-related programmes and projects, while striving to ensure the participation and involvement of women in water-related development efforts, and the furtherance of cooperation at all levels, in order to help to achieve internationally agreed water-related goals contained in Agenda 21, the Programme for the Further Implementation of Agenda 21, the United Nations Millennium Declaration and the Johannesburg Plan of Implementation, and, as appropriate, those identified during the twelfth and thirteenth sessions of the Commission on Sustainable Development.

In its midterm review in 2010, it was shown that the Decade needs to further mobilize resources for the implementation of actions, that there needs to be more of a political commitment from external support organizations and developing countries and that a special focus is required in Africa to meet the goals of the Decade.<sup>189</sup>

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<sup>186</sup> Joyeeta Gupta, "Global Water Governance," 26

<sup>187</sup> Joseph Dellapenna and Joyeeta Gupta, "Toward Global Law on Water," 448

<sup>188</sup> United Nations, *Messages from Lake Biwa and Yodo River Basin*, A/RES/58/217, 78<sup>th</sup> Plenary meeting of the United Nations General Assembly, December 23, 2003.

<sup>189</sup> United Nations, *Midterm comprehensive review of the implementation of the International Decade for Action, "Water for Life", 2005-2015*, A/65/297, Sixty-fifth session of the United Nations General Assembly, August 16, 2010, 20-21.

In the later part of the 2000s and early 2010s, while the World Water Weeks and World Water Fora have kept everyone quite busy in that they almost require preparation throughout the entire year, there have been a few other global actions of significant note that have occurred.

In 2008, the ILC submitted to the UNGA the draft articles codifying the law of transboundary aquifers after 8 years of work, which was endorsed at the assembly on 11 December 2008.<sup>190</sup> While the final form of the draft articles is not certain, as this will eventually be decided by the Member States, the resolution encourages the countries that share aquifers with other nations to “make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, taking into account” the provisions of the draft articles that are annexed in the resolution.<sup>191</sup>

A huge moment in the global water community happened on 28 July 2010 when the United Nations recognized the human right to water sanitation in Resolution A/RES/64/292. At the 5<sup>th</sup> World Water Forum in Istanbul, March 2009, the Ministerial Statement developed by the national governments only mentioned safe drinking water and sanitation as a *basic need*.<sup>192</sup> In response, the Bolivian delegation developed an alternative declaration recognizing access to water and sanitation as a human right, which was then signed onto by 18 countries’ head of

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<sup>190</sup> United Nations, *Resolution 63/24 – The law of transboundary aquifers*, Sixty-third session of the United Nations General Assembly, January 15, 2009.

<sup>191</sup> Ibid.

<sup>192</sup> 5<sup>th</sup> World Water Forum, *Istanbul Ministerial Statement*, 4

delegations and the African Union.<sup>193</sup> Bolivia then sponsored Resolution 64/292 in the UNGA, which it passed with 122 Member States in favor, none against and 41 abstentions.<sup>194</sup>

The human right to water and sanitation did not begin there, however. Water was absent from the Universal Declaration of Human Rights because it was considered an abundant resource and those that were suffering were not at the negotiating table, because of colonialism still in effect in the late 1940s.<sup>195</sup> Several international human rights treaties since then have explicitly mentioned water.<sup>196</sup> But, it was not until 2002 when the 29<sup>th</sup> Session of the Committee on Economic, Social and Cultural Rights adopted General Comment No. 15 on the right to water that the momentum started to build towards recognition by the UN of the right to water and sanitation.<sup>197</sup> Following the UN General Assembly Resolution in 2010, the Human Rights Council in 2011 passed a resolution taking the human right to water and sanitation to a new level by asking countries to ensure financing for the sustainable delivery of water and sanitation services.<sup>198</sup>

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<sup>193</sup> 5<sup>th</sup> World Water Forum, *Additional Declarations of Governments for the Right to Water*, Istanbul, Turkey, March 22, 2009.

<sup>194</sup> United Nations, "General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as a Human Right," GA/10967, Sixty-fourth session of the United Nations General Assembly, 108<sup>th</sup> Meeting, July 29, 2010; available from <http://www.un.org/News/Press/docs/2010/ga10967.doc.htm>.

<sup>195</sup> Catarina de Albuquerque and Virginia Roaf, *On the Right Track: Good practices in realising the rights to water and sanitation* (Lisbon: Entidade Reguladora de Serviços de Águas e Resíduos, 2010), 25.

<sup>196</sup> See Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Convention on the Rights of the Child (CRC) and Convention on the Rights of Persons with Disabilities (CRPD)

<sup>197</sup> OHCHR, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)*, E/C.12/2002/11, Twenty-ninth session of the Committee on Economic, Social and Cultural Rights, January 20, 2003.

<sup>198</sup> United Nations Human Rights Council, *Resolution 18/1 – The human right to safe drinking water and sanitation*, 18<sup>th</sup> Session of the Human Rights Council, October 12, 2011.

Also in 2010, a new global initiative was started, because it was felt that there were gaps in terms of “policy, planning, financing, information, technical assistance that are impeding global progress” on sustainable access to sanitation and drinking water. Sanitation and Water for All<sup>199</sup> was established linking developing countries, donors, multilateral agencies, civil society and other development partners to work towards this goal.<sup>200</sup>

To mark the 20<sup>th</sup> anniversary of the Earth Summit in Rio in 1992, the United Nations decided that it would convene the UN Conference on Sustainable Development, also known as Rio+20, yet again in Rio, Brazil in June 2012. While water almost did not make it into the final document “The Future We Want” of Rio+20 due to issues countries had with the transboundary waters, it was later saved<sup>201</sup> and made some headway in terms of its prominence in the global sustainable development agenda. In Paragraph 119, it is recognized that:

...water is at the core of sustainable development as it is closely linked to a number of key global challenges. We therefore reiterate the importance of integrating water in sustainable development and underline the critical importance of water and sanitation within the three dimensions of sustainable development.<sup>202</sup>

Another advancement was the mention of addressing issues of wastewater, a first in such a major United Nations document.<sup>203</sup> However, the end results of

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<sup>199</sup> See <http://www.sanitationandwaterforall.org>

<sup>200</sup> Sanitation and Water For All, “Sanitation and Water For All: A Global Framework for Action,” Draft Concept Note, March 1, 2010, 1.

<sup>201</sup> Interview No. 811

<sup>202</sup> United Nations, *The future we want*, 23 Paragraph 119

<sup>203</sup> United Nations, *The future we want*, 24 Paragraph 124

Rio+20 is hardly a positive one in that multilateralism over environment issues seems to be suffering,<sup>204</sup> especially in terms of implementation and action.

Pursuant to UNGA Resolution 67/203, the Member States of the UN decided to formally abolish the Commission on Sustainable Development in favor of a high-level intergovernmental forum that would be negotiated through the General Assembly.<sup>205</sup> The last session of the CSD, in its 20<sup>th</sup> session, took place in September 2013, handing over its work to the newly formed forum. This is part of the ongoing process of looking beyond the Millennium Development Goals, which are due to end in 2015. For water, this is significant in that, while the outcome of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, formed by Secretary-General Ban Ki-Moon after Rio+20,<sup>206</sup> and consultations with stakeholders<sup>207</sup> have showed that water should feature prominently in a Post-2015 Development Agenda, the negotiations amongst UN Member States to decide these issues would not take place until March 2014.

### 3.2 The perception of impact of events on global water governance

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<sup>204</sup> George Monbiot, "After Rio, we know. Governments have given up on the planet," *The Guardian*, June 25, 2012; available from <http://www.theguardian.com/commentisfree/2012/jun/25/rio-governments-will-not-save-planet>.

<sup>205</sup> United Nations, *Resolution 67/203 - Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development and of the United Nations Conference on Sustainable Development*, Sixty-seventh session of the United Nations General Assembly, adopted December 21, 2012 (February 27, 2013).

<sup>206</sup> United Nations, *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development*, The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda (New York: United Nations, 2013).

<sup>207</sup> World We Want, *Post 2015 Water Thematic Consultation Report* (2013), 9; available from <http://www.worldwewant.org/node/366798>.

This next section takes the responses of the interviewees about which events influenced the trajectory of global water governance or the global discourse on water. No preconceived notions or suggestions about the types of events were proffered to the interviewees; therefore the answers were wide-ranging, from the Cuyahoga River in Cleveland, Ohio catching on fire in the 1950s and 1960s to star power in promoting issues of water and sanitation globally.

### 3.2.1 Dublin Principles<sup>208</sup>

By far the response that was given most was the Dublin Principles that came out of the ICWE in 1992 prior to the Earth Summit,<sup>209</sup> a “landmark in this generation.”<sup>210</sup>

Interviewees noted two main strengths of the Dublin Principles. First, they gave the water community four principles that were more or less agreed upon internationally, which was the first time the water community had these types of messages to rally around,<sup>211</sup> setting the water agenda for the decades ahead.<sup>212</sup> Second was the codification of the concept of integrated water resources management.<sup>213</sup>

A third issue that was viewed both as a positive and a negative was the principle citing water as an economic good<sup>214</sup>, putting more of an emphasis on economic tools rather than legal instruments.<sup>215</sup>

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<sup>208</sup> Note: The headings of these sections are listed in the order of the popularity of the number of responses by the interviewees.

<sup>209</sup> Interview Nos. 78, 86, 109, 132, 212, 402, 636, 722, 777, 807 and 906

<sup>210</sup> Interview No. 763

<sup>211</sup> Interview Nos. 439 and 881

<sup>212</sup> Interview Nos. 361, 527 and 579

<sup>213</sup> Interview Nos. 5, 93, 180, 227 and 752

<sup>214</sup> Interview Nos. 55, 439, 698, 834 and 927

It was also influential in that the World Bank for the most part still follows these principles<sup>216</sup> and the World Water Council emerged from the discussion that took place at Dublin.<sup>217</sup>

While those who mentioned Dublin did not deny its influence, some were critical of the principles,<sup>218</sup> saying that they “punted the whole discussion” of “whether (water) was a commodity or a human right”<sup>219</sup> and the issue that the principles are still difficult to grasp<sup>220</sup> and still questioned.<sup>221</sup> The principles, however, very much started and bound the discussion on these issues<sup>222</sup> not to mention started a clash with Islam over the use of “economic good.”

### 3.2.2 Millennium Development Goals

“Love ‘em or hate ‘em, they captured the international policy stage.”<sup>223</sup>

As was mentioned in the first part of this chapter, not everyone has a positive view of the MDGs. Concentrating on water and sanitation was a narrow way to approach water issues, and of course this approach does not include water resources management<sup>224</sup> and pitted the WASH community against other “sectors” of the larger water community, especially in terms of funding.<sup>225</sup> Organizations

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<sup>215</sup> Interview No. 493

<sup>216</sup> Interview No. 109

<sup>217</sup> Interview No. 55

<sup>218</sup> Interview Nos. 5 and 133

<sup>219</sup> Interview No. 245

<sup>220</sup> Interview No. 361

<sup>221</sup> Interview No. 557

<sup>222</sup> Interview Nos. 245, 747 and 935

<sup>223</sup> Interview No. 612

<sup>224</sup> Interview No. 227

<sup>225</sup> Interview No. 21



started to focus on WASH more, because that is where the money was being channeled.<sup>226</sup>

But, as the first quote of this section states, the MDGs helped set the international agenda<sup>227</sup> and have kept water high on the global agenda,<sup>228</sup> which caused the issues to be taken more seriously than before, influencing national policies<sup>229</sup> and creating a common agenda.<sup>230</sup> There are some who even believe that the recognition of the human right to water and sanitation has a lot to do with the related MDG targets.<sup>231</sup> In the end, the targets on water were a “sort of proxy for a global agreement on water-related (issues).”<sup>232</sup> And, the MDGs actually are being implemented, which is a huge success<sup>233</sup> when compared to any other declaration or statement before or since.<sup>234</sup>

### 3.2.3 United Nations Water Conference (Mar del Plata)

Very few of the interviewees actually attended Mar del Plata, because it took place 36 years ago, but it was still rated very highly amongst the responses. The fact that its legacy still lasts through the responses in these interviews, most of whom were not there, is a statement unto itself. When one interviewee read the outcomes

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<sup>226</sup> Interview No. 405

<sup>227</sup> Interview No. 722

<sup>228</sup> Interview No. 777

<sup>229</sup> Interview No. 601

<sup>230</sup> Interview No. 662

<sup>231</sup> Interview No. 121

<sup>232</sup> Interview No. 797

<sup>233</sup> Interview No. 802

<sup>234</sup> General comments in support: Interview Nos. 170, 276, 336, 341, 361, 405, 420, 439, 496, 505, 581, 797, 807, 935 and 985

of Mar del Plata, he stated, “The same things are being said now as all that time ago.”<sup>235</sup>

What the UN Water Conference is most known for is being the first time that water was addressed at the global scale as a singular issue<sup>236</sup> putting water onto the political agenda,<sup>237</sup> which was a major breakthrough for the time,<sup>238</sup> one of the “star moments” of global water governance.<sup>239</sup> Mar del Plata triggered many things, including the International Drinking Water Supply and Sanitation Decade<sup>240</sup> and the ACC Intersecretariat Working Group for Water Resources, which is now UN-Water.<sup>241</sup> While integrated approaches to water management were already being used on the ground, Mar del Plata helped create the concept and also provided a wealth of knowledge and information through the preparatory process that did not exist before.<sup>242243</sup>

### 3.2.4 United Nations Conference on Environment and Development

UNCED and Agenda 21 were the “best articulation of water challenges and what the world needs to do that we’ve ever seen... and we have not come close ever since.”<sup>244</sup> Agenda 21 was comprehensive<sup>245</sup> and the chapter on water ended up

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<sup>235</sup> Interview No. 512

<sup>236</sup> Interview Nos. 361,405 and 722

<sup>237</sup> Interview Nos. 133, 881 and 943

<sup>238</sup> Interview No. 336

<sup>239</sup> Interview No. 915

<sup>240</sup> Interview Nos. 180, 891 and 943

<sup>241</sup> Interview No. 109

<sup>242</sup> Interview No. 55

<sup>243</sup> General comments in support: Interview Nos. 86, 132, 133, 245, 303, 444, 557, 673, 698, 763, 777, 807 and 855

<sup>244</sup> Interview No. 374

<sup>245</sup> Interview No. 881

being the longest in the document. For many<sup>246</sup>, Rio was seen as a seminal moment in the history of global water governance. It facilitated profound change, because it allowed for the MDG framework to be established years later.<sup>247</sup>

The Earth Summit was one of the most divisive of all the responses. Even though the question of what was *not* an influential event was not asked, this did not prevent interviewees from bringing up the downsides<sup>248</sup> to the original Rio meeting. For one, it was a “disaster”<sup>249</sup> and for another “a complete failure of the water sector.”<sup>250</sup> One of the problems was that, especially at the time, water was not seen as a global issue by some and that was what Rio was about, a global concert of actions.<sup>251</sup> The failure, however, of water to be visible galvanized the water community to act on its own and the active decade of the 1990s was the result.<sup>252</sup>

### 3.2.5 World Water Fora

There will be a much more elaborate section in Chapter 4 on the World Water Fora and its advantages and disadvantages, but there were a number of interviewees who raised the Fora as an important component of the semi-formal global water governance regime.<sup>253</sup>

Both the 1<sup>st</sup> and 2<sup>nd</sup> World Water Fora received acclaim for having been significant events within the global water sphere. For Marrakech, it was about

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<sup>246</sup> Interview Nos. 55, 93, 109, 136, 361, 402, 420, 698, 722, 807, 821, 881 and 906

<sup>247</sup> Interview No. 662

<sup>248</sup> Interview Nos. 915 and 943

<sup>249</sup> Interview No. 867

<sup>250</sup> Interview No. 595

<sup>251</sup> Interview No. 439

<sup>252</sup> Interview No. 777

<sup>253</sup> General comments in support: Interview Nos. 14, 203, 557 and 722

“putting the... (water) bug in ears of the politicians”<sup>254</sup> and this created momentum for the future Fora.<sup>255</sup> The Hague was important,<sup>256</sup> because while Marrakech was a “three solid days of speeches in plenary”,<sup>257</sup> the 2<sup>nd</sup> Forum was attended by over 5,000 participants and had “a complex programme of events to interest and involve everybody.”<sup>258</sup> The World Water Vision process was hugely influential.<sup>259</sup> It was a turning point for Africa in that the African Water Facility was launched<sup>260</sup> and as well as the African Water Vision.<sup>261</sup>

Overall, the Fora have helped build a water community through the years<sup>262</sup> and act as a key mobilizer<sup>263</sup> and awareness-raiser<sup>264</sup> for the water community, because of the number of different stakeholders and interest groups present.<sup>265</sup>

### 3.2.6 Human right to water and sanitation

The UNGA resolution, and the lead-up to it, including General Comment No. 15,<sup>266</sup> on the recognition of the human right to water and sanitation has been a “landslide change” in the governance and discourse on water at the global level. This marks a difference to having the MDGs as the overarching framework as now it

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<sup>254</sup> Interview No. 55

<sup>255</sup> Interview Nos. 276 and 374

<sup>256</sup> Interview No. 132

<sup>257</sup> Jon Lane, “Global Water Conferences: A Personal Reflection,” 103

<sup>258</sup> Ibid., 104

<sup>259</sup> Interview No. 294 and 811

<sup>260</sup> Interview No. 624

<sup>261</sup> Interview No. 941

<sup>262</sup> Interview No. 227

<sup>263</sup> Interview Nos. 881 and 935

<sup>264</sup> Interview Nos. 136 and 662

<sup>265</sup> Interview No. 116

<sup>266</sup> Interview No. 336

is about universal access and governments at all levels need to have a plan on how they will go about progressive realization of this right.<sup>267</sup>

To a certain extent, the right to water and sanitation provides a sort of “benchmark” to which countries can in some way be held accountable. Not in a legal sense, but in an ethical and moral way.<sup>268</sup> A conversation about this right is now allowed to be held in a completely different way,<sup>269</sup> as there is the opportunity to change the behavior of states.<sup>270, 271</sup>

### 3.2.7 World Summit on Sustainable Development

The World Summit on Sustainable Development was recognized as important for several reasons, similar to the section above on the WSSD.<sup>272</sup> The first is the addition of sanitation to the sanitation target in the MDGs.<sup>273</sup> Johannesburg was “part of the effort to mobilize political support for sanitation and we got there. There was no way they could leave the place without adding sanitation.”<sup>274</sup>

Second was the newly created target of IWRM and water efficiency plans.<sup>275</sup> This was a major boost for IWRM plans, triggering a lot of action including donors starting to fund IWRM projects, because they had committed to the target at WSSD.<sup>276</sup> As a result, today more and more countries are adopting plans and

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<sup>267</sup> Interview No. 239

<sup>268</sup> Interview No. 421

<sup>269</sup> Interview No. 294

<sup>270</sup> Interview No. 64

<sup>271</sup> General comments in support: Interview Nos. 5, 227, 288, 374, 418, 439, 617, 682, 935, 963 and 983

<sup>272</sup> General comments in support: Interview Nos. 64, 152, 170, 356, 402, 420, 662 and 807

<sup>273</sup> Interview Nos. 542 and 579

<sup>274</sup> Interview No. 405

<sup>275</sup> Interview No. 116

<sup>276</sup> Interview No. 579

applying IWRM concepts in their policies and practice,<sup>277</sup> helping governments think across sectors when developing these plans.<sup>278</sup>

### 3.2.8 Crises

When discussing crises, two standpoints were relevant: (1) the crises that have had an impact on how water is governed at the global level and (2) a lack of crises that has pushed the world towards significant action.

Most, if not all, of the large crises that have had an impact on water have come from outside the water sphere. There is a connection between food and water has become well recognized after the food crises in the late 2000s<sup>279</sup>. The connection with energy and potential energy crises as well and this is what has prompted the discussion on the water, food and energy nexus at the global level.<sup>280</sup>

A response to what major events have occurred garnered the response that there have not yet been any. Most water crises are local in scale<sup>281</sup>, so there has not been that major water-related disaster, whether a natural disaster or an outbreak of cholera, that has had a global impact large enough to make significant changes.<sup>282</sup> Given the fact that over ¾ million children die a year is not disaster enough shows what might be necessary to galvanize a large global effort.

While gaining more media attention in some parts of the world, like the fires on the Cuyahoga River in Cleveland, Ohio in the 1950s and 1960s, rivers being polluted beyond their ability to assimilate waste became a large issue that caused

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<sup>277</sup> Interview No. 93

<sup>278</sup> Interview No. 21

<sup>279</sup> Interview Nos. 191, 261, 276 and 505

<sup>280</sup> Interview No. 512

<sup>281</sup> Interview No. 132

<sup>282</sup> Interview Nos. 347, 391, 413, 595, 722, 903 and 976

action in many parts of the globe.<sup>283</sup> One interviewee asked the question, “Would the Clean Water Act in the United States pass today?”<sup>284</sup> Probably not. There are no tipping points or crises like what happened in terms of pollution in the middle of the 20<sup>th</sup> Century.<sup>285</sup>

### 3.2.9 Others

A few of the thematic responses were events that took place that were not specifically about water, but had a significant impact on water. The first was the United Nations Conference on the Human Environment in 1972. Stockholm started the world thinking about issues of the environment including water,<sup>286</sup> which created a build-up towards the UN Water Conference in Mar del Plata five years later.<sup>287</sup>

The emergence of the concept of sustainable development during the next decade also had a large impact on the water community, changing the paradigm within which issues of environment, economics and society were addressed.<sup>288</sup> While the Brundtland Commission neglected water, it still had an influence on water due to the concept of sustainability that was being promoted through its messages<sup>289</sup> and really helped in mainstreaming sustainable development issues at the political level.<sup>290</sup> Arising at the same time as sustainable development, and as

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<sup>283</sup> Interview Nos. 152, 564, 797 and 906

<sup>284</sup> Interview No. 952

<sup>285</sup> Ibid.

<sup>286</sup> Interview Nos. 557, 612, 698, 915 and 985

<sup>287</sup> Interview No. 336

<sup>288</sup> Interview Nos. 336 and 557

<sup>289</sup> Interview Nos. 698 and 752

<sup>290</sup> Interview No. 55

part of it, was the understanding of the fundamental importance of ecosystems for human survival.<sup>291</sup>

The UN Commission on Sustainable Development, a piece of global water governance,<sup>292</sup> has “triggered a lot of the present interest for water issues”<sup>293</sup> and has helped move the global water discourse forward.<sup>294</sup> However, it remains to be seen how the UN system will take up sustainable development after UNCSD was abolished in September 2013.

Climate change, in many ways, has also put water on the map at the global level.<sup>295</sup> Water was nowhere to be seen in the climate change negotiations until 2011, but with the work of organizations such as SIWI and the Stakeholder Forum, it is now on the agenda where there is a “coherent conversation where water plays a significant role in terms of adaptation and mitigation.”<sup>296</sup> There now exists the recognition at the political level that water and climate are integrated<sup>297</sup> and that climate will be a primary driver impacting the hydrological cycle.<sup>298</sup>

Many interviewees thought that the World Commission on Dams was a positive development in the global water community<sup>299</sup> and a “landmark in global governance.”<sup>300</sup> Even though the World Bank said they would never implement the Commission’s 26 guidelines, the change in discourse by the Commission’s report

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<sup>291</sup> Interview Nos. 178 and 797

<sup>292</sup> Interview No. 601

<sup>293</sup> Interview No. 701

<sup>294</sup> Interview Nos. 121, 170, 542, 722 and 807

<sup>295</sup> Interview No. 512

<sup>296</sup> Interview No. 527

<sup>297</sup> Interview No. 797

<sup>298</sup> Interview Nos. 178, 891 and 927

<sup>299</sup> Interview Nos. 5, 276, 617 and 834

<sup>300</sup> Interview No. 834



caused the World Bank to limit their dam business for some time<sup>301</sup> and, for a time, dam building fell by the wayside.<sup>302</sup> Ken Conca calls the WCD an example of “watershed democracy” where a “set of norms...have become more deeply insinuated into these increasingly ritualized interactions.”<sup>303</sup> This was characterized in the WCD case through the inclusion of participants from businesses, governments and activists,<sup>304</sup> a clearly more stakeholder driven process. While the World Bank has since decided to get back into large-scale hydroelectric projects,<sup>305</sup> not everyone is upset by this, as there were some developing countries that thought that the WCD was completely lopsided against development.<sup>306</sup>

Although the International Drinking Water Supply and Sanitation Decade was not successful in reaching its goal of universal access to drinking water and sanitation, it is still thought of as an important milestone in global water terms.<sup>307</sup> On top of almost 1.4 billion more people with water and 748 million with sanitation,<sup>308</sup> the Decade raised awareness about water and sanitation issues, triggered several organizations to be founded and occurred in the middle of when the current decision-makers in water organizations were in their prime, and just entering the sector and this influenced them to a great extent.<sup>309</sup>

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<sup>301</sup> Interview No. 245

<sup>302</sup> Interview Nos. 5, 109 and 617

<sup>303</sup> Ken Conca, *Governing Water*, 171

<sup>304</sup> Interview No. 743

<sup>305</sup> See Howard Schneider, “World Bank rethinks stance on large-scale hydropower projects,” *Guardian Weekly*, May 14, 2013; available from <http://www.theguardian.com/environment/2013/may/14/world-bank-hydropower-dam-rethink>.

<sup>306</sup> Interview No. 347

<sup>307</sup> Interview Nos. 78, 180, 673, 855, 891 and 943

<sup>308</sup> Pierre Najlis et al, “The International Drinking Water Supply and Sanitation Decade in retrospect and implications for the future,” 2-4

<sup>309</sup> Interview No. 133

Some of water's biggest controversies, and that still resound today, are those of the privatization and commodification of water. This issue will be explored more in depth in Chapter 5, but various interviewees thought that this issue has had an influence on how water is governed at the global level.

Events like the attempted privatization of water services in Cochabamba, Bolivia and the violent reaction of Coca-Cola's use of groundwater in Kerala, India, where "people's rights were badly injured",<sup>310</sup> forced multinational companies and international organizations to rethink the best approach to take in their activities across the globe.<sup>311</sup> The World Bank was pushing the privatization agenda in the 1990s, changing the discourse, but that "experience soured"<sup>312</sup>, water being the "reluctant stepchild" of natural resources marketization and commodification efforts,<sup>313</sup> and "swung the (pendulum) all the way back again."<sup>314</sup>

For many, the creation of both the World Water Council and the Global Water Partnership,<sup>315</sup> in 1996, was clearly an important milestone. These two organizations have had a large influence, which will be discussed in Chapter 4, on the global discourse on water and make up key components of the global water governance regime.

The other entity that received attention for its creation, and also will be discussed further in Chapter 4, is UN-Water.<sup>316</sup> Since the UN does not have a water

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<sup>310</sup> Interview No. 418

<sup>311</sup> Interview No. 906

<sup>312</sup> Interview No. 341

<sup>313</sup> Interview No. 245

<sup>314</sup> Interview No. 797

<sup>315</sup> Interview Nos. 133, 136, 601, 763, 777, 815 and 891

<sup>316</sup> Interview Nos. 701, 722 and 990

agency, UN-Water acts as its substitute to a certain extent,<sup>317</sup> a coordinating mechanism with no legal status. This is important, because it plays a more significant coordination role today<sup>318</sup> than it, or any one of its predecessors, ever has in the past.

The Helsinki Rules were critical<sup>319</sup> in that they laid the foundation for the negotiations on the UN Watercourses Convention. One interviewee finds it ironic, because the Helsinki Rules were developed by a voluntary, non-governmental organization (ILA) and these rules ended up becoming the basis of the one of the only global conventions on water (although not in force), which is quite an impact<sup>320</sup> and demonstrates the mobius-web form of governance of the water community. The rules set the “tone, direction and shape of things to come.”<sup>321</sup>

As the Helsinki Rules were considered important so was the UN Watercourses Convention, especially the process leading there, the arrival of the 1994 draft articles,<sup>322</sup> which took 23 years to research, negotiate and arrive at agreement. From there, it was not a big step to a convention;<sup>323</sup> however it was not easy to bring to a vote.<sup>324</sup> It was a large step forward, this first global water law,<sup>325</sup> “however limited and minimal the obligations are created by the watercourses convention.”<sup>326, 327</sup>

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<sup>317</sup> Interview No. 963

<sup>318</sup> Interview No. 698

<sup>319</sup> Interview Nos. 5 and 374

<sup>320</sup> Interview No. 649

<sup>321</sup> Interview No. 16

<sup>322</sup> Ibid.

<sup>323</sup> Ibid.

<sup>324</sup> Interview No. 336

<sup>325</sup> Interview No. 93

<sup>326</sup> Interview No. 336

### 3.2.10 Small, but interesting...

There were a great number of responses that were mentioned by only 1 or 2 respondents. A number of these, however, stood out for their relevance.

#### “Water Wars”

A significant event in the 1990s that changed the discourse on water was when Ismail Serageldin, then Vice-President of the World Bank, stated that the wars of the 21<sup>st</sup> Century would be over water.<sup>328</sup> There were corners of academia that had already put forth the idea of wars between countries over natural resources<sup>329</sup>, but this was the first time the idea was taken and sensationalized by the media. A slew of literature emerged to refute the idea of water wars led by Aaron Wolf at Oregon State University,<sup>330</sup> which stated that wars between countries over water is not probable, because (1) historically these wars have not occurred, (2) the strategic rationale for such a war is very weak, (3) there are shared interests in managing basins jointly, (4) cooperation creates institutional resiliency and (5) wars over water are simply too expensive when other solutions are much cheaper.

What was not addressed as much at the time was the amount of violence that occurred at the sub-national level. The Pacific Institute has collected a chronology of conflict over water in their Water Conflict Chronology<sup>331</sup> and there have been an

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<sup>327</sup> General comments in support: Interview Nos. 5, 55, 212, 276, 815, 915 and 983.

<sup>328</sup> Interview Nos. 276 and 317. Ismail Serageldin, *Water*, (accessed October 22, 2013); available from [www.serageldin.com/water.htm](http://www.serageldin.com/water.htm).

<sup>329</sup> See, for example, Thomas Homer-Dixon, “On the Threshold: Environmental Changes as Causes of Acute Conflict,” *International Security* 16, no. 2 (1991): 76-116.

<sup>330</sup> Aaron Wolf, “Conflict and cooperation along international waterways,” *Water Policy* 1, no. 2, (1998): 253-261.

<sup>331</sup> Pacific Institute, *Water Conflict Chronology*, (accessed October 22, 2013); available from <http://www.worldwater.org/chronology.html>.

increasing number of articles written about water as a factor of violence at the sub-national level, especially the cases of Darfur<sup>332</sup> and Syria<sup>333</sup>.

### Star Power

While celebrities are often mocked for their chosen charitable activities, their impact cannot be understated. The idea of how star power influences awareness-raising and global activities on water came up in the one of the interviews.<sup>334</sup> To use one example, Matt Damon, the actor from the United States is co-founder of water.org, an NGO that “works with local partners to deliver innovative (water) solutions for long-term success”,<sup>335</sup> created a video on YouTube, a spoof press conference celebrating World Toilet Day in 2012.<sup>336</sup> To date, that video has accumulated almost 1.1 million visits. When combined with the follow-up videos done by Damon and others in support of the cause the total exceeds over 2 million. This does not even include the press that was written about the video. Compared to the *yearly* visits of the primary water organizations worldwide, such as UN-Water or the World Water Council, it is a number that these organizations simply cannot reach.

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<sup>332</sup> See Lisa Schlein, “Water Scarcity Root of Darfur Conflict,” *Voice of America*, June 10, 2011; available from <http://voanews.com/content/water-scarcity-root-of-darfur-conflict-123688459/158292.html>.

<sup>333</sup> See Thomas L. Friedman, “Without Water, Revolution,” *New York Times*, May 18, 2013; available from <http://www.nytimes.com/2013/05/19/opinion/sunday/friedman-without-water-revolution.html> and Joshua Hammer, “Is a Lack of Water to Blame for the Conflict in Syria?” *Smithsonian Magazine*, June 2013; available from <http://www.smithsonianmag.com/science-nature/Is-a-Lack-of-Water-to-Blame-for-the-Conflict-in-Syria-208345431.html>

<sup>334</sup> Interview No. 935

<sup>335</sup> water.org, *About Us*, (accessed October 22, 2013) available from <http://www.water.org/about>.

<sup>336</sup> water.org, *Matt Damon Goes on Strike!* (accessed October 22, 2013); available from <http://www.youtube.com/watch?v=jQCqNop3CIg>.

Other initiatives have come from musician Jay-Z working with Secretary-General Kofi Annan and the UN in 2006<sup>337</sup> and a group of celebrities summiting Mt. Kilimanjaro to raise awareness about water.<sup>338</sup>

#### Internet/Social Media

Star power would not be capable of reaching as many people if it were not for the internet and social media. This goes beyond just celebrities though. “Never have I seen more visibility to the global water crisis than in the past five years.” Everyone has “realized the power of this medium, and the visceral resonance of the topic of water, and are leveraging it — mostly for good.” This has also spurred innovation as people are sharing ideas and can do so instantaneously.<sup>339</sup>

#### Invention of Concrete

Although concrete was invented several centuries ago, when it started to be used for dams, it forever changed the way water was managed.<sup>340</sup> The Hoover Dam began operations in 1936. As the first large dam in the world it promoted an engineering approach to water management that “rippled throughout the world” and made large-scale river control possible, the treaties produced thereafter reflecting this new management paradigm.<sup>341</sup> Since the Hoover Dam was constructed, over 45,000 large dams<sup>342</sup> have been constructed worldwide.

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<sup>337</sup> United Nations, “Kofi Annan, Jaz-Z announce UN-MTV global campaign on world’s water crisis,” International Decade for Action, “Water for Life” 2005-2015; available from <http://www.un.org/waterforlifedecade/jayzmtv.shtml>.

<sup>338</sup> Summit on the Summit, *Summit on the Summit* (accessed October 22, 2013); available from <http://www.summitonthesummit.com>

<sup>339</sup> Interview No. 399

<sup>340</sup> Interview No. 797

<sup>341</sup> Interview No. 834

<sup>342</sup> World Commission on Dams, *Dams and Development: A New Framework for Decision-making*, xxix. This number is from 2000, so most likely is outdated. However, ICOLD has a figure in their dam registry of

## Eras and Process

Two interviewees said that it is not the moments that define the changes that take place in global water governance, but the process<sup>343</sup> and the longer time periods that events then “simply codify and render explicit what is already deeply embedded.”<sup>344</sup> This is reinforced in the literature where several authors have laid out time periods of global water management/governance paradigms in which the events described above took place.<sup>345</sup>

### 3.3 Conclusion

While global water governance has only recently come to the attention of the academic and policy worlds, there have been activities surrounding the concept for the last century, but most notably since the 1990s. The increasing awareness of the importance of water, and the lack of policies to address its problems, by decision-makers began a proliferation of activities and organizations. The part that is

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37,641, which is much less than the 45,000 of 2000. Some other sources (International Rivers Network (<http://www.internationalrivers.org/questions-and-answers-about-large-dams>) and WWF ([http://www.panda.org/what\\_we\\_do/footprint/water/dams\\_initiative/quick\\_facts/](http://www.panda.org/what_we_do/footprint/water/dams_initiative/quick_facts/))) state that there are over 48,000 dams with half of those being in China. The WCD report also puts China's large dam number at 22,000. The ICOLD country numbers only have 5,191 for China, which could be the discrepancy in the numbers and it's not known why their number is lower in comparison. Large dams are defined as having a “structural dam height above foundation of not less than 15 meters”: ICOLD, *General Synthesis*, (accessed October 22, 2013): [http://www.icold-cigb.org/GB/World\\_register/general\\_synthesis.asp](http://www.icold-cigb.org/GB/World_register/general_synthesis.asp).

<sup>343</sup> Interview No. 227

<sup>344</sup> Interview No. 245

<sup>345</sup> Joseph Dellapenna et al, “Toward Global Law on Water,” 339-340; Joyeeta Gupta, “Global water governance: Controversies and choices,” in *Water for a Changing World – Developing Local Knowledge and Capacity*, eds. G.J. Alaerts and N.L. Dickinson (London: Taylor & Francis Group, 2009), 101-103; Joyeeta Gupta, “Global Water Governance,” 20-22; Robert G. Varady et al, “Strengthening Global Water Initiatives,” 21-22; Luis Veiga de Cunha, “The Challenges of Global Water Governance” (presentation, Expo Zaragoza, July 8, 2008), 3 (elaborating from John Anthony Allan, “IWRM/IWRAM: A New Sensational Discourse?” Occasional Paper No. 50, School of Oriental and African Studies, King's Cross College, London (2003); and WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), 133.

missing from this conglomeration of undertakings, however, is an entity or a framework that brings these efforts together in a coordinated manner.



## Chapter 4 Organizations' influence on global water governance

In the water community, with such a multiplicity of stakeholders, organizations play a key role in governance, from the local to global levels. For global water governance, or even addressing water issues at the global level, there has never been one organization that has been a champion, a leader or a convener, a dominant entity within the international water sphere.<sup>1</sup> Water has been, surprisingly to some, an orphan in the international arena.<sup>2</sup>

This has caused the rise of a plethora of organizations that address, all in different ways, with some overlap, global water issues. Even though there is a proliferation of these organizations, the world still suffers from an emerging water crisis and, in some cases, the situation has gotten worse.

International organizations such as the United Nations and World Bank have long been the dominant players in the international water sphere, but their lack of ability and/or desire to tackle certain water issues at the global level has given rise to organizations such as the World Water Council and Global Water Partnership, amongst others, which are filling the void created by international organizations in a piecemeal manner. As one interviewee commented, "They all have their place in this great complicated amoeba,"<sup>3</sup> which is exactly what the amalgam of organizations focused on international water issues looks like.

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<sup>1</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 133 and H.H.G Savenije and P. Van der Zaag, "Integrated water resources management: Concepts and issues," *Physics and Chemistry of the Earth* 33, no. 5 (2008): 293.

<sup>2</sup> James Winpenny, "Financing Water for All: Report of the World Panel on Financing Water Infrastructure," World Water Council (March, 2003), v.

<sup>3</sup> Interview No. 199

The following chapter will focus on global organizations, their influence on global water governance, and their strengths and weaknesses in order to paint a picture as to, organizationally, where the world stands in terms of global water governance. The information gleaned from this chapter comes primarily from the perceptions of the interviewees, in very few cases supported by the literature.

#### 4.1 UN/UN-Water<sup>4</sup>

The time period prior to the creation of UN-Water in 2003, when the ACC ISGWR and Subcommittee on Water Resources were in power as the coordinating bodies of water activities within the UN system, was most noted as a time of competition between the UN agencies related to water. The meetings were described as a “turf fight”<sup>5</sup> or a “smokescreen”<sup>6</sup> where all that would end up happening was that the agencies would attend, share what they had been doing in the past six months/year<sup>7</sup> and then “go home again.”<sup>8</sup> This was because the UN water-related agencies, even though meeting, did not really want to cooperate with one another.<sup>9</sup> In the end, the ACC Subcommittee did not fulfill its functional purpose.<sup>10</sup>

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<sup>4</sup> Note: The headings of these sections are listed in the order of the popularity of the number of responses by the interviewees.

<sup>5</sup> Interview Nos. 55 and 579

<sup>6</sup> Interview No. 240

<sup>7</sup> Interview Nos. 96 and 781

<sup>8</sup> Interview No. 180

<sup>9</sup> Interview No. 943

<sup>10</sup> Interview No. 180

The one positive element that emerged from that era of the UN in terms of water was the ACC-ISGWR's organization of the ICWE in 1992 that produced the Dublin Principles,<sup>11</sup> which has had a huge impact on global water governance.

Generally speaking, the influence of the United Nations on global water governance has been significant. In terms of goals and guidelines, the UN has played a significant role.<sup>12</sup> These come in the form of the MDGs as well as UNGA resolutions,<sup>13</sup> such as the resolution recognizing the human right to water and sanitation. Since the ACC Subcommittees were dissolved in 2001, UN-Water has been the primary focal point for water activity in the UN system.

UN-Water, even though the ACC Subcommittee preceded it, is a very young mechanism<sup>14</sup> that is still trying to define itself and has been moving forward in small steps. As Dellapenna and Gupta state, "United Nations water policy is a work in progress."<sup>15</sup>

UN-Water and its coordinating role are thought to be essential<sup>16</sup> and have a more important and useful role than the ACC Subcommittee, gaining importance year by year,<sup>17</sup> becoming very much part of the solution to water issues worldwide.<sup>18</sup> Whereas before the agencies were just meeting and sharing, now there

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<sup>11</sup> Interview Nos. 55 and 781

<sup>12</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, "Policymakers' Reflections on Water Governance Issues," *Ecology and Society* 18, no. 1, art. 35 (2013)

<sup>13</sup> Interview Nos. 374 and 990

<sup>14</sup> Interview No. 132

<sup>15</sup> Joseph W. Dellapenna and Joyeeta Gupta, "A book conversation with the editors and a reviewer. Law and water governance: past, present, and future," *Water International* 36, no. 3 (2011): 399.

<sup>16</sup> Interview Nos. 133 and 136

<sup>17</sup> Interview Nos. 212 and 781

<sup>18</sup> Interview No. 579

is substance within the work that UN-Water does,<sup>19</sup> and it has been successful at getting those agencies to work together,<sup>20</sup> acting as a “real hub for water” within the UN system<sup>21</sup> while strengthening coordination progressively.<sup>22</sup> This coalescence of UN-Water has had a large impact on the global water discourse.<sup>23</sup>

The political visibility of water has also been raised, because of UN-Water<sup>24</sup> and also due to recent changes in its structure. Originally, the UN-Water Chair was a Senior Programme Manager elected by his/her peers, but recently, this has evolved to where the Chair is now a Chief Executive of a UN agency,<sup>25</sup> a position currently held by Mr. Michel Jarraud, Secretary-General of WMO. The Vice-Chair is now elected by the governing board of UN-Water, the primary decision-making body of UN-Water, which is comprised of Senior Programme Managers from the UN organizations. This change in the level of the Chair of UN-Water has been positive<sup>26</sup> and had significant impacts on water within the UN system. Not only can the Chair provide political leadership<sup>27</sup> and raise water issues within the Chiefs Executive Board<sup>28</sup> where water had previously never been a topic, thus influencing and receiving unprecedented attention, but the Chair can also help with the internal functioning of UN-Water to refocus the mechanism away from competition.<sup>29</sup>

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<sup>19</sup> Interview No. 673

<sup>20</sup> Interview Nos. 527 and 579

<sup>21</sup> Interview No. 180

<sup>22</sup> Interview Nos. 512 and 701

<sup>23</sup> Interview No. 698

<sup>24</sup> Interview Nos. 245, 317, 413 and 542

<sup>25</sup> UN-Water, “Annex 1 – Terms of Reference: UN-Water Management Team,” UN-Water (2012).

<sup>26</sup> Interview Nos. 212 and 734

<sup>27</sup> Interview No. 662

<sup>28</sup> Interview No. 382

<sup>29</sup> Interview No. 673

UN-Water's main purpose is a platform of collaboration between the 31 different UN agencies that work with water. UN-Water is also sometimes referred to as "UN-Water Lite," because it is a self-purported light mechanism of coordination.<sup>30</sup> Unlike the ACC Subcommittee that preceded it, UN-Water has better been able to coordinate between the UN agencies related to water, bringing them together on activities such as World Water Days, the World Water Development Report, through WWAP, and by developing policy briefs for such events as Rio+20. Many have regarded the increased coordination within UN-Water as a valuable step in addressing the world's water issues,<sup>31</sup> and UN-Water performs this role potentially better than any one single United Nations agency dedicated to water could.<sup>32</sup>

One of the issues some see in global water governance is that there has never been one UN organization, or even one dominant entity,<sup>33</sup> that has dealt specifically with water issues<sup>34</sup> to pull all the different interests together.<sup>35</sup> The issues are fragmented through the 31 UN agencies that make up UN-Water, like the ACC Subcommittee before it, which, as a result, has never been able to create a comprehensive framework on water.<sup>36</sup> With a single entity, there would be political

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<sup>30</sup> Interview Nos. 382 and 855

<sup>31</sup> Interview Nos. 93, 136, 180, 240, 382, 439, 527, 797, 807, 815 and 976

<sup>32</sup> Interview No. 527

<sup>33</sup> Ken Conca, *Governing Water*, 133

<sup>34</sup> H.H.G. Savenije et al, "Integrated water resources management," 293

<sup>35</sup> Anthony Milburn, "International Water Conferences and Water Sector Reform: A Different Approach," in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 116.

<sup>36</sup> Ken Conca, *Governing Water*, 133

cohesion, but that is the trade-off for the coordination cohesion that a UN-Water brings, always a conundrum.<sup>37</sup>

This can be seen in another light as well. The reality is that water is a cross-cutting issue, hence why 31 agencies of different specialties within the UN make up UN-Water. So, there is value in having a coordination body rather than a single UN water agency. This, perhaps, is a better way to address the “silos” of different water-related issues, creating linkages between them and integrating the different issues and UN agencies,<sup>38</sup> as it is “impossible to... cover that scope,”<sup>39</sup> and too many constituencies exist “for any existing body to have primacy in this (water) matter.”<sup>40</sup> In this regard, UN-Water has helped reduce the fragmentation in the UN system.<sup>41</sup>

In essence, UN-Water has evolved beyond just a coordination mechanism. It has begun to speak with one voice, a more coherent voice,<sup>42</sup> on some water policy issues and “shape the global discourse” on water.<sup>43</sup> It is important for the UN to coordinate this voice towards a common vision<sup>44</sup> and agenda<sup>45</sup> for changes that need to take place in the global water arena. UN-Water has specific task forces, has been asked to feed into larger global political processes like Rio+20 and was called upon to organize the Thematic Consultation on Water for the Post-2015 Development Agenda, which was not the case with other UN coordinating bodies for

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<sup>37</sup> Interview No. 612

<sup>38</sup> Interview Nos. 601 and 701

<sup>39</sup> Interview No. 531

<sup>40</sup> Brian Grover and Michael Jefferson, “A World Water Council: One Possible Model,” *Water Resources Development* 11, no. 2 (1995): 132-133.

<sup>41</sup> Interview No. 471

<sup>42</sup> Interview Nos. 178 and 531

<sup>43</sup> Interview No. 807

<sup>44</sup> Interview No. 601

<sup>45</sup> Interview No. 881

specific issues.<sup>46</sup> Another step, although perhaps a bit “clumsy in terms of process,” has been to bring in partners that are not part of the UN to participate in some of UN-Water’s activities.<sup>47</sup>

All views of the UN are not positive. To a certain extent, the idea that UN-Water is known as an entity where the UN agencies are in competition with one another over territory and funds has not diminished, although, per the above, UN-Water produces much more and coordinates much better than its predecessors.

The current level of cooperation among UN agencies is insufficient for coping with the challenges associated with international water-related goals, and programs and actions are neither aligned to a common water strategy nor based on common values.<sup>48</sup>

Competition with UN-Water is still very much present<sup>49</sup> and acts as a major hindrance to moving forward.<sup>50</sup> While UN-Water aims to coordinate, the members ensure that their “own governance structures (of the agencies) are not undermined by something that forms an umbrella over everything.”<sup>51</sup> There is no effort to coordinate towards something bigger than the sum of the individual activities of each agency.<sup>52</sup> Members are more often present to see what they can get out of UN-Water for their own agency.<sup>53</sup> And, in the end, coordination is not really what

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<sup>46</sup> Interview No. 807

<sup>47</sup> Interview No. 133

<sup>48</sup> Maria Schnurr, “Global Water Governance: Managing Complexity on a Global Scale,” in *Water Politics and Development Cooperation*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping (Springer-Verlag Heidelberg Berlin, 2008); 111.

<sup>49</sup> Interview Nos. 5, 336, 542, 752 and 963

<sup>50</sup> Interview Nos. 542 and 673

<sup>51</sup> Interview No. 673

<sup>52</sup> Interview Nos. 673 and 963

<sup>53</sup> Interview No. 402 and 673

occurs<sup>54</sup> to the extent that some people are not quite sure what UN-Water's position is on anything.<sup>55</sup>

Contrary to what was stated above, there is the belief that UN-Water does not speak with a common voice<sup>56</sup> or have a common vision.<sup>57</sup> One reason stated for this is because, while UN-Water has the merit of being all-inclusive, it has become too large with 31 members plus another 36 partners so that it has developed too broadly and without enough depth since its inception.<sup>58</sup> The UN is "perpetually trying to create new initiatives, some of which are in competition with what is already going on"<sup>59</sup> and this proliferation of UN agencies involved in UN-Water has caused an "incoherent Christmas tree approach where everyone wants to come along with their bobble of concern."<sup>60</sup>

Instead of getting out of the "water box," as UN-Water is meant to do with all the various UN agencies dealing with different issues, it has failed to do that<sup>61</sup> and has instead created the "water box;" the water problems that exist with food and energy cannot be solved by this community.<sup>62</sup>

Getting out of their own box seems to be also difficult as it has been called an "inward-looking organization"<sup>63</sup> that does not have the mechanisms to deal with

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<sup>54</sup> Interview Nos. 203 and 554

<sup>55</sup> Interview No. 21

<sup>56</sup> Interview No. 752

<sup>57</sup> Interview Nos. 405 and 976

<sup>58</sup> Interview Nos. 199 and 673

<sup>59</sup> Interview No. 199

<sup>60</sup> Interview No. 462

<sup>61</sup> Interview Nos. 191, 864 and 997

<sup>62</sup> Interview No. 512

<sup>63</sup> Interview Nos. 191 and 245



other partners,<sup>64</sup> such as the private sector<sup>65</sup> and even governments.<sup>66</sup> UN-Water coordinates among UN agencies, so, in theory, does not have contact with UN Member States except for donors, so their terms of reference would have to change in order to make this happen.

The critique of the UN exceeds even this level. There are some who see UN-Water as “vaporous”<sup>67</sup> and “dysfunctional”<sup>68</sup> and think that the UN has “no future” in the area of water, as all areas of the UN have been diminishing in intellectual ability and there is no vision.<sup>69</sup> Another interviewee stated the UN “serves no purpose,” its contribution is “almost zero” and the employees are more worried about their salaries than the issues they address.<sup>70</sup> The extent to which UN-Water has been effective is questioned<sup>71</sup> to the point of some expressing opinions of downright ineffectiveness.<sup>72</sup>

After Mar del Plata, the water community looked to the UN for leadership and that momentum was not maintained,<sup>73</sup> so this is one reason why there has been an emergence of institutions like the WWC, GWP and SIWI, who have, in a way, taken up the torch in certain areas of global water governance.<sup>74</sup> Or, in stronger

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<sup>64</sup> Interview Nos. 382 and 815

<sup>65</sup> Interview No. 382

<sup>66</sup> Interview No. 527

<sup>67</sup> Interview No. 303

<sup>68</sup> Interview No. 963

<sup>69</sup> Interview Nos. 55 and 943

<sup>70</sup> Interview No. 595

<sup>71</sup> Interview No. 136

<sup>72</sup> Interview Nos. 78, 191, 361 and 624

<sup>73</sup> Anthony Milburn, “International Water Conferences and Water Sector Reform: A Different Approach,” 116

<sup>74</sup> Ayşegül Kibaroglu, *Building a Regime for the Waters of the Euphrates-Tigris River Basin*, International and National Water Law and Policy Series (London: Kluwer Law International, 2002), 62, Asit K. Biswas, “From Mar del Plata to Kyoto: an analysis of global water policy dialogue,” *Global Environmental Change*

words, the UN has ceded this regime to the World Water Council and the World Water Forum every three years.<sup>75</sup> “Hence, the UN system has been supplemented by a highly complex system of negotiation, information exchange, and attempts to reach a global consensus on freshwater issues.”<sup>76</sup>

#### 4.2 World Bank/Development Banks

The World Bank is thought of by some as the most influential entity when it comes to global water governance.<sup>77</sup> Even though their activities are targeted at the national and sometimes basin levels, the principles they have pushed forward have been global in nature. Their link with financing is a strong incentive to incite change at the national level in developing countries around the world. This was witnessed by trends in the push for large infrastructure as well as the privatization of water and sanitation services in the 1980s and 1990s. While there was pushback on both privatization and large infrastructure that changed the Bank’s practices on such activities, the pendulum has now swung back in the other direction in that the Bank will again start to finance large infrastructure.<sup>78</sup>

The World Bank was seen as a negative influence by many in the 1990s, because of their financing of dam construction and it was believed that not enough was done to mitigate social and environmental impacts of those dams.

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14, supplement (2004): 85 and Maria Schnurr, “Global Water Governance: Managing Complexity on a Global Scale,” 111.

<sup>75</sup> Interview No. 867

<sup>76</sup> Ayşegül Kibaroglu, *Building a Regime for the Waters of the Euphrates-Tigris River Basin*, 60

<sup>77</sup> Interview No. 797

<sup>78</sup> Howard Schneider, “World Bank rethinks stance on large-scale hydropower projects,” *Guardian Weekly*, May 14, 2013; available from <http://www.theguardian.com/environment/2013/may/14/world-bank-hydropower-dam-rethink>.

The WB has now moved back into the dam-building financing business as noted above. In some ways, they are now seen as a large positive force,<sup>79</sup> not only because dams are one tool of many to adapt to climate change, but also because, with the Bank being so influenced by Europeans and Americans, their environmental and social safeguards are now quite high.<sup>80</sup> Although they may not be as high as compared to the recommendations from the World Commission on Dams, there is almost a desire for the World Bank to get back into financing dams, because there are other investors now, such as the Chinese, which do not have such strict safeguards when it comes to large infrastructure construction.<sup>81</sup>

The World Bank's privatization efforts, at least how they were manifested in the late 20<sup>th</sup> Century, were seen as a "crude" international response to the provision of water and sanitation services,<sup>82</sup> especially because it was done badly in a few high-profile cases. This resulted in a disconcerting,<sup>83</sup> ideological debate that emerged on whether water was an economic good or a human right. Privatization was seen as a threat to water as a human right. During the entire decade of the 1990s, and even now, a discussion cannot take place about private sector roles without ideology and politics coming into play, an unnecessary confusion, which set the discussion on human rights "back at least a decade."<sup>84</sup>

Just because this initiative did not come out positive, does not mean that the Bank is not influential. Quite the contrary. The fact that the Bank was able to create

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<sup>79</sup> Interview No. 612

<sup>80</sup> Interview No. 846

<sup>81</sup> Interview Nos. 649 and 752

<sup>82</sup> Interview No. 612

<sup>83</sup> Interview No. 763

<sup>84</sup> Interview No. 612

the momentum for privatization to the extent that it did shows the influence that the Bank has.<sup>85</sup> Yet, even though they have been able to push that agenda, the success of the privatization push is questionable.<sup>86</sup>

According to one interviewee, the World Bank had some of the best minds in the water community and since some of these outcomes could have been easily foreseen,<sup>87</sup> the results have been seen as unforgiveable.<sup>88</sup> This perception potentially arises from the idea that the policies in the Bank are very much formed by strong individuals who have a certain agenda.<sup>89</sup>

One of the Bank's most powerful roles is as convener, which is almost second to none because of its knowledge,<sup>90</sup> capacity and experience.<sup>91</sup> Its success in brokering the Indus Waters Treaty in 1960 between India and Pakistan still stands today as an example of cooperation even though the countries have frosty relations and have been at war with one another several times since the treaty's completion. This role can also be seen in the efforts since the early 2000s with the Nile Basin. The Bank is very influential,<sup>92</sup> because not only can it get parties to the table that might not come otherwise, but also because it catalyzes other institutional mechanisms.<sup>93</sup>

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<sup>85</sup> Interview No. 867

<sup>86</sup> Interview Nos. 240, 624 and 747

<sup>87</sup> Interview No. 336

<sup>88</sup> Interview No. 612

<sup>89</sup> Interview No. 579

<sup>90</sup> Interview No. 245

<sup>91</sup> Interview No. 240

<sup>92</sup> Interview Nos. 303, 341, 462, 624, 719, 747 and 807

<sup>93</sup> Interview Nos. 245 and 649

Because it does control huge amounts of money that governments can tap into, the “gate-keepers of where capital is going to move,”<sup>94</sup> “you cannot say at all that their influence is inconsequential.”<sup>95</sup> Its influence often comes because of the terms and conditions that it attaches to its loans,<sup>96</sup> which has sometimes been perceived as not influence, but force.<sup>97</sup> Either way, the World Bank does influence governance at the national level in the developing world through these mechanisms when requiring water principles such as IWRM to be implemented.<sup>98</sup>

While the WB receives a lot of criticism for its policies and practices,<sup>99</sup> there are two aspects for which it needs to be given credit. Firstly, it kept investing in drinking water infrastructure when it had become “out of fashion” and when no one else could or would.<sup>100</sup> Secondly, its work in knowledge and information management is utilized and referenced frequently by people in the water community.<sup>101</sup>

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<sup>94</sup> Interview No. 763

<sup>95</sup> Interview No. 317

<sup>96</sup> Interview Nos. 374 and 682

<sup>97</sup> Interview No. 50

<sup>98</sup> Interview Nos. 763 and 935

<sup>99</sup> See Maude Barlow, “Our Right to Water: A People’s Guide to Implementing the United Nations’ Recognition of the Right to Water and Sanitation,” (The Council of Canadians, 2012); Maude Barlow and Tony Clarke, “Who Owns Water,” *The Nation*, September 2, 2002; Maude Barlow and Tony Clarke, *Blue Gold: The Fight to Stop the Corporate Theft of the World’s Water* (New York: New Press, 2002); Michael Goldman, “How “Water for All!” policy became hegemonic: The power of the World Bank and its transnational policy networks,” *Geoforum* 38, no. 5 (2007); Michael Goldman, *Imperial Nature: The world bank and struggles for social justice in the age of Globalization* (New London: Yale University Press, 2005), 232; Patrick McCully, “Avoiding Solutions, Worsening Problems: A Critique of “World Bank Water Resources Sector Strategy: Strategic Directions for World Bank Engagement Draft for Discussion of March 25, 2002”,” International Rivers Network, May 27, 2002; and Martin Pigeon, David Hall, Emanuele Lobina, Philipp Terhorst and Emma Lui, “Controlling the agenda at WWF – the multinationals’ network,” PSI-CEO-PSIRU (March 2009).

<sup>100</sup> Interview No. 612

<sup>101</sup> Interview Nos. 64 and 834

A sub-category under the World Bank heading is that of other development banks<sup>102</sup> and the Global Environment Facility (GEF),<sup>103, 104</sup> which also emerge as key players in global water governance.

There are some other issues that are of concern for global water governance. Maybe the most important, as it relates to two of the primary actors in global water governance, is the disconnect that exists between the work that the World Bank and the United Nations' agencies are doing in supporting national governments.<sup>105</sup> There is also a perceived disconnect within the Bank itself between those who work with water resources management and those who work with water and sanitation,<sup>106</sup> which is not an unusual disconnect in the water community as a whole. There is also the claim that the Bank is largely "schizophrenic," not knowing whether it is a bank or a development partner,<sup>107</sup> which has caused problems on the ground.<sup>108</sup>

One interviewee stated that the traditional policies and conservative approach of the World Bank (and other development banks) have not gotten us anywhere, but later corrected himself, by saying, "That's not true. It's not that they haven't gotten us anywhere, but that they haven't gotten us far enough."<sup>109</sup>

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<sup>102</sup> Interview Nos. 132, 178, 245 and 752

<sup>103</sup> Interview Nos. 276, 303 and 935

<sup>104</sup> In 1991, UNDP, UNEP and the World Bank initiated GEF to "assist in the protection of the global environment and to promote environmental sustainable development." It now stands as an independently operated financial institution that provides grants and on subjects such as biodiversity, climate change and water. Global Environment Facility, *What is the GEF* (accessed 22 February 2014); available from <http://www.thegef.org/gef/whatisgef>

<sup>105</sup> Interview No. 807

<sup>106</sup> Interview No. 963

<sup>107</sup> Interview No. 64

<sup>108</sup> Interview No. 288

<sup>109</sup> Interview No. 976

## 4.3 World Water Council

### 4.3.1 Organization

At the global level, the WWC has facilitated political engagement<sup>110</sup> and become the “political mouthpiece”<sup>111</sup> on water issues, a champion for water,<sup>112</sup> which was lacking in the UN system at the time of the Council’s inception. “They’ve really worked hard on being politically relevant... and (have a) great political network at the highest levels around the world.”<sup>113</sup> Through this engagement, the Council has been able to raise awareness about water<sup>114</sup> and raise the profile of water in the international agenda.<sup>115</sup>

Because the UN had been lacking cohesion around the issue of water for some time, the Council was able to fill that role of an international organization focusing on water through some of its activities, especially as a meeting place for governments through the World Water Forum,<sup>116</sup> and this role has been quite influential.<sup>117</sup> Governments who have difficulty speaking to one another in more formal settings look forward to the Forum processes as an informal arena to discuss both water and other issues.

In this original wording from the ICWE outcome document, which included the Dublin Principles, proposing the creation of a world water council, is as follows:

In addition, to involve private institutions, regional and non-governmental organizations along with all interested governments in the assessment and

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<sup>110</sup> Interview No. 881

<sup>111</sup> Interview No. 471

<sup>112</sup> Interview No. 203

<sup>113</sup> Interview No. 336

<sup>114</sup> Interview Nos. 714, 763 and 881

<sup>115</sup> Interview Nos. 55, 78, 595 and 941

<sup>116</sup> Interview Nos. 86, 531 and 763

<sup>117</sup> Interview No. 673

follow-up, the Conference proposes, for consideration by UNCED, a world water forum or council to which all such groups could adhere.<sup>118</sup>

This original purpose of the World Water Council, from the very beginning, to bring together the diverse stakeholders that are involved in water issues, the Council has not failed. The WWC has done a very good job at assembling actors together<sup>119</sup> from all levels: local, national, regional and global,<sup>120</sup> creating a space and platform for dialogue<sup>121</sup>, and, in a sense, a global water community.<sup>122</sup> The Council has even been able to galvanize the groups that oppose the Forum and Council, which has sparked much debate on some of the more contentious water issues.<sup>123</sup>

The WWC also brings together national governments to talk together about water issues, which is the only arena where this happens at the global level, providing not only “an opportunity for having a balanced vision of water challenges,”<sup>124</sup> but a place where they can talk with other stakeholders.<sup>125</sup> The Council “must have an impact... both internally for a (UN) Member State, and also outwards towards the global more official, more formal policy domains within the international system, intergovernmental policy domains,” because of the discussions the WWC facilitates through the Forum process.<sup>126</sup>

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<sup>118</sup> International Conference on Water and Environment, “The Dublin Statement on Water and Sustainable Development,” available from <http://www.wmo.int/pages/prog/hwarp/documents/english/icwedece.html>.

<sup>119</sup> Interview Nos. 170, 439, 569, 601, 641, 701, 734, 763 and 815

<sup>120</sup> Interview No. 881

<sup>121</sup> Interview Nos. 347 and 752

<sup>122</sup> Interview No. 777

<sup>123</sup> Interview No. 144

<sup>124</sup> Interview No. 601. But admits the answer is not always balanced.

<sup>125</sup> Interview No. 877

<sup>126</sup> Ibid.



One of the original functions of the World Water Council was to be a think tank, to put forth ideas about international water issues. This is a potential that the Council has never achieved<sup>127</sup> and some say have “failed miserably at.”<sup>128</sup> Over the years, their focus has turned to organizing the Forum, and the WWC has moved away from placing itself on the map as a think tank.<sup>129</sup> Some think it would be of added value to move back in that direction,<sup>130</sup> to be a convening power for major issues and “get good thought behind (ideas).”<sup>131</sup> One interview noted that the current President of WWC has stated since his mandate began in late 2012 that he would like to put more emphasis on the Council’s role as a think tank.<sup>132</sup>

Probably one of the biggest critiques that the WWC receives, at least from inside the water community, is that of its internal governance.<sup>133</sup> It is one of the main reasons why the Council has suffered from a lack of legitimacy.

How members get elected to the Board of Governors, the main decision-making body of the WWC, is people’s largest contention. There are issues with the voting procedures<sup>134</sup> and the feeling that you can “buy your seats.”<sup>135</sup> For a relatively low price, countries can sign up dozens of members to the WWC and create voting blocs for their national constituency. One of the principal decisions that the Board makes is who will host the World Water Forum. Before each Forum vote, there is an influx of members from the potential host countries in order to try

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<sup>127</sup> Interview No. 374

<sup>128</sup> Interview No. 612

<sup>129</sup> Interview Nos. 240 and 943

<sup>130</sup> Interview Nos. 240 and 811

<sup>131</sup> Interview No. 763

<sup>132</sup> Ibid.

<sup>133</sup> Interview Nos. 654 and 797

<sup>134</sup> Interview No. 654

<sup>135</sup> Interview Nos. 212, 303 and 579

to ensure that there is a voting bloc in their favor. After, alliances are made of voting blocks for when the election of the Board of Governors is realized. This is done not just for the Forum, but in essence, to control the Council. While there are 5 “colleges” based on organization-type, civil society is quite marginalized in this setup, because they compete with national water partnerships (who have large voting blocs).<sup>136</sup> Therefore, the Board representation is not truly representative of a global community.<sup>137</sup>

In addition, some individuals on the Board have been there for more than two terms. Under the by-laws of the WWC, an individual can not represent an organization for more than two consecutive terms,<sup>138</sup> but this does not prevent them from changing organizations to continue serving on the Board. This is considered “bad governance.”<sup>139</sup> As a result of the above, the WWC is not seen as democratic and, in turn, legitimate.<sup>140</sup>

There are several other reasons why the Council’s legitimacy is called into question. For one, there are national governments that reject the World Water Council and do not participate in its activities, including the Forum.<sup>141</sup> Because of the lack of participation by some countries and actors, the outcomes of the Council

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<sup>136</sup> Interview No. 701

<sup>137</sup> Out of the 36 current Board Members of the World Water Council, 23 of them are from 6 six countries (Brazil, France, Japan, Korea, Turkey and the United States). If the 4 members from College 1 “Intergovernmental Institutions” are taken away, this is 23 out of 32. World Water Council, *Board of Governors* (accessed October 21, 2013); available from <http://www.worldwatercouncil.org/about-us/organisation/board-of-governors/>.

<sup>138</sup> World Water Council, *World Water Council 2013-2015: Constitution and By-laws*, Marseille, France 2012.

<sup>139</sup> Interview No. 701

<sup>140</sup> Interview Nos. 170 and 569

<sup>141</sup> Interview Nos. 439, 579, 654 and 662

become “questionable.”<sup>142</sup> Some of the lack of engaged participation comes as a direct result of the internal governance and the fact that the Board is not truly representative.<sup>143</sup> This lack of legitimacy hurts the Council’s credibility as a neutral broker.

Some question the effectiveness of the WWC in that there is little impact in the activities that they carry out.<sup>144</sup>

There’s no impact, no change. Nobody’s giving more potable water because of the Council. And no river is being cleaned up or any major controversial international water disputes solved or moved out of its difficulties.<sup>145</sup>

This is mostly related to the Forum, which is what the WWC is known for<sup>146</sup> and, as some believe, the only reason they exist.<sup>147</sup> The choosing of the Forum has caused some legitimacy issues as well. The selection of Marseille, the headquarters of the World Water Council, for the 6<sup>th</sup> World Water Forum in 2012 is an example of this. A few mentioned the complete conflict of interest that this choice represented,<sup>148</sup> especially when the President of the WWC at the time was the CEO of Les Eaux de Marseille, the company that provides water and sanitation services for the city of Marseille.

Cumulatively, this does not put the WWC in a good light, even though they have a significant position in the global water governance framework because of the Forum.

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<sup>142</sup> Interview No. 579

<sup>143</sup> Interview Nos. 654 and 915

<sup>144</sup> Interview Nos. 797 and 846. See next section for related comments about the World Water Fora

<sup>145</sup> Interview No. 239

<sup>146</sup> Interview Nos. 132, 336 and 496

<sup>147</sup> Interview Nos. 199, 212 and 356

<sup>148</sup> Interview Nos. 347 and 654

Other critiques arise from the relationship that the WWC has had with the private sector over the years, some believing that it is controlled by the private sector.<sup>149</sup> The Council is also purported to suffer from low capacity within its secretariat.<sup>150</sup> The organization's influence does not go beyond water ministers<sup>151</sup> and overall has been a negative for the global water community,<sup>152</sup> taking up a space that could otherwise be put to better use.<sup>153</sup>

#### 4.3.2 World Water Forum

A very important element of the global water governance landscape is the World Water Forum that is organized by the World Water Council. It is the only routine water arena that attempts to mimic some of the characteristics of what a UN process would look like. Interviewees were asked about the World Water Fora and not only their impact on global water governance, but also what the pros and cons were of having such an event outside the UN system. Negative responses regarding the Fora outnumbered positive responses two-to-one.

##### 4.3.2.1 What the Fora do well

One of the primary roles of the World Water Council is to raise awareness about water issues, and their principal vector for this has been the World Water Forum. Among some of the interviewees, the Forum is seen as being successful in this endeavor,<sup>154</sup> especially among governments.<sup>155</sup> Part of the raising awareness tract of the Forum has to do with engaging politicians, which it carries out unlike

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<sup>149</sup> Interview Nos. 86, 347 and 867

<sup>150</sup> Interview No. 212

<sup>151</sup> Interview No. 471

<sup>152</sup> Interview No. 612

<sup>153</sup> Interview Nos. 133, 807 and 867

<sup>154</sup> Interview No. 78, 93, 361, 496, 505, 800 and 891

<sup>155</sup> Interview No. 144

any other water event. The fact that the Fora bring together ministers, parliamentarians, local authorities and even sometimes heads of state is very useful, because there are no other such venues to do so at a global level.<sup>156</sup>

The biggest added value of the World Water Forum is that it brings together a diverse number of stakeholders.<sup>157</sup> Because the UN system is more formalized and limited to governments of its member states, the Forum has an advantage in that all stakeholders, from the private sector to representatives of indigenous groups to academics to government officials can all be in the same room discussing the issues presented at the Forum, sharing ideas, experiences and best practices.<sup>158</sup> “You’d never get that at a UN conference.”<sup>159</sup> Because the Forum brings together so many stakeholders, it is seen as a great networking opportunity.<sup>160</sup>

The multi-stakeholder nature of the World Water Fora is what makes them key for mobilization of the water community,<sup>161</sup> as well as those who are not part of the water community *per se*, like local authorities, parliamentarians and other decision-makers.<sup>162</sup>

This mobilization helps to showcase and put the spotlight on water,<sup>163</sup> which allows for water to be kept on the international agenda, keeps the momentum and

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<sup>156</sup> Interview Nos. 239, 595 and 941

<sup>157</sup> Interview Nos. 78, 239, 240, 341, 496, 531, 564, 595, 662, 701, 800, 815, 834 and 997

<sup>158</sup> Interview Nos. 136, 420, 421, 595 and 617

<sup>159</sup> Interview No. 531

<sup>160</sup> Interview Nos. 240, 439 and 554

<sup>161</sup> Interview Nos. 78, 93 and 557

<sup>162</sup> Interview Nos. 595 and 941

<sup>163</sup> Interview Nos. 240 and 997

ideas alive,<sup>164</sup> and raises the profile of water.<sup>165</sup> “Without them (the Fora), water probably wouldn’t have the kind of attention that it has received.”<sup>166</sup>

Being an international gathering outside the United Nations has its advantages. Representatives from all sectors, but most notably government, are freer to say things they might not otherwise say, because of the informal, non-binding setting that is the Forum.<sup>167</sup> It is more open<sup>168</sup> and there is less pressure, because the politics are not the same as within the UN. That allows for a more open discussion<sup>169</sup> as the participants are not afraid they will be forced to commit to anything.<sup>170</sup>

I suppose some people would say that the weakness of (the Forum) is that it isn’t an official international conference. The strength of it is that it’s not an official international conference.<sup>171</sup>

Additionally, the Fora take you out of the UN bureaucracy, which potentially allows outcomes to be more innovative.<sup>172</sup> There is also not the rivalry that takes place within the UN, especially between the various agencies.<sup>173</sup>

The Fora are often thought to be complementary to UN processes,<sup>174</sup> where they are a “stepping stone towards consolidating global collaboration in addressing water problems,”<sup>175</sup> creating a common vision, language and understanding.<sup>176</sup>

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<sup>164</sup> Interview No. 444

<sup>165</sup> Interview Nos. 579 and 976

<sup>166</sup> Interview No. 227

<sup>167</sup> Interview Nos. 121,136, 402, 408, 471, 701, 734, 781 and 877

<sup>168</sup> Interview No. 990

<sup>169</sup> Interview Nos. 336, 781 and 983

<sup>170</sup> Interview No. 136

<sup>171</sup> Interview No. 531

<sup>172</sup> Interview No. 288

<sup>173</sup> Interview No. 444

<sup>174</sup> Interview Nos. 601 and 927

<sup>175</sup> Interview No. 93

While the UN processes related to water are not comprehensive, the Fora play a role as “gap filler” in this regard.<sup>177</sup>

The World Water Fora are a useful tool, because you cannot only depend on the UN system.<sup>178</sup>

#### 4.3.2.2 What the Fora do not do well

(There is a)... stark disconnect between the forum’s blueprint for forging a global water regime and the contentious politics surrounding water all around the world... (The)... current model... has little hope of forging a consensus...<sup>179</sup>

The World Water Council, and therefore the Forum, has suffered from a lack of legitimacy and credibility. This comes from different sources. For one, they have become elaborate, expensive “talk shops”<sup>180</sup> with little or no result (see below). The Fora are “totally unrepresentative of the world water community”<sup>181</sup> and lack a neutral hosting, which, in the end, “sort of defeats the purpose of the World Water Fora.”<sup>182</sup> The outcomes of the Fora are not viewed as democratic or legitimate, so these types of decisions do not help address the world’s water issues.<sup>183</sup>

For some, this legitimacy issue would be solved if the Forum were under the auspices of the UN.<sup>184</sup> While there have been attempts to include the Forum outputs into the UN system, this has failed, because the Forum is not recognized as a formal input.<sup>185</sup> There are downsides to an UN-organized Forum, as was mentioned above.

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<sup>176</sup> Interview Nos. 21, 601 and 941

<sup>177</sup> Interview No. 701

<sup>178</sup> Interview No. 14

<sup>179</sup> Ken Conca, *Governing Water*, 3

<sup>180</sup> Interview No. 963

<sup>181</sup> Interview No. 133

<sup>182</sup> Interview No. 807

<sup>183</sup> Interview No. 855

<sup>184</sup> Interview Nos. 78, 93, 116, 133, 308, 361, 496 and 821

<sup>185</sup> Interview No. 579

But, some interviewees thought the gains would outweigh the losses of having the Forum in the UN system.

...we can criticize the UN as much as we like, but at the end it's a very solid process in terms of intergovernmental process... What happened in Istanbul about Cyprus. In terms of a UN process... that's something that's unacceptable. So, the fairness and transparency of the process. The Forum does not have the legitimacy of a UN process.<sup>186</sup>

One of the major points of having such a forum outside the UN is that governments are freer to talk, to push issues further, because the outcome is of a non-binding nature. But, since this does not happen and often times the discussions go backwards on what has been agreed upon before,<sup>187</sup> the purpose of such an exercise is questionable and burdensome.<sup>188</sup> Being outside the UN also makes it very difficult for governments to be held accountable for the outcomes.<sup>189</sup>

The Ministerial Process is one of the most followed aspects of the Forum, because there is nothing like it in the global arena today. The Forum regularly brings together over 130 national governments, often 100 at the ministerial level, to endorse a declaration of what governments will aspire to in the future. Unfortunately, "Everyone winces that they don't have a great ministerial result."<sup>190</sup> The declarations have been described as of "limited value,"<sup>191</sup> "platitudes,"<sup>192</sup>

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<sup>186</sup> Interview No. 990. What the interviewee is referring to is when Istanbul hosted the 5<sup>th</sup> World Water Forum, Turkey caused many problems for the participation of the Cyprus delegation, which they do not officially recognize as a country. This brings up the issue of the host country having too much influence over the Forum process (Interview Nos. 180, 531, 579 and 807)

<sup>187</sup> Interview No. 356

<sup>188</sup> Interview Nos. 747 and 821

<sup>189</sup> Interview No. 288

<sup>190</sup> Interview No. 531

<sup>191</sup> Interview Nos. 240 and 462

<sup>192</sup> Interview No. 554



“beautiful declarations of intent,”<sup>193</sup> “meaningless,”<sup>194</sup> and “irrelevant”<sup>195</sup> and may have become a distraction more than anything.<sup>196</sup> “If... (the Fora) were judged only by... (the declarations), then they would be a complete failure.”<sup>197</sup> Once the declaration has been released to the Forum, “everyone goes home and they forget about it.”<sup>198</sup>

With regards to the general atmosphere of the Fora, words to describe it ranged from “circus” to “jamboree” and from “trade show” to “joke.” These comments come from respected people in the water community.<sup>199</sup> The frustration comes from the Fora becoming “just another way station on the circuit and not the most important one”<sup>200</sup> and too big,<sup>201</sup> diffuse<sup>202</sup> and cumbersome<sup>203</sup> for there to be a useful platform to advance the international water agenda. The focus has increasingly been placed on numbers and how many people attend the Forum,<sup>204</sup> but nothing has been demonstrated to show that more numbers means added value.<sup>205</sup>

In general, the Fora are not thought to have lived up to their expectations.<sup>206</sup> The number of words used to describe the ineffectiveness and lack of impact of the

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<sup>193</sup> Interview No. 493

<sup>194</sup> Interview No. 867

<sup>195</sup> Interview No. 471

<sup>196</sup> Interview No. 976

<sup>197</sup> Interview No. 303

<sup>198</sup> Interview No. 444

<sup>199</sup> Interview Nos. 16, 55, 180, 245, 496, 624, 649, 662, 867 and 943

<sup>200</sup> Interview No. 245

<sup>201</sup> Interview No. 701

<sup>202</sup> Interview Nos. 239, 240 and 303

<sup>203</sup> Interview Nos. 16 and 374

<sup>204</sup> Interview Nos. 239 and 624

<sup>205</sup> Interview No. 240

<sup>206</sup> Ibid.

Fora are too numerous to be related, but convey an overall message that the Fora outcomes add little value to the water community.<sup>207</sup> For one, at the Forum, the water community talks to itself and does not get “outside the water box.”<sup>208</sup> The Fora also do not produce the solutions that are necessary<sup>209</sup> nor do they provide structured thought to tackle the issues.<sup>210</sup> As for a political output, it is seen as meaningless<sup>211</sup> since the ministers that go to the Forum are not going to say something that they would not say somewhere else.<sup>212</sup> What is more, the Fora very rarely offer new commitments from governments.<sup>213</sup> “Most people I know would close it down tomorrow.”<sup>214</sup>

One key example of this sentiment is as follows: “The United Nations recognized the human right to water and sanitation. The World Water Forum never did.”<sup>215</sup>

Ultimately, what renders the World Water Forum ineffective is the lack of continuity between Fora and a follow-up process that monitors the Forum outcomes.<sup>216</sup> “The way it is set up, it is destroyed every three years, so you would never have the capacity to do anything meaningful.”<sup>217</sup> There is an intense amount of activity for a few days and then nothing happens until the preparation of the next

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<sup>207</sup> Interview Nos. 16, 64, 121, 133, 180, 227, 356, 361, 374, 439, 444, 462, 505, 531, 617, 624, 662, 719, 834, 846, 891, 963 and 997

<sup>208</sup> Interview Nos. 471 and 505

<sup>209</sup> Interview No. 976

<sup>210</sup> Interview No. 16

<sup>211</sup> Ibid.

<sup>212</sup> Interview No. 531

<sup>213</sup> Interview Nos. 78, 341 and 471

<sup>214</sup> Interview No. 527

<sup>215</sup> Interview No. 815. Referring to the World Water Fora Ministerial Declarations.

<sup>216</sup> Interview Nos. 78, 239, 408, 462 and 983

<sup>217</sup> Interview No. 239

Forum begins<sup>218</sup> and it is hard to tell the difference between each Forum.<sup>219</sup> This demonstrates both the lack of capacity that the WWC has to do any kind of follow-up, implementation and monitoring<sup>220</sup> as well as the fact that for each Forum, the next organizing group starts from zero, not building off the previous Fora in constructing the upcoming one.<sup>221</sup> One interviewee asked, “Where is the follow-up?”<sup>222</sup> This demonstrates a lack of accountability on the part of the WWC.<sup>223</sup>

#### 4.4 Global Water Partnership

Another one of the most cited organizations that has influence over global water governance is the Global Water Partnership. Although documentation was difficult to find with regards to its creation, several interviewees said that even though the GWP website says that the organization was created in 1996 to “foster integrated water resources management,”<sup>224</sup> this was not the original purpose of the organization and it only moved in that direction a year or two after its inception. Prior to that, it was seen as a potential international organization for water,<sup>225</sup> a global governance mechanism that could take forward the principles that emerged from Dublin and Rio,<sup>226</sup> most notably to establish priorities for development aid

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<sup>218</sup> Interview Nos. 78, 673 and 943

<sup>219</sup> Interview No. 941

<sup>220</sup> Interview Nos. 109 and 136

<sup>221</sup> Interview Nos. 462, 489, 673 and 997

<sup>222</sup> Interview No. 997

<sup>223</sup> Interview Nos. 288 and 617

<sup>224</sup> Global Water Partnership, *History* (accessed October 21, 2013); available from <http://www.gwp.org/en/About-GWP/History>.

<sup>225</sup> Interview No. 133, 212 and 781

<sup>226</sup> Richard Hoare, “External Review of the Global Water Partnership,” Performance Review Assessment Centre (2003), 40.

related to water.<sup>227</sup> But, by the time it started functioning in 1997, the focus had turned to sustainable and integrated water resources management.<sup>228</sup>

While GWP has various roles, it is primarily known for two: (1) to promote and support integrated water resources management and (2) to organize partnerships at the regional and national level.

What GWP is probably most known for is the primary organization supporting and promoting the IWRM concept. Since 1992 and the Dublin Principles, IWRM has been the dominant management paradigm for water resources. The World Bank took up the concept in 1993 in its Water Sector Strategy,<sup>229</sup> and after GWP started focusing on IWRM in 1997, the organization became its “international social carrier.”<sup>230</sup> GWP’s Technical Advisory Committee then wrote the seminal work “Integrated Water Resources Management” in 2000, which clarified and formulated IWRM principles<sup>231</sup>. This was followed in 2001 by the launch of their IWRM ToolBox, an “open database with a library of papers, policy briefs, technical briefs, and perspective papers as well as huge sections of case studies and references....”<sup>232</sup>

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<sup>227</sup> Interview No. 763

<sup>228</sup> The reasons are not quite known why this happened, but they range from competition from the UN system (Interview No. 781) to the idea from the first steering committee meeting was more grandiose than what the original designers had envisioned to a failure in leadership (Interview No. 133).

<sup>229</sup> World Bank, “Water Resources Sector Strategy: Strategic Directions for World Bank Engagement” (Washington DC: World Bank, 2004).

<sup>230</sup> Peter P. Mollinga, “Water, Politics and Development: Framing a Political Sociology of Water Resources Management,” *Water Alternative* 1, no. 1 (2008): 13.

<sup>231</sup> Global Water Partnership, *Integrated Water Resources Management*, Global Water Partnership Technical Committee Background Papers No. 4 (Denmark: Global Water Partnership, 2000), 4.

<sup>232</sup> Global Water Partnership, *GWP ToolBox: Integrated Water Resources Management* (accessed October 21, 2013); available from <http://www.gwptoolbox.org>.

Its advocacy role for IWRM in the late 1990s and early 2000s contributed to the WSSD target outcome in 2002 of all countries developing IWRM and water efficiency plans by 2005. From that point on, GWP took it upon itself to monitor the progress of and support implementation of the IWRM target. GWP's role as advocate for IWRM has been a very successful one over the last decade<sup>233</sup>, putting it higher on the political agenda,<sup>234</sup> and has made IWRM something that countries can operationalize.<sup>235</sup>

GWP has also proven very effective at mobilizing the technical base and establishing partnerships at the national and regional levels where these experts can be brought together.<sup>236</sup> They have consolidated the technical base<sup>237</sup> in countries into networks, which makes it easier for GWP, or other organizations, to work at those levels and do activities they would not be able to do without those partnerships.<sup>238</sup> For example, UN-Water utilized GWP's networks to carry out the 2012 IWRM Status Update<sup>239</sup> and UNDP worked with GWP to conduct 20 national consultations for the Thematic Consultation on Water for the Post-2015 Development Agenda.<sup>240</sup>

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<sup>233</sup> Interview Nos. 21, 50, 78, 227, 374, 579, 601, 698, 877 and 881

<sup>234</sup> Interview No. 132

<sup>235</sup> Interview No. 245

<sup>236</sup> Interview Nos. 86, 133, 245, 276, 402, 542, 662, 734, 777, 807 and 821

<sup>237</sup> Interview No. 471

<sup>238</sup> Interview No. 531

<sup>239</sup> UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management* (United Nations Environment Programme, 2012).

<sup>240</sup> Global Water Partnership, "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda," *The World We Want* (2013).

By working down to the country level with stakeholders, GWP is producing documents that are trying to influence international policy utilizing that base, from the ground up, which is a positive for the water community.<sup>241</sup>

They are becoming more and more influential. I think they're taking advantage of social networks, and the power of people... they communicate and interact. And then they influence... countries and... decision making.<sup>242</sup>

The network that GWP has created is politically effective<sup>243</sup> and influences the global discourse on water,<sup>244</sup> an example of the globalization of a problem (IWRM) that can be adapted to local conditions,<sup>245</sup> which can influence implementation at the national and regional levels through their partnerships.<sup>246</sup>

The road for GWP in facilitating countries to develop IWRM plans has not always been easy, because it is promoting something that countries do not necessarily want<sup>247</sup> nor can easily implement;<sup>248</sup> therefore GWP's role as capable in implementation has been called into question.<sup>249</sup> The whole issue of IWRM, as will be explored in the next chapter, and therefore GWP's promotion of IWRM, has drawn more criticism of late, especially because of the slow progress on the WSSD IWRM and efficiency plans target.<sup>250</sup> Some believe that very little has come out of

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<sup>241</sup> Interview No. 96

<sup>242</sup> Interview No. 361

<sup>243</sup> Interview No. 199

<sup>244</sup> Interview No. 927

<sup>245</sup> Interview No. 303

<sup>246</sup> Interview No. 877

<sup>247</sup> Interview No. 391

<sup>248</sup> Interview Nos. 276 and 288

<sup>249</sup> Interview Nos. 288, 579, 673, 807 and 891

<sup>250</sup> See UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management*

the entire effort,<sup>251</sup> and it has been a set-back and has distracted much energy away from water management problems due to its “lack-luster technical response to a political challenge.”<sup>252</sup>

There is a doubt whether what GWP has already built whether it can be taken further than it has already gone.<sup>253</sup> Networks and partnerships have been established, which was a void they filled,<sup>254</sup> and the IWRM concept has been duly spread to the nations of the world, whether countries are on board or not. As noted above, IWRM now requires a rethink in terms of the approach and terminology, and this disillusionment with IWRM has caused an identity crisis in that GWP does not know what it is anymore<sup>255</sup> or what it should do now with these networks they have in place.<sup>256</sup> “GWP has been caught between being a sort of real partnership for brokering and a sort of organization that has to deliver IWRM plans.”<sup>257</sup>

This could be one of the reasons why a few interviewees were (a) confused about what GWP actually does,<sup>258</sup> as much on the nature of their work<sup>259</sup> as the outcomes of their work, and (b) wondered why it is not more the “oil in the system,”<sup>260</sup> the machinery that facilitates, in a way, the integration and participation of multiple levels.

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<sup>251</sup> Interview No. 405

<sup>252</sup> Interview No. 612

<sup>253</sup> Interview No. 132

<sup>254</sup> Interview No. 807

<sup>255</sup> Interview No. 797

<sup>256</sup> Interview No. 807

<sup>257</sup> Interview No. 891

<sup>258</sup> Interview Nos. 178, 673 and 807

<sup>259</sup> Interview No. 276

<sup>260</sup> Interview No. 811

And, what happens with all that it has put in place when there is a shift away from IWRM?<sup>261</sup> There is some concern for the organization being solely focused on IWRM,<sup>262</sup> but it is trying to become broader in the work that it does.<sup>263</sup>

The GWP's international role has also become a "fuzzy" one,<sup>264</sup> because of its decentralization efforts through its "mosaic" of national and regional partnerships.<sup>265</sup> Some believe that it is not engaged at the global level as much as it should be,<sup>266</sup> having become invisible and not able to influence policy,<sup>267</sup> and has lost its position at the international level, especially when it comes to establishing water resources management principles.<sup>268</sup> "I don't think it's played the role it aspired to. I don't think it could."<sup>269</sup>

#### 4.5 Private sector

The private sector is seen as an increasingly larger factor in global water issues and governance since the 1980s and 1990s when privatization and other private investments in water started to become commonplace. And, since the early 2000s, companies' understanding of water and political engagement has increased markedly,<sup>270</sup> mostly driven by "physical water scarcity interlinked with regulatory

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<sup>261</sup> Interview No. 239

<sup>262</sup> Interview No. 662

<sup>263</sup> Interview No. 512

<sup>264</sup> Interview No. 673

<sup>265</sup> Interview No. 777

<sup>266</sup> Interview No. 527

<sup>267</sup> Interview Nos. 439 and 701

<sup>268</sup> Interview No. 579

<sup>269</sup> Interview No. 245

<sup>270</sup> Interview No. 199. This can also be seen in a study carried out by Daniel and Sojamo on major water-using companies, which showed a change in addressing water over the last five years. Marco A. Daniel and Suvi Sojamo, "From Risks to Shared Value? Corporate Strategies in Building a Global Water Accounting and Disclosure Regime," *Water Alternatives* 5, no. 3 (2012).



and reputational pressure.”<sup>271</sup> This can especially be seen in such initiatives as the World Business Council for Sustainable Development (WBCSD), the World Economic Forum (WEF), the UN CEO Water Mandate and the Water Resources Group (WRG), which all actively engage business in such activities as developing standards, guidelines and principles,<sup>272</sup> as well as corporate social responsibility. As these groups have raised the awareness of water issues with companies, there has been a reaction that, yes, indeed, action needs to be taken,<sup>273</sup> and they have become a “reasonably effective global coordination unit,” more effective than the UN sometimes.<sup>274</sup>

“Ninety percent of the consumptive use of water by society is in the food supply chain. Ninety percent of that ninety percent is managed by farmers. The whole food supply chain is in the private sector.”<sup>275</sup> Combine that with the fact that the four ABCD<sup>276</sup> companies of agribusiness handle 70–90% of the internationally most traded staple food commodities,<sup>277</sup> and they could be called “virtual water hegemons” and “major global water managers.”<sup>278</sup> The private sector definitely influences global water flows.

“I think the most powerful voices are the ones that have money”; therefore, there are some actors in the private sector who are “spectacularly important” right

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<sup>271</sup> Ibid, 650

<sup>272</sup> Interview No. 976

<sup>273</sup> Interview No. 191

<sup>274</sup> Interview No. 797

<sup>275</sup> Interview No. 325

<sup>276</sup> Archer Daniels Midland, Bunge, Cargill and Louis Dreyfus

<sup>277</sup> Felicity Lawrence, “The global food crisis: ABCD of food – how the multinationals dominate trade,” *The Guardian*, June 2, 2011; available from: <http://www.guardian.co.uk/global-development/poverty-matters/2011/jun/02/abcd-food-giants-dominate-trade>.

<sup>278</sup> Suvi Sojamo, Martin Keulertz, Jeroen Warner and John Anthony Allan, “Virtual water hegemony: the role of agribusiness in global water governance,” *Water International* 37, no. 2 (2012): 175-177.

now.<sup>279</sup> Even one company can be investing more money on one issue, many times over, than the budget of any UN agency that is working on a similar issue,<sup>280</sup> so a discussion about global water governance has to include the private sector.<sup>281</sup>

Many believe that it is a positive that the private sector is engaged in water issues in that they are an important actor to have at the table.<sup>282</sup> They are a meaningful stakeholder that has more weight with politicians and governments than someone from a think tank or NGO,<sup>283</sup> but there is also a certain responsibility that comes with that power that needs to be shaped, which is the aim of many of the global initiatives mentioned above, because, in many instances, business is driving policy.<sup>284</sup>

Companies, particularly global companies, need to be seen as champions, innovators and responsible stewards of local water in order to maintain reliable access to the resource. As this democratization process deepens and expands, competitive advantage goes to those who think deeply of the public interest when crafting their water strategy.<sup>285</sup>

In many cases, business actually wants more governance, meaning regulation, enforcement and clearly defined roles,<sup>286</sup> because it provides some level of certainty about where companies can invest money safely. Without this, companies see their investments disappear because of lack of regulations and

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<sup>279</sup> Interview No. 178

<sup>280</sup> Interview No. 191

<sup>281</sup> Interview No. 990

<sup>282</sup> Interview Nos. 21, 121, 199, 399, 579, 601 and 903

<sup>283</sup> Interview No. 199

<sup>284</sup> Interview No. 952

<sup>285</sup> Jeremy Osborn, "Global water governance trends show move away from private ownership," *The Guardian*, December 10, 2012; available from <http://www.theguardian.com/sustainable-business/global-hydraulic-society-water-governance>.

<sup>286</sup> Interview Nos. 282 and 399

procedures to protect them.<sup>287</sup> What companies' desire, though, is that the rules apply to everyone so that it's an equal playing field, and this is where global governance can play a role.<sup>288</sup>

Business provides solutions,<sup>289</sup> but it can also inspire in terms of the actions they carry out such as water footprint assessments or water stewardship.<sup>290</sup> The root of these activities may be found in competition and making profit, however, it is "very difficult to believe that in the long term, profit approaches will not dominate over certain responsibility."<sup>291</sup>

The private sector is not without its detractors. The main crux of the anti-private sector involvement argument is that "corporations whose business models depend on controlling access to water or gaining entry to new water service markets cannot uphold the public interest if it conflicts with their *raison d'être* and shareholder obligations."<sup>292</sup> According to Petrella, what is required by sustainable development often "...comes into conflict with the priorities of corporate competitiveness."<sup>293</sup>

The umbrella organizations for corporate water stewardship have also come under criticism. Critics claim that these initiatives, and the private sector in general, fail to examine water policy from a human rights perspective,<sup>294</sup> potentially

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<sup>287</sup> Interview No. 952

<sup>288</sup> Interview No. 399

<sup>289</sup> Interview Nos. 131, 261 and 903

<sup>290</sup> Interview No. 439

<sup>291</sup> Interview No. 121

<sup>292</sup> Julie Larsen, "A Review of Private Sector Influence on Water Policies and Programmes at the United Nations," The Council of Canadians (2011), 40.

<sup>293</sup> Riccardo Petrella, *The Water Manifesto: Arguments for a World Water Contract*, Global Issues Series (London: Zed Books, 2001), 9.

<sup>294</sup> Friends of the Earth International, "Reclaim the UN from corporate capture" (Amsterdam, 2012), 23.

undermining the human right to water and sanitation.<sup>295</sup> Speaking about the UN CEO Water Mandate (Global Compact), some believe that it lacks “meaningful mechanisms for individuals, governments and civil society to determine whether participants are abiding by Compact principles,”<sup>296</sup> giving them an opportunity to “green” or “bluewash” their activities.<sup>297</sup>

One interviewee was befuddled by the fact that “supposedly smart people can be so fooled by corporate imperatives and personal greed,” and while conceding that there have been improvements on companies lowering water use, the interviewee stated that there is a more systemic problem, and hypocrisy, when products produced by certain companies are not green.<sup>298</sup> Another negative point of view was that companies only take corporate social responsibility seriously when it suits them and when it does not, they “fly away.”<sup>299</sup> Two interviewees involved in the corporate sector agreed that there is not a uniform moral standard among businesses, but also countered by saying, “Are governments any different?”<sup>300</sup>

#### 4.6 Stockholm International Water Institute

Over the years, SIWI has slowly grown to be a very respected water policy think tank/research organization that also convenes on an annual basis World Water Week, which in itself has grown from a mere 200 participants at its inception to over 2,000 participants in 2012.

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<sup>295</sup> Salman M.A. Salman, “From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End – Part Two,” *Water International* 29, no. 1 (2004): 17.

<sup>296</sup> Corporate Accountability International, “Water Governance: For the People, or for the Bottom Line? Addressing the Corporate Conflict of Interest Posed by the CEO Water Mandate” (2010), 3.

<sup>297</sup> Friends of the Earth International, “Reclaim the UN from corporate capture,” 23

<sup>298</sup> Interview No. 144

<sup>299</sup> Interview No. 5

<sup>300</sup> Interview Nos. 191 and 199

The World Water Week primarily acts as a meeting place and networking opportunity,<sup>301</sup> where informal discussions can take place, and where, for example, governments can come and not have to “wear their instructions on their back.”<sup>302</sup> This is an event that puts many issues on the international water agenda,<sup>303</sup> especially in the governance discourse, so it does have some clout in global water governance.<sup>304</sup> SIWI started by giving a global overview of the water problems and then, based on that, moved from problem analysis to building policy dimensions in its work.<sup>305</sup> One interviewee stated that he does not know if its reports “move the dial” so much, but it facilitates a process that “moves the dial,”<sup>306</sup> and has established itself as a credible organization throughout this process.<sup>307</sup>

One of the roles that SIWI does not get enough credit for is raising the profile of water in the climate change negotiations. They were the only water-related organization that attended all meetings and negotiations related to the climate change COP process and played a significant role as a lobbyist in getting water on the agenda.<sup>308</sup>

The Stockholm Water Prize, awarded by the King of Sweden, is also probably the most prestigious water prize in the world, which has brought a lot of attention to water issues.<sup>309</sup>

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<sup>301</sup> Interview No. 722

<sup>302</sup> Interview No. 542

<sup>303</sup> Interview No. 698

<sup>304</sup> Interview No. 797

<sup>305</sup> Interview No. 636

<sup>306</sup> Interview No. 245

<sup>307</sup> Interview No. 512

<sup>308</sup> Interview No. 527

<sup>309</sup> Interview No. 542

The one negative that was cited by the interviewees was SIWI's difficulty getting outside the "water box,"<sup>310</sup> which it tries to do, but has been unsuccessful thus far, leading to a perception of the organization being "narrow-minded."<sup>311</sup> It is not unusual, however, for the water community to have difficulties getting outside the "water box," which will be discussed later.

#### 4.7 Others

There were a multitude of other organizations mentioned in the interviews, some of which may have more influence over global water governance than their frequency in the interviews demonstrates. The following section will give a brief description of those organizations.

If there is to be any more formal global water governance regime within the United Nations, then that will be decided upon by governments<sup>312</sup>, which ultimately are the entities that will voluntarily accede to any mechanism, as well as those that will implement and fund such an endeavor. Governments make up the UN, so their importance and influence on global water governance may, in fact, be the most critical. Their role with the private sector is also profound.<sup>313</sup>

Linked to governments are aid agencies. As was mentioned above in the section on the World Bank, action, "...influence really happens where the money is,"<sup>314</sup> and this has been felt through key European donors, which have pushed a

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<sup>310</sup> Interview Nos. 512 and 698

<sup>311</sup> Interview No. 927

<sup>312</sup> Interview No. 990

<sup>313</sup> Ibid.

<sup>314</sup> Interview No. 935

northern European agenda of IWRM, public participation and no dams.<sup>315</sup> This reflects a divide between the foreign policy interests of development aid and the realities on the ground with water resources management.<sup>316</sup> At the same time, the influence of aid agencies has also been seen as growing weaker, because of the global economic recession and strategic foreign investment spending, like that of China, which is massively influencing Africa and other areas of the world with their investments,<sup>317</sup> as “money drives policy.”<sup>318</sup>

NGOs<sup>319</sup> also have had a large influence in a few different tracts in the water community. These organizations can sometimes be more agile than the UN or governments,<sup>320</sup> carrying out advocacy work, using data that these latter two cannot.<sup>321</sup> The first tract is that of the role these organizations have played in the promotion of the UN Watercourses Convention, which has yet to go into force due to lack of ratifications. Over the past 6 years, the World Wildlife Fund (WWF) with the help of Green Cross International and the IHP-HELP Centre for Water Law, Policy and Science at Dundee University have been instrumental in encouraging countries to ratify the Watercourses Convention, which has gained momentum in the past few years.

The second track is how environmental NGOs have influenced the corporate space, which in the words of one of the interviewees, someone from the private

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<sup>315</sup> Interview No. 797

<sup>316</sup> Interview No. 763

<sup>317</sup> Interview No. 178

<sup>318</sup> Interview No. 374

<sup>319</sup> Interview No. 21

<sup>320</sup> Interview Nos. 877 and 990

<sup>321</sup> Interview No. 877

space referring to WWF, has been “historic.”<sup>322</sup> WWF and The Nature Conservancy (TNC), amongst others, have been very active in working with business to improve water stewardship in their activities through programs<sup>323</sup> such as the Alliance for Water Stewardship,<sup>324</sup> the Water Footprint Network<sup>325</sup> and the UN CEO Water Mandate. While environmental NGOs have not been able to influence the public space, social NGOs have been more successful.<sup>326</sup>

There have been a number of other organizations, some of them research institutes like the Stockholm Environment Institute (SEI) and the International Water Management Institute (IWMI),<sup>327</sup> and others, like IUCN,<sup>328</sup> that have been very good at building evidence, “putting empirical muscle behind ideas,”<sup>329</sup> in order to facilitate action on subjects related to water.

Two other organizations also have an influence, these being the WSSCC and the International Water Association (IWA). WSSCC has been useful as, for a time, sanitation had been forgotten in global water circles and WSSCC was able to keep this on the agenda along with hygiene. It has been a key coordination, networking and advocacy body.<sup>330</sup> IWA, a “global reference point for water professionals,”<sup>331</sup>

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<sup>322</sup> Interview No. 927

<sup>323</sup> Interview No. 797

<sup>324</sup> See <http://www.allianceforwaterstewardship.org>

<sup>325</sup> See <http://www.waterfootprint.org>

<sup>326</sup> Interview No. 797

<sup>327</sup> Interview No. 245

<sup>328</sup> Interview Nos. 624 and 811

<sup>329</sup> Interview No. 245

<sup>330</sup> Interview Nos. 133, 317 and 673

<sup>331</sup> IWA, *IWA – the global network for water professionals* (accessed October 21, 2013); available from <http://www.iwahq.org/21/about-iwa.html>. The members represent researchers, utilities, consultants, industry, regulators and equipment manufacturers.



helps communities rethink their relationship with water<sup>332</sup> and develop frameworks on water-related issues that often become the basis for legislation at the municipal and national levels.<sup>333</sup> With a member constituency in over 130 countries, this does influence how water is governed globally.<sup>334</sup>

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<sup>332</sup> Interview No. 341

<sup>333</sup> Interview No. 239

<sup>334</sup> Other organizations that were mentioned during the interviews were the G8, OECD, Ramsar, SWA and humanitarian organizations.

## **Chapter 5    Issues that have shaped global water governance**

Over time, there have been issues that have shaped global water governance to what it is today. Governance systems arise based on issues that demand to be addressed. The thematic area of water has many such issues that have required the global community to come together to confront these issues, both in formal and informal ways. These issues have both impeded and enabled creating a more formal global water governance regime.

At the same time, governance is an interactive process that evolves based on the degree of effectiveness, in practice, of the system created. Once a regime is established, there is a process by which it adapts to both the success, and lack thereof, of the regime and the interests of those who are involved.

The following chapter highlights six issues that have influenced the trajectory of global water governance and briefly describes three additional issues that will potentially impact it in the future. Both the literature and interviews are used throughout this chapter.

### **5.1    Transboundary waters/international water law**

Of all water-related issues, transboundary water is the most intimately linked to global water governance. This is not only because international water law focuses on this subject, but also because this issue has been the primary one blocking further advances in global water governance.

The issue of transboundary waters has been at the crux of the global discourse on water since the beginning of the 20<sup>th</sup> Century and the efforts put forth by the League of Nations. In the late 1950s, the concept of integrated river basin

management (IBRM)<sup>1</sup> emerged in the United Nations and the first studies were done examining the global situation with regards to transboundary basins.<sup>2</sup>

Cooperation over shared waters started long before this, however, within the basins themselves on a bi- and multi-lateral basis. The first cooperative arrangements emerged primarily in Europe in the 1800s on rivers such as the Rhine and Danube.<sup>3</sup> River basin treaties number in the thousands<sup>4</sup> and have shown a progression over the years from focusing on navigation to quantity to quality to adaptive management. At the same time, only 60% of all transboundary basins have cooperative agreements.<sup>5</sup>

There are 276 transboundary river basins in the world<sup>6</sup> and more than 300 transboundary aquifers.<sup>7</sup> The river basins cover more than half of the world's surface area and approximately 45% of the world's population in 148 countries.<sup>8</sup> While not a global issue *per se* in that not all countries share their water resources with a neighboring country, the issue has dominated the global discourse on water for decades and has been discussed at the global level through the 27-year negotiation of the United Nations Watercourses Convention, culminating in its adoption in 1997. The reason for such focus on the subject in the international

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<sup>1</sup> The precursor to IWRM

<sup>2</sup> United Nations, *Integrated River Basin Development: A Report by a Panel of Experts* (Sales No. 58.II.B.3, 1958).

<sup>3</sup> Oregon State University Department of Geosciences, *Transboundary Freshwater Dispute Database* (accessed August 22, 2013); available from <http://www.transboundarywaters.orst.edu>.

<sup>4</sup> Ibid.

<sup>5</sup> Lucia de Stefano, James Duncan, Shlomi Dinar, Kerstin Stahl, Kenneth Strzepek and Aaron T. Wolf, *Mapping the Resilience of International River Basins to Future Climate Change-Induced Water Variability*, World Bank Sector Board Discussion Paper Series 15 (Washington DC: World Bank, 2010).

<sup>6</sup> Oregon State University, *Transboundary Freshwater Dispute Database*

<sup>7</sup> UNESCO, *Atlas of Transboundary Aquifers* (UNESCO, 2009).

<sup>8</sup> Oregon State University, *Transboundary Freshwater Dispute Database*

arena is that transboundary waters impact the national interests of countries,<sup>9</sup> which in their view can be positive and/or negative. This is why transboundary water issues have influenced the direction of global water governance and it is due to these issues that “governments are very cautious about global water governance... not the human right to water and sanitation.”<sup>10</sup>

While cooperation over transboundary waters has been the norm rather than the exception throughout history at the river basin level,<sup>11</sup> it has also acted as an impediment to furthering efforts of global coordination and governance of water. This can be witnessed by the fact that water was almost not included in the Rio+20 outcome document because before the final version was agreed, mention of transboundary water in the text caused the elimination of the entire water-related section. It is feared by some that if transboundary water were mentioned in the proposed Sustainable Development Goals, there would be a chance that water would be omitted entirely from the process, because of the contentious nature of the issue and countries’ sensitivity about water issues being linked to those of transboundary water.<sup>12</sup> Throughout the informal negotiations of the past two World Water Fora Ministerial Declarations, transboundary waters has been one of the primary problem areas that threatened the entire document, with most contention coming from mention of the UNWC in the texts. During the 5<sup>th</sup> World Water Forum in Istanbul, Turkey, one of the most notorious proponents of the

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<sup>9</sup> Interview No. 121

<sup>10</sup> Interview No. 601

<sup>11</sup> Aaron T. Wolf, “Conflict and cooperation along international waterways,” *Water Policy* 1, no. 2 (1998).

<sup>12</sup> Interview No. 132

nationalist view of shared water resources,<sup>13</sup> planted people in the primary session on transboundary waters to disrupt any advancement on the subject, a well-coordinated feat.<sup>14</sup> In the preparation of most major global environmental water meetings, dating back to UNCED in 1992, the issue of transboundary waters has been the “main stumbling block.”<sup>15</sup>

The primary issue with transboundary waters is that of sovereignty<sup>16</sup> over water resources,<sup>17</sup> which many countries are reluctant to give up to any degree. For that reason, the issue “still languishes”<sup>18</sup> and is “very locked”<sup>19</sup> and for some there is little hope that this will ever advance from where it is given the increasing pressures, competition and demands of global changes such as population growth and climate change.<sup>20</sup> In many of the most contentious basins in the world, there are still not agreements or river basin organizations, or even if they do exist, they do not include all riparians.<sup>21</sup> It is some of the countries in these basins that continually block the advancement of the transboundary water issue; and therefore water as an issue as a whole, at the global level.

This has even impacted IWRM. The “integrated” nature of IWRM promotes the idea of working at the river basin level, and cooperating in the governance and

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<sup>13</sup> In fact Turkey does not agree with the term “shared waters.” It is ironic that Turkey is one of the staunchest opponents to cooperation over shared water resources in that if they have hopes to join the EU, they will have to change their stance in order to follow the EU Water Framework Directive. Although from a realist point of view, their current position, both geographically, at the headwaters of the Tigris-Euphrates, and politically, makes sense.

<sup>14</sup> Interview No. 579

<sup>15</sup> Ibid.

<sup>16</sup> The issue of sovereignty and global water governance will be discussed further in the next chapter.

<sup>17</sup> Interview Nos. 21, 93, 734 and 891

<sup>18</sup> Interview No. 612

<sup>19</sup> Interview No. 512

<sup>20</sup> Interview No. 55

<sup>21</sup> Interview No. 636. For example: The Nile, Mekong, Tigris-Euphrates and Ganges-Brahmaputra Rivers

management of the basin, but this has proven difficult in some contexts where countries do not necessarily wish to cooperate at the basin level.<sup>22</sup>

The UNWC and international water law have played no small part in the divisiveness of the transboundary issue. Articles 5 and 7 of the UNWC, concerning “equitable utilization” and “significant harm” respectively, and Article 33 on the settlement of disputes, while codified in customary international law, remain contested principles by countries that still favor a more “absolute territorial sovereignty” approach to water resources. According to this perspective, upstream countries benefit from the “equitable utilization” principle, because they are allowed to develop the waters upstream. The principle to not cause “significant harm,” in theory, benefits downstream countries, because this prevents upstream countries from altering flow to downstream countries.

Recently, there has been increased momentum towards the ratification of the UNWC. There are 31 ratifications as of November 2013 with 4 more needed for the convention to enter into force, which is expected in early 2014, as many countries ratification processes are in the pipeline in their national legislatures. The current parties to the convention met informally several times in 2013 to discuss the modalities of what will happen once the convention is in force. Discussions have centered on the creation of a secretariat, etc., as no such stipulations were included in the text itself, and the potential for how the UNWC and UNECE Water Convention will co-exist when both are global and in force.

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<sup>22</sup> Interview Nos. 617, 636 and 797

Having the UNWC in force will develop global water governance an additional step<sup>23</sup> as this will be the first global, water-specific convention in force.<sup>24</sup> Many reasons exist for why the convention is not yet in force, from a lack of countries' understanding/knowledge of the convention to relationships with neighboring countries to being a low priority. Some argue that it is not necessary for the UNWC to enter into force,<sup>25</sup> because there is enough customary international law already established (and reflected in the principles of the UNWC) through practice to create the principles needed for international law. However, one of the added benefits of the UNWC being in force will be that detractors of international water cooperation will no longer have its non-entry into force as a fallback argument.

As was mentioned in Chapter 3, the UNWC has played a critical role in helping basins around the world develop their own bilateral and multilateral treaties,<sup>26</sup> which is one of the purposes of the convention: to act as a set of guidelines that are implementable at the basin level, adapted to local conditions.

## 5.2 Integrated water resources management

In 1998, one of the world's best-known geographers, Gilbert White, commented on the fact that integrated water resources management had for 70 years been working with multi-purpose functions for water management<sup>27</sup> in which

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<sup>23</sup> Interview No. 93

<sup>24</sup> This will be the case for the UNECE Water Convention as well once a party not of the UNECE region ratifies.

<sup>25</sup> Interview Nos. 16 and 636

<sup>26</sup> Interview Nos. 16, 93 and 240. For example, the Southern African Development Community and the Mekong River Basin.

<sup>27</sup> Gilbert F. White, "Reflections on the 50-year international search for integrated water management," *Water Policy* 1, no. 1 (1998): 21.

he was referring to the Tennessee Valley Authority project initiated by US President Franklin D. Roosevelt. In the same paragraph, he also mentions that IWRM could be “very long in coming” and that “problems of improved analysis and of necessary institutional reform are formidable.”<sup>28</sup> Fifteen years later, this remains the case.

Even in 1958 the United Nations floated the idea of IRBM as a panacea given that “countries have designed how they deal with water in different ways, but none have found an ideal way.”<sup>29</sup> IRBM was the “marshaling of water resources of river basins for multiple purposes to promote human welfare.”<sup>30</sup>

While IWRM became mainstream after the Dublin and Rio conferences in 1992, the big global push to implement IWRM did not come until the Johannesburg Summit in 2002 when a target of formulating IWRM and water efficiency plans by 2005 was agreed by national governments. One interviewee gives this as an example of global water governance in that all countries agreed on a management framework and then made moves to implement this in their respective countries.<sup>31</sup>

Some believe, and the reality shows, that developing IWRM plans within 3 years of Johannesburg was “wishful thinking” as IWRM requires a “cultural shift in water management” and “is not something you can buy in a shop.”<sup>32</sup> The 2012 Status Update on IWRM produced by UN-Water shows that, of reporting countries,

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<sup>28</sup> Ibid.

<sup>29</sup> United Nations, *Integrated River Basin Development*, 39

<sup>30</sup> Ibid., 1

<sup>31</sup> Interview No. 303

<sup>32</sup> Interview No. 55. An example of what is entailed in such a shift to IWRM, not a simple affair: “IWRM demands a new framework within which there may be a need for significant changes in existing interactions between politics, laws, regulations, institutions, civil society, and the consumer-voter. The capacity to make these changes depends therefore on changes in governance.” (Peter Rogers and Alan W. Hall, *Effective Water Governance*, Global Water Partnership Technical Committee Background Papers No. 7 (Elanders Novum: Sweden, 2003), 5.)



80% of countries have started to develop IWRM plans,<sup>33</sup> 65% of them have been developed, and 34% of countries have their plans in a state of advanced implementation.<sup>34,35</sup> These numbers come from 2012, seven years after the target deadline, and illustrate how far from all national governments are from achieving this goal.

Given that there are limitations to such surveys,<sup>36</sup> some of the interviewee responses show an even bleaker image. This ranges from observations that some countries are behind schedule<sup>37</sup> and have only made some “policy pronouncements”<sup>38</sup> and while some laws were being passed, there was very little evidence of any impact<sup>39</sup> and that the concept has not gone anywhere.<sup>40</sup> One interviewee noted that “we know we need to (move forward with IWRM), we know we should, but we’re not.”<sup>41</sup> Why is IWRM not working?

Ken Conca believes that the absence of a “coherent global water regime or global water organization” with “nothing even approaching a framework convention on water,” “seems to have created a space for a broader, less state-based discursive

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<sup>33</sup> UN-Water, *Status Report on the Application of Integrated Approaches to Water Resources Management* (United Nations Environment Programme, 2012), vi

<sup>34</sup> *Ibid.*, vii

<sup>35</sup> Interesting note: A survey was carried out by the ACC Subcommittee in 1983 (results produced in 1985) that asked similar questions to governments as the 2012 survey. The author has no confirmation whether UN-Water is aware that such a survey was carried out in 1985. One of the main questions asked to national governments was whether they had a “central coordination mechanism or body.” The survey stated that 73% of the responding governments reported an affirmative, which would be much higher than exists today according to the 2012 IWRM State Update (United Nations, Committee on Natural Resources, 9<sup>th</sup> Session, 8-17 April, 1985, 5)

<sup>36</sup> UN-Water, *Status Report*, 5

<sup>37</sup> Interview Nos. 288 and 496

<sup>38</sup> Interview No. 116

<sup>39</sup> Interview No. 50

<sup>40</sup> Interview No. 624

<sup>41</sup> Interview No. 714

process”<sup>42</sup>, which was IWRM. The irony is that it is thought that one of the main reasons why IWRM has not been as successful as advertised is because there was no governmental coordination or follow-up.<sup>43</sup> And while IWRM goes beyond national governments, they are still the main actors in its implementation.

In some ways, the creation of organizations such as the World Water Council and the Global Water Partnership were indicators that IWRM was not destined to emerge as the “dominant frame for global water norms.”<sup>44</sup> The proliferation of organizations involved in the global water sphere continues to expand,<sup>45</sup> reinforcing this idea.

While IWRM aims to bring the different sectors together to address water issues, sectoral fragmentation still exists to the extent that it impedes effective implementation.<sup>46</sup> Joyeeta Gupta describes IWRM as a “broad concept in governance,” which is “illusory and failure prone.”<sup>47</sup> Some believe that IWRM is “putting the cart before the horse” in that it is a “solution-in-search-of-a-problem,” because if the primary objectives of water management are not agreed upon, how is it possible to design the solution?<sup>48</sup> Others still question what it is exactly.<sup>49</sup>

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<sup>42</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 133-138.

<sup>43</sup> Interview No. 55

<sup>44</sup> Ken Conca, *Governing Water*, 146

<sup>45</sup> Robert G. Varady, Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih, “Strengthening Global Water Initiatives,” *Environment* 50, no. 2 (2008), 25.

<sup>46</sup> Janos J. Bogardi, David Dudgeon, Richard Lawford, Eva Flinterbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty, “Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions,” *Current Opinion in Environmental Sustainability* 4 (2012): 37.

<sup>47</sup> Joyeeta Gupta, “Global water governance: Controversies and choices,” in *Water for a Changing World – Developing Local Knowledge and Capacity*, eds. G.J. Alaerts and N.L. Dickinson (London: Taylor & Francis Group, 2009), 101.

<sup>48</sup> Asit K. Biswas, *Challenging Prevailing Wisdoms*, Stockholm Water Prize Laureate Lecture (Stockholm, 2006). Available from <http://www.thirdworldcentre.org/laureatelecture.pdf>.

IWRM is also simply difficult to implement and operationalize.<sup>50</sup> Just getting an integrated vision is difficult, because “every piece of water fits into something else and that something else needs to be integrated,”<sup>51</sup> so it requires a massive undertaking that may or may not be possible on the ground. In one interviewee’s experience, it has been possible to “optimize one output, but we have not optimized the system.”<sup>52</sup> There are too many actors and situations involved, making implementation “too complicated and utopian.”<sup>53</sup> Amongst these actors, water is also not a strong and cohesive voice, so this is a further challenge for IWRM.<sup>54</sup>

The idea of IWRM is not an incorrect one, as water is found in everything and the best way to manage that is through integration, and it has brought the water community together to think more cohesively.<sup>55</sup> Given that there has been difficulty in implementing IWRM around the world, however, there has been a recent shift away from certain elements of the concept. The first is the name itself. Water actors are very familiar with the term, but actors from the energy, transport, and food sectors and those from other sectors have most likely never heard of the term and much less the acronym. Politicians, who are key in enacting laws and legislation related to IWRM, are also not familiar with this terminology. In the recent Post-2015 Development Agenda Thematic Consultation on Water, the water community shied away from using the term IWRM and focused more on “integrated

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<sup>49</sup> Interview Nos. 16 and 891

<sup>50</sup> World Bank, *The Global Water Partnership – Addressing Challenges of Globalization: An Independent Evaluation of the World Bank’s Approach to Global Programs (Case Study)* (Washington DC: World Bank), x.

<sup>51</sup> Interview No. 276

<sup>52</sup> Interview No. 714

<sup>53</sup> Joyeeta Gupta, *Glocal Water Governance*, 105

<sup>54</sup> Interview No. 391

<sup>55</sup> Interview No. 777

approaches” without the acronym.<sup>56</sup> It is much easier to explain the water-food-energy nexus concept than the IWRM concept<sup>57</sup> and because of that has been used as a stand-in.

IWRM is also a water-centric framing, seen through a “watery lens,”<sup>58</sup> in which the water community talks often about integration, but then still has extreme difficulty integrating with other sectors.<sup>59</sup> Even though talk of working “outside the water box” has been going on for almost ten years now, the water community is just starting to realize now that it is one aspect of a wider picture<sup>60</sup> and not the center.

### 5.3 Water security

The concept of “security” has evolved from its purely military roots just a few decades ago into a more comprehensive idea that also focuses on “human security,” which includes economic, food, health, environmental, personal, community and political security.<sup>61</sup>

The early literature on water and security focused primarily on transboundary waters and the potential national security threats that are posed by two or more nations sharing freshwater resources.<sup>62</sup> Other concepts of “water

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<sup>56</sup> World We Want, *Post 2015 Water Thematic Consultation Report* (2013); available from <http://www.worldwewant.org/node/366798>.

<sup>57</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013)

<sup>58</sup> Interview No. 797

<sup>59</sup> Interview No. 612

<sup>60</sup> Interview No. 245

<sup>61</sup> UNDP, *Human Development Report 1994: New Dimensions of Human Security* (New York: Oxford University Press, 1994), 24-25.

<sup>62</sup> See Miriam Lowi, *Water and Power: The Politics of a Scarce Resource in the Jordan Basin* (Cambridge: Cambridge University Press, 1993); Peter Gleick, “Water and conflict,” *International Security* 18, no. 1 (1993): 79-112; Peter Gleick, *The World’s Water: 1998-1999* (Washington DC: Island Press, 1998); Thomas Homer-Dixon, “On the threshold: Environmental changes as cause of acute conflict,” *International Security* 16, no. 2 (1991): 76-116; Thomas Homer-Dixon, “Environmental scarcities and violent conflict:

security” then started to emerge, especially following the 2<sup>nd</sup> World Water Forum in 2000, where the Ministerial Declaration was titled, “Water Security for the 21<sup>st</sup> Century.”<sup>63</sup> Academics, organizations and governments have had different definitions of water security,<sup>64</sup> from the very benign<sup>65</sup> to the more extreme,<sup>66</sup> none being universally accepted.<sup>67</sup> Although not institutionalized,<sup>68</sup> the term is used more and more frequently to describe the aims of the international community, governments, NGOs and the private sector.

On World Water Day, 22 March 2013, UN-Water released an analytical brief on water security, aiming to present for the first time a common definition of the term “water security,” which they define as follows:

The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for

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Evidence from cases,” *International Security* 19, no. 1 (1994): 5-40; and Arun P. Elhance, “Hydropolitics: Grounds for Despair, Reasons for Hope,” *International Negotiations* 5, no. 2 (2000): 201-222.

<sup>63</sup> World Water Council, *Ministerial Declaration of The Hague on Water Security for the 21<sup>st</sup> Century* (2000).

<sup>64</sup> Global Water Partnership, *Towards Water Security: A Framework for Action* (Stockholm: GWP, 2000), 12; David Grey and Claudia W. Sadoff, “Sink or Swim? Water security for growth and development,” *Water Policy* 9, no. 6 (2007): 548; World Water Council, *Ministerial Declaration of The Hague*; Malin Falkenmark, *Water security for multinational water systems – opportunity for development*, Proceedings SIWI Seminar, SIWI Report 8 (Stockholm International Water Institute, 2000); and Mark Zeitoun, “The Global Web of National Water Security,” *Global Policy* 2, no. 3 (2011).

<sup>65</sup> Water security “would try to increase water supplies, improve water availability and increase access to water supplies” (Robin Clarke, *Water: The International Crisis* (London: Earthscan Publications, 1991), 175)

<sup>66</sup> “Improving the security and resilience of our nation's drinking water and wastewater infrastructures is vital to ensure the provision of clean and safe water to all in the United States. Significant actions are underway to assess and reduce consequences, threats, and vulnerabilities to potential terrorist attacks; to plan for and practice response to natural disasters, emergencies, and incidents; and to develop new security technologies to detect and monitor contaminants and prevent security breaches.” (United States Environmental Protection Agency, *Water Security* (accessed August 23, 2013); available from <http://water.epa.gov/infrastructure/watersecurity/index.cfm>) See also United States Intelligence Community, *Global Water Security*, Intelligence Community Assessment (2012).

<sup>67</sup> Úrsula Oswald Spring and Hans Günter Brauch, “Securitizing Water” in *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, Hexagon Series on Human and Environmental Security and Peace, Volume 4 (Berlin: Springer, 2009), 175-202.

<sup>68</sup> UNU-INWEH, *Deep Words, Shallow Words: An Initial Analysis of Water Discourse in Four Decades of UN Declarations* (Hamilton, Ontario: UNU-INWEH, 2011), 12.

ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.<sup>69</sup>

The importance of water security is not to be denied. According to the World Economic Forum, “water security is the gossamer that links together the web of food, energy, climate, economic growth, and human security challenges that the world economy faces over the next two decades.”<sup>70</sup>

Why is a definition of “water security” important for global water governance? Some argue that if “security” is in the phrase then this means that the subject has to be dealt with in the UN Security Council, which the UN Analytical Brief on Water Security calls for as well, given the security implications of tensions and conflicts between water uses and users<sup>71</sup>. This would immediately add another aspect to the global governance of water if the issue were to be addressed in the Security Council where there would be decisions and Security Council Resolutions of a kind that have never been seen before.

Additionally, “the absence of a definition undermines progress in international forums.”<sup>72</sup> Since the brief was released, the issue has been raised in the UNGA Open Working Group on Sustainable Development Goals in May 2013. In its Third Session, during the focused discussion on water and sanitation, there were

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<sup>69</sup> UN-Water, *Water Security and the Global Water Agenda: A UN-Water Analytical Brief* (Hamilton, Ontario: UNU, 2013), 1.

<sup>70</sup> World Economic Forum, *Water Security: The Water-Food-Energy-Climate Nexus* (Washington DC: Island Press, 2011), 1.

<sup>71</sup> UN-Water, *Water Security and the Global Water Agenda*, vi.

<sup>72</sup> UN-Water, “*Water Security*”: *Experts Propose a UN Definition on Which Much Depends*, March 22, 2013; available from [http://www.unwater.org/UNW\\_ABWS\\_launch.html](http://www.unwater.org/UNW_ABWS_launch.html).

a handful of participants who raised concern about the use of the term.<sup>73</sup> A representative from the Nicaraguan Government preferred to use the term “water cooperation” instead of “water security,”<sup>74</sup> clearly not the same concept. In preparation for the UNGA negotiations on the Post-2015 Development Agenda, even the suggested title of a potential Sustainable Development Goal for water named, “A Water-Secure World” has drawn ire from Member States and UN agencies. It can be argued that the outcome of the Sustainable Development Goal negotiations will drive international water policy and development priorities from 2015-2030 much like the MDGs did over the past decade. If controversies over the semantics of “water security” get caught up in these negotiations, this can impact the outcome in a similar manner to the issue of transboundary waters in the Rio+20 negotiations. Losing an opportunity to have water front and center as a development priority for the 15 years following the MDGs would be an extremely wasted opportunity. What is interesting to note is that “food security” is used frequently in the UN system amongst member states without the same prejudice.<sup>75</sup> The reason for the difference is unknown.

#### 5.4 Dams

Recently, the World Bank has been very vocal about the fact that they are getting back into the large dam business.<sup>76</sup> The World Bank has experienced a

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<sup>73</sup> IISD, “Summary of the Third Session of the UN General Assembly Open Working Group on Sustainable Development Goals: 22-24 May 2013,” *Earth Negotiations Bulletin* 32, no. 3 (2013): 8.

<sup>74</sup> *Ibid.*, 11

<sup>75</sup> UNU, *Deep Words, Shallow Words*, 12

<sup>76</sup> Howard Schneider, “World Bank rethinks stance on large-scale hydropower projects,” *Guardian Weekly*, May 14, 2013; available from <http://www.theguardian.com/environment/2013/may/14/world-bank-hydropower-dam-rethink> and Peter Bosshard, “The World Bank is bringing back big, bad dams,” *The*

hiatus from financing large dams for almost 20 years and has instead concentrated on mid-size dams and rehabilitating existing dams.<sup>77</sup> The shift back to financing large dams by the World Bank follows funders from countries like China that are starting to finance large hydropower infrastructure outside of their own countries.

With the rise of dam protests by civil society, primarily against the World Bank in the 1990s, because of community and environmental impacts, the World Commission on Dams was created and produced its report in 2000, which even with many advocates and detractors was considered a “fair summation of the situation,”<sup>78</sup> clarifying the different points of view as well as the costs and benefits of large hydropower infrastructure.<sup>79</sup> The result, whether implemented or not, has been a key part of global water governance ever since. Although the WB said they would not incorporate the guidelines recommended by the WCD into their financing practices, the Bank was for the most part already out of the large dam business by then. Many countries that were funding, and receiving funding, for large hydropower projects did abide by the recommendations.<sup>80</sup> Even though all did not accept the report, it did create a framework within which actors could work.<sup>81</sup> Others considered the recommendations from the WCD report to be less impactful, having been “left by the wayside”<sup>82</sup> and “stillborn.”<sup>83</sup>

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*Guardian*, July 16, 2013; available from

<http://www.theguardian.com/environment/blog/2013/jul/16/world-bank-dams-africa>.

<sup>77</sup> Peter Bosshard, “The World Bank is bringing back big, bad dams.”

<sup>78</sup> Interview No. 109

<sup>79</sup> Interview No. 834

<sup>80</sup> Ibid.

<sup>81</sup> Interview No. 601

<sup>82</sup> Interview No. 109

<sup>83</sup> Interview No. 133



Ten years after the Bank rejected the WCD recommendations, the International Hydropower Association (IHA) has been leading an initiative in collaboration with both industry leaders and NGOs that has introduced the Hydropower Sustainability Assessment Protocol, an “enhanced sustainability assessment tool used to measure and guide performance in the hydropower sector.”<sup>84</sup> In talking about the Protocol, one interviewee stated that “...eighty percent of what was in the World Commission on Dams has now been reflected in there (Protocol) and has started to talk about some of the other twenty percent, which ten years ago was just off the agenda completely, like affected communities.”<sup>85</sup>

The lack of follow-up of the WCD created a global governance gap, where there had been an opportunity to codify the principles and recommendations from the WCD into a governance structure for financing large infrastructure around the world. This has allowed the current situation to arise where there are financing countries that do not have the same safeguards as the WCD recommended or even the World Bank when it comes to financing large dams.<sup>86</sup> As a result, “...the dam situation should be further along than it is.”<sup>87</sup> If the WCD recommendations had been more readily accepted worldwide, it is possible that the current situation would not exist where large hydropower infrastructure safeguards are being bypassed. In addition, it seems that the countries that do finance large

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<sup>84</sup> See IHA, *Hydropower Sustainability Assessment Protocol* (accessed August 24, 2013); available from <http://www.hydrosustainability.org/Protocol.aspx>

<sup>85</sup> Interview No. 240

<sup>86</sup> Interview No. 374

<sup>87</sup> Interview No. 21

infrastructure projects beyond their own borders are also those that stand against further formalizing any global water governance regime.<sup>88</sup>

The hydropower discussion of the late 1990s was one that was at the heart of the development debate.<sup>89</sup> Environment and development were often seen as diametrically opposed and with the protest movements of the 1990s, environment won out when it came to large dams. The decline in investment in large hydropower infrastructure impacted developing countries in a large way, such that several interviewees stated that the situation put continents like Africa, and the entire dam debate, “back decades”<sup>90</sup> in terms of its development, because everyone was afraid to discuss the subject. While the anti-dam movement blocked dams that they perceived as having negative impact, dams that were being constructed with little concern for local communities and the environment, they also blocked beneficial dams and infrastructure that were much needed for development.<sup>91</sup> There has been a backlash from developing countries, because it is thought that the financing countries that would not fund large infrastructure were responding more to their domestic green movements rather than the needs of developing countries.<sup>92</sup> “That is where the discourse really became completely lopsided against development.”<sup>93</sup>

A significant characteristic of governance is participation and consultation. One of the major changes that took place during the debates of the 1990s with

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<sup>88</sup> Interview No. 821

<sup>89</sup> Interview No. 763

<sup>90</sup> Interview Nos. 612 and 624

<sup>91</sup> Interview No. 698

<sup>92</sup> Interview Nos. 347, 698 and 941

<sup>93</sup> Interview No. 374

regards to dams is the wide inclusion of stakeholders.<sup>94</sup> The activists against dams had much to do with this. “The emergence and solidification of a transnational community of anti-dam activists transformed the international politics of large dams”<sup>95</sup> and thereby created a new norm in global water governance. This can almost be called a paradigm shift away from a state-centered approach to a wider, multi-stakeholder approach. It would be almost unthinkable, in many countries, to not have a discussion about the potential benefits and impacts of a new large infrastructure project. How much this impacts dam construction is another matter, but the age of governments deciding on such projects with no interaction from the public and civil society is for the most part over. The discussions that are being had now about dams are completely different from what they were one to two decades ago.<sup>96</sup>

With a few exceptions, the international community, including NGOs and civil society, are realizing that dams are sometimes necessary.<sup>97</sup> This comes with the caveat that no dam can just be placed anywhere in any conditions, but that smarter options are chosen<sup>98</sup> in a discussion where multiple stakeholders are present. The argument now is not so much whether to construct a dam or not, but making wise decisions in the decision-making process.

## 5.5 Human right to water and sanitation

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<sup>94</sup> Interview No. 239

<sup>95</sup> Ken Conca, *Governing Water*, 213

<sup>96</sup> Interview No. 701

<sup>97</sup> Interview Nos. 288, 356 and 698

<sup>98</sup> Interview No. 288

After being proposed for the first time in an international forum at the United Nations Conference on Human Settlements in 1976, and then reinforced at the United Nations Water Conference in Mar del Plata in 1977, it took the international community 34 years to finally recognize the human right to water and sanitation through UN General Assembly Resolution 64/292 in 2010.

Until the Resolution in the UNGA, the human right to water and sanitation can be seen as a stumbling block for global water governance,<sup>99</sup> because there was no consensus on the issue, and this permeated other international discussions on water, from the World Water Fora to Rio+20. The debate over whether water was a “right” or a “need” occupied much time, energy and resources over the past decade that could have been spent on implementing those rights and addressing other issues. Quoting Peter Gleick, “it may be remembered as the 20<sup>th</sup> Century’s greatest failure.”<sup>100</sup>

On the whole, this advancement of the human right to water and sanitation is seen as a significant move at the global level<sup>101</sup> that will have a major impact<sup>102</sup> on how countries deliver these services and how their populations hold them accountable. The Resolution has raised awareness,<sup>103</sup> is shaping water policy worldwide<sup>104</sup>, has catalyzed governments to provide water and sanitation for their

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<sup>99</sup> Interview No. 579

<sup>100</sup> Peter Gleick, “The Human Right to Water,” Pacific Institute (2007), 5.

<sup>101</sup> Interview Nos. 21, 121, 133, 136, 418, 661, 867, 289 and 990

<sup>102</sup> Interview Nos. 240, 673 and 867

<sup>103</sup> Interview No. 294

<sup>104</sup> Interview Nos. 439 and 624

people<sup>105</sup>, triggered investment<sup>106</sup> and, “at the end of the day, it recognizes the importance of water and sanitation for development.”<sup>107</sup>

In the end, in and of itself, it is not a contentious issue.<sup>108</sup> Governments, for the most part, believe their citizens should have access to water and sanitation whether that is through public or private delivery. The issue is more how to provide and guarantee it<sup>109</sup> as well as its relationship to other issues, such as transboundary waters and water transfers.<sup>110</sup> One reason the issue was held up for so long was because water abundant countries, whether in a transboundary context or not, feared that they would have to make water transfers out of their country to provide for other countries’ right to water and sanitation. An example of this was seen in the Guarani Aquifer Agreement that was replete with mentions of sovereignty of the aquifer states over the water resources in the aquifer. It is thought that this was because the countries feared that the human right to water and sanitation could force them to export water to other non-aquifer states although this is a misunderstanding of the right.<sup>111</sup>

Some countries may never recognize the right even if they are not against the idea behind the concept. For instance, the United States, because water rights are given at the state level and not the national.<sup>112</sup>

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<sup>105</sup> Interview No. 374

<sup>106</sup> Interview No. 701

<sup>107</sup> Interview No. 734

<sup>108</sup> Interview No. 985

<sup>109</sup> Ibid.

<sup>110</sup> Interview No. 16

<sup>111</sup> Interview Nos. 16 and 86

<sup>112</sup> For example, the State of California has recognized the right. See California State Legislature, *An act to add Section 106.3 to the Water Code, relating to water*, Assembly Bill No. 685, Chapter 524, 2012 (accessed August 25, 2013).

While the right seems to be universally accepted<sup>113</sup> and could provide a major contribution<sup>114</sup> to global water governance, there are many questions that remain.<sup>115</sup> The right exists, but, “now what?”<sup>116</sup> What does that mean exactly?<sup>117</sup> There is the belief that it is not well defined.<sup>118</sup> According to one interviewee, entirely too much time was spent on whether there was a right and not what it means. How is it to be implemented?<sup>119</sup> “The words on paper mean nothing to the people who need water and sanitation in the field.”<sup>120</sup> What are the responsibilities of governments and international organizations?<sup>121</sup> There are the skeptics of human rights as well who do not think that the right to water and sanitation will influence governments, because human rights do not have the same weight that they did 30–40 years ago and can be ignored.<sup>122</sup>

Some misperceptions linger as well about the right. Just because it is a human right does not mean that there is “an unlimited supply all the time, in any place and under any circumstances.”<sup>123</sup> Nor is it free, at least the services of treatment and delivery.<sup>124</sup> Or is water free? In the South African water law, a

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<sup>113</sup> Interview No. 512

<sup>114</sup> Interview No. 612

<sup>115</sup> Interview No. 512

<sup>116</sup> Interview No. 976

<sup>117</sup> Jerome Delli Priscoli, “Invited opinion interview: Two decades at the center of world water policy,” *Water Policy* 13, no. 2 (2011) and Interview Nos. 612 and 763.

<sup>118</sup> Interview No. 86

<sup>119</sup> Interview Nos. 654 and 941

<sup>120</sup> Interview No. 199

<sup>121</sup> Interview No. 976

<sup>122</sup> Interview No. 5. Although the interviewee does believe that the HRTWS is not a bad advancement.

<sup>123</sup> Interview No. 136. See also Peter Gleick, *The Human Right to Water*, 4 and Olcay Ünver, “Global Water Governance: A Practitioner’s Perspective,” *Global Governance* 14 (2008): 413.

<sup>124</sup> Interview Nos. 136 and 734

certain amount of water per capita per day is free,<sup>125</sup> but each country has to decide on its own how to implement the right as there are still no principles on water pricing. For global water governance, the primary question that remains is, what are the global principles that the international community agrees upon with the right to water and sanitation?<sup>126</sup>

## 5.6 Privatization

In the 1990s, with the emergence of neoliberal economic policies, there was a move from the traditional public service provision of water and sanitation to expand private sector involvement in such delivery of services. During that span, it is estimated that the population receiving water from private providers rose from 51 million to 460 million.<sup>127</sup> While the clear majority of the world's population was still receiving public services, this movement towards the private sector, with the support of the World Bank, caused an extreme backlash from civil society, the repercussions of which are still felt today.

Much like the anti-dam movement, the anti-privatization movement was galvanized by the move to privatize water services in the 1990s, creating a cohesive group and a vision that is still pushing for alternatives to private sector involvement. That voice and vision did not exist fifteen years ago.<sup>128</sup> This pushback caused privatization to be a contentious issue.<sup>129</sup>

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<sup>125</sup> See Republic of South Africa, *National Water Act*, Act No. 36, August 20, 1998 (accessed August 27, 2013); available from South African Department of Water Affairs.

<sup>126</sup> Interview No. 21

<sup>127</sup> Michael Goldman, *Imperial Nature: The world bank and struggles for social justice in the age of Globalization* (New London: Yale University Press, 2005), 232.

<sup>128</sup> Interview No. 144

<sup>129</sup> Interview No. 867

The privatization debate may never have arisen without a certain number of cases that went poorly, Cochabamba, Bolivia being the most prominent of those cases. Otherwise, privatization has occurred in many parts of the world, such as Germany, the Netherlands, Bangladesh, the United States etc. where there was not a large discussion and reaction.<sup>130</sup> With such a poor response to the water and sanitation deficit, the backlash was “predictable.”<sup>131</sup> In the cases where privatization was not implemented well, where there was backlash, there were both cases of the companies not understanding the local context<sup>132</sup> as well as there not being proper public regulation in place nor local authorities having the proper capacity to transition to private sector involvement.<sup>133</sup>

John Briscoe, formerly of the World Bank, in an interview with Jerome Delli Priscoli, the senior editor of *Water Policy*, challenged the media who made movies and wrote on the Cochabamba conflict condemning the private sector, to go back today to see if the situation was better without the shift from the public sector. He was either turned down or got no response. Briscoe claims the situation is worse than before.<sup>134</sup>

One of the big misperceptions of the public/private debate is actually what is being privatized. Much of the rhetoric against privatization claims that it is water, the resource itself that is being privatized. And this is not the entire truth. What is privatized is the delivery and treatment of water and sanitation services, which is

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<sup>130</sup> Interview No. 701

<sup>131</sup> Interview No. 612

<sup>132</sup> Interview No. 906

<sup>133</sup> Interview No. 701

<sup>134</sup> Jerome Delli Priscoli, “Invited opinion interview,” 153



very different from the private sector owning the water.<sup>135</sup> Private ownership of water resources is “troubling.”<sup>136</sup> There are others that argue, however, that water in and of itself should not be a commodity, an economic good, for profit<sup>137</sup> and that there is a water ethic that this goes against.<sup>138</sup>

Lyla Mehta describes the situation well:

Hence there is an unresolved struggle between efforts aimed at making water more private, in the interest of efficiency; and making water public by design, in the interest of equity. This struggle often stems from the fact that people do not distinguish between water as a resource that may be free and the services involved in its delivery—which, at least in urban areas, entail costs. More important, the struggle persists because of reluctance among powerful players to acknowledge that principles of social and economic justice must not be sacrificed for reasons related to wider political economy.<sup>139</sup>

Both sides of the debate have been guilty of oversimplifying the issue in order to make people sympathetic to one side.<sup>140</sup> Both sides “bend facts” to suit themselves, which has created a “badly instructed debate that really doesn’t help anybody,” especially when you have to “sort out the fact-based discussion from the propaganda-based discussion.”<sup>141</sup> One interviewee gave an example of two think tanks in the same country making a positive case (pro-market) and a negative case (anti-capitalism) for Cochabamba, claiming that many of these organizations start off with an ideology and make the case fit their agenda, which is very destructive to

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<sup>135</sup> Interview No. 55

<sup>136</sup> Interview No. 374

<sup>137</sup> Interview Nos. 133 and 418

<sup>138</sup> Interview No. 444

<sup>139</sup> Lyla Mehta, “Problems of Publicness and Access Rights: Perspectives from the Water Domain,” in *Providing Global Public Goods: Managing Globalization*, eds. Inge Kaul, Pedro Conceição, Katell Le Goulven and Ronald U. Mendoza (New York: Oxford University Press, 2003), 568.

<sup>140</sup> Interview No. 21

<sup>141</sup> Interview No. 199

reaching those who do not have access to water and sanitation.<sup>142</sup> “What we have invented during the last twenty years is the conflict. And this is very bad, because conflict has a price, and it’s always the community that pays the price of the conflict.”<sup>143</sup>

The whole debate has been a distraction from getting work done on the ground, whether it is by the public or private sector.<sup>144</sup> This is the sentiment that is finding its way into the water community. There are many solutions to the water problems that exist and some of those solutions have to adapt to local conditions. That may sometimes mean that there is a private water and sanitation provider. The private sector can be helpful in this regard, “...in the right way, with the right resources, governance management structures in place, and people involved, stakeholders...”<sup>145</sup>

The discussion has shifted from one that was contentious to one that is, “we have a problem to solve and there are many ways of solving it, how can we do it in the best possible way?”<sup>146</sup> This has included increased acceptance and increased understanding that there are different solutions as long as the correct framing and governance is in place.<sup>147</sup> “It’s like a soufflé that has gone down”<sup>148</sup> and the contention has “faded away.”<sup>149</sup> In the end, it does not matter if the water and

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<sup>142</sup> Interview No. 512

<sup>143</sup> Interview No. 282

<sup>144</sup> Interview No. 391

<sup>145</sup> Interview No. 374

<sup>146</sup> Interview No. 512

<sup>147</sup> Interview Nos. 512 and 777

<sup>148</sup> Interview No. 356

<sup>149</sup> Interview No. 21

sanitation service provider is public or private, but “we ask that (they) be efficient.”<sup>150</sup>

Even though privatization has been primarily a local issue, the issue has been discussed worldwide for two decades now, driving not only the privatization debate, but also the human right to water and sanitation discourse. The two have been intertwined for some time. The World Bank promoted the paradigm shift to privatization in the 1990s, which caused a backlash and, after more than a decade of discussion on the issue, has created the situation that the world finds itself in now: an international community that has a more or less balanced view on public and private services provision and understands that these types of activities no longer take place in isolation, but are examined by an active and informed civil society. Because of the national and sub-national nature of privatization, the United Nations has never been much involved in the debate.<sup>151</sup> Some argue that more global water governance would not necessarily help this issue even though the discussion has taken place in the global arena for years, although guidelines that take into account local conditions could prove helpful in some situations.<sup>152</sup>

#### 5.7 Future issues impacting global water governance

There exist a few issues that do not presently impact global water governance, but have a potential to do so in the future. Some are topics that have been around for a long time, but their links to water are now being made stronger

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<sup>150</sup> Interview No. 282

<sup>151</sup> Interview No. 55

<sup>152</sup> Interview No. 227

by both the expert and political communities. Others are new, emerging topics that have not been addressed yet in any significant manner.

#### 5.7.1 Climate Change

The issue of climate change has been around for a significant amount of time in policy circles, but those countries who have had political leadership in the climate change negotiations have not acknowledged the inextricable link between water and climate<sup>153</sup> and it is only in the past five years that these connections have been more pronounced and efforts made to address the linkages between the two.<sup>154</sup>

To a certain extent, there has already been an impact of climate change on the water discourse. Because of its prominence in the negotiations leading up to and during UNCED in 1992, this was one of the reasons that water took a back seat and had a relatively weak outcome at the Earth Summit. Water has been sidelined ever since.

What UN-Water and water-related professionals have been pushing for during the past decade is the inclusion of water in the climate negotiations. The clear mantra that is repeated by UN-Water is that “water is the primary medium through which climate change influences Earth’s ecosystem and thus the livelihood and well-being of societies.”<sup>155</sup> Despite this, it has taken many efforts, through efforts by UN-Water, the Water and Climate Coalition, SIWI and other groups to get water into the negotiations. Part of the problem is a misperception within the

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<sup>153</sup> Interview No. 915

<sup>154</sup> Interview No. 797

<sup>155</sup> UN-Water, *Climate Change Adaptation: The Pivotal Role of Water* (UN-Water, 2010), 3.

climate negotiations community that water is a “sector” and not a cross-cutting issue.<sup>156</sup>

It was not until 2011, during climate change talks in Bonn, Germany, that water was included in the Nairobi Work Programme. This is part of the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the United Nations Framework Convention on Climate Change (UNFCCC), which focuses on adaptation measures to climate change.<sup>157</sup> While water still remains relatively low on the climate agenda, which has not significantly impacted global water governance yet, it is only a matter of time before this changes because “climate is going to drive through water to everything else.”<sup>158</sup>

#### 5.7.2 Large land acquisitions

One of the emerging topics of global water governance is large land acquisitions by foreign investors in third countries, also known as “land-grabbing.” A CNN report, which gives an idea about the exposure the issue is currently getting, said these acquisitions “could just as well have been framed as “water grabs”.”<sup>159</sup> Growing food demand in countries around the world plus the limited amount of arable land left to produce crops in those countries, have pushed countries in this direction. Shortly after the food price crisis in 2007-2008, governments in countries

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<sup>156</sup> Joyeeta Gupta et al, “Policymakers’ Reflections on Water Governance Issues.”

<sup>157</sup> See UNFCCC, *Nairobi Work Programme* (accessed August 26, 2013); available from [http://www.unfccc.int/adaptation/workstreams/nairobi\\_work\\_programme/items/3633.php](http://www.unfccc.int/adaptation/workstreams/nairobi_work_programme/items/3633.php).

<sup>158</sup> Interview No. 797

<sup>159</sup> Jennifer C. Franco, Lyla Mehta and Gert Jan Veldwisch, “Are African land grabs really water grabs?” *CNN*, March 22, 2013, available from <http://www.edition.cnn.com/2013/03/22/opinion/water-grabs-africa>. Also mentioned in World Economic Forum, *Water Security*, 12-13; Christina Daggett, “In Rush for Land, is it all About Water?” *New Security Beat*, July 26, 2011, available from: <http://www.newsecuritybeat.org/2011/07/in-rush-for-land-is-it-all-about-water/#.UkQ5CbwqDC0> and Alex Evans, “Landgrab deals: actually water grabs,” *Global Dashboard*, April 28, 2009, available from <http://www.globaldashboard.org/2009/04/28/landgrabs-watergrabs/>.

that were severely impacted by the crisis started to purchase large tracts of land, mostly in Africa, but also Southeast Asia, in order to grow staples to export back to their countries, thereby not only saving large amounts of water, because they do not have to grow those staples in their own countries, but also ensuring food security and lower food prices in the event of another food crisis.

The reality of this comes through in a quote by the CEO of Nestlé, Mr. Peter Brabeck-Lemathe, who stated, “...with the land comes the right to withdraw the water linked to it, in most countries essentially a freebie that increasingly could be the most valuable part of the deal. And, because this water has no price, the investors can take it over virtually free.”<sup>160</sup> The first global study on global land and water grabbing, which included 61 “grabbed” countries and 42 “grabbing” countries, revealed that (a) this phenomenon impacts all continents except Antarctica, (b) Africa and Asia account for 80% of the “grabbed” land and (c) in some countries, up to almost 20% of their land is “grabbed” (Uruguay).<sup>161</sup>

The impacts of this can be severe for locals where the land has been purchased. “Poorly regulated foreign investments in lands that could be otherwise used to feed local populations, could potentially have devastating consequences on the fragile state of food security at the national level.”<sup>162</sup> There are also negative

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<sup>160</sup> Alex Evans, “Landgrab deals: actually water grabs.”

<sup>161</sup> Maria Cristina Rulli, Antonio Savioli and Paolo D’Odorico, “Global land and water grabbing,” *Proceedings of the National Academy of Sciences of the United States of America* 110, no. 3 (2013): 892-893.

<sup>162</sup> UN-Water, *Managing Water under Uncertainty and Risk: The United Nations World Water Development Report 4, Volume 1* (Paris: UNESCO Publishing, 2012), 216.

environmental consequences, displacement of populations, dispossession of land and potential conflicts with those who are uprooted.<sup>163</sup>

To respond to this additional global challenge, governance responses will be required at all levels, including the global, but there has been no movement in that direction as of yet.

### 5.7.3 Virtual water

Very much linked to land-grabbing is the virtual water trade. As Arjen Hoekstra argues, this is one of the primary reasons why the international community needs to think about water as a global issue and increase global water governance.<sup>164</sup>

16% of all water is used for exported products,<sup>165</sup> and this is most likely on the rise due to not only the aforementioned land-grabbing, but also to the increased interdependencies between countries worldwide. This calls for an increased need to address this issue, because as was mentioned in Chapter 2, the balance between international trade agreements and international agreements for sustainable water use is not on equal footing, because there are none for water.<sup>166</sup> This prevents action being taken when trade negatively impacts water resources.<sup>167</sup> This is a global issue that demands a global response. Currently no instruments exist, but the issue is gaining attention, most notably through the concepts of virtual water and

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<sup>163</sup> Ibid.

<sup>164</sup> Arjen Y. Hoekstra, "The Global Dimension of Water Governance: Why the River Basin Approach Is No Longer Sufficient and Why Cooperative Action at Global Level Is Needed," *Water* 3 (2011): 22.

<sup>165</sup> Arjen Hoekstra and Ashok Chapagan, *Globalization of Water: Sharing the Planet's Freshwater Resources* (Oxford: Blackwell Publishing, 2008), 22.

<sup>166</sup> Arjen Y. Hoekstra, "The relation between international trade and freshwater scarcity," World Trade Organization, Economic Research and Statistics Division Staff Working Paper (2010), 2.

<sup>167</sup> Ibid.

water footprints. The work of WBCSD, the Water Footprint Network and their extensive networks, is creating momentum for further action at the global level.



## Chapter 6 Reasons for the absence of a more formal global water governance regime

The primary question motivating this research was to understand why a more formal global water governance regime is not in place. As many have argued, global water governance does exist, but it is a mix of formal and informal forms, which include both public and private actors and exists in an *ad hoc* manner. To reiterate Pahl-Wostl, Gupta and Petry's description, global water governance is "a fragmented, mobius-web arrangement."<sup>1</sup> What is missing from the literature of global water governance, however, is why this is the case. How and why did the world end up with a governance regime for water that fills the definition of "mobius-web":

...occurs when the impetus to steer a course of events derives from networked interactions across levels of aggregation among TNCs, INGOs, NGOs, IGOs, states, elites and mass publics, interactions that are so intricate as to constitute a hybrid structure in which the dynamics of governance are so overlapping among the several levels as to form a singular, web-like process that neither begins nor culminates at any level or at any point in time?<sup>2</sup>

When this question was posed to interviewees, over one hundred different answers were given. This chapter aims to consolidate those answers into some overarching themes that explain why we have the system that we do.

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<sup>1</sup> Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, "Governance and the Global Water System: A Theoretical Exploration," *Global Governance* 14 (2008): 419.

<sup>2</sup> James N. Rosenau, "The Governance of Fragmentation: Neither a World Republic nor a Global Interstate System" (presentation, Congress of the International Political Science Association, Quebec City, August 1-5, 2000).

## 6.1 Sovereignty

“One word: Sovereignty,” replied one of the interviewees.<sup>3</sup> Almost one-half of all respondents gave a similar answer.

As with the concept of ‘global governance’ more generally speaking, countries view global water governance as an infringement on their sovereignty.<sup>4</sup> As stated earlier in this study, global water governance already exists in its piecemeal form, but there is a wide spectrum of what a global water governance regime could look like, from a global government, which has very little support, if any,<sup>5</sup> to what exists today, a weaker and diffuse version. To move on a track that is more structured than what currently exists would be difficult as “inherently, national governments are resistant to go in that direction.”<sup>6</sup>

While sovereignty is breaking down in many ways, through cooperation, the activities of non-government entities such as the private sector and NGOS, the principle of sovereignty still dominates the global arena. Countries are still hesitant to give up their sovereignty, “to commit to an international structure, which obliges them to behave in a certain way”<sup>7</sup> and this is especially the case with their water resources. It is very challenging to think about water separate from sovereignty<sup>8</sup> being that, besides air, it is the most important element on the planet.<sup>9</sup>

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<sup>3</sup> Interview No. 595

<sup>4</sup> Interview Nos. 5, 240, 303, 391, 438, 493, 505, 569, 595, 601, 662, 682, 714, 734, 763, 781, 891, 935, 976 and 983

<sup>5</sup> Interview Nos. 641 and 881

<sup>6</sup> Interview No. 471

<sup>7</sup> Interview No. 752. Also Interview No. 682

<sup>8</sup> Interview No. 763

<sup>9</sup> Interview No. 734

There's a real sovereignty issue apart from the transboundary aspect of water that countries are saying: apart from MDGs and things like that, "hands off" the way we want to run our own business.<sup>10</sup>

No country wants a global body, or a global decision by the world's countries, to tell them how to manage their water resources. Countries are "loathe"<sup>11</sup> to hand their power over to an external body and "everyone starts to twitch when you talk about governance, because they think that means you're going to tell them what they have to do."<sup>12</sup> Countries do not want policy people in the UN Headquarters in New York telling them how to manage their water. They do not wish "global governance to circumvent their own."<sup>13</sup>

Water is a natural resource and inextricably linked to economic development, food and energy production and other core functions of society; nations want to be able to control these aspects of their country for themselves.<sup>14</sup> A step further than this notion is that many countries believe that water is part of their national security and that giving up control to any entity higher than the national level is simply unacceptable<sup>15</sup> as to do so may indeed pose an existential link.

With the Westphalian design of nation states and the concept that "what is in your territory is yours," an international system has been created that is contrary not only to the nature of water systems – which flow across borders – but also to global governance, which is the inspiration behind the United Nations, cooperation,

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<sup>10</sup> Interview No. 797

<sup>11</sup> Interview Nos. 493 and 743

<sup>12</sup> Interview No. 963

<sup>13</sup> Interview No. 402

<sup>14</sup> Interview No. 807

<sup>15</sup> Interview No. 512

i.e. for peace and security and to coexist in mutual harmony.<sup>16</sup> Any movement to break down the international system automatically contends with the issues of sovereignty and for water this is highly problematic. With regards to transboundary waters (see next section), for example, which give rises to shared water resources in unequal forms, this can become highly contentious, not least since water is a basic human need, essential for life and livelihoods. Transboundary waters, therefore, lead to asymmetries and difficult decisions – both ethical and egotistical – in times of crisis. This makes it difficult to reconcile sovereignty with global water governance.<sup>17</sup>

Political boundaries and water basin boundaries do not match. How you govern political borders and how you govern water are very different and these structures and processes may in fact be at odds: “They’re a paradox.”<sup>18</sup>

The suggestion that a liquid resource – which is in a near-constant state of motion moving within the hydrologic cycle in surface waters, subsurface strata and the atmosphere, transforming between gaseous, liquid and solid states, and traversing local and international political borders – can be subject to a state’s sovereignty defies logic.<sup>19</sup>

“As long as national governments follow the Westphalian system, it is not possible to have a global water governance regime.”<sup>20</sup> And it is this issue that is holding back addressing many of the global issues around water.<sup>21</sup>

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<sup>16</sup> Interview No. 336

<sup>17</sup> Ibid.

<sup>18</sup> Interview No. 701

<sup>19</sup> Gabriel Eckstein, “Managing buried treasure across frontiers: the international Law of Transboundary Aquifers,” *Water International* 36, no. 5 (2011): 580-581.

<sup>20</sup> Interview No. 682

<sup>21</sup> Interview No. 797

One national government representative was asked whether its nation would support a more formal global water governance regime. His answer was indicative of where the world sits today regarding this subject: “Yes, our government will support a more formal water governance regime, of course in the case that it meets the national interests of the country.”<sup>22</sup> Countries do not want to submit themselves to an agreement or regime that will go against their national interests.<sup>23</sup> Other countries are in similar agreement in that they believe they work on their transboundary issues with their neighboring countries, but beyond the basin and their national borders, i.e. creating global rules, principles and norms for transboundary water cooperation, it is not important to them.<sup>24</sup> Confirming this, one interviewee stated that once the discussion goes beyond the basin level, countries become suspicious because water is very much considered a local, or at most a basin, level resource.<sup>25</sup>

There is no supranational authority at the international level that can constrain countries to comply with the norm or the decision, because it requires overcoming national sovereignties. It’s as simple and as complicated as that.<sup>26</sup>

## 6.2 Competition

While the sovereignty issue has more to do with potential water conventions, rules or norms, competition is the primary reason, according to the interviewees, why there is not one overarching organization in charge of water in the global

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<sup>22</sup> Interview No. 719

<sup>23</sup> Interview No. 50

<sup>24</sup> Interview No. 374

<sup>25</sup> Interview No. 983

<sup>26</sup> Interview No. 915

arena.<sup>27</sup> There are too many organizations competing for their budgets and their own agenda to think of having one sole institution for water; even if this could better suited to the situation – which is not certain – it would probably never happen because organizations with water as part of their mandate would fight for their own survival, financial resources and jobs.

International water is split among many different international or intergovernmental institutions, including the OECD. While some efforts have been made to avoid duplication and foster synergies, it is likely that there remains some considerable overlap and challenges in terms of institutional coordination, as well as potentially some institutional rivalry and competition.<sup>28</sup>

Around the time of Mar del Plata, the possibility of having one single organization was discussed, but “all of the bodies with their fingers in the water pie resisted.”<sup>29</sup> Something similar occurred around Dublin when WMO took a leading role in organizing the conference; many saw it as an attempt to take over the ACC Subcommittee on Water Resources.<sup>30</sup> Another example is the creation of WWAP and how it fell under UNESCO. People thought that UNESCO was trying to “run away with the ball.”<sup>31</sup>

UN-Water is a prime example of this with its 31 member agencies. Its predecessor, the ACC Subcommittee, was known to be just a venue where the different UN agencies would come together to share what they were doing and jockey for position. UN-Water, while having advanced further in terms of the activities it carries out with its member agencies than the ACC Subcommittee, is still

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<sup>27</sup> Interview Nos. 21, 64, 178, 180, 212, 294, 303, 356, 382, 601, 654, 661 and 698

<sup>28</sup> Personal communication, Mr. Angel Gurría, Secretary General of OECD, October 5, 2012

<sup>29</sup> Interview No. 109

<sup>30</sup> Ibid.

<sup>31</sup> Interview No. 55

well known for its internal competition<sup>32</sup> and agency's protecting their mandates. This not only prevents a single entity from being formed, but also prevents the establishment of any kind of coherent, integrated body utilizing its different specialties to address global water issues. Any kind of movement towards a single entity would be perceived as a loss of influence by a UN agency.<sup>33</sup> It would be very difficult for any UN agency to cede its work on water.<sup>34</sup>

It is a belief that the UN agencies really do not want to coordinate<sup>35</sup> or are terrified to do so.<sup>36</sup> They must partake in UN-Water but most do so not because of the benefits of coordination, but to keep an eye on the competition, "carve their niche"<sup>37</sup> and not let others take any of their "turf."<sup>38</sup> "They're all trying to plant flags. And they're all trying to justify their existence and justify their requests to donors."<sup>39</sup> In the end, it is a very territorial landscape in the water community. Whereas it is sometimes good to have competition, the competition between water agencies has proven to be a hindrance rather than a boon for the water community.<sup>40</sup>

There was opposition to both the WWC and GWP when they were founded, because many UN agencies that dealt with water feared that their budgets would be cut to fund those two organizations.<sup>41</sup> And, of course, there was competition

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<sup>32</sup> Interview Nos. 361, 444, 542 and 752

<sup>33</sup> Interview Nos. 86 and 747

<sup>34</sup> Interview Nos. 109, 557, and 781

<sup>35</sup> Interview No. 943

<sup>36</sup> Interview Nos. 55 and 356

<sup>37</sup> Ibid.

<sup>38</sup> Interview Nos. 5, 55, 201 and 855

<sup>39</sup> Interview No. 144

<sup>40</sup> Interview No. 444

<sup>41</sup> Interview No. 943

between the WWC and GWP at the outset, because each was trying to find its space within the global water arena.

Even though they are very different organizations, there is some competition between UN-Water and the WWC. The relationship between the two has never been a strong one. Much of this has to do with legitimacy, or lack thereof. Efforts are underway to bridge this gap, which would definitely be beneficial to the water community.

Some within the World Bank also initially opposed the creation of UN-Water.<sup>42</sup> The World Bank was the most cohesive and organized of the water institutions prior to UN-Water as long as there was infighting between the various UN agencies. The creation of UN-Water posed a threat to the World Bank, because a cohesive group of UN agencies would give rise to competition. Some people at the World Bank actively tried to dissuade UN-Water from forming.<sup>43</sup>

Competition is not relegated only to organizations. Different countries and their water communities that work at the international level also find themselves in competition. Some compete for regional dominance while others compete to ensure that their issues are addressed at the international level.

All of this competition has created a sub-optimal atmosphere for advancing the cause of water. When organizations are more worried about their agenda, budgets and jobs rather than what is best for water, it does not bode well for this precious resource. Competition for funds is part of the equation.<sup>44</sup> If funding and

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<sup>42</sup> Interview No. 612

<sup>43</sup> Ibid.

<sup>44</sup> Interview No. 952



resources remain scarce or even dwindle for water resources and services, the competition and infighting will continue. “If you don’t actually invest money in the different sectors actively collaborating with each, you don’t get collaboration.”<sup>45</sup>

Despite the “entrenched mandates of the different parts of the system”<sup>46</sup> some progress has been made. The collaboration that took place for the Thematic Consultation on Water for the Post-2015 Development Agenda was a first step in trying to unify the water community, not under one organization *per se*, but at least to have one voice. The competition still remains and always will. A fragmented governance system is in place, and what happens on the international level is a direct reflection of the structure at the national level, which is full of competition. But there is a convergence starting to happen.

### 6.3 Fragmentation and the siloed approach

One of the other primary reasons that there is no formal global water governance regime is that the water community as a whole is too fragmented and still acts in its silos of different specialties<sup>47</sup> rather than as a coherent, cohesive body in spite of efforts over the past decades to “integrate.” Whereas water itself as a resource is cross-cutting in nature (see below), the governance of water is fragmented, because it is not addressed in an integrated manner that would help better tackle the issues related to a cross-cutting resource such as water. “Sectoral approaches to water resources management have dominated and are still

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<sup>45</sup> Interview No. 673

<sup>46</sup> Interview No. 405

<sup>47</sup> Interview Nos. 5, 64, 86, 132, 227, 245, 276, 391, 399, 462, 505, 531, 557, 569, 612, 624, 722, 777, 807, 877 and 990

prevailing; this leads to the fragmented and uncoordinated development and management of the resource.”<sup>48</sup>

In Agenda 21 from the Earth Summit in 1992, there was clear mention of how this fragmentation is hindering the advancement of IWRM: “The fragmentation of responsibilities for water resources development among sectoral agencies is proving, however, to be an even greater impediment to promoting integrated water management than had been anticipated.” The sectors working in silos rather than an overarching framework, prevents the balancing of uses and the optimization of benefits to be gained from inter-sectoral cooperation.<sup>49</sup>

There are many different reasons for this fragmentation. Part of the issue at the global level, as mentioned above, is competition and sovereignty. Organizations and countries believe they will lose power and finances by not staying in their own silo, so “collaboration does not come naturally”<sup>50</sup> and the siloes remain. The 4<sup>th</sup> World Water Development Report states, “Because international governance is driven by national member states, it is not surprising that it is often fragmented.”<sup>51</sup> Countries do indeed cooperate, but the international system is still set up along sovereign lines and competition leads to problems such as water allocation or utilization being addressed in a disjointed fashion.

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<sup>48</sup> Global Water Partnership, *Integrated Water Resources Management*, Global Water Partnership Technical Committee Background Papers No. 4 (Denmark: Global Water Partnership, 2000), 9. See also Janos J. Bogardi, David Dudgeon, Richard Lawford, Eva Flinkerbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty, “Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions,” *Current Opinion in Environmental Sustainability* 4 (2012), 37.

<sup>49</sup> WWAP, *Managing Water under Uncertainty and Risk: Overview of Key Messages*, The United Nations World Water Development Report 4 (Paris: UNESCO Publishing, 2012), 2.

<sup>50</sup> Interview No. 673

<sup>51</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), 221.

This fragmentation has allowed for some of the most controversial issues to remain unsolved. Ken Conca writes how water expert networks have had a “weak, fragmented, and ultimately ineffectual role in adapting that normative structure to the most contentious social conflicts and controversies related to water.”<sup>52</sup> Another reason is that there is such a “wild diversity of situations around water,”<sup>53</sup> the circumstances of different regions, countries and municipalities being very different. This diversity has led to a complex and fragmented number of institutions that are charged with governing both the resource and its different uses and services.<sup>54</sup>

This diffuse and fragmented approach to global water governance creates a problem of legitimacy.<sup>55</sup> The fragmented nature of UN-Water also calls into question their authority and so “we get what we have, a weak umbrella.”<sup>56</sup> Add to this organizations such as GWP, WWC, SIWI and the dozens of other entities that have activities at the international level, but do not work in a cohesive manner and it is not difficult to see why global water governance has not fully developed into a unified regime that would work together to solve the world’s water problems, instead of acting in a piecemeal manner.

Dellapenna and Gupta go further in depth in describing governance shifts in the water community as seven different kinds of fragmentation: geographical, functional, resource, interest, norm, policy and decision-making and

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<sup>52</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 161.

<sup>53</sup> Interview No. 673

<sup>54</sup> WWAP, *Managing Water under Uncertainty and Risk: Overview of Key Messages*, The United Nations World Water Development Report 4 (Paris: UNESCO Publishing, 2012), 5.

<sup>55</sup> Claudia Pahl-Wostl, “Governance and Water Needs Issues” (presentation, Natural and Social Capital (NASCap), International Institute for Sustainable Development, 2012).

<sup>56</sup> Interview No. 245

implementation.<sup>57</sup> For example in *norm fragmentation*, norms have shifted from solely national sovereignty to more limited forms of sovereignty, self-government and marketization.<sup>58</sup> These fragmentation types demonstrate how these shifts in governance are creating an even more diffuse and difficult system to govern, especially at the global level.

“It is a massive undertaking to harness and harmonize these all within a harmonized, aligned regime for global water governance.”<sup>59</sup> The water community is so disjointed, so fragmented; it is hard to say if it is even possible to bring all these actors together into a single coherent global water governance system.

#### 6.4 Transboundary waters

There are only a few examples where there has been a relinquishment of some sovereignty in transboundary waters. While some countries are cooperating in an unprecedented manner, such as jointly owning infrastructure in the Senegal River basin, transboundary waters are still seen as one of the major stumbling blocks to achieving a more formal global water governance regime.<sup>60</sup>

As was mentioned in Chapter 5, the issue of transboundary waters has proved to be a stumbling block for global water governance; this is primarily due to sovereignty, which is the case for upstream countries like China and Turkey, who will not cooperate with their downstream riparian neighbors on the Mekong and Tigris-Euphrates, respectively. The case of Egypt is slightly different because their

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<sup>57</sup> Joseph W. Dellapenna and Joyeeta Gupta, “The Evolution of Global Water Law,” in *The Evolution of the Law and Politics of Water*, eds. Joseph W. Dellapenna and Joyeeta Gupta (Springer Science + Business Media B.V., 2009), 7-8.

<sup>58</sup> Ibid

<sup>59</sup> Interview No. 399

<sup>60</sup> Interview Nos. 402, 569, 617, 682 and 811

claim is not based on the water that is captured within their national boundaries, but the historic flow that they have been receiving, which was codified in agreements while the region was still under British colonial rule in the early 20<sup>th</sup> Century. Because of these cases, amongst others, countries are hesitant to sign up to any form of global water governance, which would compel them to give up their sovereign rights in transboundary basins. There are enough countries that have issues with transboundary issues that they are able to consistently keep the issue off the agenda, sometimes to the detriment of other water issues.<sup>61</sup>

To create a more formal global water governance regime might necessitate some hegemony in certain river basins to give up their hegemony and that would prove very difficult.<sup>62</sup> Their perception is that global water governance could potentially preclude them from the right to manage water in their own country.<sup>63</sup>

Going back to the Rio+20 Summit, transboundary water was completely left out of the final outcome document, because it was too political in nature to include<sup>64</sup> and impacted other contentious issues:

So, it may be transboundary issues that are the issue for which governments are very cautious about global water governance. It prevents other things, because they want to be sure there is no problem. There are many examples of that but in Rio (+20) the discussion on human right to water was plagued not by the right of people, but was plagued by transboundary water.<sup>65</sup>

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<sup>61</sup> Interview No. 579

<sup>62</sup> Interview Nos. 86 and 906

<sup>63</sup> Interview No. 43

<sup>64</sup> Interview Nos. 471 and 747

<sup>65</sup> Interview No. 601

While there are principles of shared waters that are codified in the 1997 UN Watercourses Convention, there is no consensus on these principles amongst nation states. This polarization of the principles it hinders a global approach to addressing water issues.<sup>66</sup>

The 1997 Watercourses Convention is another aspect of transboundary waters that is divisive for global water governance. If the UNWC had been a success, it is quite possible that it could have been a precursor for wider global cooperation and governance in the field of water.<sup>67</sup> But, because it has been a relative failure thus far – 16 years after its signing there are still not enough parties that have ratified to put the Convention into force – it has stalled any momentum for broadening and strengthening global water governance. There is so much time spent debating the UNWC that it is “polluting the debate a little”<sup>68</sup> on transboundary waters and global water governance.

#### 6.5 Water is everywhere

Part of the reason for fragmentation, especially on the governance side, is that water, the resource, is everywhere and in everything. It is one of the most cross-cutting issues of our time, “It’s cutting across almost everything you can think of.”<sup>69</sup> Water is linked in some way to every aspect of development, underpinning most of those areas. Without water, life does not exist, but nor does every means to support life and livelihoods either.

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<sup>66</sup> Interview Nos. 444 and 915

<sup>67</sup> Interview No. 617

<sup>68</sup> Interview No. 456

<sup>69</sup> Interview No. 382

The cross-sectoral character of water (across developmental, environmental, economic, and security dimensions) hampers the development of a well-structured and clear-cut global governance system.<sup>70</sup>

The cross-cutting nature of water makes it extremely difficult to have a global governance structure for the resource<sup>71</sup>. “Water is a means to many ends”<sup>72</sup>, so the difficulty with water is to govern all those means often to very different ends; the question therefore is whether water should be an approach in itself, or whether it is better addressed for one single entity or better through water being included under those areas? The answer to that question is still unknown as the world stumbles forward attempting to address water issues in a somewhat *ad hoc* manner, right now under the paradigm of coordination instead of in the context of a single body. It is not clear, however, that a single institution would fare much better given the cross-nature of water.<sup>73,74</sup> “Where would such an institution stop (thematically)? It would end up being either something you couldn’t define or something that got defined in ways that would create too much of a mess within the rest of the system.”<sup>75</sup> Or, in more descriptive words a single entity would have to deal with so much that it would become, “A monster, a blob of an organization.”<sup>76</sup>

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<sup>70</sup> Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, “Governance and the Global Water System: A Theoretical Exploration,” *Global Governance* 14 (2008): 428.

<sup>71</sup> Interview Nos. 5, 21, 116, 121, 178, 180, 212, 240, 276, 341, 361, 374, 391, 471, 601, 624, 662, 701, 734, 777, 781, 797, 802, 807, 815, 877, 891, 935 and 941

<sup>72</sup> Interview Nos. 505 and 763

<sup>73</sup> Interview Nos. 132, 180 and 405

<sup>74</sup> The issue of “Women” was a cross-cutting issue that existed in the UN system and it was recently made into a single UN organization (UN-Women), so it will be interesting to see if the single institution model rather than a cross-cutting, coordination scheme is more effective.

<sup>75</sup> Interview No. 374

<sup>76</sup> Interview No. 121

The other sectors would also just continue to do whatever they are doing, which would have an impact on water resources and services.<sup>77</sup>

One way to illustrate the cross-cutting nature of water is to describe the make-up of UN-Water. There are 31 UN agencies and programs that are members of UN-Water. There are very few national governments in the world that have that many ministries. “There is almost no UN body that doesn’t have some relation to water.”<sup>78</sup> This is true also at the national level. Most ministries have some relation to water and it is hard to find a country that has a water ministry, which incorporates all water uses under its domain.<sup>79</sup>

Examining the UN from a different angle, there are many conventions that are related to water or which mention water, such as the Convention on Biological Diversity (CBD) and the UN Convention to Combat Desertification (UNCCD). While the UNFCCC has no mention of water, water is now being discussed in the Nairobi Work Programme with regards to adaptation, as previously mentioned. Water cuts across all of these conventions, and yet others still, but it is not clear where the threads run, how they interconnect and work off of one another.<sup>80</sup> For all intents and purposes, they most likely do not. Water is an area that is too broad to even visualize under a single *chapeau*.

The problem with a cross-cutting issue such as water being embedded in multiple places rather than having its own institution or space, is that no one takes

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<sup>77</sup> Interview No. 471

<sup>78</sup> Interview No. 654

<sup>79</sup> Interview Nos. 601 and 662

<sup>80</sup> Interview No. 802



ownership of the issue<sup>81</sup> and it can easily become subsumed into other topics. This problem will be at the center of the negotiations on the Post-2015 Development Agenda. There is a significant group of governments and stakeholders which will negotiate in favor of water as a standalone goal in the context of the proposed Sustainable Development Goals, because they believe water needs to be prominent to receive the focus and attention it deserves. There is another “faction” that believes that water then is too siloed and the connections to, for example, food, energy, health and education will not be made unless there are targets mentioning water under those “goals.” This is where the fear related by the interviewee above comes into play. If water is not visible with a standalone goal, will it be lost? This is the dilemma of cross-cutting issues.

Water not only cuts across sectors, but across levels as well. For example, a liter of water that is used on a farm in central Washington, United States, for wheat production that was planted in a local community in a Washington county which is in the United States yet is part of the Columbia River basin; the Columbia River basin is transboundary with Canada, and that wheat has a high probability of being shipped overseas. A governance system for water that cuts across all of these levels would be difficult to imagine and it is not a surprise that one it yet to emerge, especially one that includes a global focus.

## 6.6 Mirror to the national level

Another reason why there is not one single entity under the United Nations that addresses water issues is because how the UN is organized is almost an exact

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<sup>81</sup> Interview No. 734

mirror reflection to how national governments are organized around the world.<sup>82</sup> The domestic public sector is compartmentalized into the different areas that governments govern, and this is how the UN is organized as well.

Even if there is a water ministry or a centralized mechanism for making water-related decisions, where water is situated in national governments is also not a very powerful seat within their architecture.<sup>83</sup> Water ministries are known for being weak in terms of their power relative to other ministries and this is the case in the UN as well.

In some cases, it might be easier to find out how water is dealt with in the UN than in national governments. This has been the common experience when organizing informal intergovernmental meetings on water such as the Ministerial Conferences of the World Water Fora. The host governments, even through their embassies, do not know who is in charge of water at the national level in order to direct the invitations.

Part of the reason for this is historical. UN agencies were created, because there were countries that had ministries related to the same topics such as health (WHO), education (UNESCO), agriculture (FAO), etc.<sup>84</sup> An organization was not established for water, because most countries did not have water ministries and were not organized in this fashion nor was water, coming out of World Water II, a large priority in either the national or international arenas.<sup>85</sup> In the end, the structure of the UN looked like a national government, with its agencies being like

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<sup>82</sup> Interview Nos. 109, 531, 673, 698, 701, 763, 781, 864, 877, 915 and 990

<sup>83</sup> Interview No. 797

<sup>84</sup> Interview No. 531

<sup>85</sup> Interview No. 180

government ministries, sectorally divided. This resulted in water being brought into the UN through the various sectors.

Malin Falkenmark was the first to coin the term “water blindness,”<sup>86</sup> which described how until the later part of the 20<sup>th</sup> Century, water was an almost non-existent policy issue in the international arena. Water has been a latecomer to policy circles.

So pragmatically, the best you can do and what you should do to try to reconcile all these interests is to try to establish your own thread that goes from one domain to the other telling them, “Well, this is the thread that connects you among other things that you’ve been dealing with among yourselves, so please incorporate water as a part of that and we would very much like to be a part of the dialogue for that.”<sup>87</sup>

What this has meant for water both at the national and international level is that there are more and more coordinating mechanisms within national governments for how ministries address water issues together while the UN has UN-Water with its 31 member agencies. It would be difficult for the UN to have a single agency for water, because this does not correspond with how governments are set up. Fifty years ago, and even now, if there had been a single UN organization for water established, who would governments have sent to the meetings? “It’s illusory to look for clarity on the international level for something that doesn’t have clarity on the domestic level.”<sup>88</sup>

One UN representative stated, “Often countries will say: “Why don’t you (meaning the international community) harmonize better?” Our answer is: “Yes, of

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<sup>86</sup> Malin Falkenmark, “Global Water Issues Confronting Humanity,” *Journal of Peace Research* 27, no. 2 (1990): 178-179.

<sup>87</sup> Interview No. 877

<sup>88</sup> Interview No. 531

course. We are trying to do that. By the way, how did you solve the problem nationally?” And then the answer is (ahem).”<sup>89</sup> “I think we fail at the global level, because we fail at the national level.”<sup>90</sup> “If it does not start at the national level then nothing will happen at the international level.”<sup>91</sup>

#### 6.7 Water is local, national, regional and addressed at the basin level, but not globally

Much like the argument made in Chapter 2 that the reason why there should not be global water governance was because water is best dealt with at the local, national, regional and basin-level scale, this is also a reason why there currently is not a more formal global water governance regime.<sup>92</sup> “Part of the challenge on water issues is that it’s so local, and this is what keeps us from having something more global in terms of governance.”<sup>93</sup>

Water issues and solutions tend to be very local- and/or basin-level in scale.<sup>94</sup> Even though the water cycle is global in nature, the impacts are very localized, so this causes there to be less demand for a “globally negotiated treaty that encompasses all aspects of water.”<sup>95</sup> “I think that for quite a long time, the perspective internationally was that water is very much seen as a resource which is used locally, and therefore managed locally, and therefore there is no kind of even transboundary governance needed with regard to water.”<sup>96</sup> Forests have been

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<sup>89</sup> Interview No. 382

<sup>90</sup> Interview No. 797

<sup>91</sup> Interview No. 864

<sup>92</sup> Interview No. 747

<sup>93</sup> Interview No. 21

<sup>94</sup> Interview Nos. 5, 239, 240, 347, 421, 456, 752, 781, 807, 810, 821, 834, 976 and 983

<sup>95</sup> Interview No. 239

<sup>96</sup> Interview No. 747

viewed similarly, however, the major difference is that forests do not flow across national borders.

At the national level, water service has been seen as a sector and that it is a service provided by and a responsibility of the government, whether that is local or national. And, because it has this sector sentiment at the national level, it has not made the leap to the formal UN sphere. It is more of an issue for the local and national engineers and not for the global policymakers.<sup>97</sup>

There is the belief that having something at the global level would not impact the local, especially because of the very specific local conditions that each area has. It is difficult to see this at the macro level.<sup>98</sup> An alternate way to view the same issue is that countries do not want “common global norms influencing the way they develop their own regions,”<sup>99</sup> reflecting concerns over sovereignty again.

Another perspective on the same issue is that national governments still do not perceive water as a global issue<sup>100</sup> or that there are benefits of global water governance<sup>101</sup> and; therefore, why would there be a global governance regime for water if they do not see it as global?

## 6.8 Water: A wicked problem?

There is a quote that is often attributed to former United States President John F. Kennedy that states: “Anyone who can solve the problems of water will be worthy of two Nobel prizes – one for peace and one for science.” While it is unclear

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<sup>97</sup> Interview Nos. 116 and 341

<sup>98</sup> Interview No. 781

<sup>99</sup> Interview No. 855

<sup>100</sup> Interview Nos. 439, 493, 747 and 985

<sup>101</sup> Interview No. 496

when President Kennedy said those words,<sup>102</sup> one of the many conclusions that can be drawn from his words is that water issues are highly complex.

For that reason, it is thought that global water governance has not advanced to a more developed stage. There are simply too many complexities about water,<sup>103</sup> politically, physically, socially, economically, legally, ethically, etc., to put water under one framework.<sup>104</sup> All of these factors form a “complex milieu” that would have to be discussed, analyzed and somehow develop a consensus.<sup>105</sup> It would be just “too difficult.”<sup>106</sup> Water can be seen in other thematic areas like health or food production, but it is hard to talk about in a holistic way, on its own, because it is too complicated.<sup>107</sup> “I think it’s just too complicated to try and think that we can reduce it simply to a few globally governable issues.”<sup>108</sup>

The characteristics of water also make it difficult to govern at the global level.<sup>109</sup> “Water has more elements of being a public good, it’s more difficult to commoditize, it flows, it has great uncertainties around it and it has many different uses. The fluid properties (of water)... don’t lend themselves to legal and bureaucratic forms of management.”<sup>110</sup> Water problems are “extremely difficult to address,

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<sup>102</sup> The supposed quote by President Kennedy is cited hundreds of times, but the origin has not been found.

<sup>103</sup> Interview Nos. 16, 261, 361, 408, 569, 636, 864, 952 and 976

<sup>104</sup> Interview No. 116

<sup>105</sup> Interview No. 722

<sup>106</sup> Interview No. 391

<sup>107</sup> Interview No. 569

<sup>108</sup> Interview No. 199

<sup>109</sup> Interview No. 763, 807 and 915

<sup>110</sup> Interview No. 245

because of its complexity, mobility, the differing perceptions of water and the fragmented administration for addressing them nationally and internationally.”<sup>111</sup>

Water is unique in the problems it has, but it is not the only subject area that is complex and “we often don’t have that (global governance) for these kinds of messy, multi-attribute key functions or key resources... We don’t have that around much.”<sup>112</sup> This is the case for forests, energy and degraded lands, amongst others.

Addressing a more specific aspect of global water governance, if it is a water convention that is to be proposed, some thought that it would just be too complicated to make happen.<sup>113</sup> There are, for example, transboundary issues, the debate about whether water is a social good and/or a human right or an economic good, even though the UNGA passed a resolution recognizing the right to water and sanitation in 2010, as well as discussion about water use priorities. “Conventions are neither a one-stop shop nor a rabbit out of the hat solution”<sup>114</sup> as there many contentious issues to negotiate. It would be very hard to get all countries to agree on language for the global governance of water.<sup>115</sup>

It is important to note that one interviewee also added that the water community too often uses the idea that water is complex and complicated as an excuse – or “crutch” – for their lack of success in addressing global water issues and that many other areas are just as complicated.<sup>116</sup>

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<sup>111</sup> Malin Falkenmark, *Global Water Issues Confronting Humanity*, 177

<sup>112</sup> Interview No. 245

<sup>113</sup> Interview Nos. 581 and 722

<sup>114</sup> Interview No. 722

<sup>115</sup> Interview No. 834

<sup>116</sup> Interview No. 927

## 6.9 Lack of coordination

One of the results of not having a leader or champion in the international water community is that there is a lack of coordination of global activities.<sup>117</sup> It is not even clear as to what all the global actors are doing and where the overlaps are, so there is a problem of optimization of the resources available for global water action, both human and financial, which hinders not only a potential governance structure, but any meaningful advancement on global water issues as well. This was especially evident in the 1970s all the way to the mid-1990s where there were “considerable, albeit uncoordinated efforts... in the water resources sector”<sup>118</sup> and the existing international coordination arrangements were “weak.”<sup>119</sup> And the trend continued:

At present, there is a lack of international arrangements for the effective coordination of global freshwater activities by multi-lateral, bilateral and non-governmental organizations. A major problem is a lack of linkages between the community of external support agencies, governments and non-governmental organizations, which deal with water resources coordination and facilitation.<sup>120</sup>

Granted, this quote was from 2004, and the situation, at least within UN-Water, has advanced significantly. But the overall context remains the same. The Global Water Partnership was created as a platform to coordinate donor financing,<sup>121</sup> but that gave way to their current function of promoting IWRM. There

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<sup>117</sup> Interview Nos. 170, 203, 444, 462, 943 and 963

<sup>118</sup> Salman M.A. Salman, “From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?” *Water International* 28, no. 4 (2003): 493.

<sup>119</sup> Asit K. Biswas, “Institutional Arrangements for International Cooperation in Water Resources,” *International Journal of Water Resources Development* 11, no. 2 (1995): 140-141.

<sup>120</sup> Gordon J. Young, James C.I. Dooge and John C. Rodda, *Global Water Resource Issues* (Cambridge: Cambridge University Press, 2004), 155.

<sup>121</sup> Interview No. 763



are thousands of activities happening with little or no coordination. “It’s an anarchic situation.”<sup>122</sup>

Olcay Ünver, the Coordinator of WWAP, states that one of two reasons why water governance must be addressed at the global level “is the process to make more rational the system that allocates water management responsibilities among international institutions.”<sup>123</sup> Even with UN-Water as a mechanism that is supposed to act as a coordinating body, the focus of their collaboration is less on the activities that their agencies are already doing or partnering with other agencies who are doing similar work, but on coordinating new activities that UN-Water is producing itself such as the Task Forces or the organization of World Water Day. This is far better than what occurred during the times of the ACC Subcommittee when the meetings would primarily be about what everyone was doing, but there is still a lack of integration and coordination amongst the different agencies’ activities on the ground. There is the belief that the UN agencies in fact do not want to coordinate their activities (see Competition section above).<sup>124</sup>

Lastly, within the UN, there is very little coordination between UN-Water and the UN General Assembly. The findings and recommendations that come out of the agencies have a difficult time in making their way to the UNGA in the form of resolutions. The UNGA has a huge amount of information at their disposal, but very little is done to make the connection to enact policy.<sup>125</sup>

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<sup>122</sup> Interview No. 747

<sup>123</sup> Olcay Ünver, “Global Water Governance: A Practitioner’s Perspective,” *Global Governance* 14 (2008): 410.

<sup>124</sup> Interview No. 943

<sup>125</sup> Interview No. 867

## 6.10 Proliferation

Connected to both leadership and coordination is the proliferation of organizations that exist at the global level tackling international water issues. There are too many organizations,<sup>126</sup> too many voices working on water issues at the global level<sup>127</sup> and their roles are not clear, sometimes even confusing,<sup>128</sup> and have “duplicative aims.”<sup>129</sup> As a result, “water has gotten buried under all these organizations” and<sup>130</sup> potentially even prevented leaders and champions from emerging under the sheer enormity of institutions involved.<sup>131</sup>

So we have some very powerful NGOs. We have a mix of (31) UN bodies. We have all kinds of regional bodies – some with money, some without money. We have user groups – watershed community groups. We have groups at multiple levels if you conceive maybe even a three-dimensional matrix you know with agencies, organizations, legislative mandates, areas of interest, geography, all cross-cutting each other. You can understand the complexity of bringing something to the floor that will allow for directed debate and therefore some kind of a solution.<sup>132</sup>

According to Robert Varady and Matthew Iles-Shih in a study they did on global water initiatives, surveying a group of international water professionals, the proliferation of organizations has grown steadily over the last century with a boom starting in the 1990s<sup>133</sup>. However, this trend has not been seen as a positive one. As

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<sup>126</sup> Interview Nos. 294, 846 and 943

<sup>127</sup> Interview No. 569

<sup>128</sup> Interview No. 170

<sup>129</sup> Robert G. Varady and Matthew Iles-Shih, “Global Water Initiatives: What do the Experts Think? Report on a Survey of Leading Figures in the World of Water,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 53.

<sup>130</sup> Interview No. 132

<sup>131</sup> UNDP, *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis* (New York: Palgrave Macmillan, 2006), 70.

<sup>132</sup> Interview No. 722

<sup>133</sup> Robert G. Varady et al, “Global Water Initiatives: What do the Experts Think?” 55.

part of that same study, 64 percent of respondents considered the trend of proliferation a negative one versus 24 percent positive.<sup>134</sup>

It is not only the proliferation of organizations, but events as well.<sup>135</sup> An international water professional can spend most of the year traveling from one meeting to another. Add to that the preparatory process for a World Water Forum every three years, which can be very intense in terms of the amount of work that is usually *pro bono*, and there is very little time for anything else. Everyone is constantly under pressure to attend new events, “engage with new things” and then “move onto the next one.”<sup>136</sup> “There are just too many meetings”<sup>137</sup> and “they need to be a little more clear about their objectives.”<sup>138</sup> The proliferation of organizations “was blamed... for increasing the number, frequency, incoherency, and, ultimately, disutility of megaconferences.”<sup>139</sup>

This is especially true for developing countries where government representatives who cover water often cover other areas related to the environment as well and do not have the human or financial resources to cover all meetings in all areas. This is the same for civil society and other groups, which often do not have a voice at the table.

This is not to say that proliferation is entirely bad. The increasing number of organizations allows for more support and advocacy in water issues, propagates

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<sup>134</sup> Robert G. Varady, Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih, “Strengthening Global Water Initiatives,” *Environment* 50, no. 2 (2008), 25.

<sup>135</sup> Interview No. 116

<sup>136</sup> Interview No. 673

<sup>137</sup> Interview No. 891

<sup>138</sup> Interview No. 976

<sup>139</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” 25

institutional diversity, which helps develop the global water governance arena as well as aids in sustaining the long-term survival of global water governance.<sup>140</sup>

#### 6.11 Water is low on the (national and) international agenda

Within global governance, water has never been very high on the agenda<sup>141</sup> and therefore there has never been a movement to formalize it further within the international system. For example, in the Universal Declaration of Human Rights in 1948, water was not even explicitly mentioned, but was understood as being addressed implicitly,<sup>142</sup> because no one could think that there would be a lack of clean water in the future.<sup>143</sup> Water has always played a more supporting role to other major international issues.

What is higher on the agenda are the sector issues that use water, such as food and energy production, but the fact that much of this is related to, and powered by, water is lost on politicians.<sup>144</sup> There is a disconnect between the fact that water underpins so many aspects of life and development, and yet that it receives so little attention at the national and international levels. This is especially relevant now

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<sup>140</sup> Robert G. Varady, Katharine Meehan and Emily McGovern, "Charting the emergence of "global water initiatives" in world water governance," *Physics and Chemistry of the Earth* 34, no. 3 (2008): 151.

<sup>141</sup> Interview Nos. 21, 121, 132, 201, 569, 617, 943 and 983

<sup>142</sup> Peter H. Gleick, "The human right to water," *Water Policy* 1, no. 5 (1999): 489-494.

<sup>143</sup> Maude Barlow, "Our Right to Water: A People's Guide to Implementing the United Nations' Recognition of the Right to Water and Sanitation," (The Council of Canadians, 2012), 6. Catarina de Albuquerque, United Nations Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, writes in her book "On the Right Track" that a reason, in addition to the problems not being as acute as they are today, for this belief was because that people from the developing world, who were suffering from water and sanitation shortages, were under-represented at the negotiating table and that civil society did not yet have a strong voice. Catarina de Albuquerque and Virginia Roaf, *On the Right Track: Good practices in realising the rights to water and sanitation* (Lisbon: Entidade Reguladora de Serviços de Águas e Resíduos, 2010), 25.

<sup>144</sup> Interview Nos. 121, 413 and 564

that the world is going through a difficult financial crisis and trying to convince politicians and decision-makers that water is important.<sup>145</sup>

There are moments when there is a severe drought or flood in some part of the world and water does become a focus, but as soon as the drought ends or people recover from the floods, water disappears from the agenda again.<sup>146</sup> This goes back to Chapter 3 where the lack of a severe global water crisis was discussed. Even if some have considered that the world is amidst a water crisis, it has not brought the momentum sometimes needed to create movement in the international space for more global level governance of an issue.

The pinnacle of attention that water received at the international level was probably in 1977 at the UN Water Conference during the one and only intergovernmental meeting on water to this day. Because of the lack of follow-up to Mar del Plata, the focus on water waned through the “lost decade” of the 1980s.<sup>147</sup> Water has never regained such prominence in the international sphere.

#### 6.12 Where are the heroes?

Water has failed to become an international agenda issue because of a lack of leadership, a champion, to make its case to the world.<sup>148</sup> This has also prevented water from being more prominent in global governance. There has not been the type of champions, with stature and charisma, for water like Dr. Gro Harlem Brundtland was for sustainable development. “...Processes can only take us so

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<sup>145</sup> Interview No. 121

<sup>146</sup> Interview No. 953

<sup>147</sup> Waltina Scheumann and Axel Klaphake, “Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10,” (Bonn: Deutsches Institut für Entwicklungspolitik, 2001).

<sup>148</sup> Interview Nos. 5, 240, 752 and 976

far.”<sup>149</sup> “The sector does not produce... effective champions”<sup>150</sup> and “...there is a vacuum in international leadership.”<sup>151</sup> The 2006 UNDP Human Development Report states that “Beyond water and sanitation, it is difficult to think of any other area of comparable importance for human development that suffers from such limited global leadership.”<sup>152</sup>

In the UN system, while UN-Water has emerged, water went for decades – during the most formative years of the UN system – without having an organization that advocated for water and it was lost amid myriad organizations that dealt with the issue. There are too many agencies with various strengths and agendas and not one strong driver within the United Nations.<sup>153</sup> Water never had a cohesive voice, a group of advocates that elevated the issue to a level that reflected its importance.<sup>154</sup> And not having one champion was at least one of the factors in the lack of follow-up to Mar del Plata<sup>155</sup> and most likely some of the water-related outcomes at important international events such as the target on IWRM plans and the MDGs.<sup>156</sup> There is even the belief that the leadership within the UN, meaning the leadership of water within the different agencies, has declined over the past 5-10 years and turned into

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<sup>149</sup> Interview No. 698

<sup>150</sup> Anthony Milburn, “International Water Conferences and Water Sector Reform: A Different Approach,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 117.

<sup>151</sup> Harriet Bigas, ed., *The Global Water Crisis: Addressing an Urgent Security Issue*, Papers for the InterAction Council (Hamilton, Ontario: UNU-INWEH, 2012), 4.

<sup>152</sup> UNDP, *Human Development Report*, 70

<sup>153</sup> Interview No. 180

<sup>154</sup> Interview No. 990

<sup>155</sup> Malin Falkenmark, *Global Water Issues Confronting Humanity*, 186

<sup>156</sup> IISD, “Summary of the Third Session of the UN General Assembly Open Working Group on Sustainable Development Goals: 22-24 May 2013,” *Earth Negotiations Bulletin* 32, no. 3 (2013): 9.

“a service program by rather boring leaders who are not coming up with fresh ideas.”<sup>157</sup>

When examining the entire global water arena, there is still no “center of gravity”<sup>158</sup>, no “apex organization”<sup>159</sup> within the water community and there “are no indications of an emergent leadership”<sup>160</sup> either. Due to the lack of leadership, this directly impacts the level of coordination, or lack thereof, that exists at the global level as well (see next section).<sup>161</sup>

When water began to emerge on the international agenda in the 1990s, two organizations, the Global Water Partnership and the World Water Council, were created instead of one; this undermined the prospect of leadership on this key issue. It also “perpetuated the notion that the water sector is fragmented and added to their difficulty in attracting the resources that are needed to provide the needed visionary leadership for the sector.”<sup>162</sup> The proliferation of global water entities has not aided in this regard.<sup>163</sup> “In the case of global water issues, it is evident that no one is responsible, no one has the comprehensive overview, nor does anyone have the competence to act.”<sup>164</sup>

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<sup>157</sup> Interview No. 55

<sup>158</sup> Interview No. 191 and Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013)

<sup>159</sup> Sanitation and Water For All, “Sanitation and Water For All: A Global Framework for Action,” Draft Concept Note, March 1, 2010.

<sup>160</sup> Claudia Pahl-Wostl et al, “Governance and the Global Water System,” 427

<sup>161</sup> Claudia Pahl-Wostl, “Governance and Water Needs Issues”

<sup>162</sup> Anthony Milburn, “International Water Conferences and Water Sector Reform: A Different Approach,” 117

<sup>163</sup> Robert G. Varady et al, “Strengthening Global Water Initiatives,” 25

<sup>164</sup> Malin Falkenmark, *Global Water Issues Confronting Humanity*, 189

Following the “promotion” of the UN-Water Chair to the level of UN Chief Executive and the increased collaboration among UN agencies on shared activities, UN-Water has become more high profile in its advocacy for water in the UN system, which has been a welcome change. This provides some hope for the leadership within the United Nations as it pertains to water.

#### 6.13 Water is important?

Even after all the efforts that have been put into raising awareness about water: the World Water Days, the UN Years related to water (2008, 2013), the UN Decades dedicated to water (1981-1990, 2005-2015), all the World Water Fora and the accumulated efforts of water organizations, there is still very little general awareness about water issues.<sup>165</sup> In many parts of the world, where water comes out of a tap in people’s homes, there still remains that disconnect<sup>166</sup> where it comes from, what it takes to get it to their homes and how important it is for their daily lives beyond using it to drink, wash and cook. Even in developing countries, where many people do not have household water and sanitation services, the wealthy and decision-makers do. While much awareness has been raised, water is still taken for granted in many parts of the world.<sup>167</sup> “When we want water we just expect to turn on the tap, and it’s supposed to be there.”<sup>168</sup>

This lack of awareness and understanding of water is an obstacle to further global water governance. If electorates and decision-makers do not understand the

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<sup>165</sup> Interview No. 21

<sup>166</sup> Sandra Postel calls this “Modern society’s disconnect from water.” Sandra Postel, *Last Oasis: Facing Water Scarcity* (New York: W.W. Norton and Company, 1992), 184.

<sup>167</sup> Interview Nos. 391 and 413

<sup>168</sup> Interview No. 413



issue, and take for granted that they have access to water on a daily basis, where is the impetus to move forward? The water community has yet to communicate the important links between water to other parts of society (see Interesting section below).

An example used earlier that fits here as well was that of the Universal Declaration of Human Rights. One interviewee mentioned Peter Gleick's work on the subject,<sup>169</sup> which focuses on the absence of water from the Declaration. According to the interviewee, it "was so obvious that we have to breathe air, and drink water that it didn't occur to them (Declaration drafters) to put it in. Now of course sixty years later, that (has) caused a lot of trouble."<sup>170</sup> It was "so abundant, and not a problem, that it never entered people's mind to put it in there."<sup>171</sup> There was a lack of understanding about the importance of water not only in terms of the resource itself, but also what it means for other sectors. Many global reports come out each year about food, growth and energy and these reports completely omit anything about water, which is potentially a huge constraint on their activities.<sup>172</sup>

There is also the notion in many parts of the world, from politicians down to the household level, that water is unlimited and there are not any problems.<sup>173</sup> There is no sense of urgency.<sup>174</sup> This is, of course, not true everywhere, but if water is continually coming out of taps and going down toilets with no break in service,

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<sup>169</sup> Published here: Peter Gleick, "The human right to water"

<sup>170</sup> Interview No. 133

<sup>171</sup> Interview No. 701

<sup>172</sup> Interview No. 877

<sup>173</sup> Interview Nos. 136, 927 and 997

<sup>174</sup> Interview No. 997

and has been for years if not generations, why would a person think otherwise? And the decision-makers of the world, of course, have this constant access to water.

I think the most difficult challenge that we face as a civilization and the way we are configured... we assume that the water that we have today is the water we'll have tomorrow, and all of the fruit of that water.<sup>175</sup>

Why put forth additional global water governance when people believe that there will always be water, as much as they want of the resource? This is a similar perspective to how people view sea life and the oceans. It should be noted that this mentality is changing, but at a very, very slow pace. Politicians still have difficulty thinking beyond their elected mandates.

#### 6.14 Lack of commitment

A very simple reason why governments hesitate to move forward with a stronger global water governance regime is that they are reluctant to make any further commitments. This can be seen in two ways. The first is that governments are not willing to make political commitments around the subject of water. Secondly, governments have very little desire to make more financial or human resources commitments, even if this is just reinforcing an existing agency, which does not exist for water in any case, adding yet another bureaucracy at the global level.

On the first subject, there is hesitancy by governments to commit to anything additional in terms of their global responsibilities related to water. This is witnessed in all the World Water Fora, not just within the Ministerial Declarations, but also governments willing to make commitments at the Forum itself to add to the

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<sup>175</sup> Interview No. 178

outcomes of the event. The political will does not exist right now to make long-term commitments related to water issues. People believe that politicians are only committed to their electoral mandates of four or five years rather than willing to make commitments for the long-term where they might receive the immediate return in terms of votes.<sup>176</sup> This is not unique to water as is seen in the UNFCCC Conference of the Parties that meets every year to discuss climate change, and advances little.<sup>177</sup> The Rio+20 Summit in 2012 offers another example,<sup>178</sup> especially with regards to the decision not to create a specialized agency for the environment.<sup>179</sup> Water received high-level recognition in the final Rio+20 outcome document, “but the commitment is just not there.”<sup>180</sup> What is happening now is that the private sector and NGOs are moving forward, because governments are just not willing to move.<sup>181</sup>

One interviewee stated, “They could also be frightened of a convention, because it’s something they would have to commit to”<sup>182</sup> and it does not seem like governments are in the mood to commit. This can extend from the precarious economic situation that the world sees itself in now, but also uncertainty around water-related issues that have governments hedging their commitments so they do

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<sup>176</sup> Interview No. 144

<sup>177</sup> Interview No. 821

<sup>178</sup> George Monbiot, “After Rio, we know. Governments have given up on the planet,” *The Guardian*, June 25, 2012; available from <http://www.theguardian.com/commentisfree/2012/jun/25/rio-governments-will-not-save-planet>.

<sup>179</sup> Interview No. 673

<sup>180</sup> Interview No. 43

<sup>181</sup> Interview No. 579

<sup>182</sup> Interview No. 180

not regret their decisions at a later date.<sup>183</sup> This is especially the case with resources that are considered strategic and precious, as water resources are.<sup>184</sup>

Secondly, the age of the global convention seems to have passed. There is significant fatigue with new global conventions or legal instruments,<sup>185</sup> especially with issues related to the environment. To set up any additional formal global water governance regime would cost money and resources. At the current moment, even when water is climbing the international agenda, there is neither the awareness that something of such a stature is needed nor the willingness to spend the financial resources to establish such a mechanism.<sup>186</sup> Governments, especially in developing countries, are already stretched in terms of their participation in the governance mechanisms of the many environment-related issues that exist, and their willingness to create another secretariat for some sort of overall water convention - “many countries are likely to resist that.”<sup>187</sup> The commitment is just not there right now for the kind of continuity, support, leadership, financial resources and time that is needed for advancing a more formal global water governance mechanism.<sup>188</sup>

#### 6.15 Small, but interesting...

In Chapter 3 the perception of which events were important to interviewees was outlined. There were some topics that received very little attention from the interviewees, but might provide additional insight into why there is not a more

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<sup>183</sup> Interview No. 673

<sup>184</sup> Interview No. 821

<sup>185</sup> Interview No. 579

<sup>186</sup> Interview Nos. 5, 136, 455, 821 and 943

<sup>187</sup> Interview No. 612

<sup>188</sup> Interview No. 722

formal global water governance regime. A brief description for each of these will be given below:

The first of these interesting responses is that water professionals have failed. Through two generations, the past 40 years, the water professionals have called the problem too complicated and special, have spent too much time on IWRM, “3<sup>rd</sup> rate economics” and have not had a macro view on the situation.<sup>189</sup> Some of the main policy proposals emerging from the water community in the 1990s, like the World Bank Water Sector Strategy paper, were “adopted uncritically by scientists, advocates, politicians,”<sup>190</sup> causing a whole paradigm shift with accompanying pushback, which was explained in the last chapter as having “put the discussion back a decade.”<sup>191</sup>

Part of this failure is linked to the communication abilities of the water community. The water community is known for being poor communicators.<sup>192</sup> “It seems fair to say that the water sector has not, to date, produced outstanding... communicators, compared with other environmental sectors”<sup>193</sup> as “the success of global water governance depends on improved interface with wider audiences.”<sup>194</sup> The water community has not been effective at getting across its messages to produce the attention it needs for wider political and public recognition.<sup>195</sup>

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<sup>189</sup> Interview No. 927

<sup>190</sup> Interview No. 612

<sup>191</sup> Ibid

<sup>192</sup> Interviews Nos. 16, 21, 382, 399, 662, 701, 903 and 927. Gourisankar Ghosh, “Megaconferences: Serious or Circus? An Unscientific and Personal View,” in *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada (Springer-Verlag Berlin Heidelberg, 2009), 132.

<sup>193</sup> Milburn, “International Water Conferences and Water Sector Reform,” 116

<sup>194</sup> Gupta et al, “Policymakers’ Reflections on Water Governance Issues”

<sup>195</sup> Interview No. 698

Why create more global water governance when there is not a demand for such? That was the response from a few of the interviewees claiming there was not a more formal global water governance system, because no one has been promoting one<sup>196</sup> nor has anyone asked for one.<sup>197</sup> This lack of demand may be changing however.<sup>198</sup> An example is Tajikistan's Ambassador to the UN, Mr. Sirodjiddin Aslov, making a call for increased global water governance within the UN.<sup>199</sup>

For some, there are too many vested interests, both economically<sup>200</sup> and politically in terms of hegemons and large countries, which control vast amounts of water resources.<sup>201</sup> The actors who benefit from the current system have no incentive to change the governance that they directly benefit from. This idea also goes back to transboundary water issues where countries like Turkey, Egypt and China would not want further global water governance, because this would, in theory, infringe on the exploitation of their transboundary water resources that they can currently take advantage of in a system that is relatively weak.

One of the most successful global environmental governance regimes to date is the Montreal Protocol, which is a protocol of the 1985 Vienna Convention for the Protection of the Ozone Layer. This was in response to studies showing the ozone layer was thinning and the impacts this would have on people, most notably increased levels of skin cancer. Why is there not an equivalent for water? Because

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<sup>196</sup> Interview Nos. 5, 240 and 641

<sup>197</sup> Interview Nos. 50, 132 and 617

<sup>198</sup> Interview No. 132

<sup>199</sup> Sirodjiddin Aslov, "Towards the International Year of Water Cooperation," *UN Chronicle*, April 24, 2013; available from <https://www.un.org/wcm/content/site/chronicle/home/archive/issues2013/water/towardstheinternationalyearofwatercooperation2013>.

<sup>200</sup> Interview No. 569

<sup>201</sup> Interview Nos. 5, 294, 325, 527 and 722

there has not been such a crisis or fear-inspiring issue related to water that has caused the global community to move in that direction.<sup>202</sup> More so, even while millions of children die every year of water-borne diseases, this does not happen in developed countries, unlike the ozone issue. So there has not been the urgency to address the issue. For the majority of the world's citizens, since the water keeps flowing, "They seem to assume that the wells will never run dry and the river will never stop flowing."<sup>203</sup> The crisis has not yet arrived to those who make the decisions; therefore until that happens, it is possible that a more formal global governance regime never appears.

As mentioned in the previous paragraph, there is a difference between how water is viewed in developed and developing countries. This difference in perspective, what the needs are between these regions, has also inhibited an advance in global water governance. This tension between the developed and developing countries is driving the global agenda right now as could be seen in Rio+20.<sup>204</sup> It has locked the global community into a straightjacket as, in simple terms, the "common, but differentiated responsibilities" of developing and developed countries are not agreed upon by the two sides. This is often heard in the climate change debate for mitigation measures, but the water community also has its share of common but differentiated responsibilities. This shows that it will be more and more difficult to get agreement on key issues where the two sets of

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<sup>202</sup> Interview Nos. 444 and 976

<sup>203</sup> Interview No. 109

<sup>204</sup> Interview No. 777

countries are far apart in their stance.<sup>205</sup> “No serious effort has been made to reconcile fundamental differences in North/South perspectives.”<sup>206</sup>

There was one phrase buried in one of the interviews that was a compelling argument regarding why there is not a more formal global water governance regime: “I think people thought there was always enough water until recently.”<sup>207</sup> With increased demand and competition for water resources, will these challenges provide the impetus for national governments and stakeholders to come together to make more a more formal governance structure on water?

#### 6.16 Conclusion

There are many perceptions why a more formal global water governance regime does not exist. Ultimately, sovereignty is the largest obstacle to overcome international issues related to water, this issue being linked to transboundary waters. While certain parts of the world (European Union) and certain basins (Senegal River) have started to break down those barriers, there is a very long way to go until most countries give up sovereignty over their water resources. In some cases, the answer of when may be as close to “never” as possible. While this does not mean that global water governance can’t exist, it does mean that complete buy-in to such a regime will most likely never happen.

This does not signify that global water governance is not useful or doesn’t exist as was shown in Chapter 2 and 3, respectively. And, while there are many

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<sup>205</sup> Interview No. 777

<sup>206</sup> Lars-Göran Engfeldt, “Towards a World Summit on Sustainable Development 2012,” (presentation, “Uniting for Sustainability,” European Economic and Social Committee and Stakeholder Forum, Brussels, 1 October 2009), 3.

<sup>207</sup> Interview No. 276



perceived obstacles to creating a more formal global water governance regime, not all of these are as insurmountable as the issue of sovereignty.

Water is climbing both the international and national agendas rapidly. Politicians and decision-makers are starting to understand the value of water in terms of economic development, which is where they feel most pressure from their constituencies. Because water is rising on the agenda, this will facilitate a change addressing the issue and the resources that are used to do so. This will cause some of the obstacles mentioned above to be overcome. Leaders will emerge and more commitments will happen, because that will mean an investment in economic development and risk mitigation. Water being an important issue will no longer be questioned. It will become a priority rather than an afterthought.

Water rising on the agenda will not solve all problems, however. It may cause other in turn such as increased proliferation of water organizations/entities and additional coordination concerns. The complexity of the issue will always remain. But, more focus and increased attention will play a critical hand in addressing the emerging global water crisis.

## **Chapter 7    Research Findings**

The previous five chapters of this research have focused on whether there is a need for global water governance (Chapter 2), the history of global water governance (Chapter 3), how organizations have influenced global water governance and the global water discourse (Chapter 4), the issues that have influenced the trajectory of global water governance (Chapter 5) and the primary focus of the research: why there is an absence of a more formal global water governance regime (Chapter 6). In each of these chapters, the explicit results of the interview-based research were described in detail, creating a framework of what global governance is, how it came to take its current form, the influences upon it and why it is not more advanced than at present.

The following chapter will lay out the findings and results of the research. None of the questions that were asked during the research are without nuance and some kind of inherent relationship to the others. This chapter will explore what those findings are, including the results that cut across the chapters.

### **7.1    Does global water governance exist?**

While not entirely formal or perfect, a global water governance regime does exist. Chapter 3 showed that dating back almost 100 years, efforts were starting to happen at the global level with regards to water resources, but then really took off at Mar del Plata in 1977 and exploded in the 1990s with a proliferation of new organizations and activities at the global level. Such a proliferation continues to this day.

The current global water governance regime is not a *de jure* one based on a legal framework, although there are pieces of that, which will be reinforced in the near future with the coming into force of the 1997 Watercourses Convention and the globalizing of the UNECE Water Convention.

What exists is a *de facto* regime that is based on a piecemeal structure of both formal and informal pieces that give a framework for those in the water community to follow. The World Commission on Dams changed large dam construction for over a decade and still influences how dams are constructed. IWRM has changed governments' thinking on how they manage their water resources. The human right to water and sanitation is impacting the way certain governments are creating national water legislation. The 1997 Watercourses Convention has aided many countries in the world in developing their own bi-lateral and multi-lateral institutional and water-sharing treaties with neighboring nations. Even with all the negative perceptions of the World Water Forum, there are still positives that have emerged from the Fora in terms of knowledge exchange and building the water community.

Chapter 3 is full of such examples, which show that, while not comprehensive nor entirely structured, many dimensions of global water governance exist and that it is trending in the direction of adding more elements and is increasingly formalized.

## 7.2 Do we need global water governance?

As was presented in Chapter 2, while there are many valid reasons why there is no need for global water governance, the case for having a more structured global

water governance regime is a strong one. Globalization and the mutual interdependencies that countries now have with regards to their water resources may be the soundest argument. Not only is water being imported and exported through products all over the planet through virtual water, but events taking place in one country, such as a drought or flood can influence food prices globally. Increasingly, actions outside of basins are impacting what happens within them.

There is an emerging global water crisis and more efficient use of existing water resources can be achieved not just at the local level, but looking at trade flows and global water stewardship. Coordinated action at the global level, under agreed-upon principles, can help optimize water resources.

What such a global water governance framework looks like is another matter (see below and next chapter for recommendations). According to Pahl-Wostl et al, global water governance is the “development and implementation of norms, principles, rules, incentives, informative tools and infrastructure to promote a change in behavior of actors at the global level in the area of water governance.”<sup>1</sup> This definition means there are a variety of different mechanisms at the world’s disposal to improve global water governance. And while the United Nations is a global entity that has a place in addressing water issues, the global level does not have to equate to the UN solely. There are other options outside the UN to help the cause for water.

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<sup>1</sup> Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, “Governance and the Global Water System: A Theoretical Exploration,” *Global Governance* 14 (2008): 422.

“Water has long ceased to be solely a local issue”<sup>2</sup> and “...global problems demand global governance.”<sup>3</sup> Addressing issues like virtual water and climate change adaptation as it relates to water resources will require collective and coordinated action, such as agreed-upon principles, policy harmonization and comparable monitoring and evaluation mechanisms, by both governments and stakeholders, which currently does not exist. Coordination of activities and of added values, between global entities that deal with water issues, both in (WWC, SIWI, GWP, etc.) and outside the UN system, is starkly missing. While the situation is continuously changing, there is still an environment of competition rather than cooperation and collaboration between these entities. This does not help address the issues that are attached to the emerging global water crisis.

Global water governance cannot be examined, both in terms of level and thematic area, which are limiting factors in what a successful global water governance regime can achieve, in a vacuum as if it was not connected to many others issues that the world faces today, including food, energy, health, etc.. In terms of level, global water governance cannot be effective unless all other levels, from local to regional, are also effective. In a way, this is another example of how what occurs on the national level is reflected at the global level. Implementation of any global action, activity or coordination must happen through the entire scale of levels, so if those other levels are not strong, global water governance is either non-existent or ineffective. The implementation of global imperatives can only be

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<sup>2</sup> WWAP, The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk (Paris: UNESCO Publishing, 2012), 39-40.

<sup>3</sup> Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, MA: MIT Press, 2006), 6.

successful through strong local, national, basin and regional levels along with coordinated multi-level governance down through to the lowest of levels. Whether this is possible or not is another question. Global water governance, however, is only as strong as the other levels and their interactions.

Although difficult, global water governance cannot only be seen through a sectoral lens, focusing on water alone. This would render any implementation less than optimal and put at risk the critical interactions that water has with other issues. Global water governance is about more than just water. Do we need global water governance? Yes. But this needs to happen within a broader framework that reinforces the linkages with other themes so the underpinning of so many other sectors by water is strong rather than weak.

### 7.3 Does global water governance come in the form of a global water convention?

While over the past two decades there has been an infrequent call to negotiate a “global water convention,” this is not the answer to the global water crisis. At least not right now or in the near future - as one interviewee stated, “Not in my lifetime.”<sup>4</sup>

The problems with a convention are manifold. First, there are some of the issues that were raised in Chapter 6 about why there is not more of a formal global water governance regime to begin with. The largest of these issues that impact the potential of a global water convention are not going away anytime soon. Sovereignty remains the primary principle of international relations and countries are reticent to give that up. The sheer complexity of water, and of putting all topics

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<sup>4</sup> Interview No. 810

related to water under one convention, is simply not practical. Water also is a crucial part of so many other sectors, including energy, agricultural, health and economic development that any water convention would start to infringe on the governance of those issues and it is unclear where such a convention would stop in terms with such thematic interconnectedness. There are some Member States in the UN who might champion such a cause, but there are too many powerful opponents who would strike such an idea down.

The process would also be an immensely long one. If the UN Watercourses Convention took 27 years to negotiate, the amount of time potentially needed to negotiate a more all-encompassing water convention is unfathomable. Transboundary water issues could not be left outside of this negotiation either, considering the concern Member States have for it, thereby further complicating the endeavor. It is not even clear whether the UNWC would gain the same support that it did in 1997. Any such negotiation would postpone for years the action that needs to take place right now to address global water problems.

As was mentioned in a previous chapter, the era for international conventions seems to now have passed.<sup>5</sup> There is not only a fatigue of environmental negotiations by nations, but also a lack of willingness to spend time and both human and financial resources on such an activity. Countries also simply do not want to make commitments.

The only occurrence that might induce a global water convention to be negotiated would be a severe global water crisis that not only touches developing,

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<sup>5</sup> Interview No. 531

but developed countries as well. Otherwise, countries have no stomach, will or, from some points of view, need for such a convention.

#### 7.4 Does that global water governance come in the form of a single UN water agency?

Again, while this question has been posed many times, the answer is the same as that to a proposed global water convention: a single UN water agency, rather than the coordinating body that currently exists in UN-Water, is not the answer.

To begin, it is uncertain which is a better model: the 31 agencies that work with water that have a coordinating body (UN-Water) or a single UN agency for water. The former has been slowly improving since its inception in 2003 when such coordination became a focus and the latter has never been attempted. If the national level is any indication, however, such ministries are simply not capable of managing all the aspects of water, for much the same reason that it would be difficult to have a convention. Where does water stop in thematic areas? “Water is a means to many ends,”<sup>6</sup> so to govern water as a means to all those ends through a single entity is simply not practical.

The results of the question posed for Chapter 6 also give some insight into why. If a single UN agency were created for water that would most likely mean that all 31 agencies that currently work with water would lose a lot, if not all, of their budget for their water departments. Some agencies would fight to the bitter end to avoid that, as some of those budgets are significant. This is where the competition between agencies comes into play. Recently, in a draft of the upcoming Budapest

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<sup>6</sup> Interview Nos. 505 and 763



Water Summit Statement, it was proposed that there be a creation of an “IPCC for water,”<sup>7</sup> or the “Intergovernmental Panel on Water and Sanitation.” The reaction from UN agencies was predictable: there is not a need for this.<sup>8</sup> Like countries, UN agencies are not willing to give their “sovereignty” over the areas that they oversee.

Very similar to the issue of a convention is who would pay for such an agency? There is little desire to create new agencies in the UN system at this point in time. Member States seems to be more content with the light coordinating mechanism of UN-Water. This also avoids encroaching on any potential issues of sovereignty for the Member States with such an organization.

#### 7.5 Diminishing returns on large meetings

The first large water meetings that took place at a global level have significance as was laid out in Chapter 3. Mar del Plata and Dublin helped put water on the map and give the water community direction and the first two World Water Fora helped raise awareness about water issues, especially among decision-makers. Since The Hague, however, there has been a diminishing return on these large events, especially the World Water Fora. It is very important for the water community to come together every few years to galvanize the group and debate emerging issues. But as to outcomes of these meetings, less and less is emerging that is making a difference on the ground and in political circles. The awareness-raising curve was high at the beginning, but is tailing off, because the people who attend these meetings are the same. It is nice to say that each Forum has had more attendees than the previous, but it is true that it is more and more *water* people that

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<sup>7</sup> Intergovernmental Panel on Climate Change

<sup>8</sup> Interview No. 55

attend these meetings, not non-water people, so the community continues to talk to itself when it needs to go beyond those boundaries to effect change. Also, the number of participants does not equal change effected, as one may be lead to believe by how numbers are advertised following the World Water Fora.

With Fora every three years and Stockholm every year, in addition to all the other large meetings that take place around the topic of water, the frequency has become almost too much to handle for regular water professionals to not only actively attend and participate in such meetings, but to get their own regular work done. They just go from meeting to meeting in their careers. Whether this is the most effective way to address global water issues is yet to be seen, but what is clear is that there is a big gap between what is purported to come out of these meetings and the actual results, if they are ever monitored, which is almost never the case.

The pattern of these meetings has almost become predictable as well. An outcome statement is developed before the meeting under differing degrees of transparency and a period of time is given for “public” comment that is often limited to online contributions in one, maybe two, languages, thereby limiting such contributions to a very small portion of the global population. Revisions are made behind closed doors and the statement is ready before the meeting has even taken place. The World Water Fora vary a little from this, because there are preparatory meetings, or “PrepComs,” which utilize government delegations to negotiate the Ministerial Declaration, but contributions from non-governments and the Thematic and Regional Processes of the Forum are limited. After said meetings are done, these statements are by and large forgotten, very rarely monitored or implemented,

and it is time to move on to the next meeting. The amount of human and financial resources that are poured into these unused documents is immense.

#### 7.6 The World Water Council as a stumbling block

A major reason why the world is not as advanced in terms of addressing global water issues is the World Water Council. The WWC is proving to be a significant stumbling block in advancing issues on the ground around the world. There are many benefits to the WWC and the Fora it organizes, but it is not clear whether those outweigh the obstacles that it also creates.

It was clear in Chapter 4 about the downsides to the World Water Fora. Not only are the outcomes of the Fora weak there also is no follow-up or monitoring for what does come out - to no end result. This has been the case now for 15+ years of World Water Fora. The issue is that it is meant to be more, to do more, but it does not. As a result, the World Water Council is holding a space that another organization could take and do a better job at. In effect, they are preventing the advancement of this because of poor outcomes and weak continuity.

This is true for both the Political and Thematic Processes. For the Political Process, the Ministerial Process has produced nothing but weak declarations that are non-binding and are forgotten the day after the Forum is over. The Parliamentary Process has been promising a Water Legislation Helpdesk since 2008, through two Fora, but has not delivered and has scared away funders. The Local and Regional Authorities' Process, while producing the Istanbul Water Consensus at the 5<sup>th</sup> World Water Fora, has been weak in its follow-up and monitoring and it is unclear what the added value at this point is. Much of this has

to do with the fact that the WWC does not have the resources at their secretariat to ensure any type of follow-up to these activities.

The Thematic Process, which has existed since the 2<sup>nd</sup> World Water Forum in The Hague in 2000, is not much better. Yet for every Forum, a new process begins several years before redefining what topics will be discussed during the Forum. In essence, they reinvent the wheel, or the Thematic Process, for every Forum. This prevents advancement on issues, continuity and follow-up. The same is happening for the upcoming 7<sup>th</sup> World Water Forum. The Thematic Process looks similar to the 5<sup>th</sup> World Water Forum Thematic Process, but different from the 6<sup>th</sup> Forum. The 6<sup>th</sup> Forum's goal of collecting "solutions" mirrored what happened during the 3<sup>rd</sup> Forum with "actions," without revisiting those outcomes, and will only prove to last somewhat longer, because technology has improved. This haphazard way of constructing a Thematic Process does not allow for progress or continuity.

The WWC will not give up the Forum, because it is how it survives financially. The WWC will not give up the Ministerial Process, because it believes it derives some of its credibility from being able to convene that process (while it is the host country that more has the power to do that).

In addition to this, the WWC does not help the water community arrive at a consensus on contested issues and principles and because of this is not seen as a legitimate entity in addition to the issues of its governance structure and elections as were described in Chapter 4.

Overall, this creates an obstacle in progress. The WWC is holding a space that it will not relinquish that could be better utilized by another organization.

## 7.7 IWRM has slowed IWRM

To a similar extent, the idea of holding a space can also be said for the Global Water Partnership with regards to promoting integrated approaches. The purpose of IWRM is to “integrate” the sectors that deal with water resources management to be more efficient and effective in their activities. It has been noted that the progress on realizing IWRM at the country level has been very difficult and slow. This is in part due to the political nature of the changes that are required, but also because of the challenge of trying to get governments that have been thinking in sectoral approaches for their entire existence to think outside those boxes.

One of the downsides to IWRM and another reason why it has not been easy to implement is the water focus as was mentioned in Chapter 5. While water is important to integrate, it is not the only sector that needs integrating with and while the water community most likely believes they are on top of this hierarchy of needs, this perception is simply not the case in reality. Proper integration would mean that there is not a hierarchy but a prioritization of co-existence for optimization of mutual gains. Or, within that system, the actors involved themselves could decide on a prioritization of needs.

Putting water at the forefront through IWRM, and the GWP’s role in this over the past decade, has likely slowed up the process of integrating approaches within water resources management. This is now changing with the reduced focus on water-centric IWRM and moving towards concepts like the water, food, energy nexus, and other “nexus” approaches, which governments understand much better than IWRM, a technical term from the water community.

## 7.8 No one organization can do it alone

There is not a single global water organization, whether that is WWC, GWP, SIWI or even UN-Water, as a coordinating mechanism of the UN agencies, that can address all global water issues on its own. As has been shown through this research, water is just too large, too cross-cutting a topic for a single entity to tackle all issues related to water. At the same time, there are other, smaller players involved, but they do not have the same footprint as these four. These are not organizations/mechanisms that can even be compared to one another, but they all have a significant role in shaping action on the global level with regards to water, often competing rather than cooperating.

The United Nations, with all its shortcomings, is a legitimate body that is still the official arena for nation states to develop global public policy, but what the UN does not do well is create an open space for non-governmental actors to participate, have a voice and a meaningful role. Internal competition is still common in their coordination. The World Water Council lacks legitimacy and representation, but has a mandate to bring together all water-related stakeholders to address the world's water problems and raise the profile of water amongst decision-makers. It has done so with mixed results, more so the latter than the former.

GWP, while having been the *portavoz* of IWRM and having created a strong base of national and regional organizations, has been too one-issue to be the sole organization. Their original mandate of donor coordination, which is still needed, may have proven to be just as if not more useful. SIWI, as it currently stands, has no aims, at least externally, to go beyond being the think-tank and informal meeting

gatherer, but it has been progressively growing for the past 20 years with a secretariat that is now larger than the GWP and WWC combined. It also organizes Stockholm World Water Week, which is now considered a “mega-conference” because of its size.

While it is debatable whether any of these organizations are trying to be *the* global water organization that governments and stakeholders look to for a neutral convening body, or honest broker, none of them are capable of being such an organization for the reasons mentioned above and the shortcomings outlined in more detail in Chapter 4. Nor is this even desirable, yet this is how these organizations sometimes act, which is a loss for water and the water community.

#### 7.9 UN-Water: Greater than the sum of its parts?

While UN-Water has exceeded expectations in many ways and is on a positive trajectory towards becoming a leader of the water community and an improved coordinating mechanism between UN agencies, there is still much to be improved as to how this body functions.

It has advanced far beyond the era where UN agencies would meet under the ACC Subcommittee, share what they were doing as individual organizations and leave without further communication outside of the meeting room. As was mentioned in Chapter 4, UN-Water has done a very good job of bringing UN agencies together to work on such activities as World Water Day every year, the International Year of Water Cooperation (2013) and, most notably, the World Water Development Report, while there are positive and negative opinions of the report itself, it marked the first project that UN-Water could coalesce around to create an environment of

cooperation within the coordinating mechanism.<sup>9</sup> UN-Water has also created a number of Task Forces that are addressing specific critical issues as part of the Post-2015 Development Agenda. Some of these activities go beyond what the mechanism was originally set up to do.

What UN-Water has not done as well, which is part of their mandate, is to actually coordinate the individual agencies' activities at the national and regional levels. This can be stated as a rather large failing up until this point, because since the UN Water Conference in 1977, there have been several calls for increased coordination at these levels between UN agencies specifically for water issues. As was mentioned previously, this was called for in many international meetings and is replete throughout the literature as well. National governments themselves want to see more coordination between the UN agencies with regards to water.

The obstacle itself may be, again, a mirror reflection of why ministries at the national level have a difficult time coordinating: most countries still work in their silos, through a sectoral approach. UN-Water is no different, but an added difficulty, or layer, is that it is not just the people who attend UN-Water meetings that must collaborate, but more so their national and regional institutions. Between organizational behavior, competition and individual personalities, it is no surprise that this is proving difficult for UN-Water.

#### 7.10 Basin hegemons negatively influence global water governance

One of the arguments for having a more formal global water governance regime is to create a more level playing field among countries. This is one reason

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<sup>9</sup> Interview No. 180



why basin hegemons, i.e., China, Brazil, the United States, Egypt, India, Turkey, etc. would not be in favor of moving in such a direction. Parity is not in their best interest, as this would mean relinquishing the hegemonic control of the water resources they have in their respective basins. Establishing more formal rules around the global governance of water would weaken their influence and the *status quo*,<sup>10</sup> which they would view as negative for their economic development and national interests. The agenda of these countries is not conducive to international debate or dialogue,<sup>11</sup> as can be witnessed in international fora on the subject.

As noted environmental journalist Fred Pearce writes, “Belligerent countries are still exerting their hydrological muscle.”<sup>12</sup> An even more precise observation on the issue was that “countries that are promoting hydropower and that have a lot of projects in infrastructure that are going to have an impact beyond their borders, have been reluctant to promote international water governance.”<sup>13</sup> They maintain the *status quo* by promoting conflict management instead of conflict resolution.<sup>14</sup>

Basin hegemons therefore block progress on global water governance and is one of the reasons that issues of transboundary waters, as described in section 5.1, has prevented the world from coming closer together on this issue. This is, again, directly related to the subject of sovereignty (see section 6.1). Those with the power in their basins create a small group, or bloc, of countries that effectively hinder the global community from coalescing further around rules, principles and

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<sup>10</sup> Interview No. 747

<sup>11</sup> Interview No. 891

<sup>12</sup> Fred Pearce, “A Global Treaty on Rivers: Key to True Water Security,” *Yale Environment* 360, November 19, 2012; available from [http://e360.yale.edu/feature/a\\_global\\_treaty\\_on\\_rivers\\_key\\_to\\_true\\_water\\_security/2594/](http://e360.yale.edu/feature/a_global_treaty_on_rivers_key_to_true_water_security/2594/)

<sup>13</sup> Interview No. 821

<sup>14</sup> Interview No. 5

norms on water. To reinforce this idea, one-third of the Board of Governors of the World Water Council come from these countries and the Bureau of the WWC, the body that makes the majority of decisions on the direction of the WWC, has 4 of its 6 members from these countries.

#### 7.11 Contested principles

There are several key principles in the water world that are contested and this may be one of the principal reasons why addressing water issues at the global down to the local level has not been as effective as it could be. Ken Conca may have said it best when he wrote, “Regimes tend not to form when the understanding of a problem and its solution remain highly contested for an indefinite period.”<sup>15</sup> Principles related to water governance and management fall into this category.

Transboundary waters may in fact have the most principles due to the fact there is an entire convention, albeit not in force, related to the subject that codifies practice over the management of international watercourses. Yet, as is seen again and again in formal and non-formal settings, neither the settlement of disputes nor the principles of significant harm and equitable utilization are recognized by all. Prior notification and prior consultation fall into the same category. While some of these principles may be upheld in the International Court of Justice, (a) there are countries that do not recognize them and (b) these issues still hold back progress on addressing water issues in the global arena. Going further back in history to the overarching principles of shared waters - namely absolute territorial sovereignty,

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<sup>15</sup> Conca, *Governing Water*, 22

absolute integrity of state territory, limited territorial sovereignty and historical rights/prior appropriation - all of these are contested as well.<sup>16</sup>

IWRM may have come close to once being considered an uncontested principle, but this is no longer the case and the trend deviates from this. The fact that some countries, because of IWRM's link to transboundary waters management, did not accept the concept, made this contested as well. The poor results of the IWRM target being proposed at Johannesburg has not helped its case. The trend that may indeed result in an agreed upon principle is that of integrated approaches to water resources management, without the IWRM. The concept is one thing, though, and implementation another.

Water pricing/water as an economic good? Contested. Water as a global heritage? Contested. Environmental flows? Contested. Where in fact the global community has come closest to an uncontested principle regarding water may be the human right to water and sanitation, but even this has its issues. The right is indeed recognized by a UN General Assembly Resolution, but this does not require countries to implement such a right in their nations. With 41 abstentions from the Resolution vote, there are sure to be many countries where this will never happen. The principle itself may be recognized. It would be hard to find a country that did not believe that water and sanitation should be provided to its people. The implementation, however, is another matter in that not all countries political systems allow for such principles to be established at the national level.

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<sup>16</sup> Joyeeta Gupta, "Global Water Governance (GWG) and Prospects" (presentation, UNESCO workshop on Water Governance, Delft, The Netherlands, March 11, 2011).

Privatization and large infrastructure are both still contested, and sometimes vehemently so, but are moving in a direction to the more accepted in recent years, potentially, because there have not been high-profile privatization failures and the recognition that climate change adaptation requires increased water storage. The debates that raged during the 1990s and early 2000s on these subjects really stalled the water community in moving forward during that time period, but there seems to slowly be a convergence emerging on these issues (see below).

The main point, however, is that due to so many key water-related principles being contested in some manner, this is holding back progress on addressing these issues at the global level and preventing a more formal global water governance regime from emerging. Commitments are held up by these debates<sup>17</sup> and political processes around water are “stuck.”<sup>18</sup>

#### 7.12 We cannot hear over the cacophony

One of the major issues that the water community has is fragmentation. It is entirely necessary for water to be divided into different sectors in order to address the issues that are related to water. The fragmentation, to a certain extent, is necessary. What is also fragmented, but cannot be, is the voice of the water community. The water community is lacking a unified voice and does not speak as one, as was mentioned in many interviews. This is the perception from outside the water community and is undoubtedly related to its lack of power and influence considering the importance of the resource.

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<sup>17</sup> Interview No. 444

<sup>18</sup> Interview No. 952

This is where issues of proliferation, competition and, as mentioned above, fragmentation come into play. There are too many actors out there that are split too many ways all trying to defend and/or expand their slice of the pie. This is not efficient, optimal nor sustainable. What suffers as a result of this lack of a unified voice? Water resources and the marginalized people who depend on it for survival.

If a short survey were taken of 100 people who are part of the water community on what is that community's primary goal, there would probably be 100 different answers. Diversity is good, but at the same time, if there is not a unified voice, vision or direction, the effectiveness of that community will be impacted by the disjointed efforts and goals that exist.

This can be seen very well in the discussions leading up to the 2013 UN General Assembly where the Member States started to discuss and negotiate the potential for Sustainable Development Goals following the Millennium Development Goals in 2015. While the Thematic Consultation on Water in late 2012, and early 2013, organized by the UN, brought together many parts of the water community to build a common platform and voice, the result was quickly laid to the wayside as individual organizations wrote up their own recommendations and suggested goals and road maps that were neither harmonious with what had already been achieved nor in concert with other organizations. This behavior continues to be a detriment for water and the water community.

#### 7.13 Legitimacy matters

Within global water governance, there exist different problems of legitimacy. One is the hybrid, or "mobius-web," form of global water governance itself. Not

having a single entity that is a clear leader for water at the global level, but instead having a mix of public and private entities, 31 different UN agencies with a not fully developed coordination mechanism, NGOs, etc., creates a fragmented view of the global water community whose legitimacy is then questioned. There is little cohesion, no accountability and outright competition within this community, which, from an outside perspective, does not instill confidence in its ability to find solutions.

The legitimacy of certain organizations also hinders progress in the global water arena. The issues of legitimacy of the World Water Council have been well documented up until this point. The Global Water Partnership has been called into question as well. The primary issue with the lack of legitimacy of meetings that are convened or the organizations that partake in them is that their outcomes are then questionable. What outcomes from organizations outside the UN have been taken up inside the UN? When have the results of a World Water Forum even been presented in the UN or influenced an outcome document of the UN? As an esteemed group of water professionals stated in a joint journal article, there is an “absence of strong and legitimate institutions to promote water governance.”<sup>19</sup> Without legitimacy, what can hope to be achieved?

#### 7.14 Water resources management lags behind

One of the issues that has been brought up in the discussions leading to the Post-2015 Development Agenda is the difference between where water and sanitation stands in terms of potential targets and where water resources

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<sup>19</sup> Joyeeta Gupta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver, “Policymakers’ Reflections on Water Governance Issues,” *Ecology and Society* 18, no. 1, art. 35 (2013).

management is situated. This was not mentioned to a great extent in the literature and was mentioned slightly in the interviews, but because water resources management was not included as an MDG target in 2000 (i.e., efficiency, integrated management, etc.), it has lost significant ground in terms of where the global community is at in terms of addressing such issues at the national level as well as where this community is in terms of preparing for life post-2015.

The amount of resources, focus and work that was put into water and sanitation as a result of being an MDG catapulted the subject ahead of water resources management. The problem is that issues of water and sanitation cannot be addressed without good water resources management. In 2002, the WSSD introduced the IWRM and efficiency plans target as part of the Johannesburg Plan of Implementation, but this was not added as an MDG target like sanitation was at the time. Funding and focus were therefore given to water and sanitation and IWRM was given less attention and funding, most likely contributing to the (continued) lack of achievement of the IWRM target. This lack of bringing the two issues together has again set back the water community. This continues at the time of the writing of this research as water and sanitation organizations and water resources management organizations proceed to work more in parallel with one another rather than in coordination with one another leading up to the 2013 UN General Assembly.

## **Chapter 8    Recommendations and conclusion**

Delivering the findings of this research – some of which are quite negative – serves no purpose unless accompanied by recommendations on how to improve the situation. Global water issues are not easy to solve. There is no “silver bullet” solution as the problems are too complex and too interconnected with political, social and economic realities and interests to be able to quickly transform the trend towards a global water crisis. This reality is not meant imply that that global water governance is a hopeless quest, but to be based in the reality of the nature of the problems the world faces and the obstacles there are to overcome them. A rapid shift is not likely to happen unless there is an acute crisis on the horizon. But, there can be a gradual movement towards a cohesive, comprehensive and inclusive system that helps in governing the world’s water resources. At this point, it should not be a question of “if,” but “when.” Future generations, and the planet itself, depend on the global community acting in a more holistic and coordinated approach to address the current and future water problems of the world.

The aim of these recommendations is to be sensible, practical and to suggest actions that are achievable. Vague, “pie in the sky” proposals have been made at many levels including high-level political statements. It is time to be more concrete with proposals that can, hopefully, start to effect a change in the way the world addresses its water issues. Everything is relative, and some of the recommendations may indeed seem out of reach. The goal, however, is to trigger discussions and conversations that may lead to change, even if small or incremental.



For this reason, the recommendations will omit several “standbys” that have often been cited to improve the managing and governing of water resources. These are creating political will, raising awareness, more financing, education/capacity development, more implementation, working outside the “water box” and “less talk, more action.” This is not to say that these actions are not important. They are, in fact, fundamental and there is no solving the global water crisis without them. But, in order to avoid being repetitive and to add some new ideas to the mix, these recommendations will not be discussed further.

#### 8.1 Overarching considerations

Even if global water governance is diffuse, fragmented and weak, it still exists and the trend is towards having more rather than less. There will be an increased number of actors at the global level and an increased recognition of the global aspects of water around which the global water community will coalesce over time. If global water governance is to become more important, then the question is, “How should it be shaped looking towards the future?” There are three different responses to this question:

First, the *status quo* continues. The global community continues to haphazardly address water issues at the global level, adding organizations here and there to tackle emerging issues, with everyone continuing to work in their silos despite the IWRM mantra, and limited interaction among levels of governance and a lack of coordination and vision of where the world should be in the future. This method has not worked in the past nor will it work in the future if the water community wants to be successful in tackling the emerging global water crisis.

The second option is the other extreme: full-fledged intergovernmental action on global water issues in the form of a Framework Water Convention and a single, UN agency that is dedicated to water. The findings of this research have shown that this is not possible in the near future for political and practical reasons. While this approach might be an ideal to work towards in the very long term, in the short and medium term, it is not feasible.

The third response lies somewhere between these two extremes – more ambitious than the first, but less formal than the second. This approach would involve strengthening what currently exists or, in the words of one interviewee, “enhancing the patchwork.”<sup>1</sup> Water problems are hybrid problems. They involve multiple types of actors, sectors and levels of governance. Therefore, they require hybrid solutions. The UN cannot do it alone. Nor can the private sector. Nor can NGOs. With water crossing borders both virtually and physically, governments acting alone cannot either. There is piecemeal action currently occurring and without a prospect for an enforceable, centralized global water governance regime, the global community needs to focus its efforts on enhancing this hodgepodge, “mobius-web” governance system into a mechanism that is stronger, more flexible and unified.

This option now shifts the questions to, “How to enhance the patchwork?”

## 8.2 Leadership, unified visions and participation

### 8.2.1 Champions/Leaders

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<sup>1</sup> Interview No. 239

One of the most mentioned reasons why water is not a high priority amongst governments and why there is a lack of a more formal global water governance regime is that the water community is missing champions and leaders. To strengthen the piecemeal governance system that exists for water, there is a need for leadership. Having strong leadership with champions for the cause of water would facilitate many of the recommendations that are to follow. Some of them are not attainable without said leadership.

On one side, this leadership needs to come in the form of charismatic individuals who can not only champion water itself, but also have the ability to see the connections and work with other water-related sectors. This effort involves both the bringing of awareness of the importance of water to other communities and also integrating those sectors into the water community. Such a role requires truly visionary leadership, almost “superheroes”<sup>2</sup> as one interviewee commented, who have the ability to see the bigger picture, those myriad pieces, and the qualities of being able to bring all of the different elements together. The water community has its leaders, of course, but there is the need to go beyond what exists. To have those in the water community come together, with its egos and agendas, this requires “someone who can make them sit up in their chairs.”<sup>3</sup> An example of this leadership is the Netherlands’ Prince of Orange who was heavily involved in the water community. Since he became king of the Netherlands in 2013, however, the water community has lost his involvement due to his responsibilities as king. The

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<sup>2</sup> Interview No. 952

<sup>3</sup> Interview No. 133

leadership of the water community needs to go a step further in effectively bringing together the UN, governments, civil society/NGOs and the private sector.

The other part is organizational leadership. The water community at the global level is rife with competition, one reason being that there has not been a leader who has had the ability to bring together all the disparate interests and voices under a common umbrella. This fragmentation is a true weakness of the water community and will continue to set it back from what it could achieve with increased cooperation. Hence, an organizational leader, or consortium of organizations, is needed to help guide and coordinate the patchwork to its optimal effectiveness. Otherwise, all organizations will continue to work in their own silos.

#### 8.2.2 Unified voice and vision

As mentioned above, there are disparate voices and visions within the water community. The water community needs a unified voice, a unified vision. With so many actors carrying out activities on their own without a common goal or roadmap, those who work in water are much less effective than they could be. They should be able to speak with a common voice with a vision that is balanced, comprehensive and inclusive.

What would be ideal is if everyone in the water community, when asked what it is that they do, could answer with a similar 30-second response along the lines of “I work towards securing sustainable water for all peoples and uses through sound basin management and good governance in an equitable and efficient manner.” The likelihood of this happening is low. However, if the water community had a unified vision and spoke with one voice, the perception by those outside the

water box that it is a fragmented community can at least see some convergence and that it works together, despite its patchwork approach.

Being unified is not enough. There has to be a way to spread that vision. Those in the water profession are known to be poor communicators and there has to be a concerted effort by the water community to better communicate why water is important and make the case not only to decision-makers, but to the media as well. The public does have power, but not if they are not aware of the issues.

Only strong leadership can make a unified vision and voice happen. Again, to use the example of UN-Water, this mechanism is speaking more and more with one voice and this has a lot to do with its current leadership. It is now time to look beyond UN-Water to the entirety of the global water community.

### 8.2.3 Participation

There cannot be a unified voice unless all voices are being heard. Currently, that is not the case. Those that suffer the most from the water community's inability to come together are those who do not have a voice.<sup>4</sup> The common vision that is formed for water needs to be done through inclusiveness and participation.

At the global level, such participation is not easily done. For one, the United Nations is not designed for such interactions. It is an arena for governments and is not conducive to those outside of government, most notably NGOs and civil society. The likelihood of this approach changing is very low. But, there are other global water governance processes, such as the World Water Fora, World Water Week, the activities carried out by GWP at the national and regional levels, which could all

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<sup>4</sup> Interview No. 512

benefit by having more inclusiveness and participation in what they do. While much of this has to do with resources to be able to participate in such processes, there also has to be a focused effort by organizers of events, publications and advocacy activities to ensure that such involvement happens from the very beginning and not as an add-on at a later date, which undermines the entire purpose of participation.

Organizations that are key conveners and actors in the global water space, such as SIWI, WWC and GWP and, where possible, the United Nations, should institutionalize representative participation into their mandate or improve such participation where it already is part of their mandate, giving more opportunities for the marginalized to be heard. Some of these organizations have constituents that are part of that diverse number of entities that often don't have their voice heard even within the global organizations of which they are a part. To ensure a better interaction and involvement between these types of organizations, more effort and resources need to be invested in marginalized entities. For example, the World Water Forum and its host country need to put aside more resources so NGOs and civil society can participate not only in the Forum itself, but in the preparatory process leading up to the Forum.

One interviewee explained how important participation is for the global governance of water in the wider context of democracy: "The glue that holds it all together isn't a convention, it is softer than that, and it's social development... and democratic processes."<sup>5</sup>

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<sup>5</sup> Interview No. 617

There is a downside to increased participation that is not often recognized. Participation takes time and thus slows down democratic processes. The water community is no exception to this and some interviewees noted this as part of why certain initiatives are slowed down.<sup>6</sup> Top-down, command and control approaches have not always been negative such as the example of the Clean Water Act.<sup>7</sup> In looking for further participation, there needs to be recognition that a balance is needed between involvement and decisive action.

### 8.3 Institutional

#### 8.3.1 World Water Council reform

What the world needs is a world water council, but not the World Water Council. When the World Water Council was first conceptualized in the early 1990s, the reason for its creation was because the existing international arrangements for cooperation in water resources were not good enough.<sup>8</sup> The World Water Council was meant to fill the void that the UN and other organizations could not fill due to their lack of both collaboration and inclusiveness, especially with those actors outside the UN, which is essential to addressing international water issues. The WWC has also failed in bringing together these actors, which is specifically part of their core objectives: “to bring together stakeholders and promote the implementation of effective water-related policies and strategies worldwide.”<sup>9</sup>

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<sup>6</sup> Interviews Nos. 203, 456, 641 and 662

<sup>7</sup> Interview No. 935

<sup>8</sup> Brian Grover and Michael Jefferson, “A World Water Council: One Possible Model,” *Water Resources Development* 11, no. 2 (1995): 125.

<sup>9</sup> World Water Council, *World Water Council 2013-2015: Constitution and By-laws*, Marseille, France 2012.

What the WWC has done well is to raise awareness about water and to bring the water community together every three years at the World Water Fora. Beyond this convening, however, it has achieved little. Indeed, progress in global water issues has been held back as the water community is as divided as ever, with principles remaining contested. The WWC has been in a position, through their convening power, to push these debates further, to bring together the opposing viewpoints through meetings, high-level panels and other longer-term processes in order to arrive at concrete policy solutions, but they have failed to do so. A mechanism that they have at their disposal is the World Water Forum, yet the WWC has shown a lack of continuity in building on each successive Forum.

Because of this lack of impact, one of the primary recommendations to come out of this research is to reform the World Water Council. A reformed WWC would help the water community solve many of the issues that it currently has and also be able to carry out a number of the recommendations put forth in this analysis. A reformed WWC could be the organizational leader that the water community is missing, it could unify the community and bring those to the table that do not have a voice as well as really pushing hard to make advances on some the issues that remain “stuck.” It could serve as an “honest broker”<sup>10</sup> if only it were to have legitimacy and credibility in the eyes of the global water community, which it currently does not, as communicated by the majority of the interviewees.

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<sup>10</sup> One interview mentioned that this is what we are missing, but not in relation to the World Water Council (Interview No. 797).



Three possibilities exist for reforming the WWC. All would be possible except for the embedded interests of the WWC itself as there are very few external forces (e.g., funders, etc.) that have any leverage on making such changes.

#### 8.3.1.1 Abolish the WWC and start over

There would be many in favor of abolishment given the responses from those interviewed for this research. Some may not even want to start over. But, an entity, which acts as a “center of gravity” for the water community, is necessary. A world water council, based on the ideas under which the original was created, can serve this purpose. Abolishing the current WWC does not present many programming difficulties, because there is little that goes on at the WWC other than the World Water Forum.

#### 8.3.1.2 Institutionalize the World Water Forum, start a new world water council

Because the Forum does exist and is in its planning process for the 7<sup>th</sup> and soon the 8<sup>th</sup> Forum, an option could be to institutionalize the World Water Forum as an organization itself that serves only the purpose to host the Forum every three (or more) years. The current WWC is set up to carry out the Fora, so a potential idea is to leave it to do what it currently does, limit it to that function, and start a new WWC. Besides contributions from the City of Marseille, there is no other external funding for the WWC apart from the Forum’s host government fee paid to the WWC. Separation of the two functions may help a new world water council not be completely dominated and dependent on the Forum for survival. The WWC should be surviving on its own merits and not because of the Forum. Some might say that the Forum itself should be abolished, as was the sentiment of many of the

interviewees, but the Forum is useful for the water community in terms of mobilization, awareness raising and networking.

#### 8.3.1.3 Internal reform

Given that the above two options would require many of the embedded interests currently within the WWC to give up much control, internal reform is one other option, but also difficult, because those who came to power in the WWC did so within the current system. However, to be seen as a legitimate entity in the global water community, to play a larger role than just the Forum, internal reform is a requirement if it is to continue in its current form.

##### 8.3.1.3.1 Electoral system

The electoral system of the WWC is basically undemocratic where voting blocs can be “purchased” through organizations becoming members of the Council. Before the vote for a Forum, members from countries that want to host the Forum flood the WWC with members in order to ensure that they can have the maximum number of people on the Board of Governors when the vote occurs. After the Forum, these members who were “voting fodder” and never active in the WWC, disappear from the books to be replaced by organizations from countries who want to host the next one. This phenomenon is one reason why the membership of the WWC never expands.

Another practice that should be eliminated is the changing of organizations in order to maintain one’s presence on the Board of Governors. With a limit of two mandates for one organization to serve on the Board, if there is a person who is the governor or the alternate, they should not be allowed to serve in those positions

with another organization. This system is (a) undemocratic and (b) seen as illegitimate within much of the water community.

One further change is representation. There are 36 members on the Board of Governors and 29 are national organizations and 7 are international organizations. Of the 29, only 11 countries are represented. Twenty-three of them come from just 6 countries. These numbers are not representative of a “World” Water Council. The fact that 21 come from 7 countries that have already hosted, will host or hope to host the World Water Forum is indicative of a major problem that the WWC has. Rules should be in place to ensure wider representation is present on the Board.

In many ways, changing the internal governance of the WWC is the first step. Outside financial and other support will not be forthcoming until governments and other donors can have confidence that there is a legitimate, transparent and democratic process.

#### 8.3.1.3.2 The Forum

A few things need to happen with the Forum to give people confidence that the event makes a difference. First, there needs to be more continuity, evaluation and monitoring between the Forum and the results, especially from the Thematic Process. There is an effort underway for the 7<sup>th</sup> World Water Forum to give continuity and monitor what has come before, yet it remains to be seen if it will even be marginally successful. There is simply not enough time, resources, or follow-up from the last Forum to really do what is necessary to follow-up 160 targets that the Thematic and Regional Process developed when there was not a

baseline to begin with. Evaluation and monitoring of the actions that emerge from the Fora are a must if the Fora are to be more than just “jamborees.”

Secondly, the WWC must make major changes to the Political Process. For the Ministerial Process, abandonment would be best. The Ministerial Declarations serve very little purpose and are huge wastes of time and resources. This failure of the past is not to say that ministers should not be present and active, but focusing on other aspects of what they could do at the Forum would be more useful. Ministers like to be there to create partnerships, meet other ministers, donors, stakeholders and other decision-makers. Efforts should be made around these activities rather than a series of speeches taking about a text, which everyone forgets soon after the conference. For Parliamentarians and Local Authorities, these processes also need to be made more concrete. No more declarations. More work is required on the advocacy and implementation of the Istanbul Water Consensus for Local Authorities and the Parliamentarians should focus more on the proposed Water Legislation Helpdesk, which has been floating in limbo since 2008. Having all these decision-makers at the Forum is important, but how they act amongst their individual groups and each other needs to be changed to be more productive.

#### 8.3.1.3.3 Leadership

Just like UN-Water has changed, the WWC needs to bring in a president that is not simply an elected governor. The leadership of the WWC needs to really “make people sit up straight in their chairs”, there needs to be someone of stature in that position. A former high-level national government decision-maker, a minister or head of state, or former head of a UN agency would meet this criterion.

#### 8.3.1.3.4 Secretariat

The Secretariat of the WWC has been poorly resourced with staff for some time now. This issue comes mostly from the fact that the WWC has limited funds. This lack of staff severely inhibits the WWC from doing work that is outside the Forum. The WWC has never seriously engaged with its members, which is a huge loss of capacity considering the number of organizations that make up the WWC. This failure is mostly because of lack of effort, staff and capacity in the secretariat.

Mentioned in the findings was that the WWC is a stumbling block to progress on global water issues. This outcome of the WWC's efforts does not necessarily have to be the case. A world water council can be the leader that the water community needs, but the current form the WWC has now will not change that fact. The organization needs to start over or overhaul how it works in order to gain the trust, legitimacy and credibility that an "honest broker" would require. It needs to be a place where all stakeholders, across the spectrum of viewpoints, can feel comfortable enough in the convening power of the entity to bring to the table their issues in an attempt to find a consensus view on principles so that the water community can progress towards the future.

#### 8.3.2 Optimize coordination

If the water community is going to stay in its fragmented state, then coordination is the absolute key to making progress globally. Up to this point, coordination has not been done very well amongst those organizations that work at the global level and there has been more competition than is healthy.

While there are so many organizations that work with water at the global level, including the UN, NGOs, the private sector and organizations like the World Water Council, it would be difficult to coordinate them. There are some organizations that do not want to cooperate as they see cooperation as giving up part of their control over whatever area they focus on, which could mean budget and/or job losses. In the end, it is not only governments who defend their interests to the detriment of water, but many organizations as well.

If the water community is to be successful, however, coordination is a must. One option proposed would be to have at least some of the big organizations (e.g., UN-Water, the World Water Council, the Global Water Partnership and SIWI) collaborate together so they not only do not overlap in their activities, but instead utilize each other's strengths to make their efforts go further. While some of these organizations do not see the value in working together for fearing to lose their "sovereignty," they will create more added value in cooperation than by working separately. Each has different strengths (and weaknesses) that would help create a sum larger than their parts (and mitigating the weaknesses). While GWP, WWC and SIWI, plus many more, are partners to UN-Water, it is not the responsibility of UN-Water to coordinate the activities of partner organizations, although ideally they would line up. World Water Week and the World Water Forum would be steps in part of a larger process working towards developing and implementing the vision of the water community. Such collaboration could also be the case depending on the outcome of the Sustainable Development Goal process. The Global Water Partnership has the boots on the ground, although the strength varies by country

and region, to not only work bottom-up, but top-down as well. In theory, there could be a continuous feedback loop utilizing these organizations and events. In addition, all of these organizations have expertise that complements one another as well. For example, SIWI has been at the forefront of thinking on water issues for some time, GWP is expanding itself beyond IWRM in its thinking and the WWC, while not known for its policy work, even if that is what it claims to be, has the capacity within its membership if it would only utilize those resources.

Coordination is not simple. In the water world alone, this hurdle can be seen through the difficulties of implementing IWRM and how problematic it has been for the agencies that make up UN-Water to achieve coordination at the national and regional levels. Again, this is where leadership comes into play. On top of requiring a person who can bring these entities together, the heads of these entities have to be visionary leaders in their own right to look beyond the boundaries of their own organization.

### 8.3.3 Global network of water ministers

It was suggested above that the World Water Council drop the Ministerial Conference for the World Water Forum. This recommendation comes with an asterisk because, as there is not a single entity in the UN that deals with water, there is not a place for governments to come together to talk about water. This gap is in part why the WWC has been able, with the help of the host countries, to convene such meetings: there is nothing else.

One of the most successful political activities that has appeared in the last ten years worldwide has been the African Minister's Council on Water (AMCOW), a

regional effort to bring the ministers in charge of water in their respective countries together to implement the Africa Water Vision and the Sharm-el-Sheikh Declaration. A more informal version of this at the global level may be very useful. This network would be a semi-formal structure where ministers in charge of water can come together to discuss issues amongst themselves, but part of that “semi-formalness” would be to have continuity over time where activities and progress are not started over every few years.

If the WWC had grown in a different way since its inception, such a network could have been housed there, but because of its lack of legitimacy this approach would not work. AMCOW is a specialized entity in the African Union and therefore it would make sense to put such a global network under the auspices of the UN, although there are negatives to this method as well. First, unless UN-Water’s mandate changes, such a network could not be established there, as their job is to coordinate UN agencies. Second, the concern about having such a group under the UN could potentially mean all UN rules apply and, at this point, it is more important that such a group be informal, because if not, this is yet another cog in the bureaucratic UN machine. UN rules on stakeholder interaction need to be avoided as well, so that these policymakers can have meaningful discussions and activities with non-governments. The United Nations is needed for their legitimacy and convening power, but a more nimble and flexible entity, the UN not being known for such, would be the added value of such a network.



The World Water Forum does not have to lose out entirely on its Ministerial Process. The Forum would be an ideal place for such a network to meet periodically, but convened by the UN and not the WWC.

#### 8.3.4 “Water Cooperation Facility”

Back in 2004, there was a proposal by the International Water Academy, World Water Council, Universities Partnership for Transboundary Waters and the International Court of Arbitration to create a Water Cooperation Facility, a place where countries could go to educate themselves about water conflict and cooperation as well as access resources to help solve disputes in their shared basins. The Water Cooperation Facility never got off the ground, as some countries were wary of its attachment to the International Court of Arbitration and the fact that it bounced from one potential donor to another, but the need for such a facility is still there. Disputes are not uncommon between nation states and with competition growing over water resources due to the impacts of population growth and climate change, these disputes are bound to rise in frequency, especially in basins where there are no cooperative arrangements.

This year, SIWI and the Swedish Government established the International Centre for Water Cooperation as a Category II Centre under the auspices of UNESCO<sup>11</sup>. The purpose of the center is to develop knowledge through research, and to build capacity, train and communicate on the sustainable management of

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<sup>11</sup> UNESCO, *Establishment of Category 2 Centres Under the Auspices of UNESCO*, General Conference 37<sup>th</sup> Session, July 19, 2013.

transboundary waters.<sup>12</sup> While not entirely what the vision of the Water Cooperation Facility was a decade ago, this initiative is a very positive and practical first step in the right direction for creating a diplomacy mechanism that countries can access for impartial assistance in helping them resolve their disputes.

#### 8.3.5 Strengthening UN-Water

Since the inception of UN-Water, it has been on an upward path, becoming more cohesive and coherent both internally and externally. With the elevation of the Chair to a Chief Executive of a UN agency, this initiative has taken the coordinating mechanism to a new level that will continue it on its positive trajectory.

UN-Water is far from fulfilling its core mandate of coordination, especially at the national and regional levels. This coordination does not happen to the degree that national governments would like to see. Overlaps still exist and there are gaps to be filled (see table below). Because of this, UN-Water should be strengthened to be able to fill these holes. More staff and resources are required to make this happen. With four full-time staff, the Secretary, a Senior Water Advisor, a professional mostly in charge of administrative activities like organizing their meetings and one communications officer, this setup does not lend itself to improving coordination at the agency level. A more robust secretariat with an advanced working knowledge of the UN-Water members' activities would go far in helping further collaboration between the agencies.

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<sup>12</sup> UNESCO, "Draft Agreement Between the United Nations Educational, Scientific and Cultural Organization, the Swedish Government and the Stockholm International Water Institute concerning the establishment and operation of the International Centre for Water Cooperation as a Category 2 Centre Under the Auspices of UNESCO," March 19, 2013.

Table 1: UN-Water and Partners' Thematic Mandates<sup>13</sup>

	Monitoring	Policy and legislation	Finance and governance	Trans-boundary	Conflict resolution	River basin and watershed management	Water supply and sanitation	Agricultural water productivity	Groundwater management	Drought, risk and vulnerability	Ecosystem services	Wastewater and water quality	Rainwater harvesting
	M	PL	FG	TB	CR	RB	WSS	AWP	GW	V	ES	WQ	RH
<b>UN Agencies and Programmes</b>													
DESA													
FAO													
IAEA													
IFAD													
UNCBD													
UNDP													
UNEP													
UNESCO													
UN-CBD													
UN-HABITAT													
UNICEF													
UN-ISDR													
UNU													
WB													
WHO													
WMO													
<b>UN Regional Commissions</b>													
ECA													
ECE													
ECLAC													
ESCAP													
ESCWA													
<b>Non-UN Partners</b>													
GWP													
IAH													
IAHS													
ICID													
IWA													
RAMSAR													
WWC													

## 8.4 Governance

### 8.4.1 A Sustainable Development Goal on water

In the lead-up to the 68<sup>th</sup> United Nations General Assembly when the negotiations will begin for the future of the UN's development agenda, one of the main points of discussion surrounding water was whether there should be a dedicated goal or whether there should be targets embedded in other goals such as health, energy, food, etc. The water community is quite in agreement for a dedicated goal, but there are several countries that would instead like to see water spread throughout the other goals.<sup>14</sup>

<sup>13</sup> UN-Water, *Coping with Water Scarcity: A strategic issue and priority for system-wide action*, UN-Water Thematic Initiatives (August, 2006), 2.

<sup>14</sup> See IISD, "Summary of the Third Session of the UN General Assembly Open Working Group on Sustainable Development Goals: 22-24 May 2013," *Earth Negotiations Bulletin* 32, no. 3 (2013).

A dedicated goal for water that would secure water for all peoples and uses in a sustainable manner, would help address many of the issues that have been brought up during this research. First, an explicit goal would most likely have several targets within it focusing on WASH, water resources management and wastewater management, or some combination thereof. Instead of being siloed into not only different topic areas, but also siloed within the water community itself, a dedicated goal allows for the opportunity for the water community to be brought together under this one umbrella goal. The MDG targets on water were divisive to the water community, separating WASH from everything else, but the reality is that these issues are connected and must be addressed together. Having one goal on water would start to help with the issues of fragmentation. A dedicated goal in the new UN governance on sustainable development can help add consistency and coherence to the theme of water.

Second, if water is embedded in other goals, the fragmentation continues, both in terms of addressing issues in their siloes and keeping those who work with water separate. There is the fear that water will lose its importance in the international community if it is buried under several different thematic areas without some visibility on its own.

Ideally, water would have its own goal and then also have embedded targets under other goals. One goal on water will not be able to cover all the means that water acts as for other issue areas. For instance, a water goal would probably not have a target on water for energy, but should be addressed under the future goal on energy.

The debate will soon begin and there is much riding on the outcome of this discussion. Once the new development agenda is set for the post-2015 era, these discussions will most likely not happen again until a few years before 2030, so this is an opportunity not to be lost. Fortunately, the water community has indeed come together, with some exceptions, on promoting a dedicated goal.

#### 8.4.2 Progress in the development of global principles on water

Progress in the water community at the global level is stymied by disagreements on some of the core principles that have emerged over the past several decades regarding water resources governance. These contested principles prevent a more comprehensive global water governance regime from coming together.

A specific effort should be made to identify and develop global principles on water.<sup>15</sup> These principles will not only create new avenues of cooperation between actors at various levels, but will also help focus the global water community on implementation of these principles in an environment of willingness instead of obstruction. Instead of the “one step forward, two steps back” movement, which some of the contested global water principles have experienced over the past few decades, momentum and continuity can be created. The benefits derived from this could range from increased and more stable donor funding/financing to stronger links with communities outside that of water.

Achieving this type of action again comes back to having leadership that is able to convene the concerned stakeholders and guide a process, which is credible

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<sup>15</sup> Developing such principles, while useful for this research, is outside the scope of this thesis. It is noted here that such an exercise would prove valuable and a continuation of this work.

and legitimate where the outcome is arrived at by consensus and implemented under the ownership of all affected parties. This endeavor is easier said than done. There is still a leadership vacuum for such an entity to be able to carry out such work, but through more coordination and collaboration amongst the key players in the global water community, it is hoped that a more legitimate arena can be established where such activities will have a safe space to develop.

#### 8.4.3 Strengthening multi-level governance with a caveat

Some of the main arguments against global water governance revolve around the principle of subsidiarity, i.e. that water should be governed at lower levels. For decades, the agreed-upon unit for water management has been the river basin level. The research has shown that there is a need for governance at all levels, from local to global.

Since the focus of this research was global water governance, this proposal will come from that perspective. There is a need for global water governance, but it is not a hard structure or convention that is needed. It is rather a more flexible, coordinated governance that can take into consideration not only all the aspects of water, but also address all the levels. A top-down approach, meaning “global to local,” will simply not function in the current international system. Nor is this approach necessarily the best for water, which is indeed managed at the lowest of levels. If there is to be increased global water governance, it must be generated in the context of a multi-layer governance regime, because all the lower levels are needed for implementation.

But, not *only* implementation. The caveat is that global water governance mechanisms need to be created in such a way that the lower levels, from regional to local, can tailor their *own* policies around the larger, global principles to their own local, national, basin-wide and regional conditions. This is the discussion that is currently happening with the potential Sustainable Development Goals. There are so many differences of conditions between regions, nations, basins and locales, that it is difficult to establish particular strict targets or rules that would be beneficial to each level in each geographic location.

Multi-level governance is often neglected as the links between the levels are not always clear and it makes for difficult jurisdictional interactions, which highlights another form of fragmentation that exists in the water community, although not unique to water, in addition to the sectoral fragmentation. The global level is still an orphan in discussions around multi-level governance as most water professionals much less politicians do not yet understand water governance at the global level or even recognize that it is an important part of such a framework. Global water governance does not translate to a top-down approach, but one that can be informed by the lower levels as well as acting as an overarching framework to be tailor-made to specific conditions at the lower levels.

This can be seen happening with regards to the Thematic Consultation on Water for the Post-2015 Development Agenda process. UNDP and GWP conducted a series of national consultations that brought stakeholders together where they wrote up outcomes to each of the meetings as to what were the priorities at the national level based on local and national interests. These outcomes were then

consolidated from the different countries into a synthesis document<sup>16</sup> that was used to help formulate the position of UN-Water on a dedicated water goal. If the goal were then to be part of the Post-2015 Development Agenda framework, then this would be feed back to the national and local levels. To formalize this type of process for a future water Sustainable Development Goal would utilize a multi-governance framework.

#### 8.4.4 Focusing more on the regional level

Although many initiatives have been established to address the weaknesses in water governance, there remains a large chasm between regional governance and global governance structures.<sup>17</sup>

While global water governance has not been entirely accepted by those in the water community up until this point, there does seem to be some consensus on a need to strengthen the regional level. The advantage of action on the regional level is that the lowest common denominator is not as low at the regional level as at the global level. There are commonalities within regions, to the most extent geographically, but also socio-economically and culturally, which can facilitate action much more easily than at the global level. Priorities are also different from region to region where, for example, in Europe there are big questions relating to water quality while Africa is more focused on infrastructure and water quantity.

The regional approach appears to be more palatable for some countries than turning to the global level. There are already significant water-related activities, even governance mechanisms, in many regions and sub-regions of the world such as

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<sup>16</sup> Global Water Partnership, "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda," *The World We Want* (2013).

<sup>17</sup> WWAP, *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk* (Paris: UNESCO Publishing, 2012), 220.



AMCOW, the EU Water Framework Directive, the Asia-Pacific Water Forum/Summit, etc., but there is much room for improvement and strengthening of the regional level.

Given the limited amount of human and financial resources governments have to focus on levels of governance above the national level, a more effective approach would be keeping a lighter, more coordinated and principles-oriented role for the global level while concentrating more concretely at the regional level for continent-wide mechanisms, agreements and planning. Strengthening regional governance while at the same time aligning efforts with progress in global water governance will be advantageous to addressing water issues at all levels.

#### 8.4.5 Two global water conventions?

In early 2013, the parties to the UNECE Water Convention agreed to open the convention to countries outside the UNECE region, thereby making the once regional convention a global one. Ratifications are not open until all the Parties to the original Convention have ratified opening up the Convention to those outside the region, which, as of March 2014, still had not yet happened. It is unclear whether there are countries outside the UNECE that will ratify. The only other regional convention that has gone global, also a UNECE convention, the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, has not had a single ratification outside the UNECE region.<sup>18</sup>

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<sup>18</sup> See *UNECE, Status of Ratification* (accessed October 19, 2013); available from <http://www.unece.org/env/pp/ratification.html>.

The UN Watercourses Convention is 2 country ratifications away from being brought into force. It is thought that there are more than enough countries where ratifications are in the pipeline that this will happen in the near future.<sup>19</sup> One of the main difficulties is that in the UNWC, there are no articles creating a structure/secretariat for the convention after it goes into force. What will happen when there are two similar global conventions governing transboundary waters? This is unprecedented in treaty law.

This is a critical moment for global water governance, because these conventions are the only two water-focused mechanisms of international law, besides customary international law, and they focus on the issue, which is the main obstacle for moving global water governance forward: transboundary waters.

In mid-2013, two meetings were convened of the informally known “The Hague Group”, one by the Dutch and the other in the margins of World Water Week, bringing together parties to the two conventions, some who are indeed party to both, as well as interested organizations to discuss the future of the two conventions. At the time of the writing of this document, these efforts have only been a sounding out of what possibilities may lay ahead in terms of the two conventions. This alone should be considered a positive advancement.

While the outcomes of the meetings have shown that the parties agree to work in a more informal manner when the two conventions are in force and global, this should only be a short-term strategy. It is critical that the two conventions work together and integrate where possible. Many countries already do not have

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<sup>19</sup> Interview No. 701

the resources or knowledge to follow the UNWC, so to follow two separate global instruments would be confusing for national governments and a step in the wrong direction for the issue of transboundary waters as well as global water governance. This confusion will only play into the hands of the “basin hegemons” who block progress on global water governance as a result of the transboundary water issue. Continued work on the two conventions should be carried out with the goal in mind to have an integrated governance framework for transboundary waters.

#### 8.4.6 Global discussion on pricing

One of the most contentious topics in the water sphere is that of pricing. It brings up the debate of water as an economic good versus a human right and involves ethical concerns related to people’s values and religion. Water pricing has not impacted global water governance *per se*, but the debate has been a global one for some time and needs to be unpacked.

Pricing is a very local issue, but with the global trade of goods embedded with water more active than ever and countries buying up or leasing land in third countries for food production, the pricing issue is one that will start to arise more and more as competition grows for water resources. Prices for water in some parts of the world for farmers or industry will impact countries in different parts of the world that are importing those products.

There has never been a global discussion on water pricing and it is time to start that conversation. It is not about creating a price for water at any level, local or global, but to bring together the various actors who are implicated at the local, national and global levels to look towards the future.

One of the main issues with starting such a discussion is who has the convening power and legitimacy to do so? There is no single organization that could. The World Bank is not seen as impartial by many stakeholders. The World Water Council, again, could have been the organization to do so, but does not have the legitimacy. What might be interesting is a commission like that of the World Commission on Dams that has wide stakeholder representation that carries out a study and presents its findings and recommendations to the global community. Ensuring a group that is balanced would be the most important characteristic of this endeavor as questions of legitimacy were some of the failings of the WCD.

## 8.5 Practical

On the absolute practical side of strengthening the current global water governance system, there are several actions that can be carried out.

### 8.5.1 Global mapping and information related to water activities

Part of the problem with the current global water governance regime is that there is little or no knowledge of what all the actors are doing and where. Not even UN-Water has this for the coordination among the 31 agencies of which it is comprised. It is difficult to know what the gaps are, where to address problems and how to optimize actions when no one knows what everyone else is doing.

A proposal is to carry out a “global mapping” of water activities. Identify the organizations that have a global mandate, look at what they are doing and then map that out under thematic areas. The bigger picture will become clear as to where the overlaps and gaps are. This is strategically important for organizations working in the water community, the donor community and any organization that is looking to

enter the water field. More importantly, if there is additional coordination of global water activities as suggested above, this will lead to a key set of common knowledge that should allow water governance to become more efficient and effective.

One of the issues that has confounded organizers of global water meetings or attempts made to get information from the national level is that it is not known who is in charge of water in each country. For example, this observation comes from national governments themselves when hosting the World Water Forum. For some countries, it is many ministries and not a single one. Either way, this information is not available and would facilitate water governance by updating information as frequently as necessary to match the rapid turnover of certain governments.

All of this can be accomplished under a “Global Water Portal” that acts as a clearinghouse for information pertaining to global water. There is not a single website or place where anyone can go to get resolutions, statements and declarations on water, global water studies, or to learn who is doing what in the field of global water and what actions have been carried out. To have all of this information accessible in one place would be a value added to both the water community and to those beyond.

#### 8.5.2 Research on global water governance

As was mentioned in Chapter 1 of this text, the subject of global water governance remains severely under-researched.<sup>20</sup> While this document adds to that

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<sup>20</sup> Joseph Alcamo, Charles Vörösmarty, Robert Naiman, Dennis Lettenmaier and Claudia Pahl-Wostl, “A grand challenge for freshwater research: understanding the global water system,” *Environmental Research Letters* 3 (2008): 1-6. Claudia Pahl-Wostl, Joyeeta Gupta and Daniel Petry, “Introduction: Global Governance of Water,” *Global Governance* 14 (2008): 406. Maria Schnurr, “Global Water Governance: Managing Complexity on a Global Scale,” in *Water Politics and Development Cooperation*, eds. Waltina

literature, there is a significant amount of work yet to be done to have this topic enter the mainstream of not only global environmental governance, but also global governance. This is a field that is ripe for research in that it is emerging in all of its extreme complexity and interconnectedness with so many other issues. Further research is greatly needed in the field of global water governance.

Topics that could be researched under global water governance include the relationship between global water governance and other international environmental regimes, examining in greater detail global water governance in a multi-level governance framework, the influences and interactions between public and private governance within global water governance, amongst many more.

### 8.5.3 Data/Information

One recommendation that cannot be reiterated enough is the need for more water-related data and information. This comes out strongly in both the literature and the interviews. Over the past few decades, hydro-meteorology services of national governments have been on the decline in terms of funding and resources<sup>21</sup> at a time when climate change is impacting the quantity of water resources and past data is no longer reliable with the changes in the hydrologic system that are occurring worldwide. The lack of information at all levels, but especially the global, is glaring and hinders decision-making processes where decisions should be made on sound science and information.

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Scheumann, Susanne Neubert and Martin Kipping (Springer-Verlag Heidelberg Berlin, 2008). Robert G. Varady, Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih, "Strengthening Global Water Initiatives," *Environment* 50, no. 2 (2008), 25.

<sup>21</sup> Interview No. 382

While for some time water data has been considered an issue of national security, there is a slow trend away from this and more countries are seeing the benefit of sharing their water resources data with neighboring countries. An effort should be made to obtain more information and for that information to be accessible to all. In this way not only can neighboring governments benefit, but global organizations, including the UN and others, in addition to NGOs, local governments, farmers, and the private sector would all have this data available to them.

What would also be useful is the global standardization of measurements for water-related data. This may never be feasible to achieve as each national system is different in how they do their measurements and the advantages for standardization might not balance the costs of harmonizing data measurements and reporting, at least in the short-term. Having comparable data helps in evaluation and monitoring of global trends, which, given the mutual interdependencies and some eventual increased governance on virtual water flows as competition for water resources increases, would prove helpful in the future.

Ultimately, what is needed is coherent and reliable data that is systematically obtained so that those making decisions that impact water, which in turn impacts the three pillars of sustainable development, will be able to make the best decision possible based on sound information.

#### 8.5.4 Communications: Dropping the jargon

The water community is notorious for being ineffective communicators. One interviewee blamed this as being the number one failure of the water community to

address water issues.<sup>22</sup> Besides, possibly, air, it is hard to think of another issue that is as important to all human activities, and to the planet, than water. In terms of justification for action, is there any better reason? The water community is blessed with some of the best reasons for action that anyone, anywhere can develop, yet it is still failing at its job.

One of the reasons for this is the jargon. The water community, like many other communities, loves to use jargon. The problem with jargon is that this does not translate well to politicians who need to make critical decisions on priorities and budget allocations. Such terms as “IWRM,” the “water, food, energy nexus,” “non-stationarity” and even “water governance” will make any politician’s eyes glaze over. Decision-makers need simplified, hard facts, not vague concepts, to make decisions. This is the same when trying to communicate with the public and other thematic communities. There is a goldmine of information that would cause most anyone to give pause to think about the consequences of the *status quo*, but the water community has to drop the jargon and speak in clear prose.

## 8.6 Conclusion

It’s still like a big vacuum in terms of how we handle global governance. We have the World Water Council, and we have these huge World Water Forums, and we have the Global Water Partnership, and others, and still there is a sense that there is something missing.<sup>23</sup>

Since the time that water first appeared significantly in the global political arena in Mar del Plata in 1977, some 36 years ago, there have been an increasing number of organizations, meetings and activities focused on water at the global

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<sup>22</sup> Interview No. 927

<sup>23</sup> Interview No. 361



level. Yet water, in many ways, is still an orphan without any clear framework under which its related issues are addressed. Currently, it is not even clear whether water will hold a significant place in the Post-2015 Development Agenda under the United Nations. Two years of negotiations within the UN will be required to find out how far water has come in the past four decades. It is possible that it will still remain a neglected subject, although the consequences of this are potentially serious.

Confronting water issues at the global level is essential. There are too many interdependencies between countries and regions to ignore this level of governance. The world is not moving in a direction where water issues will become less important. This is due to increasing demands on the resource because of population growth and economic development as well as the increasingly uncertain predictability of climate impacts on the hydrological cycle.

Global water governance already exists as a mix of informal and formal mechanisms. The emergence of a looming global water crisis demonstrates that the current system has not been able to adapt to the global changes that are occurring. Given that global efforts are neither coordinated nor cohesive, moving towards enhancing what does exist could prove invaluable to the world and its living inhabitants.

Global water governance, however, cannot be seen in a vacuum. It is dependent on a strong multi-lateral governance framework with each level having the necessary capacity to develop and implement policy. Nor can global water governance be viewed only through a water lens. Because water is present in so many other international governance regimes, the water community has to work

collaboratively, “outside the water box,” with other communities. This approach will only reinforce the importance of water and draw benefits for protecting this critical resource.

There are many reasons why water has not advanced on the global agenda, from issues of sovereignty to fragmentation, from competition instead of cooperation as well as from a lack of leadership. No single factor is to blame. Nor is there a single solution for overcoming water’s orphan status. It has taken decades to arrive at the current process used by the water community to address water at the global level, which was preceded by hundreds if not thousands of years of water management practices at more local levels of governance. Given this history, and the state of the international community and global governance in general, it is clear that the path is a long one towards elevating water to a priority subject.

There are significant obstacles in the way to establishing a more comprehensive, cohesive and flexible framework that can adjust to changing conditions, both locally and globally. While the lingering effects of the debates on dams, privatization and the human right to water and sanitation are still felt as the global water community tries to move forward with practical solutions, other issues such as transboundary water continues to be a significant stumbling block to any kind of agreed-upon framework. This issue will not be solved anytime soon, even with a comprehensive Post-2015 Development Agenda that has a focus on water.

Global water governance is made up of myriad organizations, programs, projects and individuals who have varying degrees of influence over how the water community moves forward. Significant gaps remain in terms of collaboration not

only because of competition between these entities, but because the sectoral approach is one that has proven to be a difficult barrier to overcome. For the moment, these bodies are only in concert together to a limited degree, but their cooperation will be one of the keys to success for the water community. This idea is what the title of this research refers to in using the quote by Samuel Taylor Coleridge. He is talking about how we are surrounded by water, but it is of no use, because the mariner cannot drink water from the sea. This concept is analogous to global water governance in that there are so many efforts at that level, but none are quite exactly what is needed. As the quote that began the conclusion states, there is a lot there, but something is still missing.

The most important characteristic of a future framework for addressing global water issues will be cohesion. Global water governance is a piecemeal approach and this model will not change in the near future, so the best way to approach such a patchwork is to improve the coordination among the different actors, issues and activities that are part of this “mobius-web” governance. Fortunately, governance is not a fixed structure that remains static over time, but can be shaped and molded continuously based on current conditions to confront a changing reality. Global water governance needs to be an adaptive process.

To do this, there must be base knowledge of global water governance, its interactions with other governance regimes, how it interacts with other levels and who the actors are, what they are doing and where. Global water governance, while it has been around in some form or another for many decades, it still at its infant stages in terms of knowledge and development.

When observing all the obstacles that must be overcome to address global water issues, the emerging “global water crisis”, and what it will take to bring stakeholders together, arrive at consensus and actually implement said consensus on the ground, the future reflected in such a picture is a daunting one. Further, this situation seems to be compounded by new insights every day into the complexities, both politically and scientifically, of global processes that are related to water. What provides hope is that there is increasing attention on these issues worldwide, both in and outside of the water community. Water is slowly finding its way onto the global political map. It is now up to water professionals to cooperate and work together and with other communities to ensure that the momentum is carried forth to a space where its importance can no longer be refuted.

## Bibliography

1<sup>st</sup> World Water Forum. *Marrakech Declaration*. Marrakech, Morocco, March 22, 1997.

2030 Water Resources Group. *Charting our Water Future: Economic frameworks to inform decision-making*. 2009.

2030 Water Resources Group. *The Water Resources Group: Background, Impact and the Way Forward*. Briefing report prepared for the World Economic Forum Annual Meeting 2012 in Davos-Klosters, Switzerland, January 26, 2012.

2<sup>nd</sup> World Water Forum. *Ministerial Declaration of The Hague on Water Security in the 21st Century*. The Hague, The Netherlands, March 22, 2000.

2<sup>nd</sup> World Water Forum. *NGO Major group statement to the Ministerial Conference*. The Hague, The Netherlands, March 21, 2000.

4<sup>th</sup> World Water Forum. "World Encounter of Water Legislators – Mexico Declaration." Mexico City, March 20, 2006.

4<sup>th</sup> World Water Forum. *4<sup>th</sup> World Water Forum Ministerial Declaration*. March 22, 2006.

4<sup>th</sup> World Water Forum. *Synthesis of the 4<sup>th</sup> World Water Forum*. Mexico: Comisión Nacional de Agua, 2006.

5<sup>th</sup> World Water Forum. *5<sup>th</sup> World Water Forum Heads of State Appeal*. Istanbul, Turkey, March 16, 2009.

5<sup>th</sup> World Water Forum. *Additional Declarations of Governments for the Right to Water*. Istanbul, Turkey, March 22, 2009.

5<sup>th</sup> World Water Forum. *Istanbul Ministerial Statement*. Istanbul, Turkey, March 22, 2009.

5<sup>th</sup> World Water Forum. *Istanbul Water Consensus: For Local and Regional Authorities*. Istanbul, Turkey, March 15, 2009.

5<sup>th</sup> World Water Forum. *Istanbul Water Guide*. Istanbul, Turkey, March 22, 2009.

6<sup>th</sup> World Water Forum. *The Ministerial Declaration of the 6<sup>th</sup> World Water Forum*. Marseille, France, March 13, 2012.

Alcamo, Joseph, Charles Vörösmarty, Robert Naiman, Dennis Lettenmaier and Claudia Pahl-Wostl. "A grand challenge for freshwater research: understanding the global water system." *Environmental Research Letters* 3 (2008).

Allan, John Anthony. "IWRM/IWRAM: A New Sensational Discourse?" Occasional Paper No. 50, School of Oriental and African Studies, King's Cross College, London, 2003.

Allen, Tony. "Watersheds and Problemsheds: Explaining the Absence of Armed Conflict Over Water in the Middle East." *Middle East Review of International Affairs* 2, no. 1 (1998).

Aslov, Sirodjiddin. "Towards the International Year of Water Cooperation." *UN Chronicle*, April 24, 2013. Available from <https://www.un.org/wcm/content/site/chronicle/home/archive/issues2013/water/towardstheinternationalyearofwatercooperation2013>.

Barlow, Maude, and Tony Clarke, "Who Owns Water." *The Nation*, September 2, 2002.

Barlow, Maude, and Tony Clarke. *Blue Gold: The Fight to Stop the Corporate Theft of the World's Water*. New York: New Press, 2002.

Barlow, Maude. "Our Right to Water: A People's Guide to Implementing the United Nations' Recognition of the Right to Water and Sanitation." The Council of Canadians, 2012.

Bates, Bryson, Zbigniew Kundzewicz, Shaohung Wu and Jean Palutikof, eds. *Climate Change and Water*. Intergovernmental Panel on Climate Change Technical Paper VI. Geneva: IPCC, 2008.

Betsill, Michele M., and Harriet Bulkeley. "Cities and the Multilevel Governance of Global Climate Change." *Global Governance* 12 (2006).

Beyer, Martin G. "The Global Consultation on Safe Water and Sanitation for the 1990s." *Natural Resources Forum* 15, no. 2 (1991).

Biermann, Frank, and Philipp Pattberg. "Global Environmental Governance: Taking Stock, Moving Forward." *Annual Review of Environment and Resources* 33 (2008).

Bigas, Harriet, ed. *The Global Water Crisis: Addressing an Urgent Security Issue*, Papers for the InterAction Council. Hamilton, Ontario: UNU-INWEH, 2012.

Biswas, Asit K. "Deafness to Global Water Crisis: Causes and Risks." *Ambio* 27, no. 6 (1998).

Biswas, Asit K. "From Mar del Plata to Kyoto: an analysis of global water policy dialogue." *Global Environmental Change* 14, supplement (2004).

Biswas, Asit K. "Impacts of Megaconferences on Global Water Development and Management." In *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada. Springer-Verlag Berlin Heidelberg, 2009.

Biswas, Asit K. "Institutional Arrangements for International Cooperation in Water Resources." *International Journal of Water Resources Development* 11, no. 2 (1995).

Biswas, Asit K. "Mar del Plata: Twenty Years Later – Concluding Remarks." In *Proceedings: Mar del Plata 20 Year Anniversary Seminar*. Stockholm, August 16, 1997.

Biswas, Asit K. "United nations water conference action plan." *International Journal of Water Resources Development* 4, no. 3 (1988).

Biswas, Asit K. *Challenging Prevailing Wisdoms*, Stockholm Water Prize Laureate Lecture. Stockholm, 2006. Available from <http://www.thirdworldcentre.org/laureatelecture.pdf>

Bogardi, Janos J., David Dudgeon, Richard Lawford, Eva Flinkerbusch, Andrea Meyn, Claudia Pahl-Wostl, Konrad Vielhauer and Charles Vörösmarty. "Water security for a planet under pressure: interconnected challenges of a changing world call for sustainable solutions." *Current Opinion in Environmental Sustainability* 4 (2012).

Boisson de Chazournes, Laurence. "Freshwater and International Law: The Interplay between Universal, Regional and Basin Perspectives." World Water Assessment Programme Side publication series, World Water Development Report 3, 2009.

Bosshard, Peter. "The World Bank is bringing back big, bad dams." *The Guardian*, July 16, 2013. Available from <http://www.theguardian.com/environment/blog/2013/jul/16/world-bank-dams-africa>.

Brown Gaddis, Erica, Paul Roger Glennie, Yi Huang and Walter Rast. "Chapter 4: Water." In *Global Environment Outlook 5: Environment for the Future We Want*, UNEP. Malta: UNEP, 2012.

California State Legislature. *An act to add Section 106.3 to the Water Code, relating to water*. Assembly Bill No. 685, Chapter 524, 2012. Accessed August 25, 2013.

Clarke, Robin. *Water: The International Crisis*. London: Earthscan Publications, 1991.

Conca, Ken. *Governing Water: Contentious Transnational Politics and Global Institution Building*. Cambridge, MA: MIT Press.

Corporate Accountability International. "Water Governance: For the People, or for the Bottom Line? Addressing the Corporate Conflict of Interest Posed by the CEO Water Mandate." 2010.

Coulomb, René. *The World Water Council: From its Origins through the World Water Forum in the Hague*. Paris: Editions Johanet, 2011.

Daggett, Christina. "In Rush for Land, is it all About Water?" *New Security Beat*, July 26, 2011. Available from: <http://www.newsecuritybeat.org/2011/07/in-rush-for-land-is-it-all-about-water/#.UkQ5CbwqDC0>.

Daniel, Marco A., and Suvi Sojamo. "From Risks to Shared Value? Corporate Strategies in Building a Global Water Accounting and Disclosure Regime." *Water Alternatives* 5, no. 3 (2012).

Darling, Kate. "A Weight for Water: An Ecological Feminist Critique of Emerging Norms and Trends in Global Water Governance." *Melbourne Journal of International Law* 13, no. 1 (2012).

de Albuquerque, Catarina, and Virginia Roaf. *On the Right Track: Good practices in realising the rights to water and sanitation*. Lisbon: Entidade Reguladora de Serviços de Águas e Resíduos, 2010.

de Gouvello, Bernard, and Christopher A. Scott. "Has water privatization peaked? The future of public water governance." *Water International* 37, no. 2 (2012).

de Stefano, Lucia, James Duncan, Shlomi Dinar, Kerstin Stahl, Kenneth Strzepek and Aaron T. Wolf. *Mapping the Resilience of International River Basins to Future Climate Change-Induced Water Variability*. World Bank Sector Board Discussion Paper Series 15. Washington DC: World Bank, 2010.

Dellapenna, Joseph W., and Joyeeta Gupta, "A book conversation with the editors and a reviewer. Law and water governance: past, present, and future." *Water International* 36, no. 3 (2011).



Dellapenna, Joseph W., and Joyeeta Gupta. "The Evolution of Global Water Law." In *The Evolution of the Law and Politics of Water*, eds. Joseph W. Dellapenna and Joyeeta Gupta. Springer Science + Business Media B.V., 2009.

Dellapenna, Joseph, and Joyeeta Gupta. "Toward Global Law on Water." *Global Governance* 14 (2008).

Delli Priscoli, Jerome. "Invited opinion interview: Two decades at the center of world water policy." *Water Policy* 13, no. 2 (2011).

Dingwerth, Klaus, and Philipp Pattberg. "Global Governance as a Perspective on World Politics." *Global Governance* 12 (2006).

Duda, Alfred M., and Mohamed T. El-Ashry. "Addressing the Global Water and Environment Crises through Integrated Approaches to the Management of Land, Water and Ecological Resources." *Water International* 25, no. 1 (2000).

Eckstein, Gabriel. "Managing buried treasure across frontiers: the international Law of Transboundary Aquifers." *Water International* 36, no. 5 (2011).

Eckstein, Gabriel. "Water Scarcity, Conflict, and Security in a Climate Change World: Challenges and Opportunities for International Law and Policy." *Wisconsin International Law Journal* 27, no. 3 (2010).

Elhance, Arun P. "Hydropolitics: Grounds for Despair, Reasons for Hope." *International Negotiations* 5, no. 2 (2000).

Engfeldt, Lars-Göran. "From Stockholm to Johannesburg and beyond: the evolution of the international system for sustainable development governance and its implications." Stockholm: Swedish Ministry of Foreign Affairs, 2009.

Engfeldt, Lars-Göran. "Towards a World Summit on Sustainable Development 2012." Presentation, "Uniting for Sustainability", European Economic and Social Committee and Stakeholder Forum, Brussels, 1 October 2009.

Evans, Alex. "Landgrab deals: actually water grabs." *Global Dashboard*, April 28, 2009. Available from <http://www.globaldashboard.org/2009/04/28/landgrabs-watergrabs/>.

Falkenmark, Malin, Jan Lundquist and Carl Widstrand. "Macro-scale Water Scarcity Requires Micro-scale Approaches: Aspects of Vulnerability in Semi-arid Development." *Natural Resources Forum*, Vol. 13, No. 4 (1989).

Falkenmark, Malin. "Global Water Issues Confronting Humanity." *Journal of Peace Research* 27, no. 2 (1990).

Falkenmark, Malin. "Mar del Plata Anniversary Seminar: Analytical Summary." In *Proceedings: Mar del Plata 20 Year Anniversary Seminar*, Stockholm, August 16, 1997.

Falkenmark, Malin. *Water security for multinational water systems – opportunity for development*. Proceedings SIWI Seminar, SIWI Report 8. Stockholm International Water Institute, 2000.

Fano, Enzo. "Beyond the United Nations Water Conference." *Natural Resources Forum* 1, no. 4 (1977).

FAO. *Coping with water scarcity: An action framework for agriculture and food security*. FAO Water Reports No. 38. Rome: FAO, 2008.

FAO. *New Dimensions of Water Security: Water, society and ecosystem services in the 21<sup>st</sup> century*. Land and Water Division. Rome: FAO, 2000.

FAO. *Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases by Basin: Volume I*. Legislative Study No. 15. Rome: 1978.

FAO. *Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases, by Basin: Volume II*. Legislative Study No. 34. Rome: 1984.

Franco, Jennifer C., Lyla Mehta and Gert Jan Veldwisch. "Are African land grabs really water grabs?" *CNN*, March 22, 2013. Available from <http://www.edition.cnn.com/2013/03/22/opinion/water-grabs-africa>.

Friedman, Thomas L. "Without Water, Revolution." *New York Times*, May 18, 2013. Available from <http://www.nytimes.com/2013/05/19/opinion/sunday/friedman-without-water-revolution.html>.

Friends of the Earth International. "Reclaim the UN from corporate capture." Amsterdam, 2012.

Gawel, Erik, and Kristina Bernsen, "Globalization of Water: The Case for Global Water Governance?" *Nature and Culture* 6, no. 3 (2011).

Ghosh, Gourisankar. "Megaconferences: Serious or Circus? An Unscientific and Personal View." In *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada. Springer-Verlag Berlin Heidelberg, 2009).

- Gleick, Peter H. "The human right to water." *Water Policy* 1, no. 5 (1999).
- Gleick, Peter H., and Jon Lane. "Large International Water Meetings: Time for Reappraisal." *Water International* 30, no. 3 (2005).
- Gleick, Peter. "The Human Right to Water." Pacific Institute (2007).
- Gleick, Peter. "Water and conflict." *International Security* 18, no. 1 (1993).
- Gleick, Peter. *The World's Water: 1998-1999*. Washington DC: Island Press, 1998.
- Global Environment Facility. *What is the GEF*. Accessed February 22, 2014. Available from <http://www.thegef.org/gef/whatisgef>.
- Global Water Partnership. "National Stakeholder Consultations on Water: Supporting the Post-2015 Development Agenda." *The World We Want*, 2013.
- Global Water Partnership. *GWP ToolBox: Integrated Water Resources Management*. Accessed October 21, 2013. Available from <http://www.gwptoolbox.org>.
- Global Water Partnership. *History*. Accessed October 21, 2013. Available from <http://www.gwp.org/en/About-GWP/History>.
- Global Water Partnership. *Integrated Water Resources Management*. Global Water Partnership Technical Committee Background Papers No. 4. Denmark: Global Water Partnership, 2000.
- Global Water Partnership. *Towards Water Security: A Framework for Action*. Stockholm: GWP, 2000.
- Goldman, Michael. "How "Water for All!" policy became hegemonic: The power of the World Bank and its transnational policy networks." *Geoforum* 38, no. 5 (2007).
- Goldman, Michael. *Imperial Nature: The World Bank and struggles for social justice in the age of Globalization*. New London: Yale University Press, 2005.
- Gordenker, Leon, and Thomas Weiss. "Pluralizing Global Governance: Analytical Approaches and Dimensions." In *NGOs, the UN, and Global Governance*, eds. Thomas G. Weiss and Leon Gordenker. Boulder: Westview, 1996.
- Grey, David, and Claudia W. Sadoff, "Sink or Swim? Water security for growth and development." *Water Policy* 9, no. 6 (2007).

Grover, Brian, and Asit K. Biswas. "It's Time for a World Water Council." *Water International* 18, no. 2 (1993).

Grover, Brian, and Michael Jefferson. "A World Water Council: One Possible Model." *Water Resources Development* 11, no. 2 (1995).

Guerquin, François, Tarek Ahmed, Mi Hua, Tetsuya Ikeda, Vedat Ozbilen and Marlies Schuttelaar. *World Water Actions: Making Water Flow for All*. World Water Council Water Action Unit. London: Earthscan, 2003.

Gupta, Joyeeta, Aziza Akhmouch, William Cosgrove, Zachary Hurwitz, Josefina Maestu and Olcay Ünver. "Policymakers' Reflections on Water Governance Issues." *Ecology and Society* 18, no. 1, art. 35 (2013).

Gupta, Joyeeta. "An essay on global water governance research challenges." In *Principles of good governance at different water governance levels*, eds. Michael R. van der Valk and Penelope Keenan, Papers presented at a workshop held March 22, 2011 in Delft, The Netherlands, 2011.

Gupta, Joyeeta. "Global Water Governance (GWG) and Prospects." Presentation, UNESCO workshop on Water Governance, Delft, The Netherlands, March 11, 2011.

Gupta, Joyeeta. "Global Water Governance." In *The Handbook of Global Climate and Environmental Policy*. Handbooks of Global Policy Series, ed. Robert Falkner. West Sussex: Wiley-Blackwell, 2013.

Gupta, Joyeeta. "Glocal water governance: Controversies and choices," in *Water for a Changing World – Developing Local Knowledge and Capacity*, eds. G.J. Alaerts and N.L. Dickinson. London: Taylor & Francis Group, 2009.

GWSP. *The Global Water System Project*. ESSP Report No. 3, GWSP Report No. 1, February, 2005.

Haas, Peter M. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46, no. 1 (1992).

Haas, Peter, Robert Keohane and Marc Levy, eds. *Institutions for the Earth: Sources of Effective International Environmental Protection*. Cambridge, MA: MIT Press, 1993.

Haggard, Stephan, and Beth A. Simmons. "Theories of international regimes." *International Organization* 41, no. 3 (1987).

Hall, Alan. Personal communication. February 25, 2014

Hammer, Joshua. "Is a Lack of Water to Blame for the Conflict in Syria?" *Smithsonian Magazine*, June 2013. Available from <http://www.smithsonianmag.com/science-nature/Is-a-Lack-of-Water-to-Blame-for-the-Conflict-in-Syria-208345431.html>.

Harvard University. *International Sanitary Conferences*. Accessed October 22, 2013. Available from <http://ocp.hul.harvard.edu/contagion/sanitaryconferences.html>.

Hoare, Richard. "External Review of the Global Water Partnership." Performance Review Assessment Centre (2003).

Hoekstra, A.Y. "The Global Dimension of Water Governance: Nine Reasons for Global Arrangements in Order to Cope with Local Water Problems." Value of Water Research Report Series No. 20, UNESCO-IHE, July 2006.

Hoekstra, Arjen Y. "The Global Dimension of Water Governance: Why the River Basin Approach Is No Longer Sufficient and Why Cooperative Action at Global Level Is Needed." *Water* 3, no. 1 (2011).

Hoekstra, Arjen Y. "The relation between international trade and freshwater scarcity." World Trade Organization, Economic Research and Statistics Division Staff Working Paper (2010).

Hoekstra, Arjen, and Ashok Chapagan. *Globalization of Water: Sharing the Planet's Freshwater Resources*. Oxford: Blackwell Publishing, 2008.

Hoff, Holger. "Global water resources and their management." *Current Opinion in Environmental Sustainability* 1, no. 2 (2009).

Homer-Dixon, Thomas. "On the Threshold: Environmental Changes as Causes of Acute Conflict." *International Security* 16, no. 2 (1991).

Homer-Dixon, Thomas. "Environmental scarcities and violent conflict: Evidence from cases." *International Security* 19, no. 1 (1994).

ICOLD. *General Synthesis*. Accessed October 22, 2013. Available from [http://www.icold-cigb.org/GB/World\\_register/general\\_synthesis.asp](http://www.icold-cigb.org/GB/World_register/general_synthesis.asp).

IHA. *Hydropower Sustainability Assessment Protocol*. Accessed August 24, 2013. Available from <http://www.hydrosustainability.org/Protocol.aspx>

IISD. "Summary of the Third Session of the UN General Assembly Open Working Group on Sustainable Development Goals: 22-24 May 2013." *Earth Negotiations Bulletin* 32, no. 3 (2013).

IISD. "Summary Report of the International Conference on Water and Sustainable Development." *Sustainable Developments* 13, no. 4 (March 22, 1998).

ILA. *Berlin Conference (2004) – Water Resources Law*. 2004.

ILA. *Resolution on the Use of the Waters of International Rivers*. Report of the 48<sup>th</sup> Conference, New York, 1958.

ILA. *The Helsinki Rules on the Uses of the Waters of International Rivers*. Report of the 52<sup>nd</sup> Conference, Helsinki, August, 1966.

ILC. *Draft articles of the law of non-navigational uses of international watercourses and commentaries thereto and resolution on transboundary confined groundwater*. Report of the forth-sixth session of the International Law Commission, 1994.

Institute of International Law. *International Regulation regarding the Use of International Watercourses for Purposes other than Navigation*. Declaration of Madrid, April 20, 1911.

Institute of International Law. *Resolution on the Use of International Non-Maritime Waters*. Salzburg, September 11, 1961.

International Conference on Freshwater. *Conference Report: Water – a Key to Sustainable Development*. December 3-7, 2001. Bonn: Lemmens Verlags & Mediengesellschaft mbH, 2001.

International Conference on Water and Environment. "The Dublin Statement on Water and Sustainable Development." Available from <http://www.wmo.int/pages/prog/hwrrp/documents/english/icwedece.html>.

Ismail Serageldin. *Water*. Accessed October 22, 2013. Available from [www.serageldin.com/water.htm](http://www.serageldin.com/water.htm).

IWA. *IWA – the global network for water professionals*. Accessed October 21, 2013. Available from <http://www.iwahq.org/21/about-iwa.html>.

Iza, Alejandro, ed. *International Water Governance: Conservation of Freshwater Ecosystems: Volume I – International Agreements Compilation and Analysis*. IUCN

International Law Programme, IUCN Environmental Policy and Law Paper No. 55. Gland: IUCN, 2004.

Kao Cushing, Katherine. "The World Commission on Dams Report: What Next?" In *The World's Water: The Biennial Report on Freshwater Resources 2002-2003*. Washington DC: Island Press, 2002.

Karkkainen, Bradley C. "Post-Sovereign Environmental Governance." *Global Environmental Politics* 4, no. 1 (2004).

Keck, Margaret E., and Kathryn Sikkink. *Activities Beyond Borders: Advocacy Networks in International Politics*. Ithaca: Cornell University Press, 1998.

Keohane, Robert O. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton: Princeton University Press, 1984.

Keohane, Robert. "Global Governance and Democratic Accountability." In *The Global Governance Reader*, ed. Rorden Wilkinson. London: Routledge, 2005.

Keohane, Robert. *Power and Governance in a Partially Globalized World*. London: Routledge, 2002.

Kibaroglu, Aysegül. *Building a Regime for the Waters of the Euphrates-Tigris River Basin*. International and National Water Law and Policy Series. London: Kluwer Law International, 2002.

Krasner, Stephen D. "Structural Causes and Regime Consequences: Regimes as Intervening Variables." *International Organization* 36, no. 2 (1982).

Lane, Jon. "Global Water Conferences: A Personal Reflection." In *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada. Springer-Verlag Berlin Heidelberg, 2009.

Larsen, Julie. "A Review of Private Sector Influence on Water Policies and Programmes at the United Nations." The Council of Canadians, 2011.

Lawrence, Felicity. "The global food crisis: ABCD of food – how the multinationals dominate trade." *The Guardian*, June 2, 2011. Available from: <http://www.guardian.co.uk/global-development/poverty-matters/2011/jun/02/abcd-food-giants-dominate-trade>.

League of Nations. *Convention and Statute on the Regime of Navigable Waterways of International Concern*. Treaty Series, Vol. VII, Barcelona, April 20, 1921.

League of Nations. *Convention relating to the Development of Hydraulic Power affecting more than one State, and Protocol and Signature*. Treaty Series XXXVI, Geneva, December 9, 1923.

Leb, Christina. "The UN Watercourses Convention: the eminence grise behind cooperation on transboundary water resources." *Water International* 38, no. 2 (2013).

Lee, Terrence. "Water management since the adoption of the Mar del Plata Action Plan: Lessons for the 1990s." *Natural Resources Forum* 16, no. 3 (1992).

Lemos, Maria Carmen, and Arun Agrawal. "Environmental Governance." *Annual Review of Environment and Resources* 31 (2006).

Lenton, Roberto, Albert M. Wright and Kirsten Lewis. "Health, dignity, and development: what will it take?" UN Millennium Project Task Force on Water and Sanitation. London: Earthscan, 2005.

Lowi, Miriam. *Water and Power: The Politics of a Scarce Resource in the Jordan Basin*. Cambridge: Cambridge University Press, 1993.

Mageed, Y.A., and Gilbert F. White. "Critical Analysis of Existing Institutional Arrangement." *International Journal of Water Resources Development* 11, no. 2 (1995).

Malla, Katak B. *The Legal Regime of International Watercourses: Progress and Paradigms Regarding Uses and Environmental Protection*. Stockholm: Stockholm University, 2005.

McCully, Patrick. "Avoiding Solutions, Worsening Problems: A Critique of "World Bank Water Resources Sector Strategy: Strategic Directions for World Bank Engagement Draft for Discussion of March 25, 2002"." International Rivers Network, May 27, 2002.

Mehta, Lyla. "Problems of Publicness and Access Rights: Perspectives from the Water Domain." In *Providing Global Public Goods: Managing Globalization*, eds. Inge Kaul, Pedro Conceição, Katell Le Goulven and Ronald U. Mendoza. New York: Oxford University Press, 2003.

Milburn, Anthony. "International Water Conferences and Water Sector Reform: A Different Approach." In *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada. Springer-Verlag Berlin Heidelberg, 2009.



Mizanur Rahaman, Muhammad, and Olli Varis. "Integrated water resources management: evolution, prospects and future challenges." *Sustainability: Science, Practice and Policy* 1, no. 1 (2005).

Mollinga, Peter P. "Water, Politics and Development: Framing a Political Sociology of Water Resources Management." *Water Alternative* 1, no. 1 (2008).

Monbiot, George. "After Rio, we know. Governments have given up on the planet." *The Guardian*, June 25, 2012. Available from <http://www.theguardian.com/commentisfree/2012/jun/25/rio-governments-will-not-save-planet>.

Moss, Timothy, and Jens Newig. "Multi-Level Water Governance and Problems of Scale: Setting the Stage for a Broader Debate." *Environmental Management* 46, no. 1 (2010).

Mukhtarov, F.G. "Global Water Governance and the Concept of Legitimacy." Proceedings of the GRSC/GARNET International Conference on "Pathways to Legitimacy." University of Warwick, September 17-19, 2007.

Nace, Raymond L. *The International Hydrological Decade: Water and man; a world view*. UNESCO. Paris: Imprimeries Oberthur, 1969.

Najam, Adil, Michaela Papa and Nadaa Taiyab. *Global Environmental Governance: A Reform Agenda*. Winnipeg: International Institute for Sustainable Development, 2006.

Najlis, Pierre, and Anthony Edwards. "The International Drinking Water Supply and Sanitation Decade in retrospect and implications for the future." *Natural Resources Forum* 15, no. 2 (1991).

Najlis, Pierre, and Johan Kuylensstierna. "Twenty Years After Mar del Plata – Where do we Stand and where do we go?" In *Proceedings: Mar del Plata 20 Year Anniversary Seminar*, Stockholm, August 16, 1997.

OECD. *Water Governance in OECD Countries: A Multi-level Approach*. OECD Studies on Water. Paris: OECD Publishing, 2011.

OHCHR. *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)*. E/C.12/2002/11, Twenty-ninth session of the Committee on Economic, Social and Cultural Rights, January 20, 2003.

Oregon State University Department of Geosciences. *Transboundary Freshwater Dispute Database*. Accessed August 22, 2013. Available from <http://www.transboundarywaters.orst.edu>.

Osborn, Jeremy. "Global water governance trends show move away from private ownership." *The Guardian*, December 10, 2012. Available from <http://www.theguardian.com/sustainable-business/global-hydraulic-society-water-governance>.

Oswald Spring, Úrsula, and Hans Günter Brauch. "Securitizing Water" in *Facing Global Environmental Change: Environmental, Human, Energy, Food, Health and Water Security Concepts*, Hexagon Series on Human and Environmental Security and Peace, Volume 4. Berlin: Springer, 2009.

Pacific Institute. *Water Conflict Chronology*. Accessed October 22, 2013. Available from <http://www.worldwater.org/chronology.html>.

Pahl-Wostl, Claudia, Joyeeta Gupta and Daniel Petry. "Governance and the Global Water System: A Theoretical Exploration." *Global Governance* 14 (2008).

Pahl-Wostl, Claudia, Joyeeta Gupta and Daniel Petry. "Introduction: Global Water Governance." *Global Governance* 14 (2008).

Pahl-Wostl, Claudia. "Governance and Water Needs Issues." Presentation, Natural and Social Capital (NASCap), International Institute for Sustainable Development, 2012.

Pearce, Fred. "A Global Treaty on Rivers: Key to True Water Security." *Yale Environment 360*, November 19, 2012. Available from [http://e360.yale.edu/feature/a\\_global\\_treaty\\_on\\_rivers\\_key\\_to\\_true\\_water\\_security/2594/](http://e360.yale.edu/feature/a_global_treaty_on_rivers_key_to_true_water_security/2594/)

Petrella, Riccardo. *The Water Manifesto: Arguments for a World Water Contract*. Global Issues Series. London: Zed Books, 2001.

Philipp Pattberg. *The Institutionalisation of Private Governance: Conceptualising an Emerging Trend in Global Environmental Politics*. Global Governance Working Paper No. 9, Global Governance Project, May, 2004.

Pigeon, Martin, David Hall, Emanuele Lobina, Philipp Terhorst and Emma Lui. "Controlling the agenda at WWF – the multinationals' network." PSI-CEO-PSIRU, March 2009.

Postel, Sandra. *Last Oasis: Facing Water Scarcity*. New York: W.W. Norton and Company, 1992.

Ramsar Conference. *The Final Act of the International Conference on Conservation of Wetlands and Waterfowl*. Ramsar, Iran, January 30 – February 3, 1971.

Rana, Saeed, and Lauren Kelly, “The Global Water Partnership: Addressing Challenges of Globalization – An Independent Evaluation of the World Bank’s Approach to Global Programs.” The World Bank Operations Evaluation Department. Washington DC: The World Bank, 2004.

Republic of South Africa. *National Water Act*. Act No. 36, August 20, 1998. Accessed August 27, 2013. Available from South African Department of Water Affairs.

Rockström, Johan, Will Steffen, Kevin Noone, Åsa Persson, F. Stuart III Chapin, Eric Lambin, Timothy M. Lenton, Marten Scheffer, Carl Folke, Hans Joachim Schellnhuber, Björn Nykvist Cynthia A. de Wit, Terry Hughes, Sander van der Leeuw, Henning Rodhe, Sverker Sörlin, Peter K. Snyder, Robert Costanza, Uno Svedin, Malin Falkenmark, Louise Karlberg, Robert W. Corell, Victoria J. Fabry, James Hansen, Brian Walker, Diana Liverman, Katherine Richardson, Paul Crutzen and Jonathan Foley, “Planetary boundaries: exploring the safe operating space for humanity,” *Ecology and Society* 14, no. 2 (2009).

Rodda, John C. “Whither World Water?” *Water Resources Bulletin* 31, no. 1 (1995).

Rogers, Peter, and Alan W. Hall. *Effective Water Governance*. Global Water Partnership Technical Committee Background Papers No. 7. Sweden: Elanders Novum, 2003.

Rogers, Peter. “Facing the Freshwater Crisis.” *Scientific American* 299, no. 2 (2008).

Rosegrant, Mark W., Ximing Cai and Sarah A. Cline, *Global Water Outlook to 2025: Averting and Impending Crisis*. International Food Policy Research Institute and International Water Management Institute, Food Policy Report, September 2002.

Rosenau, James, and Ernst-Otto Czempiel. *Governance Without Government: Order and Change in World Politics*. Cambridge: Cambridge University Press, 1992.

Rosenau, James. “The Governance of Fragmentation: Neither a World Republic Nor a Global Interstate System.” *Studia Diplomatica* LIII, no. 5 (2000).

Ruggie, John Gerard, ed. *Multilateralism Matters: The Theory of Praxis of an Institutional Form*. New York: Columbia University Press, 1993.

Ruggie, John Gerard. "Reconstituting the Global Public Doman – Issues, Actors, and Practices." *European Journal of International Relations* 10, no. 4 (2004).

Rulli, Maria Cristina, Antonio Savori and Paolo D'Odorico. "Global land and water grabbing." *Proceedings of the National Academy of Sciences of the United States of America* 110, no. 3 (2013).

Sadoff, Claudia W., and David Grey, "Beyond the river: the benefits of cooperation on international rivers." *Water Policy* 4, no. 5 (2002).

Salman, Salman M.A. "From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End?" *Water International* 28, no. 4 (2003).

Salman, Salman M.A. "From Marrakech through The Hague to Kyoto: Has the Global Debate on Water Reached a Dead End – Part Two." *Water International* 29, no. 1 (2004).

Salman, Salman M.A. "The Helsinki Rules, the UN Watercourses Convention and the Berlin Rules: Perspectives on International Water Law." *International Journal of Water Resources Development* 23, no. 4 (2007).

Sanitation and Water For All. "Sanitation and Water For All: A Global Framework for Action." Draft Concept Note, March 1, 2010.

Savenije, H.H.G., and A.Y. Hoekstra. "Water Resources Management." In *Knowledge for sustainable development: An insight into the encyclopedia of life support systems*, Volume II, UNESCO Publishing/EOLSS Publishers, 2003.

Savenije, H.H.G., and P. Van der Zaag. "Integrated water resources management: Concepts and issues." *Physics and Chemistry of the Earth* 33, no. 5 (2008).

Scheumann, Waltina, and Axel Klaphake. "Freshwater Resources and Transboundary Rivers on the International Agenda: From UNCED to Rio+10." Bonn: Deutsches Institut für Entwicklungspolitik, 2001.

Schlein, Lisa. "Water Scarcity Root of Darfur Conflict." *Voice of America*, June 10, 2011. Available from <http://voanews.com/content/water-scarcity-root-of-darfur-conflict-123688459/158292.html>.

Schneider, Howard. "World Bank rethinks stance on large-scale hydropower projects." *Guardian Weekly* May 14, 2013. Available from <http://www.theguardian.com/environment/2013/may/14/world-bank-hydropower-dam-rethink>.

Schnurr, Maria. "Global Water Governance: Managing Complexity on a Global Scale." In *Water Politics and Development Cooperation*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping. Springer-Verlag Heidelberg Berlin, 2008.

Scholz, Imme. "Global Environmental Governance and its Influence on National Water Policies." In *Water Politics and Development Cooperation: Local Power Plays and Global Governance*, eds. Waltina Scheumann, Susanne Neubert and Martin Kipping. Springer-Verlag Berlin Heidelberg, 2008.

Sivakumar, Bellie. "Water crisis: From conflict to cooperation – an overview." *Hydrological Sciences Journal* 56, no. 4 (2011).

SIWI. "World Water Week Celebrates Twenty Years." Stockholm International Water Institute, 2010.

SIWI. *The Stockholm Statement to the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro (Rio+20 Summit)*. Stockholm World Water Week, 21-27 August, 2011.

Slaughter, Anne-Marie. *A New World Order*. Princeton: Princeton University Press, 2004.

Sojamo, Suvi, Martin Keulertz, Jeroen Warner and John Anthony Allan, "Virtual water hegemony: the role of agribusiness in global water governance." *Water International* 37, no. 2 (2012).

Solanes, Miguel, and Andrei Jouravlev. *Water governance for development and sustainability*. Economic Commission for Latin America and the Caribbean (ECLAC), Serie recursos naturales e infraestructura No. 111, Santiago, Chile, June 2006.

Solanes, Miguel, and Fernando Gonzalez-Villarreal. *The Dublin Principles for Water as Reflected in a Comparative Assessment of Institutional and Legal Arrangements for Integrated Water Resources Management*. Global Water Partnership Technical Committee Background Papers No. 3. Sweden: Global Water Partnership, 1999.

Speth, James Gustave, and Peter Haas. *Global Environmental Governance: Foundations of Contemporary Environmental Studies*. Washington DC: Island Press, 2006.

Subramanian, Ashok, Bridget Brown and Aaron Wolf. *Reaching Across the Waters: Facing the Risks of Cooperation in International Waters*. World Bank Water Partnership Program Water Papers. Washington DC: World Bank, March 2012.

Summit on the Summit. *Summit on the Summit*. Accessed October 22, 2013. Available from <http://www.summitonthesummit.com>.

Teclaff, Ludwik A. "Evolution of the River Basin Concept in National and International Water Law." *Natural Resources Journal* 36, no. 2 (1996).

Transparency International. *Global Corruption Report 2008: Corruption in the Water Sector*. Cambridge: Cambridge University Press, 2008.

UN Treaty Collection. *Convention and Statute on the Regime of Navigable Waterways of International Concern*. Accessed October 22, 2013. Available from <http://treaties.un.org/Pages/LONViewDetails.aspx?src=LON&id=555&lang=en>.

UN-Oceans. "The demise of the ACC Sub-Committee on Oceans and Coastal Areas and ICP Proposal for a New Mechanism for Coordination." 2008.

UN-Water. "Annex 1 – Terms of Reference: UN-Water Management Team." UN-Water, 2012.

UN-Water. "Terms of Reference," UN-Water, 2012.

UN-Water. "*Water Security*": *Experts Propose a UN Definition on Which Much Depends*. March 22, 2013. Available from [http://www.unwater.org/UNW\\_ABWS\\_launch.html](http://www.unwater.org/UNW_ABWS_launch.html).

UN-Water. *Climate Change Adaptation: The Pivotal Role of Water*. UN-Water, 2010.

UN-Water. *Coping with Water Scarcity: A strategic issue and priority for system-wide action*. UN-Water Thematic Initiatives, August, 2006.

UN-Water. *Status Report on the Application of Integrated Approaches to Water Resources Management*. United Nations Environment Programme, 2012.

UN-Water. *Water Security and the Global Water Agenda: A UN-Water Analytical Brief*. Hamilton, Ontario: UNU, 2013.

UN-Water. *World Water Day*. Accessed October 22, 2013. Available from <http://www.unwater.org/wwd.html>.

UNCED. "Agenda 21 - Chapter 18: Protection Of The Quality And Supply Of Freshwater Resources: Application Of Integrated Approaches To The Development, Management And Use Of Water Resources." Available from <http://www.un-documents.net/a21-18.htm>.

UNCED. *Rio Declaration on Environment and Development*. United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, June 3-14, 1992.

UNCSD. "Plan of Implementation of the World Summit on Sustainable Development." Available from [http://www.un.org/esa/sustdev/documents/WSSD\\_POI\\_PD/English/WSSD\\_PlanImpl.pdf](http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/WSSD_PlanImpl.pdf).

UNCSD. "Report of the Sixth Session." Economic and Social Council, Official Records, Supplement No. 9, December 22, 1997 and April 20 – May 1, 1998.

UNCSD. *Commission on Sustainable Development (CSD)*. Accessed October 22, 2013. Available from <http://sustainabledevelopment.un.org/csd.html>.

UNDESA-UNDP. *TST Issues Brief: Water and Sanitation*. Technical Support Team, Post-2015 Development Agenda, May, 2013.

UNDP. *Human Development Report 1994: New Dimensions of Human Security*. New York: Oxford University Press, 1994.

UNDP. *Human Development Report 2006: Beyond Scarcity: Power, poverty and the global water crisis*. New York: Palgrave Macmillan, 2006.

UNECE. "UNECE Water Convention goes global." February 6, 2013. Available from <http://www.unece.org/index.php?id=32154>.

UNECE. *Status of Ratification*. Accessed October 19, 2013. Available from <http://www.unece.org/env/pp/ratification.html>.

UNEP. *Challenges to International Waters: Regional Assessments in a Global Perspective*. The Global International Waters Assessment (GIWA) Final Report, 2006.

UNEP. *Water – In the Transition to a Green Economy: A UNEP Brief*. 2009.

UNESCO. "Draft Agreement Between the United Nations Educational, Scientific and Cultural Organization, the Swedish Government and the Stockholm International Water Institute concerning the establishment and operation of the International Centre for Water Cooperation as a Category 2 Centre Under the Auspices of UNESCO." March 19, 2013.

UNESCO. *Atlas of Transboundary Aquifers*. UNESCO, 2009.

UNESCO. *Establishment of Category 2 Centres Under the Auspices of UNESCO*. General Conference 37<sup>th</sup> Session, July 19, 2013.

UNESCO. *UNESCO Constitution*. November 16, 1945. Accessed October 22, 2013. Available from: [http://portal.unesco.org/en/ev.php-URL\\_ID=15244&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=15244&URL_DO=DO_TOPIC&URL_SECTION=201.html)

UNFCCC. *Nairobi Work Programme*. Accessed August 26, 2013. Available from [http://www.unfccc.int/adaptation/workstreams/nairobi\\_work\\_programme/items/3633.php](http://www.unfccc.int/adaptation/workstreams/nairobi_work_programme/items/3633.php).

United Nations Human Rights Council. *Resolution 18/1 – The human right to safe drinking water and sanitation*. 18<sup>th</sup> Session of the Human Rights Council, October 12, 2011.

United Nations. “General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as a Human Right.” GA/10967, Sixty-fourth session of the United Nations General Assembly, 108<sup>th</sup> Meeting, July 29, 2010. Available from <http://www.un.org/News/Press/docs/2010/ga10967.doc.htm>.

United Nations. “Kofi Annan, Jaz-Z announce UN-MTV global campaign on world’s water crisis.” International Decade for Action, “Water for Life” 2005-2015. Available from <http://www.un.org/waterforlifedecade/jayzmtv.shtml>.

United Nations. *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development*. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. New York: United Nations, 2013.

United Nations. Committee on Natural Resources, 9<sup>th</sup> Session. April 8-17, 1985.

United Nations. *Convention on the Law of the Non-Navigational Uses of International Watercourses*. New York, May 21, 1997.

United Nations. *Declaration of the United Nations Conference on the Human Environment*. United Nations Audiovisual Library of International Law. Available from [http://legal.un.org/avl/pdf/ha/dunche/dunche\\_ph\\_e.pdf](http://legal.un.org/avl/pdf/ha/dunche/dunche_ph_e.pdf).

United Nations. *Goal 7: Ensure Environmental Sustainability*. Accessed October 22, 2013. Available from <http://www.un.org/millenniumgoals/envIRON.shtml>.



United Nations. *International Drinking Water Supply and Sanitation Decade*. A/RES/45/181, 71<sup>st</sup> Plenary Meeting, United Nations General Assembly, December 21, 1990.

United Nations. *Messages from Lake Biwa and Yodo River Basin*. A/RES/58/217, 78<sup>th</sup> Plenary meeting of the United Nations General Assembly, December 23, 2003.

United Nations. *Midterm comprehensive review of the implementation of the International Decade for Action, "Water for Life", 2005-2015*. A/65/297, Sixty-fifth session of the United Nations General Assembly, August 16, 2010.

United Nations. *New Delhi Statement: Some for all rather than more for some*. A/C.2/45/3, Forth-fifth session, United Nations General Assembly, October 11, 1990.

United Nations. *Observance of World Day for Water*. A/RES/47/193, 93<sup>rd</sup> Plenary meeting, United Nations General Assembly, December 22, 1992.

United Nations. *Report of the High-Level Committee on Programmes at its sixth session*. Chief Executives Board for Coordination, CEB/2003/7, Rome, Italy, September 18-19, 2003. November 6, 2003.

United Nations. *Report of the United Nations Conference on the Human Environment*. A/CONF.48/14/Rev.1, Stockholm, June 5-16, 1972.

United Nations. *Reports of the Administrative Committee on Coordination (ACC)*. Accessed 22 October, 2013. Available from <http://www.unsceb.org/content/reports-acc>.

United Nations. *Resolution 35/18 – Proclamation of the International Drinking Water Supply and Sanitation Decade*. 55<sup>th</sup> Plenary meeting of the United Nations General Assembly, November 10, 1980.

United Nations. *Resolution 63/24 – The law of transboundary aquifers*. Sixty-third session of the United Nations General Assembly, January 15, 2009.

United Nations. *Resolution 64/292 – The human right to water and sanitation*. Sixty-fourth session of the United Nations General Assembly, July 28, 2010.

United Nations. *Resolution 65/154 - International Year of Water Cooperation, 2013*. Sixty-fifth session of the United Nations General Assembly, December 20, 2010.

United Nations. *Resolution 67/203 - Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development and of the United Nations Conference on Sustainable Development*. Sixty-seventh session of the United Nations General Assembly, adopted December 21, 2012. February 27, 2013.

United Nations. *SEEA-Water: System of Environmental-Economic Accounting for Water*. New York: United Nations, 2012.

United Nations. *Summary of conclusions of the United Nations System Chief Executives Board for Coordination at its second regular session of 2003*. CEB/2003/2, UN Headquarters, October 31 – November 1, 2003. December 5, 2003.

United Nations. *The future we want*, Outcome of the Rio+20 United Nations Conference on Sustainable Development. A/CONF.216/L.1, June 19, 2012.

United Nations. *UNCED Conference*. Accessed October 22, 2013. Available from <http://www.un.org/geninfo/bp/enviro/html>.

United Nations. *Water Development and Management: Proceedings of the United Nations Water Conference*. Water Development, Supply and Management Series. Oxford: Pergamon Press, 1978.

United Nations. *Integrated River Basin Development: A Report by a Panel of Experts*. Sales No. 58.II.B.3, 1958.

United States Environmental Protection Agency. *Water Security*. Accessed August 23, 2013. Available from <http://water.epa.gov/infrastructure/watersecurity/index.cfm>.

United States Intelligence Community. *Global Water Security*, Intelligence Community Assessment (2012).

UNU-INWEH. *Deep Words, Shallow Words: An Initial Analysis of Water Discourse in Four Decades of UN Declarations*. Hamilton, Ontario: UNU-INWEH, 2011.

Ünver, Olcay. "Global Water Governance: A Practitioner's Perspective," *Global Governance* 14 (2008).

Varady, Robert G., and Matthew Iles-Shih. "Global Water Initiatives: What do the Experts Think? Report on a Survey of Leading Figures in the World of Water." In *Impacts of Megaconferences on the Water Sector*, eds. Asit K. Biswas and Cecilia Tortajada. Springer-Verlag Berlin Heidelberg, 2009.

Varady, Robert G., Frank van Weert, Sharon B. Megdal, Andrea Gerlak, Christine Abdalla Iskandar and Lily House-Peters, "Groundwater Policy and Governance." FAO/GEF Thematic Paper No. 5 – Groundwater Governance: A Global Framework for Country Action, June, 2012.

Varady, Robert G., Katharine Meehan and Emily McGovern. "Charting the emergence of "global water initiatives" in world water governance." *Physics and Chemistry of the Earth* 34, no. 3 (2008).

Varady, Robert G., Katherine Meehan, John Rodda, Emily McGovern and Matthew Iles-Shih. "Strengthening Global Water Initiatives." *Environment* 50, no. 2 (2008).

Veiga de Cunha, Luis. "The Challenges of Global Water Governance." Presentation, Expo Zaragoza, July 8, 2008.

Verkerk, M.P., A.Y. Hoekstra and P.W. Gerbens-Leenes. "Global Water Governance: Conceptual Design of Global Institutional Arrangements." Value of Water Research Report Series No. 26, UNESCO-IHE, March, 2008.

Vörösmarty, Charles J., Pamela Green, Joseph Salisbury and Richard Lammers. "Global Water Resources: Vulnerability from Climate Change and Population Growth." *Science* 289, no. 5477, July 14, 2000.

Wapner, Paul. "Politics beyond the state: environmental activism and world civic politics." *World Politics* 47, no. 3 (1995).

water.org. *About Us*. Accessed October 22, 2013. Available from <http://www.water.org/about>.

water.org. *Matt Damon Goes on Strike!* Accessed October 22, 2013. Available from <http://www.youtube.com/watch?v=jQCqNop3CIg>.

WaterAid-Tearfund. "Sanitation and water: Why we need a global framework for action." 2008.

WCED. *Our Common Future*. New York: Oxford University Press, 1987.

WEHAB. *A Framework for Action on Water and Sanitation*. WEHAB Working Group, World Summit on Sustainable Development, Johannesburg, South Africa, August, 2002.

Weiss, Edith. "The Emerging Structure of International Environmental Law." In *The Global Environment: Institutions, Law and Policy*, eds. Norman J. Vig and Regina S. Axelrod. Washington DC: Congressional Quarterly, 1999.

White, Gilbert F. "Reflections on the 50-year international search for integrated water management." *Water Policy* 1, no. 1 (1998).

WHO-UNICEF. *Progress on Sanitation and Drinking Water: 2013 Update*. Joint Monitoring Programme, 2013.

WHO. *Diarrhoeal disease*. Accessed October 22, 2013. Available from [www.who.int/mediacentre/factsheets/fs330/en/](http://www.who.int/mediacentre/factsheets/fs330/en/).

Wilkinson, Rorden, ed. *The Global Governance Reader*. London: Routledge, 2005.

Winpenny, James. "Financing Water for All: Report of the World Panel on Financing Water Infrastructure." World Water Council, March, 2003.

WMO-UNESCO. *Report on Water Resources Assessment: Progress in the Implementation of the Mar del Plata Action Plan and a Strategy for the 1990s*. 1991.

Wolf, Aaron T. "Conflict and cooperation along international waterways." *Water Policy* 1, no. 2 (1998).

Wolf, Aaron. "Conflict and cooperation along international waterways." *Water Policy* 1, no. 2, (1998).

World Bank. "Water Resources Sector Strategy: Strategic Directions for World Bank Engagement." Washington DC: World Bank, 2004.

World Bank. *The Global Water Partnership – Addressing Challenges of Globalization: An Independent Evaluation of the World Bank's Approach to Global Programs (Case Study)*. Washington DC: World Bank.

World Commission on Dams. *Dams and Development: A New Framework for Decision-making*. The Report of the World Commission on Dams. London: Earthscan, November, 2000.

World Economic Forum. *Water Security: The Water-Food-Energy-Climate Nexus*. Washington DC: Island Press, 2011.

World Water Council. *Board of Governors*. Accessed October 21, 2013. Available from <http://www.worldwatercouncil.org/about-us/organisation/board-of-governors/>.

World Water Council. *Final Report: Second World Water Forum and Ministerial Conference*. The Hague – “From Vision to Action,” March 17-22, 2000.

World Water Council. *Ministerial Declaration of The Hague on Water Security for the 21<sup>st</sup> Century* (2000).

World Water Council. *World Water Council 2013-2015: Constitution and By-laws*, Marseille, France 2012.

World We Want. *Post 2015 Water Thematic Consultation Report* (2013). Available from <http://www.worldwewant.org/node/366798>.

Wouters, Patricia, Sergie Vinogradov and Bjørn-Oliver Magsig. “Water Security, Hydrosolidarity, and International Law: A River Runs Through It...” *Yearbook of International Environmental Law* 19, no. 1 (2009).

WWAP. *Managing Water under Uncertainty and Risk: Overview of Key Messages*. The United Nations World Water Development Report 4. Paris: UNESCO Publishing, 2012.

WWAP. *The United Nations World Water Development Report 1: Water for People, Water for Life*. Barcelona: UNESCO/Berghahn Books, 2003.

WWAP. *The United Nations World Water Development Report 2: Water, a Shared Responsibility*. Paris: Berghahn Books/UNESCO Publishing, 2006.

WWAP. *The United Nations World Water Development Report 3: Water in a Changing World*. London: Earthscan/UNESCO Publishing 2009.

WWAP. *The United Nations World Water Development Report 4: Managing Water under Uncertainty and Risk*. Paris: UNESCO Publishing, 2012.

WWAP. *World Water Assessment Programme*. Accessed 22 October, 2013. Available from <http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/>.

WWF-DFID. “International Architecture for Transboundary Water Resources Management: Policy Analysis and Recommendations.” February 2010.

Young, Gordon J., James C.I. Dooge and John C. Rodda. *Global Water Resource Issues*. Cambridge: Cambridge University Press, 2004.

Young, Oran. "Vertical Interplay among Scale-dependent Environmental and Resource Regimes." *Ecology and Society* 11, no. 1 (2006).

Young, Oran. *International Governance: Protecting the Environment in a Stateless Society*. Ithaca: Cornell University Press, 1994.

Zeitoun, Mark, and Jeroen Warner. "Hydro-hegemony – a framework for analysis of transboundary water conflicts." *Water Policy* 8, no. 5 (2006).

Zeitoun, Mark. "The Global Web of National Water Security." *Global Policy* 2, no. 3 (2011).

## **Annex I      Interview Questions**

- 1) Should there be global water governance? Why or why not?
- 2) Why do you believe there is not a more formal (U.N.) global water governance regime (meaning UN body or convention dedicated to water (despite the '97 Convention, which is very specific and not in force))?
- 3) Are there specific moments in history (events, ideas that emerged, etc.) that you believe changed the trajectory of global water governance?
- 4) How have issues such as the human right to water and sanitation, privatization, dams, transboundary waters (UN Watercourses Convention, etc.), sovereignty and other contentious issues influenced the direction of global water governance?
- 5) Have the roles of certain institutions (World Bank, UN-Water, WWC, GWP, etc.) influenced the trajectory of global water governance? How?
- 6) Why has there not been a UN meeting on water since Mar del Plata in 1977?
- 7) Have the World Water Fora contributed to global water governance? What are the pros and cons to having such a forum (outside the UN system)?
- 8) What is missing/needed in terms of addressing water issues at the global level? What is politically/practically possible? What is ideal?