Going with the Flow

Transnational Experts in Global Water Governance

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Acknowledgments

Abstract

Water is understood as countless things: a biological necessity, a commodity, a human right, an increasingly scarce resource, or simply as the sum of its particles. But who decides which understanding should guide its governance at the global level? The role that transnational experts play in these processes is widely recognized but has so far seen little academic attention. This master's thesis marks a first within the water governance literature, as we conceptualize and analyze the social spaces in which transnational water experts construct knowledge and influence policies. We do this to answer the research question "How do transnational experts shape global water governance, and with what distributional implications?" We conceptualize global water governance as a Bourdieusian field that was constructed following the 1992 International Conference on Water and the Environment in Dublin. We claim that within this field, formerly independent strands of water governance are increasingly subjugated to the dominant logics of the field of global water governance, which understands water primarily as an economic good. We conclude that the emergence of the field of global water governance has facilitated the fading emphasis of all dimensions of water that are not tied to its value as a commodity.

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Chapter 1:

Opening the Valves

1.1.   Setting the Scene

For a molecule consisting of only two hydrogen atoms and one oxygen atom, water is understood as countless things: a biological necessity, a commodity, a human right, an increasingly scarce resource, or simply as the sum of its particles. As a result, scholars have argued that water is a 'total social fact' with ubiquity in all its social forms; somehow simultaneously "economic, political, religious, leisure, etc." (Orlove & Caton, 2010, p. 402). Capturing all these dimensions within a single governance model is an exercise only further complicated by water's ubiquity in all its functional forms, ranging from hydration, sanitation, and irrigation to hydropower generation or ecosystem conservation. Attempting to govern these different practices by reducing them to their common denominator, H_2O, demands a holistic narrative that can somehow gather the involved agents under a mutual conceptualization of what water is and what working with water means. How else does one successfully connect an agronomist managing runoff water at large scale farms with an economist advising governments on public-private partnerships, or an engineer designing hydroelectric dams with a lawyer advocating the human right to water?

Globally, the need for this holistic or integrated understanding of water has been acknowledged at since at least 1977, where the Action Plan developed at the United Nations Water Conference in Mar del Plata stated:

> *"Ensure that national water policy is conceived and carried out within the framework of an interdisciplinary national economic, social and environmental development policy."*

> (United Nations Water Conference, 1977, p. 28)

This call was aimed at national policymakers, who constituted the main agents involved in water governance at the time. However, fifteen years would pass without a review of the Action Plan, and as such, water as a topic vanished from the global agenda. Once it

finally did reappear, something had changed. The Dublin Principles, agreed upon at the 1992 International Conference on Water and the Environment, declared that "[w]ater has an economic value in all its competing uses and should be recognized as an economic good" (International Conference on Water and the Environment, 1992). This was a drastically different understanding of water than what was agreed upon at Mar del Plata, and this change was also reflected in which agents the Principles saw fit to participate in water governance: "Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels" (ibid.). Whether it was because so long had passed since Mar del Plata or for other reasons, this statement highlighted the perceived lack of inefficiency associated with the prior centrality of the nation state in managing water resources.

Today, the landscape of global water governance is noticeably marked by the changes facilitated by the Dublin Principles. Particularly, the shift from the national to the above-described 'participatory' approach has meant that an ever-increasing number of agents have come to enter and influence global water governance, heightening the role of the transnational water expert (see Jensen, Lange, & Refsgaard, 2012; Lubell & Balazs, 2018; Molle, 2008; Mukhtarov & Daniell, 2018; Pahl-Wostl, Conca, Kramer, Maestu, & Schmidt, 2013). However, at a time when water issues are so plentiful that they are popularly grouped together as a 'global water crisis' (see Bakker, 2010; Linton, 2010; Trottier, 2008), and water issues have come into the public consciousness through highly publicized cases such as Flint, Michigan, and Cape Town, South Africa, transnational water expertise continues to be a black box. In this black box, experts are unknown variables who exist between organizational mandates, international struggles for legitimacy and influence, and an increasing sense of urgency in solving global water problems. Understanding the roles that different experts and professional groups play and how they impact policymaking is thus both an urgent and timely inquiry.

1.2. Problem and Purpose

Who makes and shapes the decisions that inform and impact water governance? While the extent of the world's water problems become more publicized with every passing day, reports of the role of water experts in solving these issues remain scarce. Orlove &

Caton (2010, p. 411) outlined almost a decade ago that "[t]oo often in the past, water consumers have been the sole concern, along with their national governments; this mindset is no longer sufficient when one realizes the profound presence and involvement of the transnational community of water experts." Regrettably, only a few scholars have since taken to exploring these actors systematically (see Mukhtarov & Daniell, 2018). Additionally, no elaborate attempts have been made to understand the social spaces in which these experts work, or how these spaces in turn influence the work that the experts conduct. This thesis therefore marks a first within the water governance literature, as we conceptualize and analyze the social spaces in which transnational water experts construct knowledge and influence policies. We argue that this allows us to understand how distributional outcomes are determined, how policies are constructed and implemented, and how future water challenges are addressed.

Doing this requires us to open the aforementioned black box of water expertise, which we do by answering the following research question:

"How do transnational experts shape global water governance, and with what distributional implications?"

To relate this question to our specific theoretical inquiries, we pose the following sub-questions:

> (1) "How can global water governance be conceptualized as a social space?"
> (2) "How do transnational experts move and communicate within this social space?"
> (3) "How are expert-developed concepts and tools contested and operationalized?"
> (4) "What are the implications of (1), (2), and (3) on the global political economy?"

1.3. Theory and Methods

By studying the 'transnational', we study spaces in which long-established institutional orders play a much smaller role than within the boundaries of the nation state (Hannerz, 1996). In doing so, we contribute to the recent wave of literature that emphasizes the theoretical understanding of transnational experts, how they work, and what their incentives are in the creation of order and change in the global political economy (Dezalay & Garth, 2016; Fourcade, 2006; Kauppi & Madsen, 2013; Seabrooke

& Henriksen, 2017b). These approaches acknowledge that transnational orderings seldomly follow a logic of command, and are based on more diffuse types of authority, such as the setting of standards and agendas through both formal and informal structures (see Christensen, 2017; Seabrooke & Henriksen, 2017). We draw upon the International Political Sociology literature, particularly theory derived from the works of French sociologist Pierre Bourdieu, to help us study the social spaces that water experts populate. Applying concepts such as field, habitus, and capital allows us to reflect upon the underlying beliefs, norms, and actions that transnational water experts construct within what we term the *artificial* field of global water governance.

We track the development of the field to make sense of its fluid and complex boundaries, attempting to identify the "objective structures independent of the consciousness and will of agents, which are capable of guiding and constraining their practices or their representations" (Bourdieu, 1989, p. 14). In doing so, we study how different experts contest dominant logics and compete within the field. This lets us observe how these differences are reflected in the structure of the field and in the development of water-specific concepts and tools. Our micro-structural theoretical approach allows us to create an initial 'mapping' of how the field is divided into specific subfields, letting us identify the main contestations within the overall field and the distributional impacts of the dominant logics upon the global political economy. The mapping of subfields also serves as a first step from which further literature can develop.

Empirically, we conducted 36 semi-structured interviews with 34 experts from early February through late May 2019, as well as ethnographic field research in Washington, D.C. and Paris, where we participated in conferences, debates, and networking events. This data is supported by a range of supplementary methods adding context to our findings, such as academic literature, archival work in online databases, and the collection of reports, leaflets and flyers at the conferences we attended. Additionally, we gathered CVs and career information from our interviewees and select conference experts for an anonymized coding of water experts' career sequences. We primarily use this mapping and analysis of career sequences to understand how experts move between organizations within the field and to help us uncover the characteristics of subfields.

Our overall approach is molded by constructivist philosophy of science, which guides our reflexive and inductive approach to methodology.

1.4. Case and Choices

This thesis is structured as a single case study of global water governance in which our main units of analysis are transnational water experts. We observe how these experts shape the field of global water governance and how internal struggles and contests drive the production of knowledge, tools, and concepts. We then analyze the distributional outcomes of these contestations. These aims are all in line with the goals of the single case study approach, which are to produce new knowledge by exploring a given subject in significant detail, uncovering its mechanisms and particularities (Longhofer, Floersch, & Hartmann, 2017, p. 190). We chose this particular case due to (1) the lack of existing research that conceptualizes global water governance as a 'field' and (2) the lack of studies of water experts that use ethnographic methods, despite pleas from scholars for such analysis (Mukhtarov & Daniell, 2018; Orlove & Caton, 2010).

We purposely define global water governance in broad terms as "the system of actors, resources, mechanisms and processes which mediate society's access to water" (Cleaver & Franks, 2007, p. 303). While we provide a thorough explanation for this choice of definition in our literature review, the primary reason is that it allows us to take an open-minded approach to the field and the case, letting our mapping be defined by our observations in accordance with our inductive methodological approach, while also accounting for the distributive implication that such a system has when mediating between 'society' and 'access to water'. Similarly, given that our unit of analysis is the population within the field of global water governance, we had to make choices about who constitutes a transnational water expert early in the data collection process. Here, we define the transnational water expert in broad terms as individuals whose expertise has been committed to addressing global water-related challenges for an extended length of time. This means we leave out water experts whose expertise is intrinsically linked to specific national or regional contexts.

1.5. Claims and Contributions

In brief, this thesis argues that expert-driven social spaces and tools that construct water as an economic good have weakened water's social underpinnings in the global political economy. It does so by tracing how transnational water experts have designed these spaces and tools to achieve the widely acknowledged need for an integrated approach to water. These solutions strive toward this integration guided by market-based logics and by involving global agents who treat water as a commodity. This ultimately deemphasizes water's social implications at all levels of water governance and management. Overall, the thesis demonstrates how social contestation can be fended off by depoliticizing water through expert-designed tools and concepts.

To make these claims, we draw upon and contribute to vast bodies of scholarly inquiry. We primarily contribute to the water governance literature. While early water governance literature was heavily dominated and shaped by water engineers, this has been challenged in recent years. We contribute to an emerging strand of water governance literature that emphasizes how "our idea of water needs to be complicated by the fact that in every instance, water bears the traces of its social relations, conditions, and potential" (Linton, 2010, p. 7). The shift from engineer-heavy literature to what is deemed a "broader understanding of human dimension in water management" has been argued to constitute a scholarly paradigm shift (Pahl-Wostl, 2017, p. 2918). We contribute to this emerging branch by studying how experts influence the overall framing of water and the distributional outcomes of this. By doing this, we also answer a specific research call that encourages greater acknowledgement and studies of the roles of experts in water governance (Mukhtarov & Daniell, 2018; Orlove & Caton, 2010). We also connect this call to a much more encompassing body of literature from which we draw from and contribute to: International Political Sociology.

International Political Sociology (IPS) is a recently defined interdisciplinary academic approach to scholarship which essentially encompasses a "collection of perspectives that query the lines of distinction between the political, the social and the international in a variety of ways" (Stern, 2017, p. 156). Guillaume & Bilgin's edited volume, the *Routledge Handbook of International Political Sociology* is currently the most comprehensive single overview of IPS literature, containing a thorough walk-throughs

of IPS methods, theories, and topics, including chapters on the International Political Economy (IPE) (Samman & Seabrooke, 2017), and "Global Elites" (Kauppi & Madsen, 2017), to chapters on "Reflexive Sociology and [IPE]" (Dezalay & Garth, 2017), "Social Spaces" (Ellersgaard, Henriksen, Kristensen, & Larsen, 2017), and "Ethnography / Autoethnography / Autobiography" (Vrasti, 2017). This extensive collection of approaches that originate from all across the social sciences makes it even more interesting that our particular synthesis of ethnographic approaches, analysis of career sequences, and Bourdieusian theory of practice has not yet been attempted within IPS.

Combining these theoretical and methodological approaches with our expert- and water focus means that this thesis ultimately contributes to multiple branches of academic literature. We aid the integration of separate strands of literature, helping bridge the gap between research that is currently framed as a new scholarly paradigm in water governance literature and the overall IPS research agenda. We thus contribute to both strands thematically, theoretically, *and* methodologically: thematically, we open the black box of transnational water expertise using theories and methods that have rarely or barely been applied to their study. We analyze very recent developments in water that have yet to be studied from this perspective, including water's role in the Sustainable Development Goals. Theoretically, we conceptualize global water governance as a Bourdieusian field, the first attempt at doing so, and argue that global water governance constitutes an *artificial* field, a term we define and elaborate upon throughout this thesis. Finally, we contribute methodologically by approaching and analyzing the water experts through an innovative research design which combines ethnographic methods with career sequences mapping.

1.6. Outline of the Thesis

After this introduction, Chapter 2 reviews the literature on water governance. Here, we introduce central concepts and arguments within the literature, outline its history and trajectories, its relationship to knowledge production from non-academic expert networks, as well as main critical approaches. We elaborate on the role of the private sector and policy discourses in the water governance literature, laying a foundation for our analysis in Chapters 5 and 6. We then point towards the lack of comprehensive

studies of experts in global water governance and establish first clues as to why an ethnographic approach is especially appropriate in filling these gaps.

In Chapter 3 we introduce our theoretical framework. We discuss implications of the transnational dimension of expertise, examine existing strands of theory that attempt to account for this transnational dimension, and why a Bourdieusian approach suits our purposes. We then outline Bourdieu's theory of practice, introducing the concepts of field, habitus, and capital, how they help us study transnational water experts, and how they relate to our case. We also elaborate on notions of power and subordination to further enhance our theoretical framework. Finally, we reflect further upon using Bourdieusian theory of practice in a transnational setting and we describe how we operationalize our theoretical framework.

Chapter 4 elaborates on the methodological approach taken in this thesis. We introduce constructivism as our foundational ontological and epistemological approach to the philosophy of science. We then outline the structure of our single case study, reflecting on how we study global water governance through transnational water experts. We explain our data collection processes by describing our multi-sited ethnographic methods, how this multi-sited ethnography resonates with the study of water experts, and how we apply notions of studying 'up' and 'through'. In this section on multi-sited ethnography, we also describe how we designed and approached our interviews, conducted participant observation and fieldwork in Washington D.C. and Paris, as well as how these synergize with our archival methods and the analysis of career sequences. Finally, we summarize our research design and depict it visually.

Chapter 5 marks the first of our analytical chapters. Here, we primarily answer our first sub-research question by conceptualizing global water governance as a Bourdieusian field. We first provide an overview of the relevant institutional structures that arose throughout the 1990s and observe how they were important in shaping the tensions and pressures that helped establish the social space. We show that the resulting field provides something of a puzzle in terms of Bourdieusian theory: this social space emits traditional characteristics of a Bourdieusian field with the exception that we can historically trace its origins and logics to a specific point in time. That we can identify these origins despite a field usually constituting a "game devoid of inventor" (Bourdieu

& Wacquant, 1992, p. 104) prompts us to term the field an *artificial* field. We move on to study our transnational water experts within this field through the Bourdieusian concepts of capital and habitus. We find that this artificial field is fragmented and show that professions are not enough to account for this fragmentation. We instead suggest that we must analyze individual subfields that the field of global water governance tries to integrate.

In Chapter 6, we present the sequence mapping of transnational water experts by distributing the experts across the observed subfields. We analyze how the subfields are functionally different, how experts behave differently within them, and how they relate and interact with the overall field. To do this, we explore the two most dominant subfields, Water, Sanitation, & Hygiene and Water Infrastructure, in detail. We find that the overall field of global water governance attempts to integrate the individual subfields through a dominant doxa that emphasizes the conceptualization of water as a depolitized, economic good. We move on to provide a nuanced discussion of three tools that are supposed to further the integration of global water governance, namely Integrated Water Resources Management, the Water-Energy-Food Nexus, and the Sustainable Development Goals. We argue that these concepts have been deliberatively designed to diminish any meaningful contestation to their core logics.

Chapter 7 synthesizes the previous six chapters into a discussion over how our findings answer our research question and sub-research questions, particularly focusing on the distributional implications. We provide a final example that shows the current emerging trend within global water governance, namely 'financing for development.' We highlight the relation between this and the Sustainable Development Goals, and how it ultimately is a reincarnation of the core logics and approaches initiated during the field of global water governance's construction in the early 1990s. We then conclude overall how the emergence of the field of global water governance has facilitated the fading emphasis of all dimensions of water that are not tied to its value as a commodity. Finally, we summarize our findings and point toward further research.

Chapter 2:

Professionals, Profits, and Politics:

Navigating the Literature on Global Water Governance

In this chapter, we draw both thematical and theoretical boundaries on the roads already travelled by laying out the history and development of the relatively recent water governance literature. We introduce discussions and arguments within the literature that are central to this thesis, which we then further frame and elaborate upon in the following theory chapter. In structuring this literature review, we take a funnel approach, starting with the broader discussions of what water governance is, emphasizing the intertwined nature of the origins of water governance as policy and as scholarship, before we discuss the role of politics and the distributional aspects related to water governance. We continue by describing the role of policy concepts and private-sector involvement before moving on to the unique role that networks, partnerships, and other collaborative governance mechanisms play in the water sector. Finally, at the bottom of the funnel and this literature review, we review the literature specifically focused on water experts and hence place our idiosyncratic approach to studying these actors in the broader literature of water governance.

2.1.   Water Governance: *Key Terms, Trends, and Frameworks*

Within academia, water governance was traditionally looped in with other resources under the umbrella of environmental governance. It was only around the beginning of the 21st century that water governance literature truly evolved into its own area of study, with publications on the subject increasing from roughly 20 to more than 600 between 2000 and 2016 (Pahl-Wostl, 2017, p. 2917). One significant trigger for this was the release of two reports in March 2000 during the Second World Water Forum in the Hague. The two reports, *World Water Vision* and *World Water Security: A Framework for Action*, framed international water challenges as issues of inadequate supply, with the second report presenting a blueprint for alleviating these issues through "expanded

investment in water-supply in water-supply infrastructure, primarily by mobilizing the private sector through incentives such as privatization and full-cost pricing of water" (Conca, 2006, p. 1). As we will outline throughout this literature review, this catalyzed significant and controversial debates within water governance literature that relates to the role of the private sector in water.

The most cited definition of water governance originates at the Global Water Partnership (GWP), an intergovernmental organization founded in 1996 with support from the World Bank, the United Nations Development Programme, and the Swedish International Development Agency. In a 2003 working paper entitled "Effective Water Governance", the GWP defined water governance 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" (Rogers & Hall, 2003, p. 7). The definition has since been criticized for being "determined more by practical considerations than by analytical rigor" (Pahl-Wostl, 2017, p. 2920), a critique which is ultimately not surprising given the practical policy-focused mandate of the GWP. Its usage in the academic water governance literature, however, highlights the originally blurred boundaries between water governance as political actions and projects and the academic study of water governance.

Despite the traction that the GWP-led definition had initially gained, water governance literature evolved with new papers competing to establish other leading definitions of water governance, with attempts ranging from "the ability to develop adaptive capacity" (Kashyap, 2004); "an arena for negotiating more sustainable, equitable, and productive use and management of water at multiple scales" (Hirsch, 2006); the "evolution of formal and informal networks, partnerships, joint decision-making processes including dialogue and negotiated outcomes as mechanisms for steering water governance" (Tropp, 2007); "a systemic perspective, a governance focus on social actors, a transparent and accessible discourse on values and goals, and a comprehensive perspective on water sustainability" (Wiek & Larson, 2012); or, a six-step definition with the first definition being "the social function that regulates development and management of water resources and provisions of water services at different levels of

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society and guiding the resource towards a desirable state and away from an undesirable state" (Pahl-Wostl, 2015, p. 26).

While this struggle over definitions is still ongoing in the water governance literature, within the last decade, definitions have increasingly centered around polycentric arrangements, typically in the forms of networks, partnerships, dialogues, agreements, or similar (Neef, 2009). As we define our place within the water governance literature, this is an important development to highlight, as these approaches are much more in line with our conceptualizations than the early definitions of water governance. This means that we are contributing to the development of water governance literature and that other scholars also find the agents we are studying relevant. Nonetheless, it is worth iterating how the most-cited definition of water governance was not created within an academic sphere, but instead through an international network, the GWP, which was created specifically to convey one approach to water, namely Integrated Water Resources Management (IWRM)[1].

The dynamics concerning the production of expert knowledge and what we will later term integration tools for the field of global water governance (which include IWRM) constitute a significant argument throughout our analysis. As we will highlight in this thesis, these integration tools serve specific political and practical purposes, and their spilling into the academic literature is key to their legitimization. This also hints at the large role that knowledge production and expertise play not only in this thesis, but between policy-driven and academic scholarship in the water governance literature. The underlying conflict here is that social science researchers tend to be "uncertainty creators" by unsettling established categories and questioning conventional wisdom, while policy tends to be focused on "uncertainty reduction" to maintain its role in a field of competing agencies, organizations and experts (Cleaver & Franks, 2008, p. 158). The complex nature of the distributional aspects of water governance may hence be subjugated to easily understandable messages of policymaking, as well as notions of efficiency in water use and allocation (Rutgert Boelens & Vos, 2014). By assuming the

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[1] Experts involved in the creation and/or dissemination of water governance concepts often publish on the policies they advocate. Notable examples for this: IWRM, see Acheampong et al. (2016); Jønch-Clausen & Fugl (2001). A similar dynamic can be observed with the more recent OECD Principles on Water Governance, see Akhmouch & Clavreul (2016); Akhmouch & Correia (2016).

participants in the newly arising polycentric governance arrangements to be equally endowed with power, the "political economy of water tends to vest the stronger stakeholders with an interest in upholding the status quo" (Jensen et al., 2012, p. 4).

Arguments that examine the co-evolution of water governance literature and policy are located in the broader context of academic calls for considering water in relational terms (Hommes, Boelens, Harris, & Veldwisch, 2019; Linton, 2010; Loftus, 2009), for emphasizing differing understandings of water (Hastrup & Hastrup, 2015; Orlove & Caton, 2010; Wilk, 2006), accounting for political dimensions where they are neglected (Jensen et al., 2012; Swyngedouw, 2013; Taylor, Longboat, & Grafton, 2019), for paying attention unequal power distributions among the involved actors (Cleaver & Franks, 2007; Conca & Weinthal, 2018; Loftus, 2009) and for critically engaging with the role of the private sector (Bakker, 2010; Swyngedouw, 2005). Despite a myriad of different approaches, these scholars posit that 'modern' understandings of water have mostly been looked at as separate from these inherent political dimensions and is often conceptualized in mainly technical terms. To account for the nuance and relational nature of water, we consider water as a relationship that is produced or at least co-constituted by society (Linton & Budds, 2014; Swyngedouw, 2004). In accordance with this need for nuance and the distributional emphasis of our research questions, we argue that we can only meaningfully engage with the subject if we build on a definition of water governance that accounts for this complexity.

Beyond this, another key discussion within water governance literature concerns the problem of scale. Pahl-Wostl, Gupta, & Petry (2008, p. 421) outlined four 'approaches' or 'schools' of water governance literature based on the levels of which the scholars studied water governance or believed that water should be understood and regulated: at (1) the local level; (2) the national level; (3) the basin level; and (4) the global level. These approaches are often interlinked, but their segmentation is considered necessary due to the simple fact that water issues are dealt with at these different levels of governance throughout the world. Like the definitions of water governance, the different levels at which water is studied is deeply connected with the spatial imaginaries of policymaking. Especially the national and basin level scales of water management are repeatedly called into question regarding their efficacy of addressing water related

issues (Benson & Jordan, 2010; Ercin, Mekonnen, & Hoekstra, 2013; Hameiri, 2009; Moss & Newig, 2010). Indeed, it is only recently that "growing attention is being given to multilateralism in the international politics of water and to the recognition that local, national, and basin-level water issues are interlinked within a global water system" (Pahl-Wostl et al., 2008, p. 421). We acknowledge this discussion by focusing specifically on agents who participate in that global water system. This means that in our definition of transnational water experts, we leave out water experts whose expertise is intrinsically linked to specific national or regional contexts.

After recognizing the need for the inclusion of distributional aspects in our definition and clarifying scale and scope of our field of study, we define global water governance, following Cleaver & Franks (2007, p. 303), as "the system of actors, resources, mechanisms and processes which mediate society's access to water", on a global scale. By referring to a "system", the definition includes the same polycentric point of departure, but also explicitly refers to the way in which this system structures how water is accessible to society, thereby accounting for the politics and distributional aspects of global water governance. Following these reflections on definitions, we will review and explore global water governance literature in further detail in the next sections by elaborating on the roles of policy discourses and the roles of the private sector in water, before we conclude this chapter with a discussion of collaborative (polycentric) governance. This discussion helps us understand the 'growing attention to multilateralism' in water governance mentioned earlier (Pahl-Wostl et al., 2008, p. 421), as well as what its emergence means for the study of water experts.

2.2. Private Actors and Policy Discourses

The establishment of water governance literature has occurred during a period of significant global increase in "private sector dominance in the provision of water services" (Pahl-Wostl, 2017, p. 2921). As such, accounting for this development is central to much of the literature. The most in-depth exploration of the impacts of private sector participation in the provision of water services remains Karen Bakker's *Privatizing Water* (2010). Already in the preface familiar discussions regarding definitional matters are on display, as "[t]he correct terms to use when discussing water

privatization are a matter of dispute. Terminology signals allegiances and thus is rarely neutral" (2010, p. xv).

As such, the usage of the term 'privatization' within the context of water is also complex and inconsistent across studies. Bakker mitigates these complexities by defining privatization as an umbrella term for all activities containing private involvement, and she places concepts such as 'private sector participation' and 'public-private partnerships' on a privatization spectrum that (ibid.). In this thesis, we find the implications of a spectrum useful as well. While each activity represented on the spectrum has its own associations, specialists, geographic clusters, etc., capturing them under the same umbrella term allows us to illustrate the increased prominence of private sector involvement in more normative discussions.

That terminology signals allegiance is clear in water governance literature. Harvey (2003) posits that the privatization of water supply is 'accumulation by dispossession', given that it entails the enclosure of public assets to private for-profit interests and results in increased social inequity. Roberts (2008, p. 538) argues that shift towards market governance within water is part of "a broader extension of global capital into new social and socio-environmental spaces and relations in the interest of capitalist accumulation." She describes processes of water commodification and the emergence of a historically specific socio-environmental relation that increasingly seeks to articulate the value of social and environmental relations in economic terms (ibid.). On the other end of the spectrum, generic arguments presented in water governance literature have argued for privatization "based on the belief that private companies operating in market-based settings would solve problems with inefficiency and ineffectiveness of government organizations" (Pahl-Wostl, Lebel, Knieper, & Nikitina, 2012). However, efficiency-focused, new institutional economics theories such as incomplete contracts or transaction costs have also been used to explain failures of privatization efforts within water utilities (Araral, 2009; Araral & Wang, 2013).

Linking the privatization of water services to global water governance is therefore increasingly relevant. The overall trends of privatization have promoted the emergence of transnational water corporations such as Nalco Water, Suez, and Veolia, leading these types of companies to become "key global actors in water supply and wastewater

treatment" (Pahl-Wostl et al., 2008). The emergence of these large multinational corporations has meant that market-focused analyses of global water governance, such as studies of the dynamics between larger and smaller companies, their corporate governance, or similar, have become increasingly relevant. Indeed, entire international organizations (IOs) have been established to fill this gap, for example the CDP (formerly the Carbon Disclosure Project) who provide "data about [multinational corporations'] efforts to manage and govern freshwater resources" (CDP, 2018, p. 4). At the same time, it is important to recognize that "[t]he scope of private sector participation in water supply is particularly heterogeneous among countries regardless of their income level: from non-existent in Japan and Egypt, for example, to cases of divestiture in the United Kingdom and Chile", which is "very different to what happens in other infrastructure sectors such as energy and telecommunications, which are predominantly privatized in high- and middle- income countries" (Pérard, 2013, pp. 44–45).

Similarly, legal challenges to overall trends of privatization in water are also heterogeneous among countries, although less so at the regional levels. (Harris & Roa-Garcia (2013) study the constitutional changes enacted in Bolivia, Ecuador, and Uruguay throughout the 2000s, finding that "these new socio-legal frameworks directly target elements of 'neoliberal' water governance, with language that institutes bans on privatization, that substantiates water for nature as well as water as a human right, as well as adopting priority allocation schemes that emphasize water uses for productive purposes" (Harris & Roa-Garcia, 2013, pp. 1–2). These observations underline that there is little analytical use in a simplified distinction between "privatization" and "nationalization" of water. The debates on privatization of water and the contested use of language emphasize the degree to which water is deeply entangled with its surrounding politics. As highlighted in the Bakker quote above that "terminology signals allegiance", this entanglement is also something that the academic community is aware of. One area of the water governance literature where this is particularly noticeable is in the concepts that attempt to capture and summarize major debates on institutional and political reforms in global water governance.

One of these concepts is the panacea, i.e. the 'cure-all'. As stated by Pahl-Wostl et al. (2012, p. 25), "[i]dealized design principles based on institutional and technological

panaceas have been applied to water issues without long-term monitoring of their performance and effectiveness and without revision and critical reflection on practice that would have responded to failure earlier" (2012, p. 25). Likewise, Meinzen-Dick, 2007 (p. 15200) outline how "[o]ver the past 50 years, a series of institutional arrangements has been presented as panaceas to improve water governance: strong government agencies, user organizations, and water markets." A similar concept can be found in Molle's (2008) 'nirvana concepts[2]'. These "represent a vision of a 'horizon' that individuals and societies should strive to reach. Although, just as with nirvana, the likelihood that we may reach them is admittedly low, the mere possibility of achieving them and the sense of 'progress' attached to any shift in their direction suffice to make them an attractive and useful focal point" (2008, p. 132). This frames solutions to water issues in very broad and ultimately depoliticized terms that strive to reach goals that are universally 'good.'

This depoliticization is often to found in the context of Malthusian readings of resource scarcity, thereby naturalizing such scarcity and disregarding the power relations through which resources are both produced and distributed (Budds & Loftus, 2014, p. 954). The ultimate consequence of such a naturalized discourse is argued to be the truism (or hegemonic concept) of a global water crisis. As Trottier points out, scholarly work that takes the existence of a global crisis for granted without elaborating on what it actually means in their specific context tend to be directly associated with policy and practice-oriented research, often funded by bodies with a "declared stake in maintaining a certain discourse concerning the global water crisis" (Trottier, 2008, p. 212). This links directly back to the underlying performance pressure for 'uncertainty reduction' that is inherent in the dominant approaches to water governance. The depoliticized nature of these concepts has arguably contributed to the fact that studies of water governance under the framing of neoliberalism, privatization, or the increase in "private sector dominance in the provision of water services" (Pahl-Wostl et al., 2012) have been principal features of global water governance literature ever since it emerged in the early 2000s. While policy approaches have increasingly adapted a depoliticized approach to water governance, the literature on water governance has been more divided and either

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[2] We reflect upon nirvana concepts in Chapters 6 and 7.

approached water governance based on the same frameworks as adopted by policy makers or, in turn criticized these.

2.3.   Experts, Ethnographies, and Ecosystems

Although our review of the literature so far has included some hints regarding the role of experts, this section provides an overview of why experts matter in polycentric governance, and how the water governance literature has approached this so far.

As implicated in some definitions and considerations in earlier parts of this literature review, many scholars pinpoint the influence of formal and informal networks on how water governance evolves (Tropp, 2007) and in particular on epistemic communities between different experts (Dellapenna & Gupta, 2008, p. 440; Molle, 2008, p. 137; Rieu-Clarke & Gooch, 2015, p. 146; Tropp, 2007; Trottier, 2008). Before expanding on the role of experts, we would like to emphasize the role of collaboration in global water governance. As Holley points out, water governance has in the past decades placed considerable emphasis on engaging local actors, ecosystems and catchments. She refers to these approaches as collaborative water governance, which encompasses "new coalitions among governments, their agencies, and institutions of civil society, and are typically held together via guidelines, plans, and nonbinding agreements" (Holley, 2015, p. 324). It may be of little surprise that significant parts of these guidelines, plans and nonbinding agreements are not drafted by politicians, but by experts. Like partnerships and networks, collaboration is usually formed through a process of consensus, thereby "involving two or more parties reaching agreement to share power and pool knowledge and resources (for example, information, money, labor) to solve shared problems" (Holley & Lawson, 2015, p. 240).

One curious aspect of these collaborative efforts is the extent to which it appears to lie in sharp contrast with the otherwise lamented degree of vertical and horizontal fragmentation in water governance (Ambrus, 2016)[3]. This sparks a variety of new questions: If policies emerge in a given coalition or collaboration, do all parties fundamentally agree on the 'meaning' of the concept and how it is to be translated to

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[3] This fragmentation has led to several calls for action; see e.g. Gupta & Pahl-Wostl (2013, p. 1) on the "degree to which water issues need to be dealt with in a centralized, concentrated, and hierarchical manner."

local, national, and basin-level contexts? Both the panaceas and nirvana concepts introduced further above may answer this question to a certain extent (see Meinzen-Dick, 2007; Molle, 2008). These approaches describe discursive formations around certain concepts of an almost metaphorical nature – in that they are inherently vague and hence assist the building of consensus (and hence collaborations), as individual experts are supposed to translate them into action.

As policies emerge in global water governance, they spread across different layers of governance, and hence have to be translated to their new contexts along the way (sociologists consider translation as "the spread in time or place of anything – claims, artifacts, goods" (Latour, 2004, p. 267)). The spread of political ideas has been a matter of concern for a variety of scholars in water governance, for example through studies of the spread of transboundary water regimes (Gerlak, 2007), the spatial travel of water allocation mechanisms (Swainson & Loe, 2011), and the rise and spread of IWRM internationally (Conca, 2006; Mukhtarov, 2009). We argue that these accounts fail to consider on how the meaning constructed around a particular concept in the global policy discourse shifts as they move through different social systems. This refers not only to its translation from the 'global' to the 'local', but even across different professional, sectoral and organizational divides among transnational water experts themselves – an imbalance that is often disregarded due to rationalist assumptions regarding the behavior of individual actors (Mukhtarov & Daniell, 2018, p. 6). In the wake of this observation, Mukhtarov & Daniell encourage the application of "ethnographic methods studying the micro-politics of decision-making or policy makers, or an ethnography of global water policy experts" (ibid.).

In following this call, we would clearly not be the first researchers to study the role of experts in global water governance. But so far, ethnographic research on water governance has mostly focused on two specific phenomena in which water experts can be found: (1) studies focused on designated interactions between the 'local' and the 'global'. Examples for these can be found in Walley's research on the role of conservation experts in an East African marine park, in which transnational experts enter the context of local communities (Walley, 2004). A very different form of a transnational water expert is scrutinized in Mehta's work on the construction of water scarcity in Kutch

district in India (Mehta, 2001, 2005), which, in turn, contrasts the approach to experts portrayed in Budds' (2009) work on the subjective interpretations of scientific outputs such as hydrological assessments and statistics in Chile. The other camp, (2) focused on the interactions of water experts more specifically, although usually constrained to specific conferences, such as the 5th World Water Forum (Ulibarrí, 2011) or a conference on water sustainability and IWRM in Yemen (Caton, 2007).

None of these ethnographies have attempted to understand transnational water experts as a relatively unified group that populates a Bourdieusian field. Neither have they accounted for experts who interact, move, and communicate across organizational and/or sectoral lines. We argue that this is a significant gap in the present literature on water governance, and that an ethnographic approach can help remedy these gaps.

Having navigated the literature on water governance, this chapter has provided an overview of the scholarship's history, as well its central concepts and arguments. We have introduced the discussions of depoliticization and privatization within the literature and how other scholars have attempted to account for the role that experts play. Over the next chapter, we will introduce the specific theoretical approach that we take in to understand the role of transnational water experts.

Chapter 3:

Studying Transnational Water Experts:
A Theoretical Framework

Having navigated three decades of water governance literature, we have finally uncovered our treasure: a black box, stowed away, hidden, and unopened. It is impossible to open such a box without the necessary tools – or academic theories – fit for that purpose. In this chapter, we introduce the theories that we draw upon in this thesis, review how they relate to similar theoretical approaches, and justify the choices that we have made. The focus of this chapter is the study of experts in transnational spaces, which we place in the context of reflexive and relational sociology. Whereas the previous two chapters were concerned with framing the necessity for studying transnational water experts, this chapter presents the theoretical framework through which we intend to open the black box of agents.

We draw upon theory associated with International Political Sociology (IPS), particularly the branch of its literature that focuses on answering "how professionals broker normative, institutional and political change through [...] struggles in spaces 'beyond the state'" (Christensen, 2017, p. 1). In this branch of literature, which Christensen (2017) terms 'transnational professional competition', two dominant streams exist: "[1] studies associated with Pierre Bourdieu's field theory and [2] studies associated with Andrew Abbott's ecological theory" (ibid.). We primarily draw upon the stream of literature associated with Bourdieu's field theory. In this chapter, we review its strengths, limitations, and need for supplements in providing a holistic theoretical framework for interpreting and analyzing the social spaces that transnational water experts inhabit, as well as how these experts shape the global governance of water.

The aim of this chapter is to establish the theoretical foundations for how we approach transnational water experts. We detail our application of Bourdieusian concepts, how they relate to our objects of study, and the ways in which they define the interactions and structures that experts partake in. We arrange this chapter as follows: first, we introduce broader theoretical accounts of the transnationalization of expertise, which

we then contextualize with the development of Bourdieusian reflexive and relational sociology. Second, we introduce the three main concepts within Bourdieu's theory of practice, namely (1) field, (2) habitus, and (3) capital. Third, we discuss the use of this theory of practice with our selected case, reflecting upon whether one can 'transnationalize' Bourdieu, the advantages and drawbacks with this theoretical framework, and any potential needs for supplements. Finally, we summarize our theoretical framework and sketch out how it will be operationalized in the analysis, by outlining in which part of the analysis certain approaches will be integrated. Overall, we argue that Bourdieusian theory of practice provides an adequate toolbox to study both transnational experts and the social spaces they inhabit as it specifically accounts for the distributional implications and power relations that these social spaces bring.

3.1. Expertise in Motion: *The Transnationalization of Experts and Social Spaces*

"Distances and boundaries are not what they used to be", noted anthropologist Hannerz in the introduction to his book *Transnational Connections* (1996, p. 4). In contrast to the often contested and fuzzy notion of 'globalization' and the inherently state-centric 'international', the term 'transnational' accounts for "individuals, groups, movements, business enterprises" that, despite their diversity, share the characteristic of "not being contained within a state" (ibid., p. 6). Reflecting this shift in the transnational political realm, an increasing amount of literature has highlighted the importance of non-state actors in shaping global policy outcomes. With realist conceptions of IR being the dominant paradigm of the 20th century, world politics were primarily considered a realm of anarchy and conflict between states as unitary actors, leaving theoretical frameworks for understanding the role of experts largely undeveloped until the 1990s (Sending, 2019, pp. 383–384). The early years of IPE scholarship gave experts some thought and consideration, for instance through Cox and Jacobsen's 'anatomy of influence' theory (Cox et al., 1973) and Keohane's regime theory (Keohane, 1984), both of which reflected the emerging liberal preoccupation with international organizations. As such, the agency of transnational experts was

understudied and largely hidden behind states and international organizations - the two primary objects of analysis.

Around the 1990s, the development of the literature on transnational experts flourished through the release of literature-defining research on epistemic communities (Haas, 1992), professional competition and professional power (Dezalay & Sugarman, 1995), and transnational advocacy networks (Keck & Sikkink, 1998). These became foundational studies for an emerging literature that has since shifted its attention to the dissemination of existing expert knowledge to new local contexts (Fourcade, 2006), how transnational communities form around particular identities (Djelic & Quack, 2010), and on transnational professional and organizational networks (Seabrooke & Henriksen, 2017b). What binds this literature together is an acknowledgement that experts have a crucial influence on the reconfiguration of social norms, markets and politics, some even seeing them as the "preeminent institutional agents of our time" (W. R. Scott, 2008, p. 219). As we detailed our literature review, this sentiment is increasingly spilling over to the scholarship on global water governance, where detailed accounts of the roles of transnational water experts remain scarce to this day.

The role of experts and the forces that affect them are particularly crucial to understand in global governance. In the transnational political realm, power tends to be more fragmented between varying levels of formal and informal governance and institutional settings, with different legal and organizational mandates overlapping as a result (Seabrooke & Henriksen, 2017a). Transnational experts possess mobility in terms of career and geographic locations, which renders them highly flexible to changing surrounding circumstances (Henriksen & Seabrooke, 2016, p. 724). The literature on transnational experts introduces approaches to understanding how experts interact and compete over influence and institutional change, with the two primary streams within the literature being related to the works of Andrew Abbott and Pierre Bourdieu. Abbott viewed social spaces as ecologies, where actors compete for benefits in a symbiotic dynamic of jurisdictional contestation (Abbott, 2005), with Bourdieu, on the other hand, viewing social spaces as fields, where actors engage in domination or subordination through structural power dynamics (Bourdieu, 1989, 1990).

Although there are similarities between the strands, particularly with regards to the mutual emphasis on structural isomorphisms and the conception of the social world as consisting of processes and relations (Christensen, 2017, p. 13), this thesis draws more on Bourdieusian reflexive sociology. Bourdieu is more indebted to the hierarchical, stratified context of French society, while Abbott's work draws upon the experiences within the more liberal competition-based conditions of the United States (Liu & Emirbayer, 2016, p. 70). We argue that the more explicit recognition of hierarchical structures in Bourdieu's framework is more in line with our focus on distributive outcomes that our research question calls for. The application of a theoretical framework that accounts for forms of domination and subordination is hence a conscious choice in this thesis. As such, over the next subchapter, we will outline the main concepts and modes of analysis found within Bourdieusian theory of practice, including concepts such as the 'field', 'habitus', and 'capital', with examples of how they work with our case. In the following subchapter, we then discuss our choice in greater detail by drawing on recent developments of Bourdieusian approaches to experts before we finally summarize our theoretical framework and our place in the literature.

3.2. Bourdieusian Theory of Practice: *A Primer*

Applying Bourdieusian concepts necessitates a brief reflection on Bourdieusian ontology. Bourdieu sees social reality as "an ensemble of invisible relations, those very relations which constitute a space of positions external to each other and defined by their proximity to, neighborhood with, or distance from each other, and also by their relative position, above or below or yet in between, in the middle" (Bourdieu, 1989, p. 16). This explicitly describes social reality as relational. For studying experts, this means that an expert is not a fully independent unit of analysis that has a pre-constituted and unproblematic individual identity. Instead, experts are embedded into a network of relations. Agency is hence "inseparable from the unfolding dynamics of situations, especially from the problematic features of those situations" (Emirbayer, 1997, p. 297). In accordance with this position, Bourdieu disregards both instrumental rationality and structural determinism; instead, "actors act based on the dispositions that has been crafted over time (habitus) which, at the point of intersection with their socially defined

positions (in the field), are actualized in the form of practices" (Pouliot & Mérand, 2013, p. 31). Both the 'field' and the 'habitus' are detailed in following subchapters.

Beyond the relational ontology comes a reflexive epistemology. Bourdieu notes that "all knowledge, and in particular knowledge of the social world, is an act of construction implementing schemes of thought and expression" (Bourdieu, 1984, p. 467). In Chapter 2, we observed the co-construction between the field of water governance and the production of (academic) knowledge in the same field. This interconnection already provides a hint of the extent to which the form of knowledge production in a particular field may influence processes of naturalization of certain forms of knowledge over others. This argument is highly relevant in the literature on transnational experts building on Bourdieu's work: As Dezalay & Madsen note, "to take the Bourdieusian perspective seriously […] implies interrogating the construction of the object and the naturalizing tendencies of academic discourse on that very object" (Dezalay & Madsen, 2017, p. 38). We elaborate on such post-Bourdieusian approaches in Chapter 3.3.

Taken together, the above-described epistemological and ontological foundations provide the cornerstones for Bourdieu's theory of practice (see also Adler-Nissen, 2013, p. 14). In the following sections, we elaborate and define the central Bourdieusian concepts we employ in our theoretical framework – the field, habitus and capital. Beyond these three concepts, we introduce 'symbolic capital', 'symbolic power' and 'doxa' as key notions to the working of the dynamics shaping the field, and how they allow us to elaborate on the process of 'doxic subordination', meaning the process where actors unconsciously accept ideas or beliefs introduced by dominant actors. Additionally, we reflect on more specific considerations regarding the relevance of these concepts in the study of transnational experts and global water governance.

Using 'Fields' to Define and Delineate Social Spaces

Sociologists have a clear affinity towards the use of spatial metaphors to describe and capture the social world through theoretical frameworks. Besides the network (see e.g. Burt, 2009; J. Scott, 2012) and the ecology (Abbott, 2005), Bourdieu's field may be one of the more prominent of such metaphors. Conceptualized as a "network, or a configuration, of objective relations between positions" (Bourdieu & Wacquant, 1992,

p. 97), the notion of *field* is central to Bourdieu's theory of practice and can be identified where "multiple agents struggle in a structured way over a specific kind of scarce resource" (Pouliot & Mérand, 2013, p. 34). As such, the field explicitly accounts for 'power play', and the "structure of the field is a state of the power relation among the agents or institutions engaged in the struggle" (Bourdieu, 1993, p. 73). We purposefully emphasize this focus on power relations as this is one of the properties of the field that distinguishes it from Abbott's ecologies, upon which the second stream of literature on transnational professional competition is based. Abbott's linked ecologies have a much less explicit focus on power (Liu & Emirbayer, 2016).

In Bourdieu's work, power is attached to "the control of resources which correspond (and reproduce) the organising principles of fields" (Guzzini, 2013, p. 80). Every expert is located within a "set of objective power relations" that affect all those who are part of such a field (Bourdieu, 1985, p. 724). These relations are "not reducible to the intentions of individual agents or even to direct interactions between agents", but need to be studied within the broader sets of relations that these experts find themselves in (Bourdieu, 1991, p. 230). Each field contains a specific set of rules enabling and constraining the agents' positions and possibilities for actions. These rules are comprised of interwoven unequal positions based on historically constructed and determined forms of capital, resulting in a hierarchy of domination (Pouliot & Mérand, 2013, p. 30).

The field embodies the positioning of agents and their social standing, thus allowing us to approach the "positions that are uncovered, structured and conceptualized in the field" (Pouliot & Mérand, 2013, p. 32). In the context of the study of experts, this has direct implications. As Eagleton-Pierce notes in a study of experts on trade policy, the unequal distribution of power in a given field has direct consequences on "how opinions are articulated and which speakers acquire legitimacy" (Eagleton-Pierce, 2017, p. 117). In this thesis, we observed this exact dynamic across the conferences we attended, as we will outline in detail in our analytical chapters.

In summary, the properties of a field, and thus its unique power relations rest upon various factors including the object of struggle, historical power structures and 'the rules of the game', or *nomos* (Bourdieu, 2001, p. 13). These rules are not fixed, and their

history, shape and operations, as well of the range of knowledge required to maintain them enable an understanding of how change happens in the field (Thomson, 2008, p. 70). Every field is relatively autonomous, with specific hierarchies, specific rules, and with actors engaging in struggle over specific types of structured or determined forms of capital - be it economic, social, cultural or symbolic. Throughout this thesis, we refer to the social space associated with global water governance as a field, but we critically engage with this assumption as we show how vastly different internal 'rules of the game' dominate different aspects of the global governance in water, including Water, Sanitation and Health, Irrigation, and Hydropower. However, Bourdieu's theory of practice is not only contained to the concept of the field. As we explain over the next section, understanding the concept of habitus is an important prerequisite for understanding the agency of experts.

Uncovering Socialization by Uncovering Habitus

Habitus describes the "mental structures through which [agents] apprehend the social world", and are essentially the product of the "internalization of the structures of that world" (Bourdieu, 1989, p. 18). It constitutes "the basis of the perception and appreciation of all [...] experiences" (Bourdieu, 1990, p. 54). These structures ultimately result in a set of guiding principles and dispositions for the individual which are influenced by personal and professional histories (Pouliot & Mérand, 2013, p. 29). Agents both hold primary and secondary forms of habitus: while the primary habitus is internalized through early socialization with the family as the primary group, the secondary habitus is established throughout education and workplaces (Harrington, 2017a, p. 285). This combination of primary and secondary habitus implies that each individual expert holds multiple forms of habitus at the same time, with membership to different institutions and collectives. In relation to experts, this emphasizes the role of educational history, professional experience, and group membership. For that reason, a significant part of Chapters 5 and 6 deals with accounts for the habitus of experts in global water governance through their professional socialization.

While the field forms the structural framework for the analysis, the concept of habitus highlights the intersection between structure and agency (Pouliot & Mérand, 2013, p.

29). In other words, the habitus addresses key dynamics between society and individual, especially how the behavior of agents is regulated without it being determined by obedience to explicit rules (Maton, 2008, p. 50). Uncovering the habitus of a field requires "mapping embodied inclinations acquired through exposure and experiences in various positions and games" (Pouliot, 2013, p. 38). In our case, then, we must not only focus on the individual experts' positions within the field. Rather we must study how structural conditions (such as composition, central arguments and key players) in global water governance shape the dispositions and behavior of individual experts, as well as how individual experts in turn shape these structural conditions. Our primary method addressing this is through our ethnographic approach. Ethnographies have traditionally been considered "inextricably linked" to the study of habitus (Blommaert, 2005, p. 219, see also Barnard, 1990; Harrington, 2017; Wacquant, 2004), and as we will explain in detail in chapter 4, the use of ethnographic methods, meaning the in-depth study of a given social group, allows for the mapping of these embodied inclinations, providing us with insights the habitus of the individual transnational water experts.

Capital and the Power of the Symbolic

Acknowledging the existence of fields, and that they are inhabited by agents who are socialized by their academic and professional backgrounds, is not enough to account for the ways in which distributive outcomes within fields are determined. To help account for this as well as for broader notions of power, Bourdieu utilizes interpretations of *capital*, introduced in his characteristically convoluted terms as "accumulated labor (in its materialized form or its 'incorporated,' embodied form) which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labor" (1986b, p. 46). To split this definition into more digestible terminology, Bourdieu originally distinguished between three main forms of capital, namely (1) *economic capital*, "which is immediately and directly convertible into money and may be institutionalized in the form of property rights"; (2) *cultural capital*, "which is convertible, on certain conditions, into economic capital and may be institutionalized in the form of educational qualifications"; and (3) *social capital*, made up of social

obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility" (ibid., p. 47). In total, these three types of capital enable us to understand the modes of transaction which inherently shape and are shaped by field and capital; they are resources within a field that actors aim to accumulate and benefit from, as well as a means for agents to exert influence (or *domination*, in Bourdieusian terms) over other actors.

To account for the ways in which these three main types of capital interrelate, Bourdieu introduced yet another type of capital, the simultaneously ambiguous and encompassing *symbolic capital*. It was defined in "The Forms of Capital" (1986a, p. 255) as capital that is "apprehended symbolically, in a relationship of knowledge or, more precisely, of misrecognition and recognition, [that] presupposes the intervention of the habitus as a socially constituted cognitive capacity". In simpler terms, it is a "legitimate token of status" that can take the form of any of the previously introduced forms of capital, depending on the hierarchies and norms of a given field (Schinkel & Noordegraaf, 2011, p. 78). To provide an example from our data collection, throughout our interviews, we found that namedropping work experience within a wide range of geographic locations and countries was not only a way for experts to legitimize their individual claims, but also more broadly to legitimize their status as transnational water experts. This form of capital is symbolic as it cuts across all three types of capital: economic capital (the means to travel to these places), social capital (the connections in these places) and cultural capital ("I have the professional experience of working in multiple places around the world"). However, transnational work experience functions only as capital because it is recognized as valuable by other agents within a given field. We elaborate on this in much greater detail in Chapter 5.

In Bourdieu's conceptualizations of capital, we observe a dynamic present throughout his scholarship: that of tension. While Bourdieu arguably "ties all analysis of capital to his notion of 'symbolic capital'" (Guzzini, 2013, p. 81), the existence of this concept at all still depends entirely on the systems of hierarchies and norms that exist in a given field. As such, understanding the ways in which the concept of capital relates to the field overall is an essential component of establishing a Bourdieusian theoretical framework. Bourdieu conceives social groups in terms of their capital, and as such, a "particular

field will be structured by the operation and distribution of particular forms of capital, and the ability to move in that field is tied to an agent's possession of the relevant forms of capital" (Williams, 2013, p. 135). Therefore, the understanding of capital as the four above-described forms enables us to divide fields into clusters of individual profiles based on characteristics such as employment, education, or place of residence (Bourdieu, 1996, pp. 264–272). Here, we arrive at a common connondrum for Bourdieusian scholars: the possible existence of multiple fields within a field, or subfields: "Are they part of the field? Do they form a different field? Are they a subfield or part of an overlapping field? Do they represent a 'hybrid' space created by porous borders between fields? And does this make any difference to their practices, to ways of playing the game?" (Bathmaker, 2015, p. 69). As our first SRW focuses on the conceptualization of social spaces, this problematique plays a central role in the analytical chapters of this thesis.

3.3. Towards a Theoretical Framework:
Applying Bourdieusian Concepts to the Transnational

If we simply took the above-defined concepts and framed them as our theoretical framework, Pierre Bourdieu would himself have provided us with a simple equation and a brief guideline that describes the relationship between these core concepts in his theory of practice: "Because it can only account for practices by bringing to light successively the series of effects which underlie them, analysis initially conceals the structure of the life-style characteristic of an agent or class of agents, that is, the unity hidden under the diversity and multiplicity of the set of practices performed in fields governed by different logics and therefore inducing different forms of realization, in accordance with the formula: [(habitus) (capital)] + field = practice" (Bourdieu, 1984, p. 101). As uncovering "the unity hidden under the diversity and multiplicity of the set of practices performed in fields governed by different logics" cuts to the core of what our aims with this thesis are, the tools that Bourdieu developed throughout his career thus appear to be both useful and – relatively – straightforward mechanisms through which we can achieve this. However, as we will discuss and uncover throughout this

subchapter, there is genuine reflection to be had and decisions to be made before we arrive at a fully fleshed out theoretical framework that can account for our selected case.

First, and perhaps most glaringly, is the question of whether one can apply Bourdieusian concepts to a transnational case, given that Bourdieu himself was focused mostly on the nation state as the space at which his theory of practice was located and developed. Over the last 20 years, a new body of literature has emerged that has emphasized the role of sociology in International Relations (IR) and taken on the task of extending Bourdieusian concepts to the transnational sphere (prominent recent examples include Adler-Nissen, 2013; Bigo & Madsen, 2011; Dezalay & Madsen, 2017; Harrington, 2017b; Kauppi & Madsen, 2013). As such, applying Bourdieusian concepts to a transnational context is a relatively recent exercise and not one without its controversies, particularly given that Bourdieu's "own engagement with international politics seemed to be limited to his activities as a public intellectual" (Adler-Nissen, 2013, p. 3). However, Bourdieu's work deals with concepts near any IR scholar's heart, including those of the state, power, and capital, and we agree with the premise that this new body of literature brings forward, namely that Bourdieu's work can contribute to the further development of the literature, particularly constructivist IR and IPE, which have also seen increased prominence in recent years.

Since we are already likely to anger purists as we simultaneously latch onto Bourdieu's core concepts *and* subscribe to the idea that his work can be applied in ways that he himself (or Wacquant, for that matter) did not sketch out, we can also address any potential need for supplementary literature in our theoretical framework early. Thankfully, this is also one of the main puzzles that scholars are attempting to figure out for themselves within the recent IPS literature – especially its strands focusing on transnational experts. In Chapter 3.1, we provided a brief overview of the development of the literature on transnational experts in IPS and specifically on how this scholarship has developed into two primary streams, with one being based on the works of Andrew Abbott, and the other primarily drawing from Bourdieu's bibliography. While we avoid building on Abbott-based literature (e.g. Abbott, 1988, 2005; Faulconbridge & Muzio, 2017; Seabrooke & Tsingou, 2009) and do not apply Abbott-based concepts such as jurisdiction, linked ecologies, epistemic arbitrage, and issue control so that we can

maintain relative theoretical parsimony, we argue that many of the observations of Abbott-based approaches have developed a sophisticated understanding of transnational spaces. We therefore draw upon notions from scholars such as Eagleton-Pierce (2017), Fourcade (2006), Harrington (2017b), and Seabrooke & Henriksen, (2017a) who explain the idiosyncrasies of transnational spaces and experts.

For clarity's sake, however, it is also useful to reiterate why we have selected a Bourdieu-based theoretical framework as opposed to an Abbott-based one. Overall, we argue that a Bourdieu-based approach enables us to account for the power dynamics and stratification through our conceptualization of global water governance as a Bourdieusian field. These aspects are inherent and fundamental in Bourdieu's work, whereas they are only found in the periphery of Abbott's approach (Fourcade, 2006). While generally being heavily influenced by Abbott, Seabrooke & Henriksen's (2017b) edited volume *Professional Networks in Transnational Governance* features two chapters in which this critique is emphasized: Boussebaa notes in his work on transnational organizing by global professional service firms that accounts of 'transnational' emergence obfuscate the neo-imperial content of the transnational itself (2017, p. 236). Drawing on Bourdieu can help us account for such structural inequalities by, for example, identifying the "projection of power and interest under the guise of [...] institutions or professionalism" (Kauppi & Madsen, 2014, p. 362). Similarly, Dezalay & Madsen point out that a shortcoming of Seabrooke's own (Abbott-based) concept of epistemic arbitrage is that it disregards the critical sociological angle on the stratification of the international legal field (2017, pp. 26–27).

We argue that a similar blind spot would occur if we were to analyze the field of global water governance without a critical sociological angle that accounts for the possible stratification in the field. We exemplified some of this stratification in our literature review – for instance that of neglected political dimensions in the face of expertise (Jensen et al., 2012; Swyngedouw, 2013), paying attention to unequal power distributions among the involved actors in water-related development projects (Cleaver & Franks, 2007; Conca & Weinthal, 2018; Loftus, 2009), and the at times naturalized role of the private sector (Bakker, 2010; Swyngedouw, 2005). Building on Bourdieu is therefore directly in line with the distributive focus of our research question.

Looking at the core theoretical framework that we have presented thus far, we have argued that the three main concepts within Bourdieu's theory of practice, namely field, habitus, and capital provide excellent points of departure to analyze the behavior of experts. We have discussed why they are relevant within a transnational context and outlined a branch of literature from which we can draw on to support the transnationalization of this core framework. However, given the complexity of our case, we believe that our theoretical framework can benefit from an additional layer of concepts drawn from Bourdieu's own work, and particularly concepts that have already been applied to a transnational context. As such, to further enhance our theoretical framework, we will now outline how understanding 'symbolic power', 'doxa', and 'doxic subordination' helps us explain the ways in which transnational water experts operate within the field of global water governance.

Applying Bourdieu's theory of practice to experts implicates that these experts engage in struggles over defining their positions in a field based on habitus, the exchange value of capital, and their relations to other agents. Throughout this process, the experts struggle over defining a field's doxa. Doxa can be understood as a common sense that is specific to the field, indicating unconscious submission that reinforces a status quo from which the dominant actors in a field can benefit, constructing a "perception of the social world as natural and taken for granted" (Bourdieu, 2013, p. 298). The concept of symbolic power functions as an enabler for this purpose: symbolic power occurs through misrecognition and naturalization inscribed in habitus as agents battle to impose their own vision of the world (Pouliot & Mérand, 2013, pp. 38–39). Such symbolic power can be reified through linguistic, bodily, social, and temporal practices, granted that these fit with how agents are perceived by other agents within the field (Mérand & Forget, 2013, p. 110).

Through these practices, symbolic power allows dominant agents to endow their beliefs with a "doxic aura of legitimacy, universality and naturalness" (Pouliot, 2004, quoted in Berling, 2013, p. 65). The concept of symbolic power hence provides an important piece to the puzzle as it simultaneously allows for an understanding of how dominant agents influence the doxa, and an opportunity to investigate where these truths came from in the first place by tracing them back to specific agents. Through the establishment of

doxic legitimacy, doxic subordination occurs through the unconscious adjustment of subjective structures to objective structures. This adaptation of perceptions or norms held by dominant actors occurs through mobilization of pre-existing schemes of cognitions and behavioral dispositions internalized by agents. As the agents adapting these new structures have built their competence based on the pre-existing schemes, they engage in an (often) unconscious self-censorship where they "conform to the expectations of their position in the field" (Guzzini, 2013, pp. 81–82). The concept of doxic subordination thus allows us to understand how dominant actors can influence the core beliefs and norms of a field, without other actors realizing it. A famous example for this behavior given by Bourdieu himself are the means of neoliberalism "making itself true" through the support of diverse policy actors who take the neoliberal norms and practices for granted, thereby reproducing them (Bourdieu, 1998, p. 38).

The theoretical framework we arrive at here is one that considers experts' interactions and socialization, at the same time as it enables us to account for larger power structures and distributional outcomes in the global political economy. The concepts of field, habitus, and capital guide our analysis of our case, Global Water Governance, which we examine as a social space inhabited by transnational water experts, our units of analysis. To understand this field, we further draw on concepts of doxa and symbolic power, which we contextualize with reflections from more recent literature that also attempts to transnationalize Bourdieu's work – sometimes also termed post-Bourdieusian scholarship, as mentioned above (prominent recent examples include Adler-Nissen, 2013; Bigo & Madsen, 2011; Dezalay & Madsen, 2017; Harrington, 2017b; Kauppi & Madsen, 2013). Overall, both Bourdieusian scholarship, as well as its recent extensions assists us in constructing a multi-faceted approach for understanding the complex nature of expertise, power, and practice in the field of global water governance.

In operationalizing our theory, we explicitly build our modus operandi on Bourdieu & Wacquant's suggestions (1992, pp. 104–105). These entail three steps: (1) analyzing positions of the field and their relation to the field of power; (2) mapping out objective relational structures held by social agents or institutions competing for legitimate forms of authority present in the field, and (3) analyzing the habitus of social agents, as well as the social dispositions they have acquired through internalization of social or

economic conditions. As we do so, we consistently build on Bourdieusian theory of practice, made up by the interactions of the concepts of field, habitus and capital. As we delve into the discussion of the social space that our case entails, we discuss the concept of field and its applicability to our case and eventually end up suggesting an adaption to this concept, while following on Bathmaker's (2015) footprints to analyzing social spaces *within* a field. While we adapt the concept of the field to our specific empirical case throughout our analytical chapters, we discuss the concepts of capital and habitus in congruence with Bourdieusian theory throughout (i.e. without alterations to the concepts themselves), with the help of the methodological toolbox we introduce in the following chapter.

Chapter 4:

From Access to Assessment:
Methodological Considerations

As all thoughtful research inquiries necessitate thorough deliberations on both the collection and structuring of data prior to its analysis, this section outlines our methodological contemplations in the development of this thesis. Over the previous two chapters, we have outlined the developments of the water governance and the International Political Sociology literatures and how our approach to this case ultimately draws from and contributes to both. We have, however, only hinted at the methodological underpinnings of this thesis.

In this chapter, we propose methods that can help us achieve our aims in uncovering how the actions and interactions of experts are structured in the field of global water governance. We introduce a constructivist, multi-sited ethnographic research design to study transnational water experts, the relations between experts when competing for legitimate forms of authority, as well as the habitus, types of capital and social dispositions they have acquired through their career trajectories (or sequences) and educational history.

While ethnographic methods and analysis of career sequences have been applied thoroughly to the study of experts, we suggest a combination of these two approaches and expect to explore possible synergies between them once we have completed our analysis. From this chapter onwards, we will distinguish between the Bourdieusian *social field*, which we have already defined and discussed, and the anthropological *ethnographic field*, which we introduce in this chapter. Hence, the 'field' takes on a double meaning, and we therefore apply strict terminological rigor to ensure conceptual clarity throughout this thesis.

This chapter is structured as follows: First we briefly introduce constructivism as the guiding ontological end epistemological foundation of our methodology and introduce how its principles may contribute to the thesis. Second, we outline the structure of our

single case study, reflecting on how transnational water experts' interactions can be captured within this research design, and in particularly when framed with Bourdieusian theory. Third, we present our multi-sited ethnography, and present how this resonates with the study of water experts, and how we apply the concepts of studying 'up' and 'through'. The multi-sited ethnography applies the methods of participant observations, interviews, archival methods, and the analysis of career sequences as a tool to analyze experts' professional socialization. These serve as our primary data collection methods. Before arriving at an outline of our research design, we contextualize how the ethnographic findings can be enriched or 'thickened' by analysis of career sequences.

4.1. Constructivism as a Philosophical Foundation

The thesis assumes a constructivist foundation in its study of global water governance. Constructivism as a methodological position seeks to "capture and understand the meaning of a social action for the agent performing it" (Moses & Knutsen, 2012, p. 11). In contrast to naturalist approaches to the philosophy of science, constructivism does not perceive patterns and regularities to be part of nature, instead emphasizing observations, upholding that individuals may look at the same thing and perceive it differently (ibid., pp. 10, 169). Constructivists argue that the outside world does not exist independently from the observer, as otherwise argued by naturalists. What is real and what can be known is therefore justified by social relativity (Berger & Luckmann, 1966, p. 15). Consequently, the constructivist approach is concerned with the social construction of reality (ibid., 1966, p. 27). Adopting this constructivist ontology, we further apply a dynamic, relational approach that understands the individual subjects under study as inseparable from their transactional context (Emirbayer, 1997, p. 287). Ultimately, constructivism enables us to study normative concepts that are inherently open to extensive reformulation. This also reflects the ontological and epistemological foundations of our theory.

Given water's pervasiveness as a total social fact, it is naturally perceived, constructed, and handled in a myriad of different ways depending on both context and socialization (or habitus) of an agent. Unsurprisingly, these differences often coalesce within

different approaches to water, if these are through seeing water as 'hydro resources' from the perspective of hydropower professionals, as a human right by experts working on the access to water and sanitation, or as a part of an ecosystem from the perspective of conservation experts. As argued by Borgatti et al., "[e]ven when objective measures are available, it is often more useful for predicting behavior to measure a person's perception of their world than to measure their actual world" (Borgatti, Mehra, Brass, & Labianca, 2009, p. 895). By sidestepping a naturalist ontology, we do not focus on the question as to what an 'objective reality' of water would be, as if this reality is entirely independent of the observer. Rather, we delve in the many different conceptions of what 'water' is and what it means for different groups of actors (and thus how it ought to be governed) in a study that cuts across sectors, professions, organizations, regions, and socio-economic contexts. To capture, analyze, and understand all these dimensions, we argue that a constructivist ontology is a prerequisite.

Why would we engage in the study of experts, who, perhaps as opposed to politicians, are expected to base their actions and expertise on value-free scientific facts? Constructivists consider that "even factual statements are value-laden" (Moses & Knutsen, 2012, p. 11), as they take place in a specific social context and follow from the interactions among individuals (Creswell, 2014, p. 8). This will prove to be particularly important in designing and carrying out this thesis' multi-sited ethnographic approach. One of the reasons why we chose to delve into the ethnographic field of global water governance was for us to create our own perceptions and observations that would help make the literature and our subjects 'come alive'. As Peter Hall avows, "the choice of a methodology must be conditioned, not only by the state of the literature, but by the state of the world, as we perceive it, and notably by the character of the causal relations in the cases to be investigated" (2006, p. 25). A constructivist approach to experts thus allows for an investigation of the processes shaping not only the concepts and theories present in the field of global water governance, but also the structures that affect experts and their understanding of the world.

4.2. Studying Global Water Governance as a Single Case Study

This thesis is structured as a single case study of global water governance. The aim of the case study method is ultimately to produce new knowledge by exploring a given subject in significant detail, uncovering its mechanisms and particularities (Longhofer et al., 2017, p. 190). A case study should produce context-dependent knowledge that enhances the understanding of the subjects under study, allowing for a nuanced view of reality (Flyvbjerg, 2006, pp. 222–223). The objective of this single case study is to outline a profound and detailed understanding of how global water governance can be understood by analyzing transnational water experts. This provides us with insights into the role of expertise in how water is governed, and how experts ultimately impact distributive outcomes in the global political economy. Our observations are thus focused on both describing observable social relations and on uncovering the power dynamics these are embedded in as we outlined in Chapter 3. This is done based on specific, context-dependent observations – an inherent strength of such a case study approach. Combining the single case study approach with a Bourdieusian theoretical framework largely reflects what Bourdieu & Wacquant (1992, pp. 104–105) suggested in their three steps for investigating a social field, which we outlined in Chapter 3.3. Throughout this chapter, we will demonstrate how our methodological toolbox is fit to follow these steps, as we condense these suggestions into a coherent research design that matches our general aims with this thesis.

In this single case study, transnational water experts form our unit of analysis. As a backdrop, we need to quickly explain how we identified transnational water experts during our data collection. We consider transnational water experts as individuals whose expertise has been committed to addressing water-related challenges for an extended, but undefined, length of time, and who also directly or indirectly engage in global water governance. That broad definition calls for our exclusion criteria – i.e. who is not a transnational water expert. We thus explore the margins of the social field. While the experts who are not perceived as part of the community of transnational water experts intersperse among the expert community at conferences, in publications and in projects, they are typically not immersed in the field to the same extent. Throughout the ethnographic study, it was possible to identify two such groups of

experts, that while working with water only have a peripheral existence in the field of global water experts.

The first group includes individuals who work on national solutions. While these do not exist in isolation of the transnational issues and are often linked to the transnational field of water experts, their work focuses on national water issues. One example of this was observed at the conference we attended at the U.S. Chamber of Commerce, which focused on the national water issues within the U.S. Similar to other conferences, there were participants with backgrounds from multinational corporations such as Goldman Sachs, Blackstone Capital, as well as experts who had worked with water-related organizations such as the Stockholm International Water Institute, UNICEF, and the World Bank Global Water Practice. Even so, the focus remained on national water issues, and the experience of the participants were likewise focused on water as an issue within national boundaries. Therefore, most of the experts present could not be identified as transnational water experts.

A second group of experts that could not be counted as part of the field of global water governance were individuals with very weak links to that field. These experts may be limited by their organization and its boundaries, focus or geographic approach, by the lack of their presence at conferences and in publications, by the specific focus of their expertise being outside of the scope of the water community, or generally by lack of connections to other experts within the field. Throughout the ethnographic study we interviewed two experts that could be classified to be a part of this group. While these experts were not a part of the transnational water community, they may still be linked to the overall field by sharing certain frames of reference, such as a knowledge of policy concepts such as Integrated Water Resources Management, the Water-Energy-Food Nexus, or the water-related aspects of the Sustainable Development Goals. However, due to their exclusion from the central network, their relation to these frames is largely of a passive nature, rather than one of contestation as part of a Bourdieusian field.

This section briefly outlined how our methodological approach is structured (as a single case study), what our case is (global water governance), and how we identified our units of analysis (transnational water experts). In the remainder of this chapter, we will outline our methodological toolbox, and why it is adequate of addressing this case.

4.3. Outside In/Inside Out: *Considerations on Multi-Sited Ethnography*

When we decided that we wanted to conduct thesis research on experts in global water governance, we made some early methodological choices. First, we agreed that our study should be highly contextual and nuanced and secondly, we agreed that we would prefer to collect as much data as possible by observing, listening, and interacting with experts that were active in the field. We arrived at ethnographic methods as a tool, agreeing that it would prove to be an "eclectic methodological choice which privileges an engaged, contextually rich and nuanced type of qualitative social research" (Falzon, 2009, p. 1). This fits with our aims of creating a research design that can generate context-dependent knowledge and thus shed light on previously neglected areas of the water governance literature. Unlike traditional ethnographies undertaken by anthropologists who focus on specific groups in confined locations, we have chosen to study a group of people who are not contained to a single location or *ethnographic field site*. Transnational water experts include a wide range of people and social relations, scattered across continents, organizations, and professional backgrounds. If ethnographies are to be conducted as fieldwork with researchers entering the cultural group's natural setting, observing the actors and interacting with them (Gerring, 2012, p. 421), how can we study such experts?

The answer lies in the relatively recent efforts of social scientists to engage into multi-sited ethnographic research, i.e. the "experience-based inquiry into the interpretive, institutional, and relational makings of the present" (Greenhouse, 2010, p. 2), especially in reference to groups that are dispersed across several, fragmented locations (Marcus, 1995). Multi-sited research takes on the challenge of studying groups that are not contained in one single physical space and differs therefore significantly from 'traditional' ethnographies. We argue that these relational makings of the present are made not just by tightly-knit groups present in one spatially confined location, but also in social spaces of experts who are dispersed globally, and communicate through calls, conferences, and the virtual world, and whose expertise refers to a shared point of reference (i.e. the global governance of water).

The study of such social spaces indicates the re-application of pre-existing ethnographic approaches to different physical spaces, and which sets it apart from these pre-existing approaches. As Marcus points out, "ethnographic concerns such as agency, symbols and everyday practices can continue to be expressed on a differently configured spatial canvas" (Marcus, 1995, p. 98). The construction of such a spatial canvas additionally heightens the responsibility of the individual ethnographer to construct the space that is to be studied. This is in direct opposition to ethnographies in villages or the offices of an organization, where the space is 'pre-constructed' and renders it less of an obligation to the ethnographer to construct this space. The heightened agency of the ethnographer in constructing this space also makes that ethnographic field 'fuzzy', meaning that it is without clear boundaries (Falzon, 2009, pp. 19, 234). The resulting "exercise in mapping terrain" (Marcus, 1995, p. 99) requires us to elaborate on the ways in which we construct and limit the ethnographic field that we are studying.

In his landmark review "Ethnography in/of the World System", Marcus (1995) provides guidance on how to limit the ethnographic field by suggesting focusing on certain aspects that connects a group under study: "When the thing traced is within the realm of discourse and modes of thought, then the circulation of signs, symbols, and metaphors guides the design of ethnography" (1995, p. 108). As mentioned, approaches to global water governance are complex, numerous, and thus largely depend on which organizational and professional context the expert is situated in. To understand how these approaches vary, we locate such "signs, symbols and metaphors" (ibid.) amongst the experts, mainly in the form of policy concepts that we observed to circulate among the experts under study. We then discuss the extent to which experts agree on their meaning and significance, and what that means in terms of the social field(s) of which these experts form part.

One example that we briefly introduced in the literature review is the concept of Integrated Water Resource Management and the disagreement over what its function is, what the concept entails, how widespread it is, and to what degree it is successful. We follow a similar procedure to understand the role of the Water-Energy-Food Nexus and the role of the Sustainable Development Goals. Tracing these different concepts and

analyzing their use in reference to our theoretical framework is a key focus of Chapter 6.2.

In addition to these policy concepts, we trace the role of professionalism (i.e. professional socialization) as a form of symbolic capital through the social field(s) of global water governance, thereby helping us construct the ethnographic field we study[4]. We do so by following the (professional) habitus of different experts, a procedure that can be considered "inextricably linked to situated ethnographic inquiry" (Blommaert, 2005, p. 219), as we already mentioned in our theory chapter. In combining our Bourdieusian theory of practice with ethnographic methods, we argue that the meanings attached to professions and the logics according to which experts make decisions are highly dependent on their immediate social context. This means that following their professional dispositions (as symbols) can contribute significantly to our understanding and construction of the ethnographic field. The circulation of these policy concepts and the diverse dispositions of professional socialization both guide our ethnographic approach while simultaneously guiding the construction of our ethnographic field (see Riles, 2001). If an expert is part of the social space that takes part in reproducing or contesting these symbols, we know that this expert is part of our ethnographic field.

Accordingly, the ethnographic field in which we locate and trace these concepts is made up of experts who contribute to water-related policy and projects in various countries, and/or are advocates, policymakers, or advisers on water-related issues in global fora. While this description renders the ethnographic field inevitably large, globally dispersed, and hard to locate, we soon found that it was smaller than initially expected. Following the fieldwork we conducted in Washington, D.C. and Paris as well as our meticulous study of publications and policy documents, we began to come across the same names and organizations repeatedly, achieving a degree of saturation in our constructed ethnographic field (see Mason, 2010). When coming across new materials, we had often either interviewed the authors already (or sent them an e-mail), read their reports, seen them talk at conferences, or had them recommended by other interviewees

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[4] On professions being leveraged as symbolic capital, see e.g. Schinkel & Noordegraaf (2011, p. 67), who emphasize professionalism as a "scarce symbolic resource, an object of a process of consecration and a source of legitimate forms of acting and interpreting."

for further interviews. This increased our perception of being in the middle of a network, and hence having constructed such a network 'inside out' (Riles, 2001).

This brings us to the notion of 'constructing the field', a reflexive praxis commonly employed by ethnographers[5] (Amit, 2000; Falzon, 2009, p. 236; Kapiszewski, MacLean, & Read, 2015). Annelise Riles (2001, p. 6) argues that sociologists and ethnographers who try to understand the challenges of the transnational should not try to be relevant through constructing the transnational as a new, multi-sited 'place', but rather through "finding a point of access from *within* the ethnographic material." This means that our understanding of the specific contexts brought on by transnational dynamics must be developed through a deep engagement with the material we gathered. We integrated this notion into our interviews, where we asked experts to reflect on their own knowledge in relation to other experts, the conferences and events they attend, the professional groups they interact with, and the business sectors they work with to find these points of access. Participation in events and conferences then enabled us to observe these relations in practice. We took deliberate efforts to construct a field, but what we ultimate observed was the field constructing itself – 'inside-out' and 'outside-in' became two sides of the same coin.

4.4. 'Studying Up' and 'Studying Through': *Data Collection for Studying Elites*

Traditionally, anthropologists saw themselves as "merchants of astonishment" – researchers who sought to describe and understand the ways of living and sense-making of "strange cultures" (Geertz, 1984, p. 275). This was embodied in the trope associated with anthropology of a (typically white) researcher traveling far from their university office in order to 'make contact with', 'immerse into', or even 'uncover' a tribe of people somewhere in Southeast Asia or Sub-Saharan Africa. Laura Nader's call to *study up* in her 1972 book chapter "Up the Anthropologist" had a profound influence on the reordering of the anthropological research agenda. Nader envisioned a turn away from only researching the dynamics and orderings of marginalized or foreign individuals and

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[5] The field being constructed here refers to the ethnographic field, of course.

groups, with anthropologists instead contributing "to our understanding of how power and responsibility are exercised" in their own societies (Nader, 1972, p. 1). Having established that studying experts requires the construction of an ethnographic field, we now delve into the specific ways in which these highly mobile, elite subjects require different methodological preparation and approaches.

As Brooke Harrington (2017a, p. 52) argues, "ethnography may be one of the *only* practical methods for producing knowledge about elite professionals", given that they tend to be severely underrepresented in quantitative data. This poses some fundamental challenges that needs to be addressed early in the data collection processes. If anthropologists, limited by closed doors, gatekept environments and a hyper-mobile group of people that is constantly in motion and dispersed across multiple sites could not observe participants as they usually do, "how could they do anthropology?" (Nader, 1972, p. 22). In her own answer to this question, Nader suggests fundamental methodological changes to anthropology, namely "shuffling around the value placed on participant observation" (ibid., pp. 22-23). However, 25 years after the release of "Up the Anthropologist", Hugh Gusterson noted that anthropology has continued its "fetishistic obsession with participant observation" (1997, p. 116), even though the call to study up had been embraced by research.

Channeling Nader's original argument, Gusterson invites anthropologists and ethnographers to de-emphasize participant observation in favor of what he terms *polymorphous engagement,* calling them to interact with "informants across a number of dispersed sites, not just in local communities, and sometimes in virtual form" (Gusterson, 1997, p. 116). At the same time, he encourages to collect data "eclectically from a disparate array of sources in many different ways" (ibid.). This polymorphous engagement encourages us to capture the many aspects and facets of the multi-sited ethnographic field we engage with, while also reflecting the increasing importance of virtual communications and media. Through this, ethnographic methods provide a diverse toolbox for us to draw from to produce knowledge about transnational experts. Our approach goes beyond interviews and participant observation, including an array of other methods such as analysis of career sequences that we introduce later in this subchapter.

One of the original claims of "Up the Anthropologist" was that studying up would allow for anthropologists to better understand and recognize how power is exercised in their own societies. While it is an important contribution, there are some conceptual challenges in the essay's understanding of power and its explicit recognition of a form of hierarchical ladder that can be addressed and understood sufficiently when studied from below. Wright & Reinholdt argue that retaining such a vertical notion of how power operates can blind a given researcher for the "possibility of competing definitions being simultaneously contested from many different positions – up, down and across" (2011, p. 87). They further propose to address these concerns by extending the study 'up' to study 'through', which entails the tracing of processes of contestation "back and forth across different sites in a policy field and over time, so as to reveal how a new governing discourse emerges" (ibid., p. 88). This aligns neatly with Marcus' 'follow the metaphor'-approach introduced above. Studying 'up' and 'through' our field by polymorphous engagement thus enables us to take broad and holistic stock of how transnational water experts engage with water policy and governance – and to thoroughly understand the context in which this happens. This critique also fits well with our Bourdieusian approach to power, as it – despite its focus on domination and subordination – allows for a sophisticated account for how power operates that goes beyond the simplistic hierarchy of power suggested in the notion of *studying up*[6].

After having established the type of our ethnography (i.e. the study of elites by studying 'up' and 'through'), we have yet to explain how the application of this method looks in practice. To do that, the following sections address and describe our actions and considerations during our data collection process including (1) access; (2) fieldwork and participant observation; (3) interviews and 'engaged listening'; and (4) texts, images and archives. This section ends with a brief discussion of shortcomings and limitations. These shortcomings and limitations culminate in an account of the second stage of our research design: The combination of our initial ethnographic work with the analysis of career sequences, to further provide context to the way in which transnational experts shape the global governance of water through their socialization, habitus and capital.

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[6] See, e.g., the "set of objective power relations" that affect all those who are part of a given social field (Bourdieu, 1991, p. 230).

Accessing the Inaccessible

Before we could conduct our first interview, enter the ethnographic field, or even establish contact to the first expert active in water governance, we had to consider how to 'get access' to any of these. Many of the experts we targeted for interviews were either high-profile individuals within their respective organizations or had accumulated enough experience to be considered specialized experts by their peers. Due to these characteristics, accessing these experts involved two major challenges: First, the experts operated transnationally and were hence what Brooke Harrington calls 'hyper-mobile', constantly changing locations, which made it hard and costly to meet and hence study them (Harrington, 2017b, p. 44). Secondly, experts tend to work in gatekept environments, which means that they are only reachable through intermediaries (like a secretary) or shared contacts (Souleles, 2018). This section ends with a brief description of how we found our "entry points" into the ethnographic field despite these issues.

As Vered Amit (2000, p. 12) observes in his methodological guidelines on ethnographic studies, "the people whom they [i.e. ethnographers] are trying to study are increasingly likely to be as mobile, if not more so, than the ethnographers trying to keep up with them". This is especially true for the study of transnational experts, whose considerable mobility across the globe makes research costly and the experts themselves difficult to contact (Harrington, 2017b). We also found this reflected in the study of transnational experts in global water governance. When sending out interview requests, we often received either an automatically generated e-mail indicating that the person we were trying to contact was travelling, or an answer after several weeks (or months) had passed, which apologetically explained their absence due to extensive travels and/or deadlines that had to be met. The geographic locations in which the experts worked (and, accordingly, claimed expertise) often spanned across the entire globe[7].

The hyper-mobility often also was linked to the geographic fragmentation of institutions working with global water governance. The solution to both the hyper-mobility and the globally fragmented locations in which water experts were to be found was (1) conducting remote interviews to ensure a larger breadth of individuals that

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[7] We elaborate more upon this claim to expertise in Chapter 5.

could be covered; (2) insistence, e.g. through respectful follow-up mails; (3) flexibility in terms of timing; and (4) through asking experts that we had successfully interviewed to put us in touch with experts that they deemed relevant for the purpose of our thesis. Lastly, (5), we attended conferences in locations that could be considered 'hubs' at which many of the experts could be found. At these conferences, experts' hyper-mobility turned out in our favor, as a hyper-mobile expert is much more likely to attend a conference than more geographically 'bound' experts.

In addition to being characterized by hyper-mobility, environments shaped by experts tend to be gatekept in several ways (Harrington, 2017b; Souleles, 2018). Examples we experienced included that information and registration requirements for conferences were not always listed publicly, thus requiring active inquiry with the organizers. Oftentimes senior experts and policymakers with little public output were hard to find based on keyword searches in online search engines and on professional social media platforms such as LinkedIn, thus being hard to contact personally, while secretariats were not always respondent to our inquiries. This challenge practically resolved itself once we had gained access to the field through our first interviews, who often eagerly recommended us further relevant experts in their networks upon our request.

One example of the above-described gatekeeping was found in our conference attendance during our fieldwork in Washington, D.C. While we had tried to search for water-related conferences and events before we had left for the US, we had struggled to find any substantive information about what would happen and where, even though it was World Water Day during our stay. Eventually, one of our interviewees forwarded an e-mail with two different water-related events to us, one at the Ronald Reagan Building and International Trade Center and one at the U.S. Department of State. At the first event, a speaker then encouraged attendees to attend two further events, which we ended up participating in as well. We would not have been able to attend these events from the 'outside' of the ethnographic field, as relevant information was not openly available. Unlike in the study of financial or political elites, our subjects were not directly gatekept by open avoidance of being talked to, but rather by their nature as tightly knit network, despite being dispersed across institutions and locations.

We found our relevant entry points into the field from three different sources: (1) *Water Alternatives*, a renowned academic journal that scrutinizes water governance issues[8], had published a special issue in 2013 in which it asked experts to reflect on their experiences from the field. After reading this issue, we reached out to the authors whose experiences appeared relevant to us. (2) While searching for one expert's contact information, we came across an online Excel sheet of over 300 water experts, with descriptions of their respective areas of expertise and countries of location. Here, too, we contacted experts with a relevant profile. (3) While studying relevant reports, policy documents, and conference proceedings from recent years, we looked for recurring author names, citations, and work locations, reaching out to them if we could find their contact details. Overall, we aimed to reach out to a wide range of expertise in terms of sectors, geographic locations, seniority, and professional backgrounds. In Figure 1 below, we have summarized how we accessed the experts for our 36 interviews.
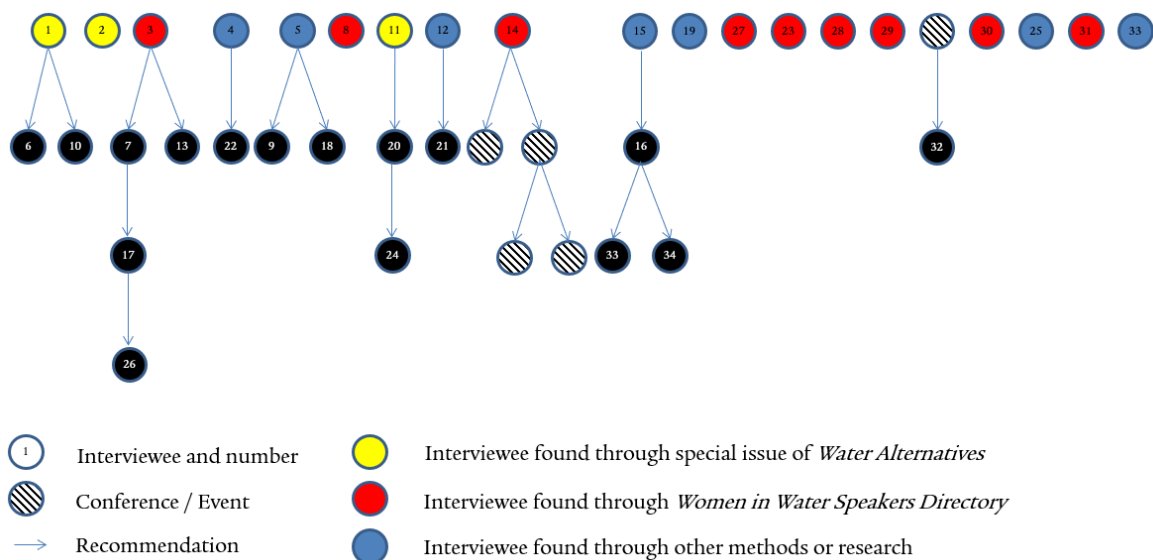

Figure 1: How We Gained Access to Interviewees and Conferences.

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[8] Pahl-Wostl (2017) also provided us with a comprehensive overview of important journals within the water governance literature.

Fieldwork and Participant Observation

Fieldwork and participant observation, often used interchangeably within anthropology, are a "research practice in which the investigator joins the group, community, or organization being studied, as either a full or partial member, and both participates in, and observes, activities, asks questions, takes part in conversations, and reads relevant documents" (Watson, 2011, p. 206). We (rightly) considered this definition a high bar when planning our fieldwork in Washington D.C. and Paris. After all, we are master's students – not water experts, so how would we manage to not only witness the activities of water experts, but also participate as equals and partake in conversations? We soon found that we had made a series of choices that had likely maximized our immersion into this ethnographic field.

First, we flew to Washington D.C., a cluster of global water governance institutions. It houses six Bretton Woods institutions (including the World Bank and the IMF), an array of U.S.-led agencies dealing with water in a development context (such as the U.S. Agency for International Development (USAID) and the Millennium Challenge Corporation), relevant firms and consultancies, as well as a myriad of different NGOs, think tanks, and funds working in the sector. This concentration meant that we managed to be almost constantly surrounded by experts active in the field – through interviews with people at their places of work, or through attending conferences, panel debates, and the ensuing networking associated with these events. For similar reasons, our list of available interviewees increased significantly due to time zone alignments and their marvel that we travelled so far to talk to them, which then further deepened our perception of being on a site that was a significant part of the ethnographic field that we were trying to study.

Second, our week of field research in D.C. was neatly aligned with the UN's World Water Day on 22nd of March 2019. We had arrived on Tuesday the 19th and left on Monday the 25th, and conferences and water-related events took place on every single working day during our stay. After receiving a recommendation from an interviewee, we attended the event "Implementing the U.S. Global Water Strategy: A First Year Review", as well as the conference "Call to Action: Supporting Women Through Water" at the U.S. Department of State. At the former, a speaker invited us to a third event, the "Small

Communities Water Dialogue", which we attended. Few hours before our return flight left for Copenhagen, we ended our field research in D.C. with the panel debate "Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security". The high concentration of these events in a short amount of time (as well as the density of water-related organizations in D.C.) meant that we were soon seeing familiar faces and names at these events, which made it easier to engage into conversation on the subject matter.

Lastly, following the success of (1) and (2), we attended the first UNESCO International Water Conference in Paris on the 13th and 14th of May 2019, which aimed at gathering experts and policy-makers in water to leverage the "trans-sectoral management of water resources for sustainable water security and peace" (UNESCO, 2019). The conference also enabled us to interview experts who had attended so we could hear their reflections about the event. While the events we attended in D.C. tended to be Western-centric and at least partially influenced by US interests, the UNESCO conference broadened our perception of the field by including a much greater array of nationalities and ideological backgrounds, with a particularly prominent attendance of Sub-Saharan African and Chinese politicians, organizations, and water experts.

While these choices reflect our willingness to travel to engage with our objects of study, learning how to conduct proper participant observation was a process that opened up exponentially as our calendars filled up. Suddenly, what seemed like a high bar pre-travel was almost a given due to conference structures and their inclusive nature. Given how much difficulty we had accessing these sites, we were now invited to pose questions to high-level politicians and asked if we had solutions from Denmark to solve water issues in distant areas. Suddenly, the only sign that we did not fit in was our misjudgment of the dress code. Our immersion into the ethnographic field can briefly be summarized in three categories:

(1) 'Networking' talks during coffee breaks, breakfast, and/or lunch at the conferences. The fact that food and drinks were almost constantly offered showed that these events were meant for the very purpose of networking. Participants engaged in enthusiastic exchange of business cards. These networking sessions functioned as "tiny interviews" for our data collection

(although we did not count these in our list of interviewees, due to the lack of recordings, transcriptions, or even names). They were also helpful in delineating the fuzzy outlines of our ethnographic field, as not all participants at these events were transnational water experts, but also included representatives of associated fields, such as advocacy, development, diplomacy, domestic politics, or finance, depending on the event.

(2) Panel debates, and even a few keynotes, were almost always followed by Q&A sessions, in which attendees were allowed to ask questions. By participating in these sessions, we managed to ask several questions, observing how a panel of water experts reacted to them, and observed their responses.

(3) During our registration for the "Small Communities Water Dialogue", we were asked to select specific themed 'breakout sessions.' We picked different sessions for each of us to participate in. At the event, we found that the sessions were literal roundtables in which different water policy-related themes were to be discussed by the 20 or so attendees at each table. As such, we were explicitly encouraged to provide our ("Danish") perspectives to the discussions at hand.

(4) After an interview, we were invited to join the Friday bar of a Washington D.C. consultancy focusing on Water and Infrastructure, which allowed us to engage with water experts in an informal setting.

During our fieldwork, we took comprehensive field notes, and held debriefs to gather the information, compare and exchange observations, and discuss what we had observed in relation to our thesis. Being a group of three proved to be a significant advantage, both in terms of sparring and exchanging observations after an event, but also by enabling us to be in several places at once, for example during the participation in "networking" talks during coffee breaks. This enabled us to cover a lot of ground in a short amount of time. Even when we were by ourselves, however, our interviewees and the people we met during networking sessions and roundtables tended to ask us to share our findings, or at least the "executive summary." One particularly noteworthy conference participant asked whether we would produce a whitepaper on our topic, and a staggering number of interactions appeared to be based on assumptions that we were

about to enter a career in water governance ourselves[9]. To us, this all indicated that we were not perceived as outsiders in the ethnographic field, but rather that we were perceived as experts ourselves - or at least experts-to-be.

Interviews and Engaged Listening

Before, during, and after our fieldwork, we conducted a total of 36 semi-structured interviews with 34 experts active in global water governance[10]. Traditionally, ethnographers have prioritized visual observations of individuals and their behavior, manners and interactions over the participatory observations through interviews (Crang & Cook, 2007, p. 35). While observations played an important role in our understanding of the ethnographic field, we argue that our specific case benefits from the data collected during interviews, as: (1) one of our key arguments boils down to the idea that 'words matter', and that concepts that experts attach themselves with have global distributional outcomes. These interviews allowed us to design situations in which we could enable these experts to convey their 'allegiances' to these concepts; (2) interviews are a prime method for observing what Bourdieu terms *disposition*, meaning "the result of an organizing action, with a meaning close to that of words such as structure; it also designates a way of being, a habitual state (especially of the body), in particular, a predisposition, tendency, propensity or inclination" (Bourdieu, 1977, p. 214). As such, interviews were a key method for us to observe the habitus of experts.

Given (1) and (2), we argue that an exaggerated focus on the 'visual' constitutes an arbitrary distinction of which sensory experience is to be considered a legitimate conveyor of knowledge. In a similar vein, Henry Forsey argues that *engaged listening* deserves more attention in the hierarchy of ethnographic tools, especially when compared to visual observation (Forsey, 2010, p. 567). He envisions that interviewing with an ethnographic imaginary means to ask questions "beyond the immediate concerns of the research question", probing "biography, seeking to locate the cultural influences on a person's life, looking later to link this to the pursued question, or, in the inductive spirit of ethnography, to even change the question" (ibid., p. 568). This

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[9] "Because you ask the right questions", Interviewee #21 told us.
[10] For a full list of interviewees, see Appendix 3.

argument matters because information and observations from interviews form a significant part of our inductive research process, in which otherwise seemingly redundant information is collected to form a more coherent picture of how transnational water experts understand their social field. Engaged listening was therefore a significant methodological point of departure for us.

With regards to 'probing biography', we particularly emphasize the professional-educational careers of transnational water experts. While we employ an analysis of career sequences specifically to account for these backgrounds, interviews provided a fruitful way for us to confirm specific information both regarding their 'allegiances', as we mentioned, but also how they see their own 'stories.' As Dezalay & Madsen note in their considerations on a 'post-Bourdieusian' approach to transnational legal entrepreneurs, "[b]y interviewing the agents about their personal trajectories rather than their legal or political involvement, the researcher can assess how they pursue multiple strategies, even if they often prefer presenting themselves as associated only with a particular stance" (2017, p. 37). Overall, we believe we achieved considerable degrees of both eclecticism and flexibility by combining interviews (including *engaged listening*), with the more traditional participant observation. This combination proved particularly adequate for both studying 'up' and 'through' – as we do in this thesis (see also Creswell, 2014; Gusterson, 1997; Nader, 1972, p. 23; Wright & Reinhold, 2011).

Taking the above considerations into our interview approach, we designed our interviews on a semi-structured basis, allowing us to prepare targeted questions that were specifically related to the background, line of work, and presumed 'allegiances' of our interviewees, while leaving room to follow up on relevant leads or interesting statements uttered during the interviews that appeared to be worthy of further investigation. The interviews varied in length between half an hour and an hour and a half, with an approximate average duration of 45 minutes. We tried to stress two key components during the interviews to maintain a natural and comfortable flow of conversation: (1) we encouraged interviewees to reflect on their career trajectories and their experiences in interacting with their peers, as well as to provide real-life examples "from the ground", which added a personal narrative to many of the interviews; (2) we 'piloted' several of our main arguments during the interviews, based on early

assumptions about concepts, issues, and paradigms *en vogue* in global water governance, asking our interviewees to reflect upon these arguments and their relevance for their everyday work and in their immediate professional surroundings.

Opening the Archives

Beyond participant observation and interviews, we read and studied hundreds of academic papers, conference proceedings, documents, job listings, policy briefs, PowerPoint presentations, reports, social media profiles, and various websites as part of our ethnographic research process. Engaging with this archival material was akin to what can be described as the "nonlinearity of library work" (Abbott, 2014, p. 4). Library work, i.e. the work that researchers conduct in (virtual) libraries, is a process in which many things are done at once, or in a sequence that is only rarely reflected in the order it is written up in (ibid.). Although our processes for collecting texts, images, and other archival material was in near-constant flux, we have summarized the main components below:

In the early stages of our thesis research, before any interview or fieldwork was conducted, we searched for background readings and organizational output regarding water governance, along with academic literature reviews. Once we had identified a given interviewee, a conference, or a relevant event, we engaged in specific pre-observation research, in which we started to work through specific online search functions to find relevant policy documents that we could trace to the interviewee, to the organization or keynote speaker of the event we attended[11]. Alongside studying these documents, read the interviewees' LinkedIn profiles to target our interview questions based on their professional career.

Usually, the observation phase provided even more text for us to consume, although in this case we did not any longer need to draw on online database searches. Rather, the interviewees would either recommend or send us documents and reports that appeared relevant for the context of the interview. Similarly, during events and conferences,

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[11] An incredibly helpful tool was the use of Google's search function *"[first name] [last name]" filetype:pdf* which would show .pdf files that the interviewee had authored or contributed, conferences that the interviewee had participated in, etc.

speakers tended to advertise their recent work, and key documents relevant for the conference itself would be readily available. We also took pictures at select conferences and interview sites to reconstruct the specific settings once we would return to deskwork.

Our post-observation studies consisted of verification of statements and/or follow-ups on relevant leads, technical language, tools and practices, as well as critical reflections on the "preconstructions that dominate a given subject area" (Dezalay & Madsen, 2017, p. 35). This made further online searches necessary, albeit in a much more targeted manner than in the pre-observation phases of archival work. This last phase also included ongoing reflexive literature searches with the aim of self-critique, as a "means to considering one's own scientific and social assumptions of the subject area", in accordance with reflexive Bourdieusian epistemology (ibid.). The research design of this thesis hence embraces the nonlinear nature of library work and database research and integrates it at relevant stages of the ethnographic research process. Both methods exist in a continuous exchange and process of reflection.

4.5. Contextualizing Ethnographic Findings by Mapping Career Sequences

There *are* shortcomings to primarily focusing on ethnographic methods, the most significant of which we have already mentioned, namely the scarcity of time and resources on the side of the researchers. The field of global water governance is inherently global, and inhabited by mobile, transnational experts. While we did conduct fieldwork at multiple identified 'hot spots' within the social field, we are inhibited by the fact that we cannot cover all important sites (such as Geneva and New York City, where many other relevant organizations are located), and the fact that we are limited by time and personal resources. This ultimately limits our access as well. The most unfortunate consequence of these constraints may be the lesser degree of context we are able to observe through observation and interviews alone. To avoid this lessened 'thickness' of our descriptions, which could conflict with the very nature of ethnographic studies as the "science of contextualization" (Stepputat & Larsen, 2015, p. 6), we decided to delve deeper into the ethnographic material at our disposal, with

the aim to bring out aspects that would possibly have been overlooked otherwise, to help frame the findings from the ethnographic methods with quantitative data.

We do so by analyzing career sequences, a method that has been used extensively to study experts, but which rarely has been applied in combination with ethnography. Analysis of career sequences can be defined as a type of prosopographic study (i.e. the study of groups). Prosopographic methods, such as network analysis often include Bourdieusian field methods, as Bourdieusian methods can identify a social field of power relations, that then can be studied through a mapping of the field (Henriksen & Seabrooke, 2017, p. 58). Generally, sequence analysis enables a comparative overview of the professional careers of the multi-situated individuals (i.e. the experts) at hand. It involves the processing of sequence data, in which a sequence is made up from a "series of states or events in the trajectories of statistical individuals" (Blanchard, 2011, p. 1). Given our inquiry, we will not delve into all functionalities and opportunities of sequence analysis, but rather utilize the specific functions that help our case. We therefore use it in conjunction with our ethnographic data to help us inductively identify and construct subfields within the field of global water governance, rather than applying the traditional optimal matching algorithm to identify patterns.

In mapping these career sequences, we visualize structures of social relations. Given that our theoretical framework assumes agents to compete for social positions in a social field – a competition which gives "rise to social structure" (Anheier, Gerhards, & Romo, 1995, p. 860), careers are more than just "the evolving sequence of a person's work experiences over time" (Arthur, Hall, & Lawrence, 1989, p. 8) or even "personal network histories" (Henriksen, 2014, p. 9). They are both structures that influence the ways in which agents engage with each other (consciously or unconsciously) and shape the domination/subordination of certain agents over others by directly influencing the habitus and capital. Many quantitative analyses that emphasize historical transitions focus on "explaining events as outcomes and not as processes that carry structure", which is in contrast to strengths of sequence analysis, which "contributes to a more holistic approach to social processes" (Henriksen & Seabrooke, 2017, p. 58). This is also in line with Dezalay & Madsen's claim that "the empirical usage of agents' trajectories offers a means of decoding the different struggles that have existed at different stages

of the historical structuration of the field" (Dezalay & Madsen, 2017, p. 36). Altogether, sequence mapping is therefore a powerful tool for understanding not just the individual experts and their career developments, but also the development and boundaries of the field.

Given that we employ a theory of practice with innate complexity, the visualization of career sequences enables a structured overview of the individual subjects studied in this thesis, adding valuable context to the "interpretive, institutional and relational makings of the present" that an ethnographic approach seeks to provide (Stepputat & Larsen, 2015, p. 6). That this method has rarely been used in combination with ethnographic approaches is therefore surprising. As Wacquant mentions "we cannot grasp this structure without a historical, that is, genetic analysis of [the field's] constitutions" (1992, p. 30). When combined with ethnographic methods, this analysis of career sequences becomes more 'genetic', rather than simply a static depiction of experts' organizational ties at fixed points in time. It helps us explain the mobility of experts within the field. The mapping of experts' career trajectories can also give us clues regarding organizational hetero- or homogeneity among the transnational experts in water governance over time. This ultimately aids our theory of practice in elaborating upon both the habitus and leveraging of capital by experts (Harrington, 2017a, p. 285).

The actual mapping required both theoretical and thematic clarity as well as practical and technical steps. First, we had to define who constitutes a 'transnational water expert', a process we described earlier in this chapter. Second, we had to gather information about these water experts. This was a non-linear process that was conducted throughout our data collection between February and May 2019. For interviewees, if the data was not available through LinkedIn, online CVs, or the websites of their employer, we would ask them for their detailed professional history either during the interview or in a follow-up e-mail. For conference speakers, we only relied on the public or online information, and simply coded any gaps we encountered as 'NA'. Once finalized, we exported the data sheet as a '.csv'-file and imported it into the statistical computing and graphics software RStudio, where we ran a sequence analysis script obtained from an attended 2018 IPE lecture by Lasse Folke Henriksen at Copenhagen Business School. Running the 'TraMineR' package, we manually edited

the script to fit our needs, ran it, and ultimately obtained the sequence plots depicted in Chapter 6.

Deciding upon what data we wanted to obtain and how to code it was the tasks related to this sequence mapping that required the most thematic clarity. We started with the intuitive position that we needed to "code their careers into some reasonable states" (Henriksen & Seabrooke, 2017, p. 59). To achieve these 'reasonable states', we built upon Henriksen & Seabrooke's (2017b) division of organizational types in their coding. We included the four types of organizations they suggest: (1) government agencies; (2) international organizations (IOs); (3) multinational corporations (MNCs); and (4) non-governmental organizations (NGOs) (ibid.). To adequately capture the institutional landscape, we were exposed to when navigating the career histories of our interviewees, we also add (5) independent consultancies (ICs); (6) universities (UNI), and (7) education (EDU), as we wanted to observe how experts with water-specific or non-water specific degrees differ in career trajectories.

Similarly, we also built on Henriksen & Seabrooke's (2017, pp. 59–60) usage of the generalist/specialist dichotomy to describe whether a given career event was directly related to water or not – after all, "[t]he coding must be relevant to the case." While all of our interviewees engage with water in one way or another, the emphasis on the resource in the job descriptions varies significantly. A consultant who works with dams might often focus on specific energy-related tasks rather than the water-specific tasks. We translate this into a variant of the generalist/specialist dichotomy: (1) 'spec', for jobs that specifically address water issues, or where work with water is an integrated part of their workflow; and (2) 'no', to capture jobs water professionals might have had outside of the water sector, which gives us information about sector mobility.

Our codes can be summarized in the following table[1]:

GOVspec	For a water job at a government agency
GOVno	For a non-water job at a government agency
IOspec	For a water job at an IO
IOno	For a non-water job at an IO

ICspec	For a water job at an IC
ICno	For a non-water job at an IC
MNCspec	For a water job at an MNC
MNCno	For a non-water job at an MNC
NGOspec	For a water job at an NGO
NGOno	For a non-water job at an NGO
EDUspec	For a degree that focuses on water specifically
EDUno	For a degree unrelated or unspecific to water
UNIspec	For a water job at a university
UNIno	For a non-water job at a university
NA	Not available / not applicable

Table 1: Coding for the TraMineR Package in RStudio.

In summary, mapping these career sequences adds to the 'thickness' of our ethnographic descriptions and helps us further understand not just the individual experts but also their movements and impacts on the structures of the social field. As we will show when we create these career sequence plots in chapter 6, experts in global water governance act and interact within functionally differentiated subfields. As we will describe, we inductively identified these subfields and their populations throughout our interviews and ethnographic fieldwork based on the experts' different conceptualization of what working with water entails.

4.6.   Research Design

Overall, our data collection processes draw heavily from anthropological and specifically ethnographic data collection practices. We first conceived the idea of studying global water governance by looking at transnational water experts. We then researched the most relevant organizations, literature, and conferences checking for recurring names, and then sending e-mails with interview requests. We then entered the

ethnographic field, conducting 36 interviews with transnational water experts over a span of four months, travelling to Washington, D.C. in March 2019 where we participated in four water conferences, and then to Paris in May 2019, where we participated in the first UNESCO International Water Conference. At these sites, we collected fieldnotes and images, combining this ethnographic data with our archival research and reviews of applicable literature. We thus ended up with vast amounts of data concerning our units of analysis. We began to systematically organize this data, coding data for the sequence mapping, transcribing the most important interviews, and through all this identifying common patterns and themes from our data. We reflected upon these observations by revisiting particularly the water governance and IPS literatures, understanding how or whether our reflections had been conveyed before, ultimately leading us to our attempts at theorizing our data to verify the accuracy of the information.

Our resulting inductive research design is specifically structured as a single case study of global water governance in which our main units of analysis are transnational water experts. This case study is structured around the research question (RQ): "How do transnational experts shape global water governance (GWG), and with what distributional implications?" To answer this RQ, we structure our research inquiries across four sub-RQs (SRQs). To aid our understanding of how experts 'shape' GWG, SRQ 1 helps us first understand the social space(s) in which the experts operate, a process that allows us to draw from the wealth of data we collected. While experts play a critical role in answering SRQ 1, they are the explicit emphasis in SRQ 2, where we attempt to understand how experts' move and interact within this conceptualized social space. This moves our analysis from the general (our case study, namely the social space of global water governance) to the specific (our units of analysis, the transnational water experts). In moving to the specific, we also switch our primary method in answering the SRQ, as we here utilize our sequence mapping of experts' career trajectories to help us explain their mobility. This method is used in accordance with our Bourdieusian theoretical framework, which ties together our transition from general to specific, particularly through our reflections upon the habitus of transnational water experts.

SRQ 3 marks the transitionary point between the specific emphasis on our experts to the more general focus on our case again. In answering this SRQ, we use the sequence mapping as a point of departure for us to return to the primacy of our ethnographic and archival methods in helping us explain how experts 'shape' GWG. This particular research inquiry explores the specific tools that experts design and apply within the social space. We move with increasing levels of abstraction toward SRQ 4, which intends to help us answer the 'distributional impacts' of our overall RQ. Here, we relate all our findings throughout the past three SRQs to what their broader distributional outcomes are. This is done by exploring our empirical context through both the lens of our case, the social space, and our units of analysis, the experts. Overall, our research design moves from the abstract (the social space) to the concrete (our units of analysis and the tools they use) back to the abstract (the distributive implications on the global political economy). This is represented in Figure 2 below, which also shows how the SQRs are distributed across the chapters in this thesis.

Throughout this thesis, we aim to convey the above-described research design through a voice that synthesizes our particular methodological and theoretical choices, landing somewhere between an ethnographer, a post-Bourdieusian IPS scholar, and an academic within the water governance literature.
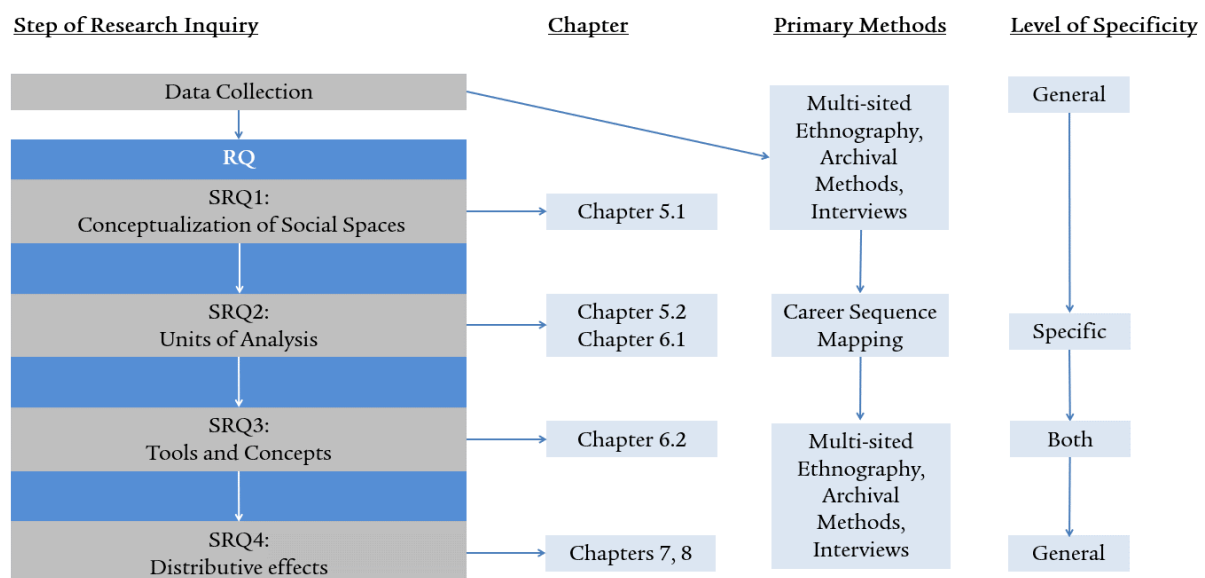

Figure 2: Visual Depiction of Our Research Design

"An invitation to think with Bourdieu is of necessity an invitation to think beyond Bourdieu, and against him whenever required."

Loïc Wacquant (1992, p. xiv)

Chapter 5:

Constructing an Artificial Field

To begin our journey of understanding global water governance (GWG), we must first uncover *how* we can understand it in the first place. This chapter serves that purpose. In this chapter, we operationalize our theoretical framework to help us answer our first SRQ, "How can global water governance be conceptualized as a social space?" One of the main problems that researchers struggle with when identifying fields through Bourdieusian theory of practice is the fact that "[i]t is not totally transparent how one identifies the activity which provides the content, or *raison d'être*, for the existence of a field" (Warde, 2004, p. 14). This frustration is entirely by design, as Bourdieu & Wacquant write: "A field is a game devoid of inventor and much more fluid and complex than any game that one might ever design" (1992, p. 104). However, as we will show throughout this chapter, one can make sense of some of this fluidity and complexity by observing specific points in time where broad consensus formally established the logics that define a field's doxa.

The chapter is structured as follows: In the first half of the chapter, we provide an overview of institutional structures that arose throughout the 1990s and onwards to account for the tensions and pressures that shaped the origins of the field. We draw inspiration from Bourdieu's notion that the "structure of the field is a state of the power relation among the agents or institutions engaged in the struggle" (Bourdieu, 1993, p.

73), and Wacquant's claim that "we cannot grasp the dynamics of a field if not by a synchronic analysis of its structure and simultaneously, we cannot grasp this structure without a historical, that is, genetic analysis of its constitutions and of the tensions that exist between positions in it" (1992, p. 30). We make it clear that the field of GWG is a special case, as the *raison d'être* was manufactured at a range of international conferences, with the 1992 International Conference on Water and the Environment in Dublin providing the starting point. Generally, the field's construction involved a tightly-knit network of experts from the fields of environmental governance and international development to construct a common baseline for dealing with water issues at a global level.

In the second section of this chapter, we seek to uncover the implications of our conceptualization of GWG as an artificial field for the rest of our Bourdieusian theory of practice. We uncover three main forms of symbolic capital that pervade the field of GWG, namely (1) situated geographic expertise, (2) claims related to knowledge production, and (3) the 'numbers game.' We observe while these forms of capital appear relatively universal, there are some differences in how they are leveraged. We explore these dynamics in the third section of this chapter, where we show that professions provide insufficient explanatory value to help us account for the lines of fragmentation within this artificial field. Instead, we argue that the artificial field was designed to integrate functionally differentiated subfields. While we argue that certain types of symbolic and social capital are actively used in a process of struggle for dominance throughout the overall artificial field, many other forms of capital are leveraged merely within these subfields. We here provide a bridge to Chapter 6, in which we introduce the subfields and their associated habitus, which we identify through our mapping of career sequences.

5.1 The Rocky Road to Dublin: *The Makings of a Field*

To convey the simultaneous urgency of water issues and its historical neglect on the global stage, there is no better framing than the 1977 Mar del Plata Action Plan. Given the fact that it was the first global water conference, the Action Plan introduces by-now well-established points such as the need to assess the status of global water resources

and the necessity of increased efficiency in water management. However, the most glaring action point depicts the "gravity of the problem of water resources and the crisis that mankind may have to face unless timely action is taken to avert it" (United Nations Water Conference, 1977, p. 76). We read how the multilaterally endorsed Action Plan was "designed to promote activities at the national, regional and interregional levels to avert such a crisis" (ibid.), and by and large, its content reflects an agenda familiar to anyone who has ever attended a water conference, which naturally begs the question: If we are faced with an urgent crisis that required timely global action over 40 years ago, why could the need to solve the Mar del Plata Action Plan still fill a water conference agenda today?

It turns out, the answer is simple: "[T]here was not only no review of the water situation 20 years after the Mar del Plata meeting, but there was really not even any serious discussion in the United Nations on the desirability of organizing such a consultation. It seems, somehow, water simply no longer was considered important" (Biswas, 2004a, p. 81). While we understand the latter sentiment, we disagree that "water simply no longer was considered important", as this ignores the ways in which the levels of attention that *were* focused on water, low as they may have been, were distributed in this period. What happened between Mar del Plata in 1977 and Rio de Janeiro in 1992 had a significant impact on the eventual construction of the field of GWG, and provided an important background for why the ambitious, integrated agenda of the Mar del Plata conference was fragmented into what we now observe as sub-fields of GWG. As one of the 'water veterans' we interviewed summarized regarding their perspective on the 'early years':

> *"There are some loose cannons and strange critics out there who claim otherwise and say [global water governance] started out in Mar del Plata in 1977 but that is difficult to corroborate. The water conference in Mar del Plata gave rise to the Drinking Water and Sanitation Decade in the 1980s and during that decade everything was focused on drinking water and sanitation and nothing else. So, anyone stating that [global water governance] started there, I don't really see it, [...] it never manifested itself. So, Rio in 1992 was the first time the world really*

recognized water as a scarce and finite resource, and, I'm sure you know, the Dublin Principles, so to me, that was the first."

(Interviewee #10)

In terms of content, the Mar del Plata Action Plan promoted an integrated agenda similar to the 1992 Dublin Principles, although the Action Plan was significantly more detailed. In terms of the plan's execution, our interviewee mentions the "Drinking Water and Sanitation Decade", referring to the UN International Drinking Water and Sanitation Decade from 1981 - 1990, which was established at Mar del Plata with the goal of achieving "universal access" to clean water (Jolly, 2014, p. 100). The declaration of this Decade ultimately prioritized the UN's attention and resources on what is now termed Water, Sanitation, and Hygiene (WASH) over the other aspects of the Action Plan (such as agriculture, fisheries, inland navigation, waste disposal, hydropower, and industrial water use). The Decade highlighted that the very challenge of integrating the different aspects of the Action Plan would not be addressed in its execution, but rather that one specific area was prioritized from the outset. As the "history of the field is the history of the internal and external struggles that animate it, the history of the distribution of the specific capital[,] and the variation of this capital" (Hilgers & Mangez, 2004, p. 6), this was also the origin of a struggle in GWG that would linger long after the establishment of the field at the International Conference on Water and the Environment in Dublin, 1992.

While also being a UN conference, the 1992 Dublin conference was, in contrast to both the 1977 Mar del Plata and the 1992 Rio de Janeiro conferences, an expert-driven event, rather than a multilateral conference (or 'summit'). The five hundred participants at Dublin were primarily "government-designated experts from a hundred countries and representatives of eighty international, intergovernmental and non-governmental organizations", as stated in the Dublin Statement on Water and Sustainable Development, or, the 'Principles' (International Conference on Water and the Environment, 1992). As one scholar points out, the Conference was a "meeting of experts, and thus its recommendations, whatever they were, were never approved by any government, irrespective of the claims to the contrary of the individuals and institutions that were mostly responsible for the organization of this conference",

further emphasizing the role that experts played at this conference (Biswas, 2004b, p. 251). This reflects the underlying narrative of the experts-focused literature in International Political Sociology, in which the absence of a central authority with legitimacy to address transnational problems results in 'softer' logics for standard-setting, where other diffuse types of authority fill the legitimacy gap (Christensen, 2017; Seabrooke & Henriksen, 2017b). While the member states of the United Nations, the closest approximation of such "central authorities", had failed to force the field of GWG in 1977, the expert-developed Dublin Principles succeeded in doing just that.

The Dublin Principles recognized water as a finite resource, emphasized its key roles in sustaining life, development, and the environment, as well as the need for participatory approaches in water development and management (International Conference on Water and the Environment, 1992). Furthermore, the Principles explicitly constructed water as an "economic good" in all its competing uses, thereby legitimizing market intervention. Integrated Water Resource Management (IWRM) also emerged as an elaboration on the Dublin Principles, and has since played a central role in GWG. We consider the Principles a cornerstone and foundation of the field of GWG, with the conference forming a "seminal frameshifting event [that is] deemed of critical importance in setting the agenda for subsequent international water discourse and policy" (Linton, 2010, p. 216). As such, the Dublin Conference represents the time and place to which we can trace the manufacturing of the *raison d'être* of GWG.

The 'Guiding Principles' of the Dublin Statement on Water and Sustainable Development	
Principle 1:	Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment.
Principle 2:	Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.
Principle 3:	Women play a central part in the provision, management and safeguarding of water.
Principle 4:	Water has an economic value in all its competing uses and should be recognized as an economic good.
(Source: International Conference on Water and the Environment, 1992)	

Table 1: The Four Principles of the 1992 Dublin Statement.

We argue that the role of expertise is directly reflected in the formulation of the Dublin Principles, and through these in the construction of the field of GWG. While the Principles enshrined notions of water that are inherently political (such as treating water as an economic good), they lack any clear recognition of the political nature of their statements and of water itself. As Jamie Linton states, "any regime of water management needs to be founded on this recognition of water's fundamentally social nature rather than a reformulation of its abstraction" (Linton, 2010, p. 218). The Principles however frame solutions to water issues in very broad and ultimately depoliticized terms that strive to reach goals that are universally 'good.' The framing of water as a good that is to be managed in an efficient manner ultimately depoliticizes water by rendering its success a matter of expertise[2]. Solving the crisis that was already acknowledged in 1977 is thus a matter of "good science, rational and neutral problem-solving, and negotiations between well-intentioned and well-informed stakeholders" (Molle, Mollinga, & Meinzen-Dick, 2008, p. 4). However, neither of these things exist in some objective vacuum, as we will argue further below.

The Principles do not only obscure "the reality of the (hard) choices and tradeoffs" involved in the building of water infrastructure and environmental protection (Molle et al., 2008, p. 4), but also obscure the politics between the different forms of expertise that seek to address these problems. Afterall, "each of the different global regulatory orders for water have their own networks of experts, including economists, engineers, policy professionals, consultants, and so on" (Franco, Mehta, & Veldwisch, 2013, p. 1660). As this chapter progresses, we dive deeper into the role of professions and what these scholars call "different global regulatory orders".

While the Dublin Principles provided the foundation for the field of GWG, they remained to be embraced by non-water experts in the global community. The Principles were submitted to the United Nations Commission on Environment and Development (UNCED) for consideration for the Action Plan of the Earth Summit in Rio de Janeiro in June 1992. When the member countries of the UN met again in Rio, they built on a narrative designed and provided by this expert-led conference. The result was *Agenda 21*, a 350-page document on how UN members were to achieve sustainable

development. *Agenda 21* contained a long chapter on the "[p]rotection of the quality and supply of freshwater resources"[3] that consolidated the Dublin Principles, as well as the central points made in Mar del Plata's Action Plan in 1977 (Rahaman & Varis, 2005, p. 16). These arguments were packaged in a digestible manner for policy-makers which put wind in the sails of the expert communities that had just convened in Dublin six months earlier. The Dublin and Rio conferences were followed by an upsurge of intergovernmental, non-governmental, and international organizations explicitly dealing with water, as well as the establishment of recurring water-related conferences and the emergence of academic literature that directly addressed the topic. This literature was linked closely to the expertise that drove this development in the first place[4].

Looking back, we maintain that it would be an overstatement to consider GWG as a social field that developed 'naturally' out of the socio-political context in the second half of the 20th century. Rather, it is an intentional, *artificial* even, construction that was designed by transnational experts and international organizations. As we will now further develop, the 'upsurge' in the 1990s is also a manifestation of power that requires us to account for wider trajectories within the global political economy. Most notably, the 1980s and the early 1990s saw the rise of institutions representing the neoliberal, market-based paradigm of the Washington Consensus. The Washington Consensus created a coalition of "multilateral institutions, national governments, and multinational firms [which] promoted a globalization of infrastructure that privatized publicly owned assets and businesses" (Pierce, 2015, p. 122). During the construction of the field of GWG, this coalition was most significantly represented by development banks and other international financial institutions, the World Bank in particular, that had committed to structural adjustment-type programs as mechanisms for the 'development' of water infrastructure worldwide (Budds & Loftus, 2014, p. 366).

What is particularly interesting about the World Bank and the regional development banks is that their influence was not constrained to their usual means of financing (i.e., economic capital), but also through the co-creation of transnational water policy networks and the facilitation of research on the topic. The World Bank leveraged their social and economic capital by establishing or co-creating three of the most prominent

networks in water, including the Global Water Partnership (GWP, in 1996), the World Water Council (WWC, in 1996), and the World Commission on Water for the 21st Century (1998), all of which are "key production nodes for transnational water conferences, training seminars, policy papers, and ultimately, a highly mobile set of global experts on water" (Goldman, 2007, p. 793). Outside of these three organizations, the World Bank was also a key factor in establishing the World Water Forums (1997, 2000, 2003, ..., 2018), the International Symposium on Water Resources Management (2000), the Global Panel on Financing Water Infrastructure (2001), and the Water Media Network (2001) all of which exist to this day and have experts heavily represented at water conferences. Participation in such networks was rendered a form of capital for water-related activities due to the legitimacy that the World Bank had during this time, but also due to the economic capital that suddenly became available.

The strategy of promoting new informal structures such as policy networks was not limited to the World Bank. Indeed, Kofi Annan, the then Secretary-General of the UN, explicitly highlighted it as a target in a 2000 United Nations strategy report:

> *"Formal institutional arrangements may often lack the scope, speed and informational capacity to keep up with the rapidly changing global agenda. Mobilizing the skills and other resources of diverse global actors, therefore, may increasingly involve forming loose and temporary global policy networks that cut across national, institutional and disciplinary lines. The United Nations is well situated to nurture such informal "coalitions for change" across our various areas of responsibility."*

(Annan, 2000, p. 14)

There is a discernible difference in how the overall strategy played out between the World Bank and the UN. The UN shifted its focus from multilateral agenda-setting to the provision of formal and informal platforms that facilitate the collaboration of experts. The World Bank similarly emphasized the development of these platforms, but additionally sought to develop knowledge leadership by conducting extensive trainings and capacity building workshops that would help them achieve their own stated goals of "contributing to an emerging global consensus on water resource management" (The

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World Bank, 2002a, p. xviii). To reach this consensus, the World Bank did not just limit itself to training experts and people directly working with water. As stated in the 2002 World Bank Institute (WBI) annual report:

> *"Water issues are among the leading topics of public debate in many countries. But although articles on water appear daily, much of the information is inaccurate of biased. Journalists who really understand their implication of water policy can play an important role in building consensus among policymakers, NGOs, and the public at large. In preparation for the upcoming Third World Bank Forum, WBI has been working with governments of the Netherlands and Japan on a two-year global learning initiative for journalists. The program familiarizes journalists with policy issues to build a climate for discussion and debate of water issues at the local, regional, national, and international levels. Issues include pricing, equity, and sustainability in the provision of water supply and sanitation services."*

(The World Bank, 2002b, p. 40)

There is a lot to digest in this one quote – from the Bank's complains about "biased" reporting to its admission of the importance of training journalists in order to build a "consensus among policy makers", to the fact that the primary content of the classes they provide is the combination of "pricing, equity, and sustainability in the provision of water supply and sanitation services." What is clear, however, is the World Bank's emphasis on changing established practices and conceptualizations on what water entails and the mechanisms through which it should be managed. In the renewed attempt to construct the field of GWG in the 1990s, we found that these market-based approaches constituted a dramatic change of direction from the first attempt in 1977. While the private sector had been "almost entirely absent in Mar del Plata", it "was well represented in Rio and had promoted specific agendas at [Dublin] whose report made many references to the role of business" (Muller, 2015, p. 681). This almost directly corresponds to the recognition of water as an economic good in Dublin, which was in sharp contrast to Mar del Plata's conceptions of "adopt[ing] appropriate pricing policies with a view to encouraging efficient water use, and finance operation cost with

due regard to social objectives" (United Nations Water Conference, 1977, p. 16). In the four Dublin Principles, these "social objectives" had been converted to talks about the need for linking "social and economic development", and how "effective management" plays a significant role in achieving that (International Conference on Water and the Environment, 1992).

This dramatic conceptual change in what the management of water entails, and the need to convey it, was very clearly reflected in the WBI's operations. While the above-stated description of the importance of training journalists was an obvious acknowledgement of its strategic intentions, the WBI had been training people in World Bank-approved water management practices from just a year after the Dublin and Rio de Janeiro conferences. In a 2002 review of its 1993 water strategy, the Bank's Operations Evaluations Department[5] found that the WBI's Water Policy Capacity Building Program "has reached 9,000 participants in 90 countries" (The World Bank, 2002a, p. 10). Additionally, the report found that "[a]lmost half of the participants surveys said that the WBI-sponsored activities initiated country reforms of water management policy" (ibid.), emphasizing the sheer scope that this new conceptualization of water entailed.

The contents of the agenda that surrounded the attempted construction of the field also changed. The declaration of the UN International Drinking Water and Sanitation Decade following the Mar del Plata conference deliberately placed Water and Sanitation at the top of the water agenda. This was a key factor in the immediate demise of a global water field. In the 1990s, people engaged in Water and Sanitation were the most cohesive community of what we in this thesis term transnational water experts, the community that would eventually become what is now termed the WASH-sector. However, the switch in logics from social to economic meant that the ways in which the private sector could contribute to the field became a key connecting factor in the field being established, and sustaining, in the first place. Although the Dublin Principles laid out a grand strategy for uniting the disparate subfields of GWG (which was manifested in the concept of Integrated Water Resources Management, which we will discuss in much greater detail in Chapter 7), the ensuing conceptualization of water quickly became fragmented again, focusing on the most profitable aspects of water, or those

with the highest potential for private engagement, such as infrastructure. As recounted by one of our interviewees, a consultant on water projects at the World Bank:

> "So when I came into the sector, which is end of the 1990s, the perception was [that] we got all this infrastructure to build, [...] and there is all this potential for private finance, and public entities are doing such a horrible job at managing their water resources and doing services, so therefore the private sector must be the solution, in all cases, so there was a big jump into coming up with private sector solutions. What was happening was that private sector models that had been used in OECD countries were being applied to developing countries, so there was an assumption that for example the rule of law would apply in all places [...] and that has proved not to be the case in many contexts."

(Interviewee #3).

To make our argument about the current existence of the field of GWG, we must account for one central question: If we admit that the field ultimately remained fragmented, how is the status quo any different from the situation following the Mar del Plata conference? We believe the overall answer is found in the overarching economic paradigms that guided the development of the field in the 1990s, a consistent determination of important agents, and the global development and spread of a common, depoliticized 'knowledge base' that has shaped the ways in which water is discussed and governed globally. The quote above provides some critical puzzle pieces for this answer. While the declaration of the Decade meant that *some* attention and resources were spent on water issues, there was no interest connecting them through the integration of agriculture, fisheries, inland navigation, waste disposal, hydropower, and industrial water to the extent Mar del Plata had envisioned. Given how many aspects of water had been ignored during the 1980s, there was a growing perception of water infrastructure and programs being in a state of disarray. This was due to the simultaneous perceived lack of funding and mismanagement by state entities, the latter being a staple of the era following the Washington Consensus.

The Washington Consensus institutions saw an opportunity to fix both the funding and management gaps and provided experts with ample resources for creating solutions to optimize 'efficiency' and stimulate 'economic and social development.' Organizations including the UN, and, to a greater extent, the World Bank began to create and sustain the institutional infrastructure, provide training for professionals, and access to resources for new projects and infrastructure with a series of neoliberal reform criteria. These conditions provided for an alignment of interests of several dominant agents in the fields of Development and Global Politics[6] in dominating the global governing of water. This created the conditions for an integrated agenda that would both regard water as an economic good (commodify water), remove water from political contestation and conflict by putting it in the hands of experts (depoliticize water), while aligning these actions as necessary for the globally emerging agenda of sustainable development established at the Earth Summit in Rio de Janeiro, 1992.

The main difference between 1977 and 1992 is that the conditions for the field established in the latter continue to exist to this day. Many of the networks, including the GWP, WWC, IWA, and IWMI continue to develop and exchange information on policy, technology, and innovation in the water sector. Similarly, international institutions continue to host large conferences on water, from the recent UNESCO International Water Conference in May 2019, which we attended, to the World Water Week, an annual conference started by the Stockholm International Water Institute (SIWI) in 1992, which now hosts over 3300 guests every year. The WWC's triennial World Water Forum, hosted for the first time in Marrakech in 1997, and most recently in Brasilia in 2018, remains the largest forum for water discussions, with the 2018 event hosting 120,000 participants. These institutional and organizational changes, as well as the rise of large conferences on water indicate that there is little arguing that the focus on integrated approaches to water has increased significantly since 1992.

In strict readings of Bourdieu, we were not supposed to find a *raison d'être* for this field (Bourdieu & Wacquant, 1992, p. 104). However, by following the synchronic historical archival work suggested by Bourdieu and Wacquant, we were able to trace a constellation of agents that would construct and shape the field to suit their interests

and belief systems. The role of neoliberalism as a guiding paradigm, heralded by powerful countries that sought to implement the Washington Consensus[7], ultimately guided the reconceptualization of water as an economic good at the 1992 conferences, providing an early glance at the field's doxa. This reconceptualization legitimized the work of liberal IOs, such as the World Bank, that already held large amounts of capital in the global field of power. This work allowed them to integrate their stated goals (i.e. the prioritization of market-based approaches to water management and infrastructure development) into the shaping of the field of GWG.

Does this intentionality preclude GWG from being considered a field in the Bourdieusian sense, and if yes, what are the implications of this? We argue that the fact that we can trace the *raison d'être* to a few specific events does not necessarily prevent it from being a Bourdieusian field; rather, it takes a certain form, what we term an *artificial field*. Our arrival at this argument also reflects Dezalay & Garth, who in their study of lawyers and economists in Latin America and "what moves [these] groups into the field" (2002, p. 10), summarized their approach as "[t]o understand the logic of the field, we examine how it was built and what ingredients became a part of it" (ibid., p. 231). Accounting for institutional developments provided critical context and texture for the formal and informal structures in and between which transnational water experts move, as well as for their habitus and capital, which will prove critical over the next sections.

Overall, the outcome of the 1992 conferences reflected much more of a consensus than a struggle. Our use of the term 'artificial field' when describing GWG this. When being able to clearly observe a *raison d'être*, as well the dynamics that constructed it and how it ultimately shaped the field, we are left with a field that was clearly more determined by paradigmatic usefulness than it was by inherent struggle. While contestation certainly existed at the time, we cannot trace the observed origins of the field to this contestation; indeed, the field is defined by its lacking. This neatly aligns with the depoliticization in increased expert-based decision-making. As we will uncover throughout the next sections, the artificial nature of the field has had significant influence on the ways in which capital is distributed across the field, as well as on the

habitus of its population. We do so against the backdrop of the historical analysis provided in this chapter.

5.2. Purpose-Built Capital: *Symbolic Capital and Global Water Governance*

With the support of quickly established institutional structures and settings for agents to meet, exchange ideas, and drive change, it may seem intuitive to simply accept Global Water Governance (GWG) as a field, never mind the visibility of its *raison d'être*. We argue that the intentionality and consensus that helped spawn field's creation caused meaningful differences that make the 'artificial' distinction matter. In this subchapter, we seek to bring the historical background of the field into Bourdieu's theory of practice. Given the common properties of fields, such as them being largely autonomous, containing field-specific hierarchies and rules, and how they are "structured by the operation and distribution of particular forms of capital" (Williams, 2013, p. 135), we ask ourselves: how do these properties look in a field that was manufactured under GWG's conditions? How is capital operated and distributed within the field? What do these forms of capital tell us about this specific field and its artificial nature? And, finally, what is the interrelation between capital and habitus in the field? Throughout the remainder of this chapter, we will attempt to answer these questions. The questions build on the assumption that *a* field exists, but given its unique properties, we are interested in discovering what Bourdieu's theory of practice can tell us about the population of the field: the water experts. Accordingly, we change the scope from the macro-perspective of the field, i.e. the big picture, to the meso- and micro-levels of the field: the groups and the individuals that inhabit it, ultimately constituting our units of analysis.

The history of the construction of the field of GWG made it clear that the field was intended to tie together approaches to water that were historically fragmented in all aspects but a sometimes-abstract involvement of water. While we argue that the institutional infrastructure that was established to piece together these fragments provide critical insights in identifying the field's hierarchies and norms, we are especially interested in the dynamics that experts developed upon their initial belonging to the same field. Here, we argue that uncovering the type of capital that displays how

agents accumulate legitimacy for their actions is good bedrock for understanding the norms of GWG. In Bourdieu's work, legitimacy is represented through symbolic capital, i.e. the "outcome of the conversion of other forms of capital [...] [which] should be seen as the legitimated, recognized form of the other capitals" (Lawler, 2011, p. 1418). Symbolic capital is leveraged as "legitimate token[s] of status" that determine agents' positioning in the field's hierarchies (Schinkel & Noordegraaf, 2011, p. 78). Given that symbolic capital is "inherently relational since it cannot simply be claimed", we will now draw upon our ethnographic observations during conferences and interviews to uncover whether an actual "struggle to define what 'goes without saying'" exists (both Lawler, 2011, p. 1419), as well as how symbolic capital is displayed and operated among and between transnational water experts.

Our discovery of these forms of symbolic capital was very much aligned with the different methods employed in our data collection processes, with us often gaining an impression during our archival research that we would then be able to 'test' during our interviews and the conferences we attended, or vice versa. Throughout these processes, one of the most immediate and consistent displays of legitimacy through symbolic capital was transnational water experts' claims of *geographically situated expertise*. In our interviews, the experts often emphasized their arguments and accounts with narratives from the different locations they had worked at. While it may be of little surprise that transnational water experts highlight their expertise by drawing on work or knowledge from various geographical settings, these narratives directly served the purpose of legitimizing the points that they were making. Once we then began to conduct archival work through reviews of old conference proceedings, speaker biographies, and attendance lists, it became very clear that recounting work done in different countries in interviews served purposes beyond recounting anecdotes.

Symbolic capital becomes more identifiable once it is leveraged in settings where experts compete with over experts. For geographically situated expertise, we found that the most prominent display of this type of capital was in written media, whether in handouts at conferences (including agendas and speaker biographies), publications (both academic and institutional), and on personal CVs. We came across a 2012 International Finance Corporation (IFC) water conference, where approximately a third

of the attendees at claimed expertise in at least two entire continents, through descriptions such as "[Expert] has over 25 years of experience in international water and sanitation, including emerging markets in Africa, Middle East, Europe, Caribbean, Asia, and Latin America" (International Finance Corporation, 2012, p. 11). What at first seemed to simply be an almost generic characteristic one could attach to most transnational experts thus became a gateway for our understanding of how seemingly obvious or innocuous statements can reflect broader dynamics of the field, i.e. 'what is taken for granted.'

Our archival methods also helped us identify a second form of symbolic capital, namely the transnational water experts' high emphasis on the production of reports, white papers, peer-reviewed academic contributions, presentations at conferences, and other forms of knowledge dissemination. Once again, this may appear obvious at a glance: experts who spend their time converting knowledge into written content will of course want this content published and use its distribution to compare and compete against other experts. However, this is where the unique, historical co-construction of the field of GWG and the production of academic literature[8] makes the symbolic capital mentioned here separate from the capital one might discover in a more broadly defined field of transnational experts. Similarly, it is another reason why it is essential to have a historical understanding of the development of the field's institutional infrastructure.

Since the early days of GWG's establishment, expert-led networks such as the GWP developed technical papers that would define central concepts, such as water governance or IWRM, with the aim to delineate the new social space that they had helped create, which is an argument we already put forward in our literature review in Chapter 2: There is significant co-evolution between scholarly literature and policy documents in GWG. The GWP's paper defining 'water governance' was written by an adviser at the network and an academic from the Harvard School of Engineering and is with more than 850 citations one of the most-cited works on water governance (Rogers & Hall, 2003). This network-led knowledge production simultaneously helped legitimize both the GWP and GWG in the academic sphere. The success of the strategy was evident in the exponentially increasing body of academic work on water governance, where, "the number of publications [discussing water governance] has increased from

about 20 in the year 2000 to more than 600 in the year 2016" (Pahl-Wostl, 2017, p. 2917). The legitimizing function of academic articles likely boosted the number of publications that address GWG, and thus the development of the literature. It also depicts a struggle over definitions that still plays out today and made the symbolic capital of 'having contributed knowledge' to this space easily observable before we had talked to a single transnational water expert.

Further, many potential interviewees we reached out to had personal websites that provided links to their work and mentioned the number of journals they had contributed to. In conferences' speaker biographies, this number, either specific or approximated, would also be listed to help define their expertise. Then during our interviews, our interviewees would almost always recommend reports, papers and books to us unprompted (often text that they themselves or their colleagues had written). If we could not find them during the interview, they would send these reports to us afterwards. This was of course very helpful for us to fully grasp and contextualize the points that these experts had made, but it also showed that the experts used these texts as legitimate tokens of status. As an example, during one interview, our interviewee would add the exact sentence "I have written about this" on four separate occasions to the end of his responses to questions we posed (Interviewee #21). We quickly developed the perception that if an expert could circulate their relevant works directly to us, their knowledge would not only appear more legitimate, but also made it clear that they had 'contributed to the literature', and, as such, the field's development.

The third final form of symbolic capital that we want to divulge in this thesis is also related to knowledge production. However, rather than being a manifestation of the oft qualitatively-heavy governance discussions, this form of capital embodies the sword fight-like use of quantitative data in what we in our field notes termed 'the numbers game.' What we mean by 'numbers game' is our experience of how nearly every keynote speaker or panelist at the conferences we attended had a personal arsenal of very specific numbers that detail the dire state of global water issues. From "women and girls spend 200 million hours a day collecting water[12]", to "nearly two billion lack access to water that is safe to drink, and nearly 4 billion lack access to safely managed sanitation

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[12] Kelly Ann Naylor, "Call to Action: Supporting Women Through Water" conference, March 21, 2019.

services[13]", these numerical examples aimed to convey the gravity of expert's work or research and the importance of them being around to solve it.
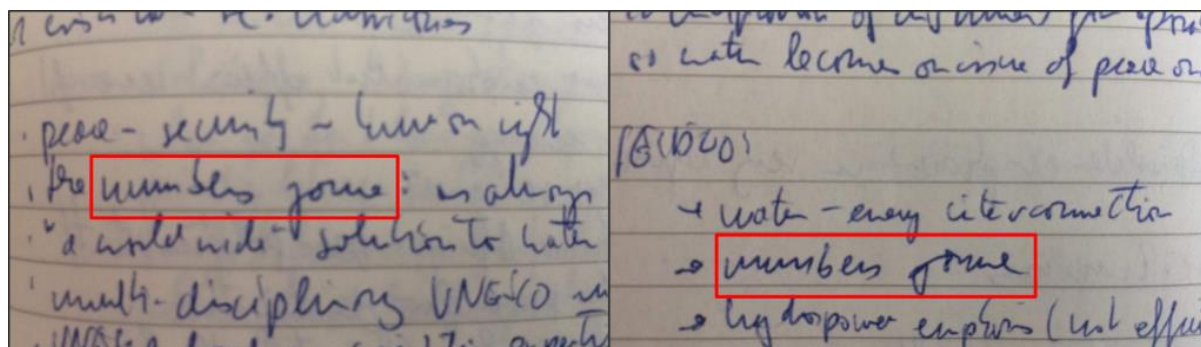

Figure 3: Field Notes Detailing Observations of the 'Numbers Game.'

This form of capital echoes the 'rhetoric of quantification', a 'language' commonly associated with economists that has seen significant increases in legitimacy since the 1980s and the spread of neoliberalism (Fourcade, 2006, pp. 159, 183). Nevertheless, we found that experts engaged in this numbers game no matter their professional backgrounds. Indeed, we found that publications and representatives of IOs and NGOs tended to emphasize numbers to argue their point to a similar extent to those from the private sector. Even the online description of the UNESCO International Water Conference began with the words: "Looking from space, satellite imagery shows the abundant masses of water that characterize the Earth. Yet, less than 1% account for usable fresh water" (UNESCO, 2019). When both large IOs and individual transnational water experts feel the need to speak a GWG-specific variant of the 'rhetoric of quantification', we perceived it a genuine form of contestation where both the development and ownership of these numbers are a display of symbolic capital.

The 'ownership' of numbers as part of the numbers game ties to a larger development within the field that prioritizes the production of reliable databases. Reliable data on water has been a long-conveyed frustration within the field of GWG, with recent papers still claiming that "[l]ow water literacy is compounded by the inherent difficulties in tracing water flows – a challenge even for hydrologists – and the widespread lack of

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[13] Marcia Bernicat, "Implementing the U.S. Global Water Strategy: A First Year Review" conference, March 20, 2019.

data" (Hooper & Lankford, 2018, p. 259). The perceived lack and unreliability of water data was clearly displayed throughout the conferences we attended, from the Implementing the U.S. Global Water Strategy conference, where panelist Jerad Bales pointed towards the continuous challenges in coordinating water-related data between ministries[11], to the UNESCO conference, which named an entire session "Data for Water-related Decision-making." Here, the director of the Mexican water authority CONAGUA summarized her speech as follows: "They say data is supposed to be the new water – and it's true![14]" Indeed, the lack of water data has even transcended the GWG bubble, with the New York Times recently publishing a prominent op-ed entitled "Water Is Broken. Data Can Fix It" (Fishman, 2016).

Adding the above context to claims from the World Bank that "lack of local capacity and basic data are frequently critical constraints in Bank client countries" (The World Bank, 2002a, p. 30) and academic qualms about how "studies have been plagued by a lack of data, particularly with respect to reliable baseline information to enable the evolution of parameters" (Bakker, 2010, p. 100), it becomes clear why the production of data and stating numbers matter-of-factly are such clearly observable legitimizing acts. A statement such as: "We do a lot on data. [...] One of the things that I have been trying to do is asking how to make this data actionable[15]" indicates that the approach to water issues is not only built on a foundation that does not come easy in the field, but they also speak the language of power in the field. As one of interviewees pointed out, stating numbers as "hard facts" is crucial for communicating water risks to both politicians and corporations, as they cannot "be reached" without this rhetoric of quantification. As he stated: "We focus on data to tell a story, to help our audience to understand risks and opportunities. When you are presented by hard quantitative evidence, at least to me you can get convinced" (Interviewee #13).

It may be an intuitive argument that the ubiquity of data and numbers legitimizes some professional groups rather than others[16], but it is particularly true for the field of GWG. The artificial construction of the field meant that GWG largely inherited its doxa

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[14] Blanca Jimenez Cisneros, Director, CONAGUA, Data for Water-related Decision-making, UNESCO International Water Conference, May 13, 2019, Translated from French.
[15] Kelly Ann Naylor, "Call to Action: Supporting Women Through Water" conference, March 21, 2019.
[16] See also Hiss (2013, p. 241).

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from the market-based logic that was embodied by the dominant agents who were instrumental in its construction[17]. The doxa has a direct relationship with the notion of symbolic capital, as it "depends on assumptions of common sense or naturalized distinction, which is enshrined in the notion of the doxa or the unthought categories" (Lawler, 2011). Notions of 'efficiency', 'integration', and 'optimization' thus became a form of "reified or living labor" (Bourdieu, 1986a, p. 241) that would come to define the symbolic capital that legitimizes the actions of experts who operate in the field. The 'rhetoric of quantification' and reverence of data are natural developments of this doxa. As Boelens & Vos have also pointed out, there is not only an "objectivistic, scientific quest in the name of truth, there is a politics of truth, a battle over truth. In the field of water control, scientific research and policymaking, these battles produce permanent, clear results in terms of separating forms of water knowledge and rights that are legitimate from those that are illegitimate" (Rutgerd Boelens & Vos, 2012, p. 18). Possessing and developing the 'right numbers' or legitimate forms of knowledge thus constitute central struggles for symbolic capital in the field of GWG.

Having elaborated upon these three forms of symbolic capital, namely (1) situated geographic expertise, (2) claims related to knowledge production, and (3) the 'numbers game', we have observed clear links between the institutions surrounding the construction of the artificial field of GWG and the field's market-based doxa. This doxa was clearly reflected throughout the three forms of symbolic capital and their operation. Our identification of these forms of symbolic capital provides us with a pathway from which we can continue to pinpoint both the inhabitants of the field and their positioning in relation to each other. To answer the first sub-research question, as well as the additional questions posed in this section, we still need to account for how these forms of symbolic capital are distributed within the field, as well as how they relate to the ways in which habitus is formed and/or shaped. Throughout the next subchapter, we extend our discovery of the artificial field of GWG as we continue to piece together the above-described puzzle pieces.

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[17] For an in-depth case study of neoliberalism as doxa, see (Chopra, 2003).

5.3. Beyond the 'Professional': *From Capital to Habitus*

By outlining the forms of symbolic capital that help piece together the artificial field of global water governance, we provide valuable insights into how legitimacy is accumulated in the field. However, if we simply describe these forms of capital without critically dissecting the dynamics through which they are conveyed, we ignore fundamental implications for the field's structuring. The artificial nature of the field's construction derived from an attempt to bring together fragmented approaches to not just water governance, but also basic philosophical understandings of water itself. Thus far, we have ignored the Bourdieusian implications related to these fragmented understandings of water because the field of GWG was constructed without regard for the characteristics of their social spaces. However, while our observations of the three forms of symbolic capital likely imply that transnational water experts compete for the same overall forms of capital, we must also understand whether this competition even plays out within the same social space, as this comes with significant ramifications for how capital is distributed and how habitus is formed.

To do this, we begin by reflecting further upon the ways in which symbolic capital was exhibited throughout our fieldwork. We have outlined how 'transnational water experts' populate the artificial field of GWG and how we cluster people with various backgrounds and expertise together under this umbrella term. We do so by design, as this terminology reflects the ways in which these agents were distributed across networks and other institutional structures during the construction of the field of GWG. In other words, the term 'transnational water expert' reflects the integrated intentions with the field. But while this terminology might reflect the *intentions* of the field, are these intentions observable in how the field is structured today? During our fieldwork, we quickly noticed that this is not the case, despite the apparent mutual frame of references through which the experts could and would compete for symbolic capital. As we will highlight throughout the next paragraphs, we observed significant differences between the experts that manifested themselves in various contexts, contradicting these 'integrated intentions.'

We witnessed the first prominent example of these differences already at our first water conference, the Wilson Center event "Implementing the U.S. Global Water Strategy: A

First Year Review" in Washington, D.C. on March 20, 2019. The event hosted an expert panel entitled "Views from the Ground" which was introduced by the moderator with the following words: "These are the folks that know what happens on the ground, [be]cause they are out there every day making this work come alive and helping communities doing better.[18]" In the moderator's introduction of the panelists, geographically situated expertise was the clear connecting form of symbolic capital, as the moderator attached several countries to each panelist, from the researcher who had conducted community-based studies at rivers in Kenya, Indonesia and Ethiopia, to a former consultant of a Moroccan utility firm, to a speaker who had led a workshop on water-related sustainability data collection in South Africa, and the USAID expert focusing on WASH, whose experiences in Sudan, Malaysia, and the Dominican Republic were referred to as "finding business solutions helping improve the water systems across the globe." (ibid.).

That these academic and professionally different experts were invited to this panel is a clear recognition of their legitimacy based on their geographically situated (or 'on the ground') expertise. On the face of it, this clearly ties the event to the artificial field of GWG, as we have an event where water experts from different backgrounds compete over a shared form of capital. And if that is the case, why would distinguishing the field as 'artificial' in this case make any difference? The panel contained transnational water experts whose experiences 'on the ground' entailed vastly different work, and the actual contents of the discussion reflected these differences to the point where we could barely observe any communalities between them besides the fact that they had been invited to the same conference, as well as an abstract notion of 'water' that connected them. We would jump from the 'personification' of rivers to talks of a unified financing framework in a matter of seconds, and every panelist seemed more intent on presenting their own sector's issues than engaging in a coherent discussion about each other's arguments – or, for that matter, the achievements of the U.S. Global Water Strategy, which is intended to solve "interrelated objectives" for a water-secure world (USAID, 2018).

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[18] Tom Harvey, "Implementing the U.S. Global Water Strategy: A First Year Review" conference, Panel: Views from the ground, March 20, 2019.

Stepping outside the context of this thesis for a second, this outcome might be of little surprise. After all, an expert who works with local communities in various river settings is not necessarily going to understand or identify with the type of work that a consultant for local governments or state-owned utility firms does, nor will conductors of water-related data workshops identify with people who negotiate contracts on water-related infrastructure projects. The extent to which geographically situated expertise is 'similar' between these different experts might not be more specific than the extent to which it is 'similar' between experts who work in other aspects of global development, such as energy, food, or non-water infrastructure. Here, all that appeared to tie these experts together was the shared panel and 'water' as a common reference point. Although 'water' seemed to mean vastly different things to these experts, with emphasis either being on water as a scarce resource, water in rivers as part of local communities' livelihood, water as data that must be mapped, water as a service that needs to be financed. While they all draw legitimacy from having geographically situated expertise, it was not at all clear whether these experts were competing for that legitimacy within the same field or in other yet-to-be-identified social spaces.

This lack of clarity prompted us to reflect further upon the other components of Bourdieu's theory of practice besides capital. As we have covered in detail throughout Chapters 3 and 4, uncovering the habitus of an expert is a complex process of studying the socialization that influence the behaviors of experts. We have largely covered the structural conditions (such as composition, central arguments and key players) of the field of GWG. These conditions help shape the dispositions and behavior of individual experts and constitute a significant part of the development of their habitus. However, given the cracks we have begun to observe in these structures, it is important that we also analyze the individual traits that experts display within these structures, particularly the sociological inclinations that 'feel natural' to transnational water experts in their daily work with regards to facets such as language or grouping. Based on what we have described above, it is not at all clear that the integrated intentions behind our use of the term 'transnational water experts' reflect the agents' inclinations, making them all the more necessary to examine.

Based on our interviews, conferences, and the ethnographic material we collected, an answer that quickly appeared to help explain these inclinations are the professional backgrounds of experts. Again, outside of the context of this thesis, this is an obvious answer: professions play a large part in determining careers, and, indeed, from our observations a person is more likely to help install a hydroelectric dam if they have an engineering background than if they have a degree in anthropology. Similarly, professional languages develop naturally through years of schooling, and could be an explanatory factor in why different water experts might have difficulties in agreeing upon a mutual language or conversational frame of reference. Given the uncertainties that we have begun to observe within the field, we will now analyze whether understanding the field from the perspective of contesting professional groupings can help us explain the differences in approaches to the field of GWG.

When we asked our interviewees to reflect on their career trajectory ("How did you get to where you are today?", or "What is your background?"), we often received answers that would immediately identify these experts as belonging to some type of professional group. More illustratively, the backside of a business card we received plainly said "LAWYER." [sic], which left the immediate impression that professional backgrounds must be one of the most important distinctions between different experts. Based on interviews and conference observations, we divided our interviewees into four primary professional groups: economists, engineers, lawyers, and social scientists, all of which express varying degrees of homogeneity in their professional and educational socialization (or habitus). These may help us explain why we witnessed so little actual contestation between experts, as well as the extent to which this can be traced back to the artificial nature of the field we discuss.

Figure 4: Backside of Water Lawyer Business Card.

Lawyers were educationally the most homogenous professional group we interviewed[19], a feature which seemed to provide legal professionals with a shared language and skillset. The standardized nature of bar exams and the presence of lawyers in the governance of most aspects of modern life prompted Bourdieu himself to consider legal experts to struggle within their 'own' juridical field (Bourdieu, 1987). Dezalay and Madsen later built on that argument and argued that transnationally active lawyers "tend to organize around professional identities – even if these are relatively different if compared nationally" (2012, p. 442). Another interviewee suggested that "water lawyers" may be a thing (or field) on their own: "I definitely know most of the international water lawyers, which is not a very big group because we see each other at conferences [...] [t]he international water lawyers – it's such a small circle that when there's a conference we are all there and we are happy" (Interviewee #17). This would suggest that such tightly entangled networks both enable the contestation of highly technical issues based on a shared legal language that other experts would not be able to understand, and to locate and procure the advice of legal experts who are known to be knowledgeable in certain aspects of water law.

Based on this, water lawyers may present the 'perfect professional subfield '– a first step towards understanding where contestation happens in GWG if not within the larger

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[19] All eight experts we talked to with legal professional backgrounds had completed a graduate degree in law within either international or environmental law.

artificial field. However, we argue that this is not the case. As a matter of fact, there were some considerable differences between the lawyers we interviewed and observed during our fieldwork. Our interviews with lawyers ranged across a variety of different positions within organizations, including advisors, project managers, and CEOs of governmental and private sector organizations. Indeed, the legal professionals appeared to be a much less homogenous group than their shared educational background would suggest. Similarly, academic and political dispositions, formality of the interviews, reachability, and the extent to which the relevant interview locations were gatekept varied to a much larger extent than we would expect if we only based our study of habitus on educational socialization. Despite the common training in international law, the framing of what water law was and what 'being a lawyer' in international water law entailed remained relatively opaque. As one of our interviewees commented:

> *"[Until recently], lawyers were not really active in the water space, and that is to say, they were active in terms of litigating cases and working for law firms, they were active in terms of working for non-profits and advocating for very specific policy positions or the adoption of specific laws or policies, but they didn't act in a very scientific way. [...] We – governments, academics, researchers – have not really examined the different laws across all the sectors and across all the jurisdictions that are relevant to water."*

(Interviewee #16)

This statement does not only emphasize the institutional differences in which lawyers and their practice of law are socialized (litigation, law firms, advicacy, academia, policy, etc.), but also that water law itself can hardly be considered as one cohesive doctrine that enables one specific type of expertise. As Mónika Ambrus notes, water law is both "horizontally and vertically fragmented", with differences between regional, sub regional, domestic and local water law, as well as different clusters of legislation involving water – for instance ecological, economic, social and human rights clusters of law (Ambrus, 2016, p. 65). This may sound reminiscent of our introduction of water as a 'total social fact' that cuts across all spheres of social life. If that is so, it is not surprising that water also cuts across multiple spheres and functional regimes of legal

doctrine. These functional (legal) regimes follow their own internal logic and "have often been formulated in an open-ended manner, leaving power to decide above all, to decide on how scarce resources should be distributed to the legal and technical experts appointed to the supervisory organs" (Koskenniemi, 2007, p. 4). The interesting analytical aspect of this is not only that this resembles Bourdieu's fields, but also that these functional regimes are dispersed between different sources of law that are located in their own respective social context of expertise – like the environment, human rights, economics, but also treaties, contracts and litigation. With the world being 'covered in law' (Kennedy, 2005, p. 2), lawyers can be found in all aspects of water governance.

Although many of the lawyers we talked to knew each other, the logics according to which they presented their work resembled the niche or aspect of water they were working with to a much greater extent than their shared legal education. Furthermore, several of the lawyers we talked to had combined their legal education with other subjects, such as environmental studies, economics, business, or international relations, which additionally influenced the aspects of water (and water law) they focused on. The ways in which legal experts 'arrived' at being a transnational water expert also differed significantly from expert to expert. Consider the following three examples: (1) Moving from being a corporate lawyer in a multinational water and utilities company to later work on water infrastructure projects of an international financial institution; (2) Studying law on top of an environmental studies degree to work in water and climate change related advocacy and advice; (3) Moving from a combined economics and law degree to advice governments on private sector reform. From our data collection, we can reasonably assume that these lawyers know each other[20] and share some degree of common legal language. Even so, all three individuals exhibited a distinct habitus that reflected their professional trajectory to a greater extent than 'being a lawyer'.

At least in the case of transnationally active water lawyers, this suggests that educational socialization does not play a very fixed role in determining the individual habitus of an expert as we would expect based on Bourdieu's original observation of the juridical field. If law is more fragmented in the international sphere, so is the profession of the lawyer while being exposed to high mobility and diversity of transnational expertise. Other

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[20] We at least know for a fact that they share common acquaintances.

than reiterating our reflections on the 'transnational', this also mirrors Bourdieu's own disregard for the concept of the profession and its naturalized use in scientific discourse. As Bourdieu and Wacquant argue:

> *"'Profession' is a folk concept which has been uncritically smuggled into scientific language and which imports into it a whole social unconscious. It is the social product of a historical work of construction of a group and of a representation of groups that has surreptitiously slipped into the science of this group."*

(Bourdieu & Wacquant, 1992, pp. 242–243)

The underlying reasoning here is that constructing a group (or field) as a unit of analysis always necessitates critical reflection on the extent to which this construction is based on "aggregation and symbolic imposition" (Bourdieu & Wacquant, 1992, p. 243) by the group under study, rather than the researcher. When taking professions as a point of departure to understand in which spaces within GWG struggle and contestation actually take place, we fall victim to exactly that naturalization. As we showed, treating lawyers as a group with a homogenous habitus would disregard their socialization after professional training. Bourdieu suggests substituting the analytical concept of professions with the social field to allow for a critical sociological stance (Schinkel & Noordegraaf, 2011, p. 72). If we are to construct such fields within GWG to account for the lack of contestation and a common habitus, it is evidentially not enough to look at educational background alone.

A different proposition by Schinkel & Noordegraaf (2011, p. 69, 87) is the conceptualization of professions as a form of symbolic capital in the field of power in which experts compete for symbolic status. The notion of professionalism as a type of capital implies that the professional and educational backgrounds of experts not only rest upon an institutionalization of knowledge and skills, but also a service ethic (ibid., p. 69). The idea that professional groups compete for symbolic status implies a need for them to define their professional background as being of high symbolic status when engaging with other experts. In the previous paragraphs, we already identified that this competition does not happen within the GWG as a whole, as the ruptures and fault lines between different approaches and aspects of water governance are too diverse

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based on other factors than the professional background. Instead, we argue here that this struggle takes place in functionally differentiated subfields that are held together loosely by GWG as an artificial and intentional construction. Our account of lawyers already provided hints of these subfields through the different fragments of international water law (such as transboundary law, environmental law, economic law, etc.). So did our account of the use of symbolic capital at the 'views from the ground' panel at a conference we attended, in which a professor in ecosystem science and sustainability spoke alongside a Water, Sanitation and Hygiene (WASH) expert and the CEO of a water infrastructure planning group, all of which appeared in distinct realms of GWG.

That Bourdieu considers professions as a 'folk concept' does not diminish the value of analyzing the use and influence of educational professional socialization as a part of symbolic capital and habitus. Showing that water law (or a transnational juridical water field) does not exist in the way we would expect is an important finding that influences our further analysis of the role of economists, engineers and social scientists. If the most homogenous group in which most members knew each other cannot be considered as their own subfield of GWG, it is unlikely that the same is true for these other professional groups. In our analysis of these other professional backgrounds, we focus therefore to a larger extent on drawing clues on how the shape of professional habitus and the associated symbolic capital is leveraged as a part of struggle for dominance within functionally differentiated subfields.

When discussing the profession of economists, Marion Fourcade observes that "one cannot be a lawyer without passing a bar exam, or a doctor without a board certification, [but] one can become a consultant or claim oneself as an "economist" without advanced training or licensing" (Fourcade, 2006, p. 151). Accordingly, the interviewees and conference attendants we identified as economists were not only individuals with a formal graduate degree in economics, but also business administration or finance degrees encompassing minors in economics, or similar. Despite the many different backgrounds of economists, in most interviews revolving around the question of economists, business administration and finance professionals these were talked about as if they were cut from the same cloth, and distinctly separate from experts from other

social science disciplines. One interviewee remarked: "We need to work with economists and [financial] modelers who know the system, the incentive" (Interviewee #22). The social expectations of what economists could do and know, and economists' own socialization as rigorous scientists who know the system and the incentive firmly underpinned their habitus.[21]

A legal expert described:

> "We have a lot of economists at [IO], a very significant number, and, again, sometimes there is a disconnect. It is clear that we need to help develop some standard documents in that sector because it is clear from the projects that this is not going well. Economists are like 'but where is the evidence? And what's your methodology?' We just have standard documents and they're coming at it from a 'we have data and evidence' focus, and often there is a bit of a disconnect."

(Interviewee #7).

The affection of economists to quantitative evidence and data is undisputed, and differences in professional language between a lawyer and an economist may lead to understandable difficulties in finding common solutions in a given project. Yet, it is still noticeable that this case still directly references the struggle around common concepts (i.e. the development of standard documents in a certain sector, in this case infrastructure). While the lawyers and economists might draw their professional knowledge on differing educational habitus, they at least have common ground on which they then leverage their professions specific symbolic capital. In the case of infrastructure, in particular, the habitus or socialization resulting from this struggle leads to a degree of synthesis between these professional languages. A water infrastructure engineer described that "[u]nless you are able to understand the legal, technical, and financial aspects, you won't go very far in today's day and age" (Interviewee #9). Likewise, we already argued in the previous subchapter that most experts in GWG engaged in the 'numbers game', irrespective of whether they were

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[21] "Students in core [economics] departments are generally taught standardized rules for exercising their skills and judging the abilities of others to "do" economics [...], so that the boundaries of what constitutes "serious" work in economics are fairly explicit and clearly enforced" (Fourcade, 2006, p. 171).

economists, engineers, or social scientists. Instead, we showed that what mattered was the specific context in which these numbers where leveraged – often within a subject or issue area relating to water, rather than GWG as a whole. This provides a first clue that helps us in identifying water infrastructure as a subfield in which highly technical language is used across professions to struggle for the ways in which large water infrastructure is built and managed, a subfield we will discuss in greater detail in the following subchapter.

Interestingly, however, infrastructure professionals rarely discussed the role of social scientists, and even believed that they were relatively absent from their field. The same expert that argued that an infrastructure professional had to understand both law, engineering and economics to survive in the field uttered "Social scientists? Less so, mostly in communication and public relations", when asked about their presence in the field. In almost direct contradiction to that statement, an expert at the Danish International Development Agency described a strong conflict in approaches between social scientists on the one hand and economists and engineers on the other:

> *Often engineers, water engineers, they have a certain [...] mindset, which is very much that everything can be engineered. Even the way people or institutions or countries organize themselves is a matter of engineering, in the sense that you set out a framework or assign for how they should interact in managing water, which is very prescriptive, whereas the social science people engaged in water would probably approach it differently, saying that all these institutions, countries have a different interest, therefore it can be very difficult to have a blueprint for their organization, so you have these two sides. [...] [Economists] would also be prescriptive in the way they present solutions.*

(Interviewee #1).

Once again, we find contestation and struggle, not within professional groups (which would render the profession as a field), nor between professional groups in all of GWG (which would render GWG a social field in the traditional sense), but within a specific sub-section of water governance, in this case what we will later term as the subfield of

development. It also shows that professional habitus is not distributed equally throughout GWG. An engineer or economist present in the same field as the interviewee above will be confronted by the conflicting approaches of social scientists throughout their career. This shapes their habitus and the way in which they leverage their profession as symbolic capital, as their approaches need to be constantly justified in the presence of a competing approach. In comparison, a field that sees the near-complete absence of social scientists (or their mere existence as 'communications or public relations people') also does not see any of the struggle our interviewee described, which in turn leads to an entirely different logic and approach of dealing with water.

Other parts of GWG see a much lesser presence of engineers and economists, which led to almost exoticizing tendencies of how these professions were perceived. A biodiversity and conservation specialist described that "Engineers are crazy, they have their totally own vocabulary – they are so practical though, which is very nice! It is amazing how you can keep in your own bubble" (Interview #14). Similarly, a WASH expert maintained that "[e]ngineers will look at solutions, they will not necessarily look at governance" (Interview #36). These are generalizations that apply within their respective subfields, but not in GWG as a whole. The habitus and symbolic capital of engineering is in part contingent on the number of engineers present in a given sub-field. Consider for example what an irrigation engineer and scholar remarked on the role of irrigation engineers: "So, to my mind, it is the case that engineering is a social issue. The way that engineers think, get trained, and then work with farmers, it is a very social science. There is a lot of social science in irrigation engineering." (Interview #21). This is an approach that is unlikely to have permeated to other subfields of GWG, and its contestation is specific to irrigation, and not to WASH or conservation.

The heterogeneity of multiple different and context-specific engineering degrees was only exceeded by the many educational backgrounds of social scientists, who ranged from the academic disciplines of anthropology, political sciences (including International Relations, environmental policy), to geography, communication studies and sociology. This multiplicity of disciplines with different foci, epistemologies and approaches to water already casts doubt on whether 'social scientist' can be considered as a professional field in the first place. In total we interviewed 13 people with degrees

in the social sciences, excluding the economists. Most of the social scientists we interviewed worked in IOs and NGOs. An easy generalization may be that social scientists where often the most reflective on problems of inter-disciplinary struggle, and generally had an explicit focus on the end-user of water as a stated objective ("If I go somewhere, I first look at the people"; Interview #8). But social scientists also inhabited positions of communications in engineering and economist-heavy subfields, or in analysis and capacity-building of International Organizations, which further complicates the degree to which their habitus can be considered through one common frame.

Social scientists often considered themselves as intermediaries between politics on the one hand, and engineers and individuals 'on the ground' on the other. As an interviewee described, "[m]y experience is that scientists and even engineers don't necessarily talk the languages that decision-makers need" (Interviewee #2). But even this was often only possible by drawing on econometric approaches of data analysis, emulating the 'numbers game' and rhetoric of economists (Interviewee #30) or by combining social sciences with other disciplines, like the following expert, working on water security:

> "[After my engineering degree, I wanted] [...] to understand water not just from the scientific side, but from a human side more so I can have both tools in my toolbox – I can talk to an engineer or a scientist but I can also translate that stuff to policy makers"

> (Interviewee #31)

Another social scientist active in the development space described:

> "I have worked with a large number of engineers over time, and hydrologists, and I worked in the area of public finances and [...] project finances – pretty widely across. I am a generalist, but I have worked in multidisciplinary teams and have managed these teams."

> (Interviewee #2)

In the case of social scientists then, it seems as if interdisciplinarity and the facilitation of dialogue is a common part of the habitus, acquired through working across multiple professions. With that said, this habitus is much more likely to be present if the social scientists are professionally elevated to a position where they lead projects, which is obviously not the case for all social scientists across the field of GWG. In subfields such as WASH, development, or water security, this is then much more the case than in other subfields such as hydropower or infrastructure. The next chapter will delve into greater detail regarding the dynamics of these different subfields.

In this subchapter, we have described how there are clear forms of symbolic capital that pervade the artificial field of GWG, but that the differences between the otherwise intendedly unified grouping of transnational water experts are significant enough to make us question whether these experts compete for symbolic capital within the same social space at all. To understand these differences, we turned to the most immediately observable differences between the experts: their educational backgrounds and professional belonging. We found that these professional backgrounds do affect differences in displays of capital and in the development of habitus, but that they cannot account for the fundamental ways in which the artificial field of GWG is structured. Rather, the field seems to be divided into subfields that reflect the historical disintegration of GWG, determined more by fundamental conceptualizations about what 'working with water' entails than by what can be accounted for in professional backgrounds.

We must therefore go beyond professions. That is not to say that professions are not important components to understand the subfields that exist within the artificial field of GWG. While the complexities of GWG mean that we cannot divide the different professions into significant social spaces of their own, professions or other forms of educational training are at times leveraged as symbolic capital within the subfields that we do find to exist. They are thus an important variable, but not the only variable. As we have hinted at throughout this subchapter, going beyond professions means that we are instead going to investigate how differences in values, logics, capital, and habitus help establish diverging forms of doxa that ultimately may have fatal consequences for the artificial field of GWG. In the following subchapter, we lay out the different

observable subfields, and we dive deeper into the processes of socialization in the individual subfields, as well as we uncover their influence on the habitus and how capital is leveraged. Given that these subfields have strong ties to differences in organizations, we conduct an analysis of the career sequences of our interviewees and other selected transnational water experts.

Chapter 6:

Expertise, Fragments, and Tools of Integration

We have come far in our quest to understand the artificial field of GWG and the role of experts within it. We have shown that GWG was constructed in a very specific time and political context and that it exhibits unique forms of symbolic capital that indicates field-like structures within the social space. However, we have also uncovered inconsistencies in the ways these forms of capital are distributed and competed for; traits that are uncommon for a 'traditional' Bourdieusian field, leading us to term GWG as an 'artificial field'. Additionally, we have found that these gaps are not explained by educational socialization or professional certification alone, and that they instead point toward degrees of differentiation within the artificial field embodied through the existence of subfields.

We begin this chapter by characterizing these subfields, their interrelations, and how they are populated. This in combination with insights from chapter 5 enables us to address SRQ 2: "How do transnational experts move and communicate within this social space?", as we explore how their relations and the characterization of different fields entailing certain types of experts overlap, work internally and relate to the artificial field of GWG enables us to understand the mechanisms underpinning movement and communications between the different subfields. By introducing examples from the subfields of Water, Sanitation and Hygiene (WASH) and Water infrastructure, this chapter further seeks to highlight how Bourdieusian concepts apply and explain power distributions. Studying the communication and movement between subfields, the chapter places considerable emphasis on the spread of logic and the mechanisms of doxic subordination, both within and between subfields.

Based on this exploration of mechanisms of communication and movement of both experts and logics within the field, the second half of this chapter investigates how tools are applied and interpreted within and between the different subfields, as well as in the overall field of GWG. This serves to address SRQ 3 ("How are expert-developed concepts and tools contested and operationalized?"), as we provide a historical account of three

different concepts, including their creation and how they have been operationalized and scrutinized by experts of different subfields. These 'integration tools' encompass Integrated Water Resource Management (IWRM), The Water Energy Food Nexus, and the UN's Sustainable Development Goals, which all three appeared prominently throughout our data collection, in interviews, at conferences and in literature. While the last chapter has hinted at a rather fragmented field, these concepts all intend to bring various sectors or subfields together. We find that these tools have incremental success at doing so, especially through the Sustainable Development Goals. Although there is considerable variation as to how individual experts integrate these tools into their work, their increasing presence suggest a creeping naturalization of the assumptions on which GWG and its *raison d'être* was constructed in the first place.

6.1. Divided but Unconquered: *The Subfields of Global Water Governance*

Thus far, we have presented our argumentation under the framing of transnational water experts all inhabiting a common social space, i.e. the artificial field of GWG. As we further deconstruct this field into different social spaces, it is worth recounting that Bourdieusian scholars often brood the exact characteristics of the social space they try to depict. Bathmaker's quote asking "Are they part of the field? Do they form a different field? Are they a subfield or part of an overlapping field? Do they represent a 'hybrid' space created by porous borders between fields? And does this make any difference to their practices, to ways of playing the game?" (2015, p. 69) is a perfect example of this. However, our inductive approach has rendered any flustering deliberations over the theoretically correct[22] form of the Bourdieusian social spaces that we have termed subfields practically useless. Our answer to the question "does this make any difference to their practices, to ways of playing the game?" is no, because we observed how the game was played before we portrayed the fields. While further discussions over the exact metrics of each social space certainly has value[23] and are interesting dynamics to explore in further literature, simply terming the spaces 'subfields' has no impact on our

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[22] If such a 'theoretically correct' use of terminology even exists in Bourdieusian theory.
[23] Arguably, a few of the subfields we depict are likely hybrids.

argument as we will be able to account for their significance and implications regardless of exact terminology.

Each of the subfields we depict in this subchapter are derived from a combination of our ethnographic observations, our interviews, as well as the historical development of the field of GWG that we accounted for in Chapter 6.1. Throughout conferences, interviews and archival research, we discovered both diverging and recurring logics and ontologies among the transnational water experts. In total, we uncovered nine primary subfields worth divulging. Before we analyze these subfields and their relation to the overall field of GWG, we provide an overview of them in the table below. The table describes the dominant logics and professions within the field, as well as what we throughout our data collection and conceptualizations of the subfields perceived to be the important organizations. As was the case with GWG, organizational ties are significant indicators of how the overall subfield is divided and how its internal logics are developed and continued. We make this clear in our in-depth examination of WASH and Water Infrastructure. The prevalence of certain professional groups within a subfield can similarly provide clues as to the way the fields' internal logics are structured, while still acknowledging the limitations of deriving insights from professional logics alone.

Subfield	Internal Logic(s)	Dominant Profession(s)	Important Organizations
Heritage and Conservation of Water	Water as part of an ecosystem; water as cultural identity	Biologists; Social Scientists	Conservation International; International Union for the Conservation of Nature (IUCN); UN-Habitat; UNESCO; UNEP; WHO; WWF
Hydropower	Water as a 'hydro resource' for energy; logics of growth and development	Economists; Engineers	International Hydropower Association; GEIDCO; World Commission on Dams; IEA

Irrigation and Agriculture	Water as a tool to be managed efficiently for food production	Engineers (Civil / Irrigation / Hydrologists)	FAO; International Commission on Irrigation and Drainage
Transboundary Water Cooperation	Water as manageable across national boundaries; water as a source of conflict	Lawyers; Social Scientists	Local/regional transboundary organizations (RBOs); SIWI
Water and Climate Change	Water as underrepresented in discussions of climate change; climate change as underrepresented in discussions of water	Engineers; Social Scientists; Academics	2030 Water Resources Group; CDP; UNFCCC; UN Office for Disaster Reduction (UNDDR)
Water and Development	Water as a tool for development	Economists; Engineers; Social Scientists	National development agencies (USAID; AFD; GIZ; etc.); OECD; UNDP
Water Infrastructure	Water as an economic good to be managed efficiently; private sector as viable providers of water	Engineers; Economists; Lawyers	ADB; EBRD; EIB; IADB; Suez; Veolia; The World Bank (especially through IFC); Other bilateral and multilateral financial institutions and MNCs
Water, Sanitation, and Hygiene (WASH)	Access to WASH as a human right; access to WASH as an outcome to be maximized	Engineers; Lawyers; Social Scientists	UNICEF; Water.org; Water and Sanitation for All; WHO; WSSCC; WaterAid; a large number of small NGOs
Water Security	Water being in a state of risk or vulnerability	Social Scientists; Lawyers; Academics	Center for Water Security and Cooperation; UEA Water Security Research Centre; UNDDR; World Resources Institute

Table 2: The Nine Subfields and Their Characteristics.

Our understanding of the logics above is deeply entangled with our examinations of the habitus of transnational water experts throughout our ethnographic fieldwork. To understand whether there is a link between this observed habitus and the experts' personal and professional histories (or organizational mobility, we distributed our 34

interviewees and 41 selected conference speakers across the subfields. Each of these experts are what we would consider 'transnational water experts' who populate the overall field of GWG. Having distributed these experts across the subfields, we coded their career sequences in line with the codes depicted in Table 1 (see Chapter 4) to observe whether there were significant differences in career development and organizational mobility across subfields. The plots for each subfield are depicted in the figure below.
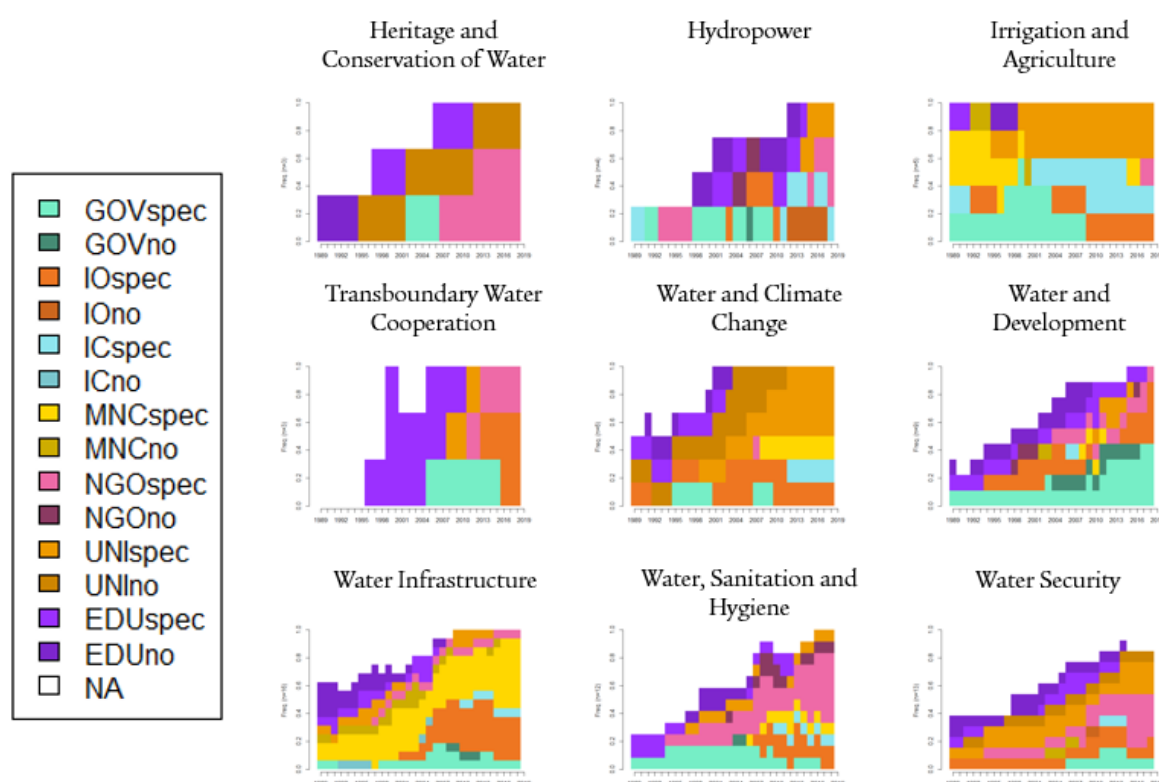
Figure 5: Career Sequences of Experts across the Nine Subfields.

Out of the 75 transnational water experts we coded, there were only two who we could not allocate into a specific subfield. These two experts were so entangled with the development of the artificial field of GWG that they embodied the ideal of an 'integrated transnational water expert' who populates only the field of GWG, while moving effortlessly across the subfields[24] and perceiving water in the terms formulated

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[24] Perhaps ideally believing that here should be no subfields.

at the field's construction in 1992. The figure below depicts the career sequences for all experts as within the overall field of GWG:
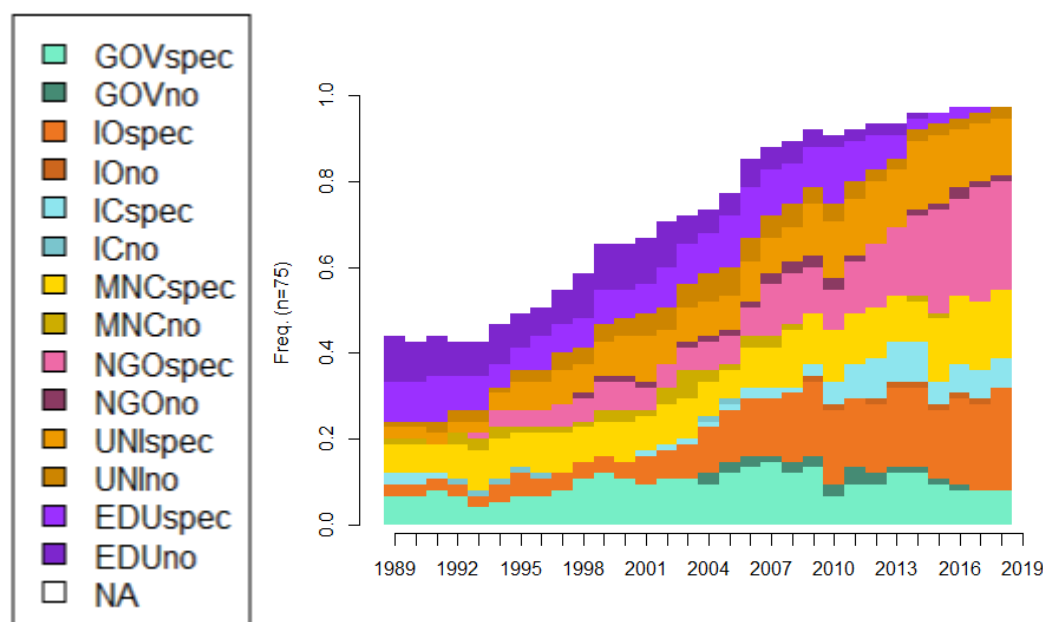
Figure 6: Career Sequences of Experts within the Artificial Field of GWG.

There is a lot to unpack in the above figures, from the purely methodological perspective (i.e. the 'n' statistic in each plot), to the actual characteristics of each subfield. What is essentially visualized in the figures above is the careers of the people we encountered, talked to, and listened to. These are the people who helped inform and influence our perception and construction of the artificial field of GWG. We make no claim that these transnational water experts are statistically representative of all experts within the artificial field[25], but the figures do visualize and help confirm our general impressions of the field as well as the historical tendencies that we have already outlined and will elaborate upon below. However, it is also worth highlighting here that a low 'n' statistic of a subfield does not necessarily indicate a small field but can represent a variety of factors. These factors could be anything from practical issues of access and availability such as the professional networks of our interviewees, or the personal

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[25] It is also arguably impossible to develop a statistically representative visualization of the Bourdieusian field due to its fluid, contested, or blurred borders and boundaries.

interest or opportunity for experts to participate in the conferences we went to. It can also represent more structural factors such as the possibility that some of these subfields may have a larger number of non-transnational experts whose expertise is tied to a specific country or location, or the extent to which these subfields are emphasized in the overall field of GWG.

Revisiting the history and the development of the field of GWG from the perspective of the potential existence of subfields leaves little questions about the historical and current importance of WASH. While we have previously ignored the framing of water and sanitation in terms of subfields, we have already outlined the existence and importance of these aspects of water at the 1977 Mar del Plata conference and the UN International Drinking Water and Sanitation Decade. Water and sanitation essentially constitute the roots of water being deliberated at the global stage, and it is essential to account for this social space if one is to understand how the field of GWG came to exist and how the subfield influences GWG today. Water Infrastructure makes a similar historical case, but instead of representing the entire history of global discussions on water, this subfield showcases the fundamentally market-base, private-sector enabling logics that shaped the construction of GWG. As we will show, Water Infrastructure is the subfield that has emerged most prominently since 1992, and its emergence has large implications both in terms of its doxa but also on the overall existence of the field of GWG.

While the Mar del Plata conference in 1977 had advocated considerably for an integrated approach to water, the following UN International Drinking Water and Sanitation Decade focused almost singularly on providing basic tools such as water hand pumps and simple sewage systems to improve the livelihoods of so-called 'local people' in developing countries. In the words of Pickford (1980, p. 467), the "radical approach to the Water Decade is concerned with the local situation, and especially the local people." At this time, hygiene did not yet form an explicit part of the agenda, although it was briefly mentioned in the Mar del Plata declaration:

> "Communities must be provided with effective education on domestic
> hygiene and must be motivated and involved as appropriate at every
> level of the programme, including the planning, construction,

operation, maintenance and financing of services, and the monitoring
and safeguarding of the quality of the water supplied."

(United Nations Water Conference, 1977, p. 68)

Despite what some might see as preferential treatment or bias towards water and sanitation, the funding for water and sanitation had decreased toward the end of 1980 (Jong, 2003, p. 11). This prompted a group of experts from national development aid agencies and NGOs to form the Water Supply and Sanitation Collaborative Council (WSSCC) to prevent it from disappearing from the global agenda again. The WSSCC was established in 1990 by mandate of the UN General Assembly and hosted by the World Health Organization (WHO). It aimed to provide a platform for different experts to meet, discuss and publish agenda-setting reports in water and sanitation throughout the 1990s. These meetings eventually instituted hygiene on even footing with water and sanitation, and the acronym 'WASH' was thus born at the 2001 Bonn Freshwater Conference[26].

Given the fact that water and sanitation had an entire decade of donor attention, institutional support, and a declaration from Mar del Plata behind its back, it is remarkable how little of its internal logic is reflected in the field of GWG. When the Decade was declared, it was under an urgent aim and a rallying cry that "1230 million people did not have reasonable access to safe drinking water and even more without adequate sanitation" (Pickford, 1980, p. 459). But the momentum never materialized. The 1980s are often referred to as the 'lost decade' of drinking water because the intentions with the Decade at Mar del Plata were never followed up (Muller, 2015, p. 677). It is thus not surprising that we saw such a dramatic shift in the approaches to water governance following the end of the Decade in 1990. As Gupta notes, the Decade left behind a "perceived ineffectiveness of UN action in dealing with water issues [which] led to a parallel development of likeminded actors outside the UN system" (Gupta,

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[26] 'Born' here refers to the use in its current application. It had been used by USAID in the 1980s as an acronym for Water, Sanitation and Health. Our archival research suggests no connection between the 'modern' use of WASH and the use of WASH by USAID in the 1980s (see Cullivan, Tippett, Edwards, Rosensweig, & McCaffery, 1988).

Ahlers, & Ahmed, 2010, p. 296), which is a major reason why experts operating under a paradigm of effectiveness became so powerful in shaping the new water agenda.

The 'effectiveness' logic marks a clear distinction between the WASH and the Water Infrastructure subfields. While WASH has phrased its internal language in terms that maximize 'access' to water, sanitation, and hygiene, effectiveness in the Water Infrastructure subfield relates much more to the rapid growth of investment in water infrastructure throughout the 1990s in line with ideals of private-sector involvement and the trust in economic rationality in the post-Washington Consensus years. These distinct ideas of effectiveness are clearly reflected in the habitus across the two subfields. Yet, it is not the only mechanism at play here. WASH connects a range of disciplines across health, nutrition, education, and construction within water, to an extent we rarely observed in other subfields. As Mahon & Fernandes describe, the "WASH sector comprises a diverse range of approaches, including (but not limited to) water supply, water treatment, household and community sanitation, school water and sanitation, solid waste management, sewerage, and hygiene promotion" emphasizing this interdisciplinarity, clearly underpinned the social aspects of reaching end-users (2010, p. 99). One of the WASH experts that we interviewed described this interdisciplinary dynamic as follows:

> *"The public health folks tend to really work on behavior aspects, [and] community health models. They're really [focusing on] household access to sanitation and handwashing. And then you have the engineers who obviously are working much more on the construction site. A lot of people working on the governance […] often come from the HR [Human Rights] area, [and] civil society, they are coming from a space of really convening discussions and reaching consensus around certain issues."*

(Interviewee #12)

This frames WASH as a field in which different professions work, interact and struggle under a specific common frame on how water, sanitation and hygiene is interlinked and supposed to look like. This broadly matches our observations from the career sequences (see Figure 7 below). Experts that we could classify as predominantly working in the

WASH sector show a relatively clear pattern of working for NGOs right after they finish their education, and then they move on to other types of organizations once they have achieved a certain level of seniority. The initial work in NGOs provides a place for socialization in which the core logics of WASH are trained, reproduced and internalized. Furthermore, none of the WASH-experts we interviewed had emphasized that they had gotten into water "by accident", as opposed to experts in other fields, but had followed relatively goal-oriented career paths to work in development, aid, or water in specific (with the exception of one senior-level manager). The early-career socialization in NGOs marks this sequence plot as distinct from the other sequence plots, where we could not identify such a pattern.
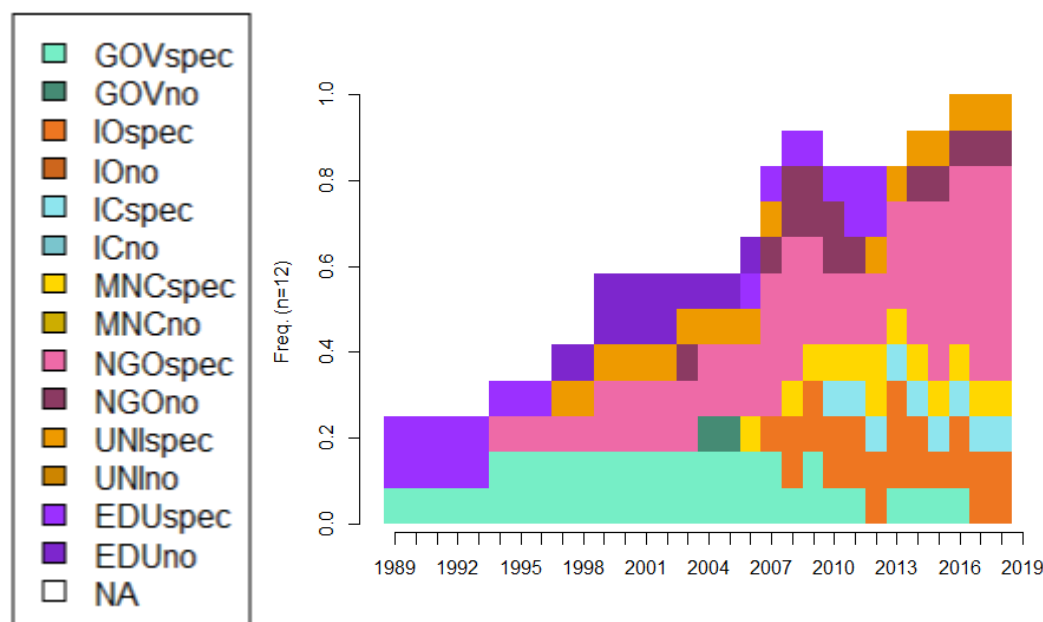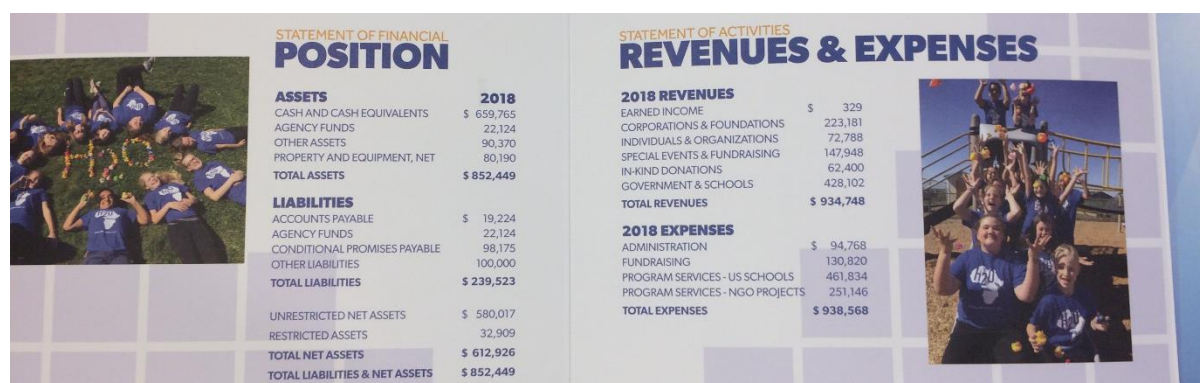
Figure 7: Career Sequences of Experts within the WASH subfield.

As we have established throughout this thesis, part of what constitutes the 'artificial' nature of the field of GWG is the fact that not only was its *raison d'être* visible throughout its creation, but it revealed much more of a consensus than a 'struggle over scarce resources.' It is worth reiterating that this does not mean that struggles do not take place in the field, but that struggles were often just relegated to specific subfields and thus ignored in the broader context. In WASH, the most noticeable internal struggle relates to what Cooley & Ron terms the 'NGO scramble' over funding, tenders, and attention from official development assistance, philanthropic sources, the public,

and charities (2002). Worries over decreasing funding have haunted the WASH subfield since the UN International Drinking Water and Sanitation Decade, and this scramble results in a WASH-specific variant of the 'numbers game' that not only prizes the expert or organization that contributes most to 'access' to water and sanitation, but also the ones that are able to raise funds and spend them 'efficiently.'

This was clearly reflected in the promotional material we received during our data collection. While networking at the Women in Water conference, we received a flyer that had printed the NGO's full account statement as the flyer's main feature, clearly overshadowing the actual work that the organization was doing. This form of promotional activity was exclusive to the WASH subfield, though it did reflect broader 'efficiency' doxa and the overall field of GWG's number's game as symbolic capital. Nonetheless, economic capital-intensive subfields such as Water Infrastructure and Hydropower would either not disclose financial information or do so sparingly.

Figure 8: Center Pages a Flyer Advertising a WASH-affiliated NGO.

Another way the symbolic capital of 'the numbers game' was conveyed was through what appeared to be another WASH-specific form of symbolic capital, namely high-production value short films of the people being provided 'access' to drinking water. As a result, the WASH subfield is rife with videos depicting people, especially children, in developing countries carrying water on their heads or splashing each other in a desert environment, while smiling at select foreign representatives from a WASH organization. At the Women in Water conference alone, the agenda had two videos included: one for

NFL player Chris Long[27], and one for ultra-runner Mina Guli[28]. These videos also echoed a stereotypical 'white savior narrative' that other scholars have noticed across conservation organizations (see e.g. Choudry, 2013).

Relatedly, fundraising in the WASH subfield is often connected to famous, wealthy individuals, such as the aforementioned Chris Long, or other celebrities such Matt Damon, Harrison Ford, and Jay-Z. These celebrities act as 'ambassadors' for either specific NGOs or their own foundations, raising funds and lending faces and voices to widespread advertisement campaigns in high-visibility contexts like the Super Bowl (Brand, 2017). MNCs, such as Unilever or Coca-Cola, often also partner with foundations and NGOs, subsidizing specific campaigns or help raise funds (WSUP, n.d.). As an interviewee from Water.org argued, the celebrity dynamic is something of a double-edged sword, where co-founder Matt Damon helps raise funds, but also hinders the credibility of their work in the eyes of other transnational water experts, hurting the symbolic capital of the agents working at the NGO:

> *"Before the last four years, people did not see Water.org as a team player. To a certain extent that is a Matt Damon-factor. That is sometimes a challenge to our credibility. The other side is that sometimes people want Matt Damon to show up to every conference we attend."*

(Interviewee #3).

In WASH, the internal struggles for symbolic capital and habitus are largely maintained by relatively rare career moves to work in other subfields. An expert at a WASH-centered NGO noted that "the people working in WASH have always been working in WASH and don't want to change the way they are working, because they might lose their jobs or whatever." (Interviewee #27). This dynamic also affects the way in which concepts that originate outside of the WASH-space are perceived in the sector, as described by a conservation expert from the Heritage and Conservation of Water subfield:

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[27] Link to the Chris Long video: https://www.youtube.com/watch?v=0uuVROU3Mc4 (Accessed 30-08-2019).
[28] Link to the Mina Guli video: https://www.youtube.com/watch?v=6lVNhcu2gTg (Accessed 30-08-2019).

"The WASH sector has in some aspects been really reluctant to let the space of the environment come in, because that means that less people are getting WASH services, which totally makes sense, but then we are coming in from the other side like: yeah, but when you are not thinking about where the water is coming from and where it returns to, these WASH services could be quite limited."

(Interviewee #14).

This underlines two points: First, it emphasizes the degree to which WASH is defined by a short-term focus on 'immediate challenges' of people lacking access to drinking water and sanitation. The focus on the immediate serves as a demarcation to other fields that supposedly focus on more 'long-term' issues, such as climate change (Batchelor, Smits, & James, 2011). The habitus of the experts working in WASH is thus more likely to be exacerbated by the struggle for funding and short-term achievement of select key performance indicators as part of the 'NGO scramble.' Second, it displays fundamental notions of how subfields interact. While our interviewee terms her own space 'the environment', there is an understanding that this space and WASH operate under separate, disentangled logics that could benefit from further integration. This was the intention with construction of the field of GWG – creating an integrated understanding of water issues at the global level. What we observe here, however, is an inherent reluctancy within and between the subfields to consolidate their social spaces to find shared (or integrated) solutions. This then makes us question the overall position WASH has in the artificial field of GWG, and the extent to which the experts who work within WASH consider themselves a part of the overarching field.

A WASH professional reflected on this (albeit in different terms):

"I think there is not enough kind of a systematic discussion behind the water management world and the WASH world. And it goes both ways. When you talk to water management actors such as the agricultural sector they will tell you that WASH is not really relevant for them, so that cross section between WASH and water management [...] could be improved, and when we've been improving them [it] is [by] making sure to bring these specific questions into WASH discussions, and in

the water management discussions, bring the WASH questions, and [help] the private sector being part of this distribution, but there is still a lot of work on finding the right regulation in strengthening the private sector in that role, and strengthening the public sector in holding the private sector accountable for avoiding breaches of human rights."

(Interviewee #36).

The interviewee here reaffirms that WASH experts consider themselves as a self-sustaining world (or 'subfield') in an overall universe (or 'field') that interacts with other worlds but rarely collaborates. The point of departure for many of these interactions are based on WASH's traditional alignment with the advocacy of water as a human right. This human right-centric approach to water issues has largely survived the post-Dublin Principles declaration of water as an economic good, which would otherwise come to define not just other subfields such as Water Infrastructure, but also the overall artificial field of GWG. As Winkler, Satterthwaite, & de Albuquerque (2014, p. 553) argue, "efforts within the water, sanitation, and hygiene (WASH) sector demonstrate the immense potential for redefining progress using [...] human rights norms." As we have highlighted throughout this thesis, a central struggle that developed fast within the artificial field of GWG was that of defining how water itself ought to be approached. Here, the human rights-centric notions traditionally associated with WASH, the Decade, and Mar del Plata quickly began to reconstitute the central rallying point of opposition to the economically driven understanding of water (in all its forms, whether as drinking water, as a part of ecosystems, irrigation, etc.) that was consensually agreed upon during the establishment of the field of GWG in the 1990s.

Contrasting how water and human rights were discussed during the construction of the field of GWG to how it is discussed today provides a clear narrative for how the above-described struggle has played out over the last 30 years. In particular, the passing of Resolution 64/292 by the UN General Assembly in 2010 which declared water and sanitation as a human right has constituted a point of "significant political impact" (Winkler et al., 2014, p. 566). In WASH, this "recognition at the political level has created enormous momentum [...], galvanizing international and national commitment to

build capacities and scale up efforts to provide adequate water and sanitation for all" (ibid., p. 553). However, this recognition has had implications that go beyond the subfield alone, and indeed permeate through the entire artificial field of GWG.

Historically, the "struggle to achieve [the recognition of water and sanitation as a human right] was a long one and blocked for years by some powerful corporations and governments who prefer to view water as a private commodity to be put on the open market for sale" (Barlow, 2013, p. xv). The turning point for this struggle started developing in the early 2000s, largely due to increased public scrutiny over the role of the private sector in water governance, which civil society, including actors in water and sanitation, managed to organize around (Gupta et al., 2010, p. 303). Since then, and exponentially so following the declaration, both MNCs and Washington Consensus-associated IOs, historically the staunchest believers in constructing water as an economic good, have begun to integrate human rights discourses into their professional and organizational vocabularies.

The reports published by The World Bank are a significant indicator of this, with Ambrus (2016, p. 81) noting how "the World Bank [now] incorporates the most important aspects of the right to water as devised by the [Committee for Economic, Social and Cultural Rights.[29]]" If even the World Bank now accounts for the human right to water, this could be considered as significant shift in the fundamental consensus that was established during the field's construction and a clear outcome of the struggle. But the distributional impacts of this recent human rights discourse are questionable. As Gupta et al. (2010, p. 294) noted, the "fragmentation of water governance implies that the impact of the consensus [regarding the human right to water and sanitation] is limited."

A legal expert specialized on water infrastructure provided further reflection on the impact of the recognition of water as a human right:

> *"Because water is a public good and a human right there is an assumption that therefore it should be free. Now, I don't think there is*

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[29] While the World Bank recognizes the human right to water in general, it only partly lives up to the specifications established by the relevant bodies of the human rights system, such as the Committee for Economic, Social and Cultural Rights.

a correlation between those two statements, but what is clear is that
even if the customer is not paying for water there is a cost associated
with delivering it through infrastructure, dams, etc., and at some point,
the government has to work out who is paying for it."

(Interviewee # 7)

This shows that human rights, initially considered as opposed to an overarching conceptualization of water as an economic good, has not changed fundamental assumptions about how water is distributed and conceptualized. Instead, it has elevated discourse traditionally associated with a specific subfield, namely WASH, to the overall field of GWG. This has had *some* structural implications, for instance in the increase of human rights-specific indicators to assess effectiveness as opposed the traditionally economic-driven key performance indicators for transnational water experts across different subfields (see, for example, Baquero et al., 2017; Campbell, Benova, Gon, Afsana, & Cumming, 2015; Satterthwaite, 2014), but ultimately has not changed the fundamental logic of the overarching field. This puts our argument in line with the observations that Bakker (2007, p. 447) made prior to the UN Resolution, namely that "the adoption of human rights discourse by private companies indicates its limitations as an anti-privatization strategy. Human rights are [...] compatible with private sector provision of water supply." Similarly, we also agree that "[h]uman rights law is in many ways still the poor cousin of other fields of international law that have developed robust implementation and enforcement schemes" (Satterthwaite, 2014, p. 878).

Based on what we have elaborated upon in this subchapter, one may ponder: if we have observed a subfield that has its own internal logics, a fairly well-defined population, and its own distinct forms of symbolic capital, why are we analyzing this social space as a subfield rather than as simply a field? From the historical development of WASH to the case of human rights, there are several key insights that speak to different aspects of how subfields operate within an artificial field. Both habitus and symbolic capital appear to be much more pronounced in WASH than in the overall field of GWG. While it was not always clear whether transnational water experts were competing for legitimacy within the same field in GWG, it was very clear within WASH that this was the case. Indeed, even the forms of capital we identified within the overall field had

specific variations unique to WASH. However, what this subchapter has shown so far is that the processes of contestation that occur within the subfield are not necessarily contained to that subfield and, if enough agents struggle, transcends into the overall field of GWG where it can contest the overall doxa.

This is thus far the best argument in favor of the artificial field of GWG displaying field-like properties as a 'traditional' Bourdieusian field, where fields are necessarily defined by occurrences of structured struggle. What this shows is that even though WASH became attached to the field of GWG almost 'by force' in 1992[30] when a group of experts proclaimed a new consensus on how water was to be deliberated at the global stage, it has come to accept this overarching social space as an arena for contestation, although this has later shown that its unique properties not necessarily extend to the overall field as it does within the subfield. Translating our human rights case into Bourdieusian terminology, this shows that despite the artificial nature of the field, GWG *has* fostered processes of domination and subordination, emphasized by how human rights discourse were integrated into the larger discourse of GWG without changing fundamental practices established during the artificial field construction.

To provide us with additional insights into how subfields interact with the overall field of GWG, we will now analyze a subfield that is much more like the field of GWG in terms of habitus and symbolic capital. The history of the subfield of Water Infrastructure is much foggier and less defined than that of WASH, as WASH has traditionally been a clearly observable subfield due to its alignment with UN-related initiatives and discourse. Water Infrastructure's etymology lies in the infrastructure needed for water supply systems, i.e. the "system of engineered hydrologic and hydraulic components which provide water supply" (Ramesh, Santhosh, & Jagadeesh, 2012, p. 350). This infrastructure has existed for as long as the world has had cisterns, pumping stations, reservoirs, water pipes, water tanks, water towers, etc. However, it was not until the 1990s, during the construction of the field of GWG, that the Water Infrastructure subfield, populated by experts who work in the financing, construction, and realization of water supply system infrastructure became observable. This is largely attributable to

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[30] When it perhaps could have been theorized as its own separate field pre-GWG.

the increase in private sector participation in water management as well as the increased involvement of neoliberal IOs:

> "At the beginning of the 1980s, the private management of water supply was an exception rather than the rule. Two decades later, the water supply systems of over one hundred cities in developing countries are now managed by one of a handful of private multinational companies eagerly pursuing growth in a multibillion-dollar global market."

(Bakker, 2003, p. 329)

As Muller (2015, p. 678) notes, beginning in the 1980s, "the funds available for public purposes in donor-dependent countries declined [in developing countries] and donors increasingly set conditions for their use", leading to the increase of structural adjustment programs in water, prescribed by Washington Consensus-aligned institutions. Before the 1990s, the experts who came to populate the Water Infrastructure subfield were either largely distributed across dispersed, national social spaces related to the water supply systems in their countries of work, or likely not working with water at all. With this market-based onsensus emerging and the rise in MNCs and IOs working with water, an actual transnational subfield emerged that captured the influx of experts particularly from the economics and finance professions who now came to work with water supply systems at the global level. The observations above are reflected in the graph below, where two types of organizations are significantly represented in the subfield: MNCs and IOs. The graph shows a trajectory in which many

experts began their careers in water specific jobs in private businesses (MNCspec), and who then later moved on to water focused positions in IOs (IOspec).
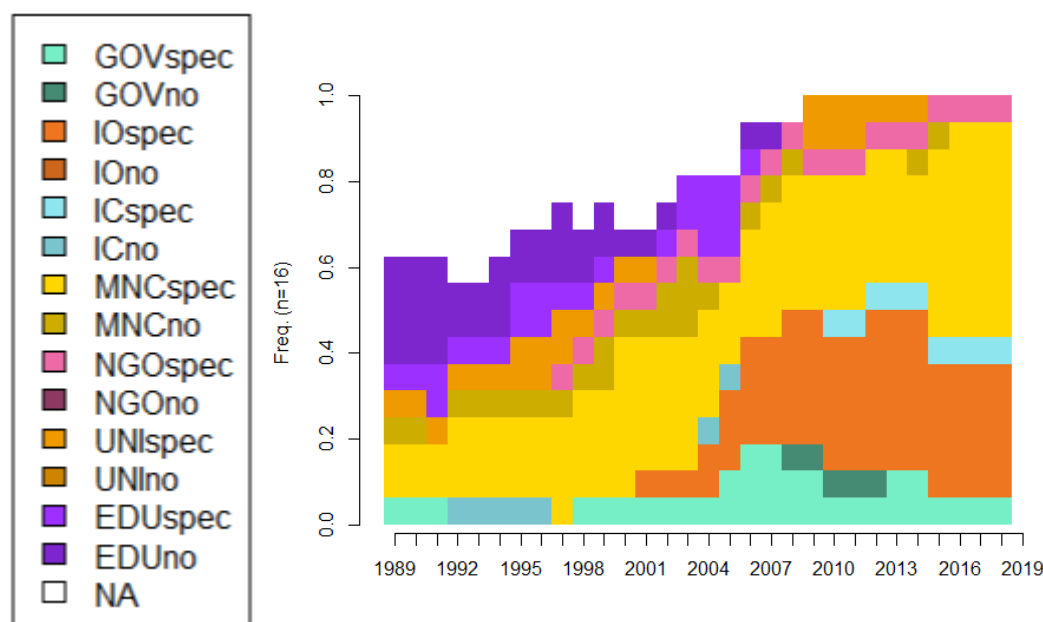
Figure 9: Career Sequences of Experts within the Water Infrastructure Subfield.

Looking at the transnational water experts we distributed into this subfield, only three professions were represented: lawyers, economists, and engineers[31]. Like in WASH, the different professional groupings in the field collaborate closely, which helps define a collective habitus and ultimately homogenizes it across the subfield. An expert from the International Finance Corporation, part of the World Bank Group, reflected on the differences between professions within his line of work:

> *"In infrastructure finance you only meet three types of people and that is engineers like me who went on to do a business school and over time became, I don't want to say legal expert, but we developed a skill to read and write contracts. You find a lot of economists, finance people, bankers who work on so many water or hydropower projects that, by*

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[31] We do not provide an overview of our interviewees' professional backgrounds as per our confidentiality agreements.

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the end, they know pretty much everything about it, and lawyers, who
do the same."

(Interviewee #9)

While the quote above shows some overlap between the Water Infrastructure and Hydropower subfields, it also highlights how the relative homogeneity among both professional and organizational lines has impacted the doxa that ebbs throughout the subfield. This may help explain the high degrees of socialization along profit-driven and commercial logics. As we have elaborated upon in detail throughout this thesis, the rise in privatization of water supplies in the 1990s was reflected in the 1992 declaration of water as an 'economic good.' Nonetheless, as the integration of the human rights discourse into the field of GWG also showed, the 'human right' versus 'economic good' struggle was also felt throughout the Water Infrastructure subfield. Particularly as it contested the approach to infrastructure that had been taken from around the 1990s and onwards. And, as with the human rights discourse, the considerable challenges and critique on the involvement of private firms into water supply systems changed little with regards to the central logics of the subfield.

As an infrastructure consultant described:

> *"NGOs started protesting and the World Bank recognized some of the*
> *failures that had happened. That happened around 2003. And then for*
> *a long time, they didn't have any particular idea about what to do in*
> *the water sector. And I'm still not sure that they really do.*

(Interviewee #18)

The removal of water from its multidimensional context, instead treating it as any other given good or resources reduces the operating ideology behind its governance to what essentially constitutes theoretical neoliberalism. This leads us to claim that a market-based logic emphasizing water as an economic good is indeed central to the habitus of the Water Infrastructure subfield, and that private-sector involvement and the commodification of water is a doxa within this subfield (see also Bourdieu, 1998; Chopra, 2003). When inquired, experts from this subfield argued for privatization largely basing their reasoning on common notions of 'efficiency', in line with the

quantifiable (numbers game-recalling) and growth-oriented attributes we identified in the classification of professional groups in the field of GWG. But if the habitus we describe here is largely similar to that of GWG, how and why do we discern between these social spaces? It is important to remember that GWG explicitly emphasizes integration of approaches to water, which is an aspect that infrastructure experts do not necessarily share, as it can slow or hinder their 'business-as-usual'. Thus, experts populating the field are also more likely to move between subfields in which the populations display similar habitus, such as Hydropower, or between subfields that are increasingly susceptible to the logics that dominate Water Infrastructure, such as Water and Development.

This difference becomes particularly clear when analyzing these fields from the perspective of a GWG-developed tool, such as Integrated Water Resources Management (IWRM), which is one of three main integration tools we will analyze in the next subchapter. As the name implies, IWRM is supposed to help facilitate the integration between different approaches to water (or, as we have phrased it, subfields). When asked whether such tools for integration between approaches to water is considered interesting or has been used in investment projects, an infrastructure economist we interviewed answered: "To be really honest, no. So far, never. We are just transaction people, when we can avoid looking at those aspects, we are really happy to do so" (Interviewee #5). Nonetheless, concepts such as IWRM, along with the Water-Energy-Food (WEF) Nexus and the Sustainable Development Goals (SDGs) are important expert-developed or influenced tools supposed to facilitate an integration between sectors, approaches, and, in our framing, subfields. In the next subchapter we will describe the roles these tools play as 'unifiers' within the field of GWG, before we finally summarize and discuss all we have uncovered with this thesis.

6.2. Integration Tools and the Road to Nirvana

Focusing on WASH and Water Infrastructure provided two contrasting views of how subfields in GWG work, representing not just separate logics or doxa within GWG, but also separate parts of the field's history. Between this, we also got a glimpse of the fragmented landscape that GWG intends to bind together. Given our delineations of

WASH and Infrastructure, this emphasizes just how grand the ambitions of GWG are. Rather than continuing to describe the relationship each subfield has with other subfields and the overall field we will focus this chapter on tools that are supposed to help integrate them. Consolidating these differentiated approaches into one integrated approach to water is a task with almost biblical proportions, even resembling questions asked in scripture: "How often I wanted to gather your children together, the way a hen gathers her chicks under her wings, and you were unwilling" (Matthew 23:37). Biblical metaphors aside, an undertaking of this magnitude was never to be successful without a compelling strategic tool, approach or disciplinary measure.

For the field of GWG, three main tools have been deployed thus far, namely IWRM, the WEF Nexus, and the SDGs. As we accounted for in the literature review, concepts such as these, although explicitly so only IWRM, have in prior literature been framed as 'panaceas' or, in Molle's much-cited "Nirvana Concepts, Narratives and Policy Models: Insights from the Water Sector" (2008) as 'nirvana concepts.' These were defined as:

> *"[C]oncepts that embody an ideal image of what the world should tend to. They represent a vision of a 'horizon' that individuals and societies should strive to reach. Although, just as with nirvana, the likelihood that we may reach them is admittedly low, the mere possibility of achieving them and the sense of 'progress' attached to any shift in their direction suffice to make them an attractive and useful focal point."*

(Molle, 2008, p. 132)

This definition of 'nirvana concepts' essentially describes the intent we observe with what we describe as 'tools for field integration.' In our understanding these tools take the form of structures along which the artificial field is supposed to be built, an effort that is reified in their explicit goal of integration between disparate aspects of water governance and development. The concepts also exhibit a specific framing that resembles the *raison d'être* of GWG, which in turn renders all efforts of compliance with these concepts disciplinary in nature, constituting doxic subordination in Bourdieusian terms. The first two of these concepts, IWRM, and the WEF-Nexus are concepts that originate *within* water governance, while the third concept, the SDGs, is aimed at development approaches in general, although we focus on SDG6 on clean water and

sanitation, which has been substantially influenced by GWG. To explain how these expert-developed concepts and tools are contested and operationalized, we discuss these concepts by tracing their presence through our fieldwork and interviews and historicize their emergence in relation to GWG. Throughout this subchapter, we show that experts' regard for the use and implementability of the concepts is as manifold as the subfields of GWG outlined in the prior section.

Integrated Water Resources Management

It was a challenging task to write this thesis thus far while barely mentioning Integrated Water Resources Management (IWRM). IWRM was intentionally constructed and promoted to constitute the "centerpiece" of GWG in the 1990s (Acheampong, Swilling, & Urama, 2016, p. 3). That also means that IWRM and GWG are so interlinked that much of the history of the former presents a mere reiteration of the latter. Like GWG, IWRM can be traced back to the 1977 Mar del Plata Action Plan, though its institutionalization did not take place until the 1992 UN International Conference on Water and the Environment in Dublin. The Dublin Principles contained the first mention of IWRM:

> *"Governments must also assess their capacity to equip their water and other specialists to implement the full range of activities for integrated water-resources management. This requires provision of an enabling environment in terms of institutional and legal arrangements, including those for effective water-demand management."*
>
> (International Conference on Water and the Environment, 1992)

This statement established the link between this 'integrated' approach to water and the private sector-associated 'effective' approach to water that we have accounted for in detail throughout this thesis. It is however worth commenting on what exactly an "enabling environment in terms of institutional and legal arrangements" entails. Based on what we have written in this thesis thus far, it is therefore not a surprise that an emerging ecosystem of experts and organizations associated with neoliberal IOs in the

field of GWG specifically constructed their advocacy, tools, and research around meeting this request.

The resulting organizations, conferences, and expert networks[32] were intended to help create an enabling environment by defining, promoting and developing IWRM. Whether their work succeeded in helping create this environment remains unclear. In 2000, the Technical Advisory Committee of the Global Water Partnership (GWP), a global action network[33] which specifically focuses on the application of IWRM across sectors, stated that "IWRM practices depend on context; [a]t the operational level the challenge is to translate the agreed principles into concrete action. [...] However, the concept of IWRM is widely debated and an unambiguous definition of IWRM does not currently exist" (Global Water Partnership Technical Advisory Committee, 2000, p. 22). In the same paper, they attempted to define IWRM, and the resulting definition barely provided more specificities than what was implied in the Dublin:

> *"IWRM is a process which promotes the coordinated 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."*
>
> (Global Water Partnership Technical Advisory Committee, 2000, p. 22)

Early debates within studies of water governance attempted specifically to build upon, or even fix, this definition: "The main purpose of this effort is to firm up the conceptual basis of IWRM, as attempted specifically by GWP TAC" (Jønch-Clausen & Fugl, 2001, p. 502); "there has been limited success in bridging disciplinary boundaries (social versus physical sciences) with the result that conceptual inconsistencies persist with regard to our understanding of institutions for IWRM" (Kurian, 2004, p. v). However, as both the field of GWG and the academic literature got caught up in other struggles, these discussions never saw any meaningful conclusion, and the GWP's definition

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[32] Such as the Global Water Partnership (GWP), the World Water Assessment Programme (WWAP), the World Water Council (WWC), the Stockholm International Water Institute (SIWI), the World Water Forum (WWF) and a variety of other organizations, networks and conferences (see Kramer & Pahl-Wostl, 2013)
[33] Created by the World Bank, the UNDP and SIDA in 1996.

constitutes a part of IWRM's identity to this day. This emphasizes the amount of influence the post-Dublin organizational landscape in GWG had on the dissemination of these concepts, but it does not mean that all accept the definition equally. As recently as 2018, academic consensus dwells on the lack of clarity in IWRMs definition and its implementation challenges: "the definition of IWRM remains abstract, and implementation challenges remain" (Lubell & Balazs, 2018, p. 1).

If IWRM still lacks conceptual clarity and its definition remains abstract, how did it become "one of the more pervasive models of market-oriented environmental governance" (Ward, 2013, p. 91), or, for that matter, "the hegemonic paradigm for discussing, legitimizing, and implementing policies regarding the management of the world's water resources" (Orlove & Caton, 2010, p. 408)? The answer lies in the artificial construction of GWG. Its close co-development with GWG, and its conceptual basis as a model of market-oriented environmental governance underline the degree to which IWRM was created to form a structure along which agents in different subfields of GWG could orient themselves to contribute to the aims of consolidation found within GWG. The implementation challenges mentioned before are iterations of subfields' struggles to try to keep their functional differentiation from GWG and this GWG-developed integration tool. This was already clear in the prior subchapter with Interviewee #5's (from the Water Infrastructure subfield) preference to "avoid looking at those aspects", and it is clear in the quote below (from a Heritage and Conservation in Water expert):

> *"I think [integration] is a very logical thing, because of the way [sectors] overlap, but just as we learned in the WASH and conservation space, once you sort of start including one, the boundaries of where you stop becomes much larger and then you're possibility to be effective is at risk."*

> (Interviewee #14)

Having GWG essentially push IWRM upon the subfields is where expertise takes on a central role. As Mukhtarov & Cherp (2014, p. 9) point out, IWRM "produces the effects of structuration of social relations favorable to technocratic and engineering elites." If we conceptualize the transnational water experts as the agents who translate GWG-provided tools such as IWRM into their respective subfields, implementing IWRM in

'the local context' is the exact embodiment of this. What this 'local context' means differs significantly from subfield to subfield: WASH experts can for instance consider a village in a developing country as a 'local context.' Here, the work could mean establishing a hand-pump. Experts working within the Irrigation and Agriculture subfield could consider catchment areas, from which water is drawn for the irrigation of crops, a 'local context.' The Water and Development subfield often sees nation states as the appropriate level of implementation, i.e. the 'local context', in accordance with the dominance of national development agencies in the subfield. Transboundary Water Cooperation focuses on transboundary river basins and aquifers, while the 'local context' of Water and Infrastructure could be found in the financing and construction of a new wastewater treatment plant.

If IWRM successfully is translated into these local contexts, GWG then has taken a significant leap in making the subfields to conform to the intents of the artificial field of GWG. In strictly Bourdieusian, and perhaps slightly ambiguous, terms, these processes would constitute doxic subordination as the effect of symbolic power. As we outlined in Chapter 3, doxic subordination occurs when agents unconsciously adapt their normative underpinnings to "conform to the expectations of their position in the field" (Guzzini, 2013, pp. 81–82). IWRM, when successfully integrated into both the above-described local contexts, and especially when integrated into regulatory frameworks and law, can then be considered the vehicle through which this doxic subordination is achieved. Indeed, as we will outline below, legal reform was identified and emphasized with IWRM since the Dublin Principles (as "institutional and *legal* arrangements", see above).

Since the beginning, IWRM-aligned organizations have emphasized the need for integrating legal reforms to achieve "cross-sectoral inter-connectivity and coordination so as to minimize the potential conflicts between the various legal, policy and institutional frameworks that apply to the management of water resources" (Global Water Partnership, 2017). In 2012, UNEP and UN Water released a Status Report on the Application of Integrated Approaches to Water Resources Management and found that, since 1992, 80% of countries have embarked on reforms to implement IWRM (United Nations Environment Programme, 2012, p. vi). While almost presenting an

iteration of the 'numbers game', here underpinning the legitimacy of IWRM, this statistic may create the impression that these countries implemented these reforms as part of a depoliticized, expert-led process that would improve these countries' water resources management.

However, as we have argued, rendering the success of water systems a matter of expertise ultimately depoliticizes the picture, in theory subjecting these legal systems to the doxa and habitus of GWG. Here, this is the case only in theory, however, due to this legal convergence happening in a political context of arbitrary core-periphery relationships. An interviewee described that the "poorest African countries [...] had been the best at establishing IWRM on paper because they had been paid to do so from Western donors", (Interviewee #1) with implementation generally remaining weak. On the other hand, most emerging economies had avoided implementing IWRM because "they did not want to be tied down by all these concepts. They just went ahead and did their investments as they pleased" (ibid.). IWRM, a technocratic concept underpinning GWG, failed to bridge persisting distributional divides between countries, as it was only implemented by those depending on investment, while those who did not do so regarded it too disciplinary. Those countries who ended up creating IWRM legislation barely implemented the concept in a comprehensive way, in some cases due to its ambiguity, in some cases due to resource limitations.[34]

As a result, IWRM has seen widespread criticism across certain subfields. Generally, countries that have failed to implement its IWRM legislation have not been subject to such criticism, but the critique has rather been pointed at IWRM itself. An interviewee in the Irrigation and Agriculture subfield reflected:

> "It was blueprinted around the world and often as a tick-box that governments could say 'we are now introducing IWRM.' But it wasn't very well tailored to particular catchments and conditions. You will see from my research in Tanzania, I saw a very stark example of how IWRM just completely failed to understand what a catchment in Tanzania

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[34] As a matter of fact, even European Countries hesitated to implement the concept due to its politically contentious recognition of water as an economic good - the same countries whose development agencies advocated the implementation of the concept in developing countries (Muller, 2015, p. 682).

looked like, behaved or what the key problems were. So, the
Tanzanians spent decades consuming normative water regulations
through IWRM rather than pursuing real solutions on the ground,
millions of pounds being spent with very little to show for it."

(Interviewee #21).

The interviewee presents IWRM as a concept that subfields struggled around in GWG. And indeed, the critique was not just found in the Irrigation and Agriculture subfield, but also in the much more GWG-aligned Water Infrastructure subfield. We were described the following situation from an expert working at Castalia, a Washington, D.C.-based consultancy:

"We have helped [Caribbean country] with their national water policy
recently and they kept insisting it has to be based on integrated water
resources management, so we'd say: Okay... why and what is that?
[They would then say] Well we have signed agreements that say it has
to be – and according to the Ireland or Stockholm Declaration or
something like that – everybody has agreed that this is the right thing
to do. Okay – but what does it mean? 'cause I know it says inclusive,
and integrated [...], which sound like good things, but what does that
actually mean to them? And they didn't have a clue."

(Interviewee #18)

The consultant later described how they had suggested the use of pre-existing administrative bodies to implement certain IWRM principles in the policy, but "they weren't very excited about that because it wasn't new and they wanted to do IWRM, which was exciting" (Interviewee #18). This emphasizes the degree to which the concept has taken on a life of its own. Instead of being a tool to integrate a social field around a common understanding of water, IWRM here appears to be a token of legitimacy for the countries in which it is implemented. As another interviewee pointed out, "[d]espite significant contestation about whether IWRM is implementable or not, it is still the buzzword in documents and the regional and local levels" (Interviewee #2). For certain national social spaces, implementing IWRM can be perceived to be a form of symbolic

capital, but the uneven presence the concept has throughout the subfields of GWG means that the other end of the transaction, i.e. the advising of these national water experts to implement IWRM, is only leveraged as symbolic capital within certain, hard-to-define social spaces that are not on even footing with the subfields we have identified in this thesis.

This has certain structural implications. If contributing to the increased prominence of IWRM through legal reform or throughout 'local contexts' was considered clearly observable symbolic capital throughout the entire artificial field of GWG, IWRM would be succeeding in its goal of integrating (and ultimately destroying) the different subfields. This is clearly not the case. While we did come across experts who seemed to derive certain legitimacy from contributing to and spreading IWRM across the world's contexts and legal systems, this was not coherent across any single subfield. Even one of our interviewees, who has "Integrated Water Resources Management" listed as a primary skill on LinkedIn, declared that he would never consider himself an IWRM expert, instead preferring to highlight his hydrology background as his primary form of expertise (Interviewee #6). In other cases, it did not seem like the theoretical and practical arguments that come with IWRM were even considered important. The abstraction of the concept sometimes extended to people talking about the term as if it only consisted of its first word:

> *"It is a fact that water resource management needs to be integrated. No one really disagrees with it. It is the foundation for any policy or project decision. We try to apply it as much as possible. It is an undisputed fact."*

(Interviewee #9)

Alongside its broad institutional backing, IWRM has always been a concept that was closely intertwined with academic knowledge production and expertise. This makes it directly linked to the fact that there is no singular institution that has ownership of the term, thereby leaving experts and expert networks significant room in shaping, interpreting, and competing over the concept (Conca, 2006; Mukhtarov & Cherp, 2014, p. 12). As we will show in the next subchapter, while the competition over IWRM seems settled at the GWP definition, others have redrawn arms to instead compete over what

should come after IWRM. IWRM's nature as a 'nirvana concept', or a 'moving target' that is based on consensus and expert advice thus also comes with inherent problems. As Molle also points out, in its aspirational nature IWRM "obscure[s] the political nature of natural resources management" and is "easily hijacked by groups seeking to legitimize their own agenda" (2008, p. 133). Similarly, it can simply be dismissed, or delegated to an understanding of what 'integrated' means, thus resembling a dictionary-definition of 'integrate' rather than the detailed IWRM-prescriptions that exist. This makes it a true 'floating signifier'.[35]

The Water-Energy-Food Nexus

At the Conference "Call to Action: Supporting Women Through Water", Jennifer Sara, the Global Water Practice Director at the World Bank, declared that the Bank would soon propose an amended version of IWRM:

> *"...because everyone knows IWRM – we want to change the dialogue on that. We want to call it Sustaining Water Resources; we want to look at water through the water cycle in a holistic manner. [...] It's really moving from managing to sustaining in a holistic manner, delivering services within that[36]."*

As we accounted for in the previous subchapter, transnational water experts have competed over the definition of IWRM since its inception. Similarly, proposals for new concepts that are either direct successors to IWRM or supplements that reframe specific components of IWRM or address its 'failures' (however defined) have also been a part of the field of GWG since IWRM was first conceptualized. It may therefore be of little surprise that IWRM is not the only tool for integrating GWG that has transcended into 'nirvana concept' levels of ubiquity across the subfields.

This section addresses the Water-Energy-Food (WEF) Nexus, a term formally prepared for Rio+20[37] at "The Water, Energy, Food Security Nexus: Solutions for the Green Economy" conference in Bonn in 2011. This conference was organized by the German

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[35] See also Mukhtarov & Cherp (2014, p. 9).
[36] Jennifer Sara, "Call to Action: Supporting Women Through Water" conference, March 21, 2019.
[37] The United Nations Conference on Sustainable Development (2012).

Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety though the concept had circulated throughout academic literature and policy networks informally several years prior (Endo, Tsurita, Burnett, & Orencio, 2017; Muller, 2015). We did not only come across the WEF Nexus (hereafter simply the 'Nexus') in the above conference proceedings and literature. Indeed, throughout our interviews, the Nexus was a common answer to our questions about the most important policy developments in the overall water sphere. Likewise, we crossed paths with the concept throughout several of the conferences we attended, where we got a glimpse of the broad coalition that now stands behind it.

This made us curious about how or if the concept functions as a tool for field integration, and thus how it relates to IWRM. The underlying narrative of the Nexus is, like that of IWRM, one of countering fragmentation with integration. The integration here is supposed to take place not only within an integrated sphere of water management, but between the agricultural, energy, and water sectors to ensure that the linkages between the sectors are acknowledged in decision-making, investment allocations, and analysis. Translating this aim into the language of this thesis, it essentially attempted to further the integration of two particular subfields, Hydropower and Irrigation & Agriculture, into the overall field of GWG. These two sectors represent the two subfields that are most-closely aligned with 'traditional' industrial sectors of national economies, namely agriculture and energy. The choice of these specific subfields (or sectors) to be integrated into the Nexus represent both an explicit prioritization of what sectors are considered important key groupings to include into GWG but is also an implicit acknowledgement of how IWRM has not managed to further the integration of these subfields into the overall field of GWG.

One of our interviewees captured the intent in succinct terms:

> *"There are serious conflicts, and that's why we have the Water-Food-Energy Nexus, for example. In many river basins today, dam building happens in the upper part to produce electricity and that affects the hydrology and flow of the lower parts where there is agriculture. The use by one sector affects the other one. That is why the Nexus is important. Agriculture takes 70% of withdrawals and 90% of*

consumptive use. The largest input to any water utility is energy, it is the highest bill. The key to energy production is water."

(Interviewee #10)

However, when reading how the Nexus concept is defined and presented, the language is strikingly close to that of IWRM. For instance, the United Nations Food and Agriculture Organization (FAO) describes the Nexus has a concept that has "emerged as a useful concept to describe and address the complex and interrelated nature of our global resource systems, on which we depend to achieve different social, economic and environmental goals. It is about balancing different resource user goals and interests – while maintaining the integrity of ecosystems" (Food and Agriculture Organization of the United Nations, 2014, p. 3). If this sounds familiar, it is worth reiterating the GWP's definition of IWRM, which talked about how IWRM promoted the "coordinated 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" (Global Water Partnership Technical Advisory Committee, 2000, p. 22). In this light, the above definition of the Nexus comes across as almost direct paraphrasing of the IWRM definition – an entirely different concept. This dynamic between IWRM and the Nexus as well as specific phrasings within the FAO definition provide some interesting steppingstones to discuss key aspects and barriers for the Nexus approach.

First, the definition highlights the Nexus' basic issue with regards to conceptual clarity. Just as with IWRM, the exact ramifications of a 'Nexus approach' are not equally clear to all experts. Presenting the concept in similar terms to IWRM does little with regards to definitional content and rather increases the likelihood of conflating these terms. The word 'integrated' pulled a lot of the weight in IRWM, meaning experts could essentially argue that by calling their project 'integrated' they were complying with IWRM prescriptions, even if they did not know exactly what these prescriptions entailed. When discussing the WEF Nexus, it is easier to know what to integrate, as the sectors are listed in the very concept. However, the WEF Nexus is not the only nexus that exists in GWG. Since the Bonn conference in 2011, scholars and organizations have posited the Energy-Nutrients-Water Nexus (Mo & Zhang, 2013), Water-Energy Nexus

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(C. A. Scott et al., 2011), the Water-Food-Trade Nexus (Merrett, Allan, & Lant, 2003), or the Water-Food-Energy-Climate Nexus (The World Economic Forum Water Initiative, 2011). We quickly became aware of this when some of our interviewees early on started asking us what nexus we were referring to when we asked them for their thoughts on the 'Nexus approach.'

We therefore quickly began to coat our utterings of the word 'nexus' with several layers of uncertainty in any social context involving transnational water experts. The focus of this subchapter is with the original Water-Energy-Food Nexus, as this is by far the most widespread and recognized nexus that exists within GWG, but there are significant consequences for how the tool is operationalized across the subfields when one has to clarify exactly which nexus they are referring to. This came across in a quite humorous way from one of our interviewees:

> *"I remember at one point in my career I started learning about the Nexus [...]. I think of the German Nexus, because I learned first from the Germans: It is Water-Energy-Food. That was my first nexus. Everyone has a first."*

(Interviewee #14)

The fact that "[e]veryone has a first [Nexus]" means that that the original intentions that constructed that concept of the WEF Nexus has been largely replaced by the habitus of the speaker, particularly as relates to professional socialization. If someone who works within the Climate Change subfield first hears about the Water-Food-Energy-Climate Nexus, they may soon be frustrated to discuss the concept with other experts who either work with solely with the Water-Energy or Water-Energy-Food nexuses or have not heard of that specific iteration before. This causes a conceptual mismatch between experts and subfields, and different experts have different ideas about what should be, or is being, integrated. This blurs the original intentions with the concept and results in overlapping missions with the term that are not holistically captured in the concept originally meant to integrate different sectors. If an expert can create a variant of the term 'nexus' to integrate whichever sectors relevant for the project they are currently working on, the Nexus is reduced to a partial solution for IWRM,

despite the fact that it was explicitly created to focus on the intersection between three sectors/subfields: water, energy, and agriculture.

Second, the FAO definition mentions that the Nexus approach is about "balancing different resource user goals and interests" (Food and Agriculture Organization of the United Nations, 2014, p. 3). If we take some basic assumptions that a large proportion of the world's population would be satisfied if they had safe and reliant water, electricity, and food supplies available to them, balancing resource 'goals and interests' becomes more about the considerations of different interested agents with a stake in water, energy, and food systems (whether individuals, corporations, cities, etc.). As giving equal consideration to individuals, interest groups and organizations that have very unequal resources at their disposal can easily lead to arbitrary distributive outcomes, this sentence essentially becomes a slightly convoluted dog whistle for the otherwise well-pronounced focus of the private sector within the Nexus approach. While the private sector participation within IWRM was often framed in vague, depoliticized terms such as 'efficient allocation' or 'cost recovery', the Nexus approach has a deliberate economic rational driving its decision-making, with corporate interests driving its policy discourse" (Benson, Gain, Josselin, & Rouillard, 2015, pp. 762, 768).

This was also observed by an interviewee: "The Nexus is much more aligned with private sector investment discipline than IWRM" (Interviewee #11). As working with the Nexus is largely framed in terms of risks, security, and scarcity, all of which are to be solved through innovation and efficiency in the first place, businesses have increasingly welcomed Nexus-thinking. This comes with two caveats: On the one hand, the "risk remains that businesses will just use the nexus to re-label and/or legitimize business-as-usual agendas, without addressing underlying issues of sustainability beyond their immediate needs" (Leck, Conway, Bradshaw, & Rees, 2015, p. 450). On the other hand, framing a concept through efficiency inevitably leads to questions of whose lack of efficiency is to be fixed, and what this efficiency entails in the first place (Wiegleb & Bruns, 2018, p. 10). Is smallholder or subsistence agriculture efficient when compared to large monocultures? Is a natural river system that is not used for power generation efficient? The market answers to these questions would clearly be 'no', and this 'no' would also be reflected in the solutions that are achieved under the banner of the Nexus.

The framing of efficiency shows disregard for the power asymmetries that are inherent in economically driven conceptualizations of water as it de-emphasizes social or cultural understandings of water's functions. The WEF Nexus aims to integrate a subfield such as Hydropower with the Irrigation & Agriculture subfield and having the Nexus approach attempt to do so through the 'efficiency first' paradigm, which we have presented throughout this thesis, has very specific, social distributional outcomes. The Hydropower subfield is primarily concerned with the construction, maintenance, and expansions of hydro-electric dams. Having an 'efficiency first' paradigm rear its head over a potential integration with the Irrigation & Agriculture subfield would mean that new hydro-electric dam projects would continue to emphasize the economic prospects of the project instead of the social ramifications that have traditionally been associated with Hydropower projects. These include the altering of ancient irrigation canals or the resettlements of millions of people, thought of as "people in the way of progress" by their national governments (Wet, 2000, p. 1).

Third, and related to the first-mentioned lack of conceptual clarity, the definition does little to practically convey why other sectors ought to engage with the WEF Nexus terminology. One of the key weaknesses of IWRM that the Nexus approach was supposed to remedy – namely, water-centricity – appears to live on in the Nexus approach. Our below interviewee underlines that point:

> *"It is a good way to think, so is IWRM, but it is not a good instrument for action, or doing things. I would not say that the Nexus has taken over IWRM, but it comes out of the same desire to understand the larger implications of water. When you are confronted with this Nexus approach, it is interesting for many sectors, energy, etc., but it is a water community phenomenon. It did not come from the energy sector. It came from the international water community. That also says a lot about the success of this way of thinking. The energy sector, the hydro power sector is utterly uninterested in this approach."*

(Interviewee #1)

Another expert shared that observation:

"My sense, only my own experience, is that the Nexus stuff has been quite strongly been driven by the water people, not sure it has buy-in from energy people ... it has not been translated into something that is practical. It is quite difficult"

(Interviewee #2).

The point about buy-in was on clear display at the UNESCO International Water Conference. The so-called "water sponsor" of conference was the Global Energy Interconnection Development and Cooperation Organization (GEIDCO), a Beijing-based network initiated by the State Grid Corporation of China. As part of this sponsorship, speakers from GEIDCO held central slots in the program, including a keynote on the "Energy Interconnection and Water in Africa" in the main auditorium following the opening ceremony. In this presentation, water was only referred to as "hydro-resources", clearly emphasizing the role water has in the Hydropower subfield (see also Table #2). In the context of the overall flow of the conference, GEIDCO presentations stood out, taking the form of highly technical presentations of efficient energy generation with grids that are to be built to connect the generated energy to global markets. This was conveyed through a 30-slide PowerPoint presentation, each slide consisting of several hundred words (see Figure 10 below). There were no opportunities for the audience to engage.
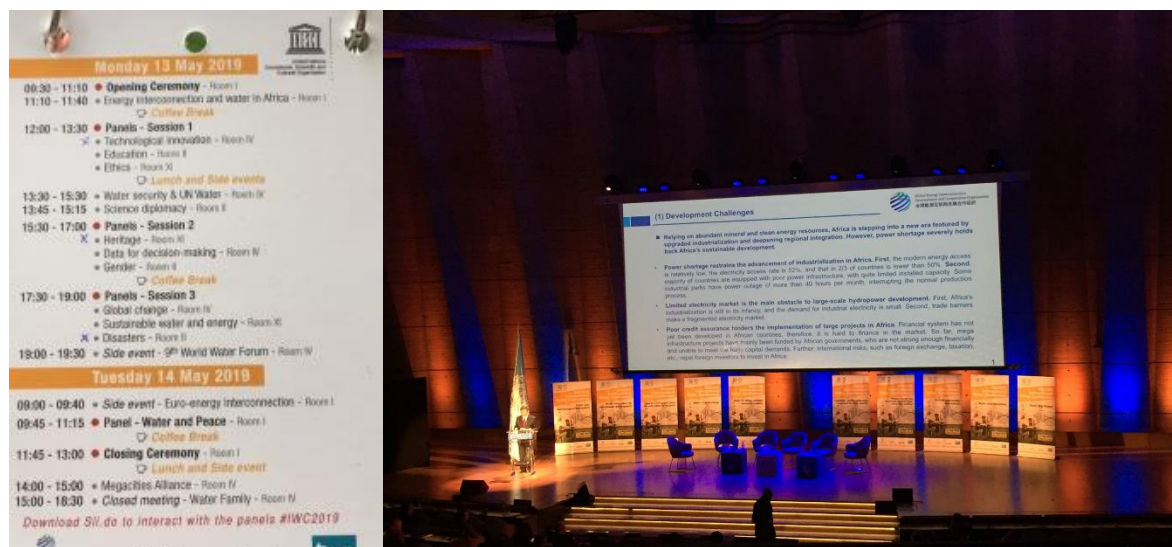
Figure 10: Left: The physical program of the UNESCO conference. Right: an example of a PowerPoint slide from one of several GEIDCO speakers, this one during "Energy Interconnection and Water in Africa".

Another GEIDCO session, entitled "Sustainable Water and Energy" (day 1, 15:30-17:00) presented itself as an event almost separate from the rest of the conference, with a representative handing out flyers outside of the door of the event, which introduced it as the "Sustainable Water and Energy Forum" (for this separate program, see Appendix 5). Throughout the conference, people who were aligned with the Hydropower subfield discussed their plans and projects in terminology that was clearly separate from the rest of the conference. The entire conclusion of the "Energy Interconnection and Water in Africa" session was to promote GEIDO's "Africa Energy Interconnection" project, stating that the project would (in prioritized order) (1) "Achieve clean, sustainable, and reliable power supply", (2) "Promote economic growth", (3) "Reduce development costs", (4) "Increase foreign exchange earnings, and (5) "Achieve balanced development." (for all four slides of benefits, see Appendix 6). Of the total 14 recommendations, the only one mentioning water was recommendation 10, which stated that the project would "Preserve land and water."

What this shows us is that the Hydropower subfield presents itself and its logic as well-defined and separate from what was conveyed in the non-Hydropower focused sessions of the conference. Sessions representing other subfields such as Water and Climate Change or Water Heritage and Conservation took efforts to blend more seamlessly into the overall aesthetics and format of a conference led by a UN specialized agency. This was for instance through representation of both national and transnational experts from various backgrounds across its panels, also making opportunities for Q&A following the sessions. The experts from the Hydropower field, who were largely represented through GEIDCO or other China-affiliated organizations, did not do much to follow these implicit 'rules of the game'. The fact that hydropower experts did not share a common frame of reference, such as the Nexus (or even IWRM), emphasized the failures of the above-mentioned concepts in integrating Hydropower.

Both the Nexus and IWRM were integration tools meant to facilitate stabilizing structures within the field by connecting the subfields and essentially rendering the artificial field more field-like. The recent development and emphasis of the Nexus demonstrated multiple things: first, there are fundamental issues with how IWRM has managed to integrate certain subfields into GWG. The WEF Nexus was initially a way

to strengthen the integration between what have traditionally been considered important domestic sectors for many countries, namely energy and agriculture, with water supposed to be the common denominator. Second, the Nexus suffers from the same lack of conceptual clarity that has hindered the success of IWRM. Being a water-driven concept, the Nexus has struggled to match the strong separate logics that we especially made clear existed in the Hydropower subfield, where we observed how GEIDCO had a prime speaking spot at a large international water conference while only barely mentioning water. This perhaps also speaks to the notion that the field has not stabilized if it needs thematically similar concepts such as the Nexus and IWRM as two disparate embodiments of the same basic logic that the field was constructed under in the first place.

Of all integration tools that exist for GWG, IWRM and the WEF Nexus are likely the most well-known tools that are confined to the GWG field. While that means that they are important, it also means that unless someone works with water and some degrees of transnationality, they are likely unaware of these terms. The fact that the basic doxa of GWG is reframed into new terms can make this water terminology even more disorienting, and the WEF Nexus is not the only change, supplement, or re-framing of IWRM prominent enough to be featured as its equal. This can make the abundance of GWG terminology confusing to follow along with for even the staunchest, GWG-abiding transnational water expert. We introduced this subchapter with the quote from Jennifer Sara about how the World Bank would reframe IWRM to "Sustaining Water Resources." When we mentioned that to another expert working at the Bank, they reacted with humorous indifference:

"If that's what we call it, I guess that's what we call it."

(Interviewee #17),

Another expert seemed more exhausted about the constant redefining of the basic logics of the field:

"We don't really think about it as IWRM anymore. Because, you know,
there is a lot of terms that become old fashioned, and then a new term
comes and then a new term comes, and then it is all about the SDGs."

(Interviewee #22).

It may seem odd to jump from a GWG-specific term such as IWRM to a term that has near-pervasiveness across the development and IPE spheres like the Sustainable Development Goals (SDGs). Established by the UN General Assembly in 2015, the SDGs go much beyond water issues. How can the SDGs then be understood as a tool for the integration for the artificial field of global water governance? As we will uncover throughout the next subchapter, the SDGs tell a rich story of the current state of GWG, its integration, and where it may go next. The SDGs are therefore a fitting final concept to analyze before we begin our discussion and conclude upon our findings in this thesis.

The Sustainable Development Goals

The SDGs emerged on the backs of decades of work by national governments and the UN General Assembly, starting at the by-now all-too-familiar 1992 Earth Summit in Rio de Janeiro and first taking the form of the SDGs' predecessor, the eight Millennium Development Goals (MDGs). Water did not have its own specific MDG but was rather spread thinly across several of these eight goals, including goal one's aim to "[e]radicate extreme hunger poverty and hunger" and goal seven's aims to "[e]nsure environmental sustainability" (United Nations, n.d.). This may be because "the water community did not jointly participate in the implementation of the MDGs. Instead, engagement was dominated by the Water, Sanitation and Hygiene (WASH) community, which was largely separated from other water actors" (Wiegleb & Bruns, 2018, p. 1159). This would largely reflect our arguments about the failures of IWRM and Nexus approaches to properly consolidate the field of GWG by integrating its different subfields (or issues or sectors).

Looking at how the SDGs ultimately were formulated and contrasting them with the MDGs, it is as if a major transformation occurred overnight. Not only are two goals directly linked to explicit water issues, specifically goal six, which aims to "[e]nsure

availability and sustainable management of water and sanitation for all", and goal 17, which works to "[c]onserve and sustainably use the oceans, seas and marine resources for sustainable development" (Sustainable Development Goals Knowledge Platform, n.d.-a), but water issues that are central to many subfields are also represented in the targets and indicators for other goals. This reflects Wiegleb & Brun's (2018, p. 1162) observations of how "[t]he WASH sector involved with the implementation of the MDGs joined in with the other actors to address issues in a more collaborative and integrated approach." But do the SDGs indeed point toward a new trajectory for GWG? While both the Nexus and IWRM were designed by experts within GWG, the SDGs reflect an integrated agenda that involves the entire organizational body of the UN and is endorsed by nation states through the UN General Assembly.

The question about new trajectories also has two clear answers: Yes. And no. No because IWRM was not abandoned as part of the development of the SDGs but was rather directly designed into them. This is explicit in SDG 6's target 6.5 ("By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate") and indicator 6.5.1 ("Degree of integrated water resources management implementation (0-100)"). Yes, because the integration of IWRM into terms as prevalent as the SDGs can be considered an indication of GWG finally permeating into the spaces that were originally dominated by individual subfields, such as WASH in this case of UN institutions. In a challenge paper for the World Water Council, Smith & Jønch-Clausen also seemed to argue that it was a new trajectory – for IWRM, not necessarily GWG:

> *"The SDGs are not business as usual for IWRM. They are a wake-up call. IWRM must ultimately deliver results on the ground – in terms of water security across scales and sectors, change in water management and benefits for people and nature – at a scale that it has never achieved before and with higher speed. A new IWRM is needed in the 2030 Agenda – one that is dynamic, adaptive, demand responsive and strongly impact-oriented but which builds on what has been achieved at local, national and transboundary levels."*
>
> (Smith & Jønch-Clausen, 2018, p. 6)

There are a few clues as to why GWG finally had IWRM transcend its borders and successfully assimilate into the SDGs. The explicit aim of the SDGs was to provide an integrated agenda, which spoke directly to the intentions with GWG during its creation in the 1990s. UN-Water's establishment in 2003 was too late to influence the MDGs, but by the time the negotiations for the SDGs began in 2014, UN-Water provided a designated institutional space for the integration of water subfields (see UN-Water, 2019). As a matter of fact, "the great majority of the goals and targets proposed by UN Water were ultimately adopted and translated into Goal 6" (Wiegleb & Bruns, 2018, p. 1160). This indicates that GWG's very own organizational platform on UN-level dominated the process for SDG 6.

Furthermore, the emphasis on multi-stakeholder involvement of the SDGs awarded a much more pronounced role to the interests of the private sector than was the case for the MDGs (Scheyvens, Banks, & Hughes, 2016). This was optimal for GWG, as the logics and approaches of the private sector had been represented in GWG since its initial construction, thus aligning the interests between the involved agents in the SDG negotiations. This aligning of interests was also noticeable in how the progress of the SDGs is monitored. The fact that each SDG has a 'target' and an 'indicator' (which typically has some numerical value) brings back our argument about how framing water as a good that is to be managed in an efficient manner ultimately depoliticizes water by rendering its success a matter of expertise.

As we highlighted in Chapter 3, Bourdieu had a notable example of how neoliberalism 'made itself true' by supporting diverse policy agents who reproduce neoliberal norms and practices without noticing. Almost 30 years after its artificial construction, the field of GWG is now essentially doing the same – making itself true by ensuring that the concepts developed by transnational water experts inhabiting the field are naturalized within other concepts. Using IWRM as an indicator that can rank a country on a scale from 0 to 100 is a great example of this. In Bourdieusian terms, this endows the field with an aura of doxic legitimacy, making its agents feel like IWRM is just how things are, recalling the "If that's what we call it, I guess that's what we call it", quote that Interviewee #17 stated in the previous section.

An additional clue that indicates that the SDGs play an important role in driving GWG's long-sought integration is found in how their creation caused more overt and observable struggles between the subfields of GWG. This became the case already during the negotiations of the SDGs, where UN-Water provided a designated space for the subfields to struggle over what should be included in the SDGs. Based on what we presented in Chapter 6, it should be no surprise which subfields were engaged in the biggest clashes, and as Wiegleb & Bruns also describe in their paper about the water community during the development of the SDGs:

> *"One major aspect [of political contestation in the making of SDG 6] was the dwelling conflict between the WASH community and other participants, as WASH actors were afraid to lose funding, visibility, and the powerful mandate they held during the implementation of MDGs. Additionally, a stable group of "old water experts" continued to disregard the human and environmental dimension of water management by focusing primarily on engineering aspects."*

(Wiegleb & Bruns, 2018, p. 1159)

These observations fit seamlessly in our prior observations. They indicate that GWG's attempt to integrate different subfields (in the quote referred to as 'communities') leads to struggle of these subfields to maintain their integrity. The so-called "old water experts" represent the foundations of GWG; the 'pure' GWG population and remnants of the coalition that helped artificially create GWG in the early 1990s. That GWG 'overtook' the dominant position WASH had in the MDGs can be considered a significant success of field construction.

Once the SDGs were in place, transnational water experts were once again the key agents in charge of interpreting, translating, and integrating the SDGs into projects 'on the ground.' While we have already explained that this can mean different things depending on each subfield, we argue here that the SDGs by design streamline the implementation and application procedures significantly more so than IWRM did. The 'depoliticized' targets and indicators that are an integrated function of the SDGs endow their users with trackable metrics. That these metrics are 'expert developed' and globally recognized only further users' perceptions of them equaling scientific validity, thus

legitimizing their use by organizations and experts who operate projects with key performance indicators in mind. An interviewee working at USAID described the SDG's influence as follows:

> *"[The SDGs] have certainly impacted our work. Even in basic procedural work, changing our indicators. We are not just talking about basic access anymore. We are talking about sustained access. It forces us to think more about equity and water quality. It is a much more nuanced and comprehensive approach to WASH than the MDGs where. So, it has certainly changed our conversation. It is the foundation of everything we do."*

> *(Interviewee #12)*

That the SDGs here take on tool-like qualities across subfields is an argument in favor of their efficacy in integrating the field. This effect is additionally amplified by the recognizability the SDGs embody as opposed to the water-specific concepts, which make it easier to reach agents that are not part of the GWG. As an expert in the Water in Heritage and Conservation subfield pointed out: "The SDGs are the political platform and sometimes when talking to national governments or you are trying to inspire teams that are working with national level policy, [it] is really helpful" (Interviewee #14). The same interviewee also described the SDGs as giving them "even more momentum to say: and yet again here is why and how we're going to get this crosscutting research and connection" (Interviewee #14).

Similarly, large corporations whose portoflio relates to water only in part, such as multinational engineering consultancies, or businesses that draw on water as a part of their supply chains are also more likely to use and apply concepts that relate to their entire business rather than a single business unit. Instead of having to explain water-specific concepts as ever-evolving as IWRM or the WEF Nexus to their stakeholders, they can convey this well-known, UN-provided framework that relates to a majority of their business. A consultant in agriculture and irrigation described that "[t]he SDGs have put a lot of wind under the wings of the water managers of this world [...] [They] have

definitely made my work more interesting" (Interviewee #11). Multiple interviewees mentioned that the inclusion of the SDG key performance indicators had become a requirement in many projects (Interviewees #18, #19). This largely renders the SDGs a box-ticking exercise, but it does integrate GWG-centric concepts into their daily work as working with the SDGs becomes an aspect of transnational water expertise. An expert active in WASH additionally underlined:

> *"So, I would say you are better off having an international community that works on the SDGs rather than bringing new shiny words like the Nexus, like, you know, new allies on whatever, there is always a new thing coming up. I think we would benefit from more alignment, more support, and more accountability to progress on what governments have actually committed themselves to do."*

(Interviewee #36)

This interviewee clearly prefers the SDGs the 'shiny words' of GWG. These 'shiny words' refer to the water governance concepts that are constantly adapted, re-framed, and changed to consolidate the basic logics GWG. In this, the SDGs present an opportunity to make new 'shiny words' obsolete – they can be the ultimate 'shiny word' (or nirvana concept). While many of the statements of our interviewees show readiness to consider the SDGs the be-all of water terminology, it was sometimes conveyed as a sigh of relief of not having to keep track of the latest 'water-lingo.'

Presenting the SDGs as the ultimate nirvana concept may be tempting based on these observations above, but there is reason to hesitate with this declaration. It is worth questioning how much of a focus there is on water across the other goals once there is a goal that singularly emphasizes water, namely SDG 6.[38] In some ways, having a single water goal such as SDG 6 separates water from other goals. For instance, SDG 7, "Affordable and Clean Energy", is leveraged extensively by the Hydropower subfield, who then largely ignores SDG 6 (as recounted by Interviewee #33). Similarly, the Irrigation & Agriculture subfield is split across SDG 2 ("Zero Hunger",) which vows to

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[38] "Ensure availability and sustainable management of water and sanitation for all."

increase agricultural output, and the irrigation-related targets in SDG 6. The subfields of Water & Climate Change and Water in Heritage & Conservation are represented in SDGs 13 ("Climate Action"), 14 ("Life below Water") and 15 ("Life on Land"), and having most people associate water with SDG 6 may make it difficult for these subfields to have their work reflected in the SDGs. An interviewee summarized these challenges well: "There are lots of these intersections and there are still these silos even [when] you try to bring up a goal to goal approach" (Interviewee #31).

In comparison to the other integration tools we have discussed so far, this makes an interesting argument: Different 'nirvana concepts' prioritize different subfields for integration. Irrigation and Agriculture have received less attention than in the nexus, while negotiations with the WASH field rendered it center stage in the SDG process, and show how the doxa of WASH are increasingly aligned with those of GWG, and this is reflected in the way it was integrated into the SDGs: In an indicator-based, depoliticized manner.

	IWRM	WEF-Nexus	SDGs (SDG 6)
Subfields Targeted for Integration	All	Water Infrastructure; Irrigation & Agriculture Hydropower	WASH; Development
Water as an Economic Good	Explicitly recognized	Explicitly recognized	Implicitly recognized (through IWRM)
Contestation	Little contestation due to vagueness of definition	Little contestation due to competing nexuses	Little contestation due to international endorsement beyond the water sector
Private Sector Targeting	Medium	High	High
Visibility Beyond GWG	Low	Low	High
Origin	1992	2011	2015

Table 3: Comparing the Three Integration Tools

To conclude, what have these integration tools told us about GWG, and how can our findings help us in answering SRQ3 on how expert-developed concepts and tools are contested and operationalized? All three tools have shown that GWG seeks to construct tools that are deliberatively design around the expertise that drove GWG in the first

place. All concepts are either vague enough (IWRM and the Nexus) or shrouded in the mist of universal applicability (the SDGs) to an extent that depoliticizes their application, hinders contestation, and therefore reproduces the market-based core logics of GWG that are inscribed into them. While IWRM and the WEF Nexus were strictly focused on integrating the field from a water-centric approach (i.e., being mostly recognized and applied by experts working with water), the SDGs present a paradigm shift that integrated GWGs logics, including IWRM itself, into an internationally endorsed development framework. From a Bourdieusian perspective, this indicates a growing trajectory of doxic subordination of different water subfields, as GWGs doxa increasingly permeate through these subfields. In our focus on the distributive implications of our findings thus far, Chapter 7 will elaborate further on certain aspects of the SDGs – in particular the growing momentum towards the financialization of water endorsed by them.

Chapter 7:

From 'Total Social Fact' to Economic Good:
The Distributive Implications of Commodifying Water

From the onset of this thesis, we have observed how the social space that we ultimately conceptualized as the artificial field of GWG was influenced and impacted by the involvement of organizations and experts who pushed for the redefinition of water as a commodity. This logic ultimately spilled over to the design and application of tools that further the overall goal of the field: an integrated approach to water that unites its subfields and the experts within them. Although we have discussed how market-driven logics evolved throughout the past decades, we have only hinted at their distributive implications. As we have demonstrated in the preceding chapter, little has changed regarding the doxa that is reproduced within GWG. On the contrary, the SDGs, which we argue to be the most recent iteration of field integration tools, are generally tied into the original intentions during the construction of GWG, and even tie it into a larger development agenda.

In this chapter, we will synthesize the previous six chapters into a discussion over how our findings answer our RQ and SRQs, particularly as relates to the distributional impacts of our findings. To briefly revisit our starting point, we initially defined global water governance as the "system of actors, resources, mechanisms and processes which mediate society's access to water", following Cleaver & Franks (2007, p. 303). This definition was our starting point into understanding how the dynamics it conveys can be conceptualized as a Bourdieusian field. It is important to recount that these social spaces perform mediating roles that lead and impact the distributive outcome of how water basins are governed, drinking water is delivered, hydropower generated, food cultivated, etc. GWG represents the intersection of all these distributive outcomes, and as a field that has largely been developed by experts and expertise, it is also a field that necessitates that one understands not just experts and expertise, but also the power relations that these bring.

To provide a final case of how the above-described findings relate to current GWG practices and their distributive outcomes, we will highlight the relation between the SDGs and the emerging paradigm of 'financing for development.' Financing water projects through other means than state funding is a practice that gained momentum almost simultaneously with the emergence of the field of GWG and the subfield of Water Infrastructure and is entirely in line with the core doxa and logics of these social spaces. As a keynote presentation at the 2010 IRC conference "Pumps, Pipes and Promises" summarized:

> *"For the last 20 years, the orthodox paradigm for financing water and sanitation in developing countries has treated the state as having inadequate capacity to either finance or operate water and sanitation services. It has instead promoted the primacy of private direct financing of investment, and the market model, with pricing mechanisms providing incentives and signals for investments, supported by targeted aid designed to 'leverage' the maximum amount of commercial investment."*

> (D. Hall & Lobina, 2010, p. 2)

Finding private sector finances for water projects has become one of the most prominent recent iterations of the 'numbers game', to the extent that it could arguably constitute its own form of symbolic capital throughout the GWG. The term 'finance gap' (or, alternatively, 'funding gap') was among the most common unprompted sequence of words throughout our interviews and was discussed and leveraged throughout all the conferences we attended. As an interviewee mentioned early on, "[i]t would cost $114 billion to achieve SDG 6.1 and 6.2. That is only capital investment, not operations and maintenance. That is three times the current investment level" (Interviewee #3). The 'finance gap' discourse terms serves a two-fold purpose: one, it conveys the significant water issues that exist in all areas of GWG and provides a measurable, numerical value for how far off 'we' are from solving them. Two, it carves out a role for the increased presence of the private sector in water, thus also legitimizing its presence in the field.

Solving this 'finance gap' and gathering finance for development purposes has become a central part of the SDG's entire agenda, not just in water. The Third International Conference on Financing for Development hosted by the UN in Addis Ababa in 2015 formalized this relation between this private funding and the SDGs. This was clear in the resulting Addis Ababa Action Agenda (AAAA), which made the provision of private finance a central part of the development agenda. The AAAA states:

> "We acknowledge the diversity of the private sector, ranging from micro-enterprises to cooperatives to multinationals. We call on all businesses to apply their creativity and innovation to solving sustainable development challenges. We invite them to engage as partners in the development process, to invest in areas critical to sustainable development, and to shift to more sustainable consumption and production patterns. We welcome the significant growth in domestic private activity."

> (United Nations, 2015, p. 17)

The AAAA naturalizes mechanisms that enable and prioritize the involvement of private finance, "laying aside all the academic evidence regarding the poor results and effectiveness of PPPs in terms of poverty reduction, gender impact, access to global public goods, and health, education or infrastructure impacts" (Mediavilla & Garcia-Arias, 2019, p. 861). The SDGs subsequently endorsed the AAAA (United Nations, 2015, p. 14), leading one of our interviewees to state that "the global conversation of water finance has gone in a really great direction with Sustainable Development Goal 6" (Interviewee #3). The World Bank similarly embraced the AAAA and the financing focus of the SDGs (see The World Bank, 2019) also formulating their own approach to help solve this 'finance gap' - Maximizing Finance for Development.

Another interviewee commented on this:

> "There is this new thing now in the World Bank, called Maximizing Finance for Development. Which I completely agree with. It is

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essentially what they were doing in the 1990s, just doing it in a more sophisticated, nuanced way."

(Interviewee #18)

This final point about doing "what they were doing the 1990s" is what brings the financing for development case back around to the distributional outcomes of our findings in this thesis. The foundation for our main argument is that the 1992 Dublin and Rio conferences constituted a critical juncture in the global governance of water, resulting in the creation of the artificial field of GWG. As we have elaborated in much detail throughout this thesis, this creation was deeply interlinked with the prevailing economic paradigms of the time, where Washington Consensus-affiliated institutions also began to play significant roles in water for the first time. While describing the specific distributional outcomes across all subfields in detail would likely require additional theses, our findings point towards that the emergence of the field of GWG fundamentally altered the ways in which water is approached, from the top-level governance levels to the individual project levels. It also makes it worth to reiterate the literature that has been written about the distributive outcomes of the wave of privatization in the 1990s, which was variably described as a failure even on the merits of its own economic hypotheses (Araral, 2009) or simply as a "governance failure" (Bakker, 2010).

That Washington Consensus-based logics continue to permeate the global governance of water can easily be tied to the continuous reproduction of the core ideals of GWG since its initial construction. Rendering private finance as an intricate part of how water is funded (and thus governed) can be understood as a part of the growing tendency towards financialization (Hiss, 2013, p. 234), and is a new trajectory that IWRM, the Nexus approaches, and SDGs contribute to (see also Schmidt & Matthews, 2018). Financialization renders water-related problem-solving even more of an issue that is to be addressed by a specific form of market-focused expertise, often far removed from the local political and economic contexts in which these water-related problem sets occur (Baron, Greene, Mader, & Morvant-Roux, 2019; Bayliss, 2014). Similarly, these processes of financialization often avoid the scrutiny of regulatory oversight bodies. This led over 100 scholars to sign an open letter to the World Bank criticizing this mechanism,

claiming that their Maximizing Finance for Development program mirrors the instruments that contributed to the 2008 global financial crisis (Critical Macro Finance, 2018).

Financialization and other market-driven logics that are dominant in GWG arguably form an expansionary effort to the subfields that GWG sought to integrate (see also Roberts, 2008, p. 536). The expansion of these logics to new resources, sectors, and networks are central to our argument in this thesis. Since its inception, the artificial field of GWG has pushed to expand and reinforce the dominant market-driven paradigm that considers water as an 'economic good.' We argue that this continuous momentum was only possible due to the depoliticized treatment of water in GWG in general, and due to the emphasis on developing the integration tools we described in the prior chapter. Once again, the missing link can be found in expertise, as expertise influenced by the doxa of GWG here connects the deeply political nature of commodification and financialization in the production of knowledge and the integration of water governance.

Experts did not only develop the tools that are used to further the integration of the field, they were also part of designing the field in the first place. The most important finding in that regard is that the field of GWG is an embodiment of the intentions of experts who operate relatively independent of the objectives of the organizations they originated in. While certain organizations have power and influence in GWG, the struggles over definitions, concepts, and the quest for legitimacy takes place between experts, not organizations. GWG's doxa directly feed back into the legitimacy of experts by promoting water-related decision-making along lines of bureaucratic, economic, and engineering expertise and leveraging of particular forms of symbolic capital, outlined in Chapter 6.

Experts who populate specific subfields shape the field of GWG by struggling and mediating between concepts and their implementation, at times contesting the doxa that GWG tries to subject them to. We showed this in the case of how human rights discourse was integrated but did not replace the field's economic conceptualization of water. This shows clear processes of domination (through the doxic legitimacy of GWG) and doxic subordination (of experts in subfields under GWG). At the very least, this is

the case whenever experts in certain subfields take on the basic assumptions that pervade GWG by accepting these assumptions as 'taken for granted.' An example of this could be the assumed higher efficiency of the private sector at providing solutions to water problems.

How much GWG has succeeded in this process of domination still depends largely on individual traits of the subfields and how much of an emphasis GWG places on subjugating the specific subfield to its doxa. Nonetheless, all subfields have experienced at least *some* impact of the push for an increasingly global, integrated, and economic understanding of how water ought to be understood, managed and governed. One particular case from an interviewee within the Irrigation and Agriculture subfield stuck out to us in this regard:

> *"What really concerns me about irrigation engineering is that it can be done by civil engineers. Who can do all kinds of things: roads, rails, buildings, canals for navigation, and because you have those skillsets, you can quickly look up the equations for irrigation. And that happens a lot now because you don't have those skills anymore, you have civils engineers. But it may sound like a small thing, but it is such a worry for me. Because we are creating a whole generation of where we were in the 1940s and 1950s of civil engineering where farmers [...] or even the operators are an afterthought. Or a combination of farmers, operators, crops, climate - the whole living breathing system of an irrigation system are an afterthought. I have said this in meetings, and I get pushback because civil engineers think they are so universally clever. But if you look at the literature that came out in the 1970s, through the 1980s and 1990s, from (...), the Dutch, from others, we started to realize that irrigation systems had behavioral characteristics and treating them simply as an engineering project was a default position that just undermined them and didn't accept their complexities."*

(Interviewee #21)

What this interviewee describes is the retreating recognition of water as a 'total social fact' (see Orlove & Caton, 2010) in practice. Even within the same overall profession, in

this case engineering, there are different approaches and emphases when working with water. A one-size-fits-all approach based on cost-efficiency ultimately ignores certain social implications, with the interviewee claiming that it causes "the whole living breathing system of an irrigation system" to be an afterthought. This also just further outlines our claim that professions are not the primary explanatory variable help to explain the fragmentation of the field. In this case, different types of engineering knowledge struggle over the proper way to provide solutions in the Irrigation & Agriculture subfield. The civil engineer operates in congruence with the efficiency-based logic of the overall field GWG, while the irrigation engineer takes into consideration all the behavioral characteristics of the irrigation project. This also hints at the idea that 'integration' within the field of GWG or in tools such as IWRM are much more about cost synergies than actual water cycle integration – here, the 'proper' integrated approach is not the one that actually considers how the work affects the entire "living breathing system." Our interviewee further mourned this development:

> "Irrigation engineering has fallen out of fashion. I don't know if you are aware, [...] in 1992-1993, there were in the UK three master's [degrees] on irrigation. And in Holland there were two master's on irrigation. Now there are zero in Holland. And that is calamitous. Utterly, utterly calamitous. And we are going to pick up the cost of that, we already are."

(Interviewee #21)

In terms of the internal logics of GWG, the increased homogenization of engineering approaches to water ultimately makes it easier to assert its doxic legitimacy. As expertise plays a large role in the solutions that are considered valuable in the world to come, approaches that explicitly recognize the social nature of water have an important role in constructing knowledge and influencing policies. A rather bleak picture emerges if these social aspects are subjugated to a depoliticized notion of 'integration'. The allocation of water is an inherently social and distributional problem. It is questionable if such a problem can be addressed through the parameters of tools and concepts which seek to integrate water along lines of economic and financial expertise. Rather than producing new social ideas about how to integrate different understandings of water,

including those that are based on historically-developed local knowledge, GWG follows a blueprint, a reiteration of what Bourdieu termed the means of neoliberalism "making itself true" (Bourdieu, 1998, p. 38). This allows to once again reiterate the main argument of this thesis: the emergence of the field of GWG has facilitated the fading emphasis of all dimensions of water that are not tied to its value as a commodity.

Chapter 8:

Opening the Black Box:
Conclusions and Proposals for Further Research

With this thesis, we set out to open the black box of transnational water expertise in global water governance (GWG). We took the point of departure that transnational water experts are unknown variables who exist between organizational mandates, struggles for legitimacy and influence, and an increasing sense of urgency in solving global water problems. When attempting to open this box, we quickly realized that we must first uncover its internal environment, namely the social space in which transnational water experts operate, and where their expertise is contested, influenced, and prioritized. We therefore began this thesis by conceptualizing GWG as a social space, more specifically a Bourdieusian field, building on the idea that fields can be found where "a group of agents struggle in a structured way over a specific kind of scarce resource" (Pouliot & Mérand, 2013, p. 32). We argued that in the early 1990s, a structured, expert-led consensus over the conceptualization of water as an economic good led to the creation of the field of GWG. That we can identify these origins despite a field usually constituting a "game devoid of inventor" (Bourdieu & Wacquant, 1992, p. 104) prompts us to term the field an *artificial* field. By drawing upon Bourdieu & Wacquant's own theory of practice, GWG thus represents a field where the *raison d'être* of the field is clear and describable, thus answering our first sub-research question, "How can global water governance be conceptualized as a social space?"

To answer our second SRQ, "How do transnational experts communicate and move within this social space?" we turned to the other components of Bourdieusian theory of practice - capital and habitus. We uncovered three primary forms of symbolic capital in the overall field of GWG, namely (1) situated geographic expertise, (2) claims related to knowledge production, and (3) the 'numbers game.' While these forms of symbolic capital help determine agents' positioning, the field's hierarchies, and provide a common understanding of how transnational water experts communicate, we also found that individual understandings of these forms of capital point toward noticeable

fractures throughout the field. We analyzed whether differences between professional groups could provide the necessary explanations for the fractures given that habitus is often developed through similar educational or professional contexts. We found that accounting for professional differences is not enough to explain the observed fractures and that we should rather analyze GWG's functionally differentiated subfields.

We provided an overview of the nine identified subfields and found that experts mainly communicate and move within these social spaces. Symbolic capital is leveraged more consistently here than was the case of the three forms we observed in the overall field of GWG. This help us explain why career trajectories are also more homogenous within the individual subfields than in the overall field. Similarly, it hinted at the idea that experts' habitus, including their basic understanding of how water is to be governed, is deeply influenced by the respective subfields they populate. One of the core goals that define the consensus that spawned GWG is the aim integrate all subfields under a common doxa of understanding water as an economic good. We examined this dynamic through the WASH subfield, which for a long time considered the human right to water and sanitation as being in direct opposition to the consideration of water as an economic good. However, we found that when the human right to water was recognized in 2010, it did not contest the core logics of water being an economic good. This displays a process of doxic subordination of by GWG over the subfields.

In addressing our third sub-research question, "How are expert-developed concepts and tools contested and operationalized?" we outlined the development of three main tools, Integrated Water Resources Management (IWRM), the Water-Energy-Food (WEF) Nexus and the Sustainable Development Goals (SDGs). We showed how these expert-developed tools all function as means to help integrate the subfield into the overall logic of GWG. The three tools are all current iterations of the basic logics upon which GWG was built through the 1992 Dublin Principles. Functioning as 'nirvana concepts', these tools obscure the inherently political nature of global water management, and in doing so, often ignore local contexts and needs. This ultimately enables technocratic decision-making along the lines of the dominant market-based logics of GWG. Given the distinct logics that exist throughout the different subfields, this overarching market-based logic aligns certain subfields closer to GWG than others. This means that subfields such as

Water Infrastructure, in which the internal logic is market-based, is much more 'integrated' with the overall field than a subfield such as Heritage and Conservation in Water. The tools do thus not fully address this inherent fragmentation, and instead favor those approaches that closely align with the doxa of GWG. While complete integration may – like nirvana – be a distant goal that may never be reached, we showed that these tools left a distinct mark on the way water issues are approached globally, especially as the financialization of water services increases.

Based on the above findings, the thesis then addressed our fourth and final research question: "What are the implications of (1), (2), and (3) on the global political economy?" Here we explored the distributional impacts of our findings, emphasizing the current trend towards 'financing for development', which has strong links to the UN's SDGs. We also highlighted the logics of the SDGs and other tools ultimately reproduce those logics present during the creation of the field GWG. We summarize our argument by tying the emergence of the field of GWG to the slowly fading emphasis of the aspects of water that are not tied to its value as a commodity. As water can be considered a 'total social fact', as we noted in our introduction, this means that a vast amount of water-related meanings and approaches are subjugated to a narrative of expanding economic logics in the name of development.

These findings come with a variety of implications for the relatively recent literature on water governance. While some of the pre-existing literature has spent some time on discussing the role of experts, this thesis provides the first comprehensive case study of global water governance in which experts are the explicit unit of analysis. We have built on the clues found in prior literature regarding the relationship between (water) expertise and distributive outcomes in the global political economy to develop an innovative approach that combines calls for treating water as inherently relational and political (Linton, 2010) with contemporary approaches for the study of experts in IPS, hence providing an exploratory bridge between related but so far isolated literatures. Although expert-focused frameworks in IPS have been used to analyze a variety of aspects of global governance, water governance has so far seen little attention from these scholars. This thesis contributed specifically to the approaches that examine the activities of experts in terms of the distributive outcomes of expertise in the global

political economy, while adding water to the portfolio of case studies that IPS can provide. This thesis may for these reasons provide a starting point for the study of the role of experts in the governance of public goods how depoliticization influences their allocation and distribution in the global political economy.

Beyond these thematic contributions, this thesis also puts forward a range of methodological and theoretical approaches that may provide fertile ground for further research and investigation. By filling a proclaimed lack of decidedly ethnographic studies of how transnational experts work with water on the global scale, this thesis built on a multi-sited ethnographic study to gather its data and understand how different experts engaged with global water governance. Doing so with the limited time available for master's thesis and the limited financial resources of graduate students already points to some constraints in that approach. We believe that the field deserves to be explored in much greater detail using this method, and especially encourage the substantializing of our findings at large water-related conferences that we could not attend – especially the annual Stockholm Water Week and the tri-annual World Water Forum, as well as greater attention on the subfields we could only partly address and analyze, such as conservation, climate change, and transboundary water. Additionally, based on our observations from our data collection processes, oceans appear to be entirely ignored within GWG and studying the role of expertise in oceans and comparing it to the overall field of GWG could prove an interesting case.

Within IPS, we have built and expanded upon Bourdieusian approaches to the study of expertise by suggesting the artificial field as a new analytical tool. We argue that artificial fields fit seamlessly into post-Bourdieusian thought, as it presents a way in which a dynamic of domination/subordination can materialize through agents' intentional creation or facilitation of social spaces. We invite further applications of artificial fields and investigations on the degree to which this construction affects power relations and distributive outcomes. While we have at large avoided using the word 'hegemony' to stay within our theoretical boundaries, exploring the synthesis of neo-Gramscian approaches to elite studies with these transnational orderings may come to fruitful results. Furthermore, the blurred boundaries between science, policy and politics in this paper indicate significant potential for inquiries based on frameworks in

Science and Technology Studies, a literature that both political ecology and post-Bourdieusian frameworks are no stranger to.

To end this thesis on a reflective note, one might ask – how bleak is the future if the global governance of water is increasingly shaped as we described in this thesis? On the one hand, we found it hard at times to distance ourselves from the cynicism that comes with looming water crises, dam-displaced indigenous peoples, overtly post-colonial white savior narratives, and dysfunctional national water governance. Nevertheless, during our fieldwork we found ourselves in the middle of a vibrant community of individuals whom actively sought to contribute and help solve the world's water issues. We find that integration across professional and sectoral boundaries is an honorable goal, especially if this integration recognizes the multiple meanings that water can take on in its nature as a 'total social fact'. But what price is to be paid for such integration? How many nuances of water need to be replaced with indicators, financing tools, and 'shiny words', before its fundamentally social and local nature is ejected? Finding an answer to this question may be one of the central challenges that global water governance faces in the coming years.

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Appendix

Appendix 1: List of Abbreviations and Acronyms

CDP	Carbon Disclosure Project
COMEST	World Commission on the Ethics of Scientific Knowledge and Technology
CONAGUA	Comisión Nacional del Agua
CV	Curriculum Vitae
FAO	Food and Agriculture Organization
GEIDCO	Global Energy Interconnection Development and Cooperation Organization
GG	Global Governance
GWG	Global Water Governance
GWP	Global Water Partnership
IFC	International Finance Corporation
IMF	International Monetary Fund
IC	International Consultancy
IO	International Organization
IPE	International Political Economy
IPS	International Political Sociology
IR	International Relations
IWA	International Water Association
IWMI	International Water Management Institute
IWRM	Integrated Water Resource Management
MDGs	Millennium Development Goals
MNC	Multi-National Corporation
NFL	National Football League
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
REEEP	Renewable Energy and Energy Efficiency Partnership

RBO	River Basin Organization
RQ	Research Question
SDGs	Sustainable Development Goals
SIDA	Swedish International Development Agency
SIWI	Stockholm International Water Institute
SRQ	Sub-Research Question
UN	United Nations
UNCED	United Nations Commission on Environment and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICED	United Nations Children's Fund
U.S.	United States of America
USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene
WBI	World Bank Institute
WEF Nexus	Water, Energy, and Food Nexus
WG	Water Governance
WHO	World Health Organization
WSSCC	Water Supply and Sanitation Collaborative Council
WWC	World Water Council

Appendix 2: List of Figures and Tables

Figures

Tables

Appendix 3: Interviewees

Names have been anonymized as per our agreement with interviewees. Only interviewee number, place of work, interview date, and interview method are listed.

Recordings of all interviews are available upon request.

#	Place of work	Date	Method
1	Danish Ministry of Foreign Affairs	February 12, 2019	Phone
2	Water Integrity Network	February 15, 2019	Skype
3	Water.org	February 19, 2019	Skype
4	Ramboll	February 21, 2019	In person
5	International Finance Corporation	February 28, 2019	Skype
6	GEUS	March 6, 2019	In person
7	The World Bank	March 8, 2019	Skype
8	Water for Women Partnership	March 11, 2019	Skype
9	International Finance Corporation	March 11, 2019	Skype
10	Stockholm International Water Institute	March 12, 2019	Skype
11	*Independent consultant*	March 18, 2019	Skype
12	USAID	March 20, 2019	In person
13	World Resources Institute	March 20, 2019	In person
14	Conservation International	March 21, 2019	In person
15	The Center for Water Security and Cooperation	March 22, 2019	In person
16	The Center for Water Security and Cooperation	March 22, 2019	In person
17	The World Bank	March 22, 2019	In person
18	Castalia Advisory	March 22, 2019	In person
19	*Independent consultant*	March 24, 2019	In person
20	OECD	March 28, 2019	Skype
21	University of East Anglia	March 29, 2019	Skype

22	Ramboll	March 29, 2019	In person
23	CDP	April 2, 2019	Skype
24	OECD	April 11, 2019	Skype
25	WWF	April 24, 2019	Skype
26	2030 Water Resources Group	May 6, 2019	In person
27	Water and Sanitation for All	May 10, 2019	Skype
28	Suez	May 12, 2019	In person
29	Suez	May 14, 2019	In person
30	International Energy Agency	May 15, 2019	In person
31	*Independent consultant*	May 15, 2019	Skype
32	Stockholm International Water Institute	May 17, 2019	Phone
33	Danish Institute for Human Rights	May 24, 2019	In person
34	The Center for Water Security and Cooperation	May 27, 2019	Skype
35	The Center for Water Security and Cooperation	May 27, 2019	Skype
36	WaterAid	May 31, 2019	Skype

Appendix 4: Conference Participants

All names, job titles, and agenda points are taken from handouts at the conferences. These have not been anonymized as all information about participants is publicly available.

Recordings from the conferences are available upon request.

#	Name	Job title	Date	Conference	Agenda point
1	Mike Sfraga	Director, Global Risk and Resilience Program, Wilson Center	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Welcome
2	Marcia Bernicat	Principal Deputy Assistant Secretary for the Bureau of Oceans, and International Environmental and Scientific Affairs, U.S. Department of State	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Opening Remarks
3	Bonnie Glick	Deputy Administrator, U.S. Agency for International Development	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	The U.S. Global Water Strategy, the Water for the World Act, and One Year of Renewed Collaboration
4	Andrew Wheeler	Administrator, U.S. Environmental Protection Agency	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	The U.S. Global Water Strategy – Why Addressing Global Water Issues Matter
5	Jeff Goldberg	Director, Office of Water, U.S. Agency for International Development	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Principal's Dialogue – What Have USG Agencies Accomplished Under GWS?
6	Tim Petty	Assistant Secretary for Water and Science, U.S. Department of the Interior	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Principal's Dialogue – What Have USG Agencies Accomplished Under GWS?
7	Jonathan Richart	Deputy Vice President, Infrastructure, Environment and Private Sector, Millennium Challenge Corporation	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Principal's Dialogue – What Have USG Agencies Accomplished Under GWS?
8	Serena Vinter	Deputy Director, Center for Global Health, Centers for Disease Control	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Principal's Dialogue – What Have USG Agencies Accomplished Under GWS?

9	Mike Sfraga	Director, Global Risk and Resilience Program, Wilson Center	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Principal's Dialogue – What Have USG Agencies Accomplished Under GWS?
10	Barney Austin	President and Chief Executive Officer, Aqua Strategies, Inc.	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Views from the Ground
11	Jerad Bales	Executive Director, Consortium of Universities for the Advancement of Hydrologic Science, Inc.	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Views from the Ground
12	Sam Huston	USAID WASH-FIN Chief of Party, Project Implemented by TetraTech	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Views from the Ground
13	Melinda Laituri	Professor in Ecosystem Science and Sustainability, Colorado State University	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Views from the Ground
13	Tom Harvey	Chairman and Founder, Global Environment and Technology Foundation	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Panel: Views from the Ground
14	Danilu Türk	Former President of Slovenia and Chair of Global High-Level Panel on Water	March 20, 2019	Implementing the U.S. Global Water Strategy: A First Year Review	Reflections on the Importance of U.S. Leadership in International Water Security
15	Chris Long	NFL Player and Founder, Waterboys	March 21, 2019	Call to Action: Supporting Women Through Water	Keynote Speaker: Chris Long
16	Sylvia Cabus	Senior Gender Advisor, Office of Gender Equality and Women's Empowerment, USAID	March 21, 2019	Call to Action: Supporting Women Through Water	Session I: Supporting Women's Empowerment through Water in Action
17	Jessica Heckert	Research Fellow, International Food Policy Research Institute	March 21, 2019	Call to Action: Supporting Women Through Water	Session I: Supporting Women's Empowerment through Water in Action
18	Kelly Ann Naylor	Associate Director, Water and Sanitation Section, UNICEF	March 21, 2019	Call to Action: Supporting Women Through Water	Session I: Supporting Women's Empowerment through Water in Action
19	Marilyn Shapley	Senior Policy Advisor, Mercy Corps	March 21, 2019	Call to Action: Supporting Women Through Water	Session I: Supporting Women's Empowerment through Water in Action
20	Mina Guli	Ultra Runner and Founder, Thirst	March 21, 2019	Call to Action: Supporting Women Through Water	Call to Action: Mina Guli
21	Portia Persley	Acting Deputy Director, Water Office, USAID	March 21, 2019	Call to Action: Supporting Women Through Water	Session II: Global Perspectives on Women and Water – Path to 2030
22	Axumite Gebre-Egziabher	Former Regional Director for	March 21, 2019	Call to Action: Supporting Women Through Water	Session II: Global Perspectives on Women and Water – Path to 2030

22		Africa, UN-HABITAT			
23	Salamatu Garba	Founder and Executive Director, Women Farmers Advancement Network (WOFAN)	March 21, 2019	Call to Action: Supporting Women Through Water	Session II: Global Perspectives on Women and Water – Path to 2030
24	Wanida Lewis	Senior Economic Evaluation Program Analyst, Secretary's Office of Global Women's Issues, U.S. Department of State	March 21, 2019	Call to Action: Supporting Women Through Water	Session II: Global Perspectives on Women and Water – Path to 2030
25	Monica Ellis	Chief Executive Officer, Global Water Challenge	March 21, 2019	Call to Action: Supporting Women Through Water	Session III: Unleashing the Power of Women through Water – The Role of the Private Sector
26	Kelly Alexander	Water Team Senior Learning and Influencing Advisor, CARE	March 21, 2019	Call to Action: Supporting Women Through Water	Session III: Unleashing the Power of Women through Water – The Role of the Private Sector
27	Nasra Abdi	Chief Executive Officer, ACI Solutions, Inc.	March 21, 2019	Call to Action: Supporting Women Through Water	Session III: Unleashing the Power of Women through Water – The Role of the Private Sector
28	Tara Hogan Charles	Associate Director, Global Government Relations & Public Policy, Procter & Gamble	March 21, 2019	Call to Action: Supporting Women Through Water	Session III: Unleashing the Power of Women through Water – The Role of the Private Sector
29	Una Hrnjak-Hadziahmetovic	Senior Manager, Global Sustainability, Gap Inc.	March 21, 2019	Call to Action: Supporting Women Through Water	Session III: Unleashing the Power of Women through Water – The Role of the Private Sector
30	Peggy Clark	Executive Director, Aspen Global Innovations Group, Aspen Institute	March 21, 2019	Call to Action: Supporting Women Through Water	Interview: Women and Water Security
31	Jennifer Sara	Senior Director, Global Water Practice, The World Bank	March 21, 2019	Call to Action: Supporting Women Through Water	Interview: Women and Water Security
32	Paula J. Dobriansky	Former Under Secretary of State for Global Affairs; Senior Fellow, "Future of Diplimacy Project", Harvard University JFK Belfer Center for Science & International Affairs	March 21, 2019	Call to Action: Supporting Women Through Water	Session IV: Taking Action: Reducing Maternal Morbidity through Access to WASH in Healthcare Facilities
33	Alma Golden	Senior Deputy Assitant Administrator, Bureau of Global Health, USAID	March 21, 2019	Call to Action: Supporting Women Through Water	Session IV: Taking Action: Reducing Maternal Morbidity through Access to WASH in Healthcare Facilities

34	Joanne McGriff	Associate Director, Center for Global Safe WASH, Emory University	March 21, 2019	Call to Action: Supporting Women Through Water	Session IV: Taking Action: Reducing Maternal Morbidity through Access to WASH in Healthcare Facilities
35	Arikana Chihombori-Quao	African Union Ambassador to the United States	March 21, 2019	Call to Action: Supporting Women Through Water	Session IV: Taking Action: Reducing Maternal Morbidity through Access to WASH in Healthcare Facilities
36	Sherri Goodman	Senior Fellow, Environmental Change and Security Program, Global Women's Leadership Initiative & Polar Institute, Woodrow Wilson International Center	March 21, 2019	Call to Action: Supporting Women Through Water	Key Observations: Sherri Goodman
37	Paula J. Dobriansky	Former Under Secretary of State for Global Affairs; Senior Fellow, "Future of Diplimacy Project", Harvard University JFK Belfer Center for Science & International Affairs	March 21, 2019	Call to Action: Supporting Women Through Water	Closing: Ambassador Paula J. Dobriansky
38	Neil Bradley	Executive Vice President and Chief Policy Officer, U.S. Chamber of Commerce	March 22, 2019	Small Communities Water Dialogue	Welcome and Opening Remarks
39	Joel Baxley	Assistant to the Secretary for Rural Development, U.S. Department of Agriculture	March 22, 2019	Small Communities Water Dialogue	Federal Leadership Update
40	Scott Breen	Associate Manager, Circular Economy and Sustainability Program, Corporate Citizenship Center (CCC)	March 22, 2019	Small Communities Water Dialogue	Business-led Approaches to Addressing Community Water Challenges
41	Stephania Potter	Senior Director, Circular Economy and Sustainability Program, Corporate Citizenship Center (CCC)	March 22, 2019	Small Communities Water Dialogue	Business-led Approaches to Addressing Community Water Challenges
42	Nathan Ohle	Executive Director, Rural Community Assistance Partnership	March 22, 2019	Small Communities Water Dialogue	Capacity and Technical Issues, Including Workforce Development
43	Sam Wade	CEO, National Rural Water Association	March 22, 2019	Small Communities Water Dialogue	Capacity and Technical Issues, Including Workforce Development
44	Sonia Brubaker	Director, Water Infrastructure and Resiliency Finance Center, U.S. Environmental Protection Agency	March 22, 2019	Small Communities Water Dialogue	Financing and Resilience

45	Carrie Castille	State Director of Louisiana, U.S. Department of Agriculture Rural Development	March 22, 2019	Small Communities Water Dialogue	Financing and Resilience
46	Eric Emmerich	Business Development, EJ Water Cooperative, Inc.	March 22, 2019	Small Communities Water Dialogue	Policy and Technical Barriers to Innovation and Action
47	Brent Fewell	Founder, Earth & Water Law Group	March 22, 2019	Small Communities Water Dialogue	Policy and Technical Barriers to Innovation and Action
48	Jeff Moeller	Director of Water Technologies, The Water Research Foundation	March 22, 2019	Small Communities Water Dialogue	Policy and Technical Barriers to Innovation and Action
49	Carrie Castille	State Director of Louisiana, U.S. Department of Agriculture Rural Development	March 22, 2019	Small Communities Water Dialogue	Innovative Financing Models Discussion
50	Usha Rao Monari	Senior Advisor, Blackstone Infrastructure Group	March 22, 2019	Small Communities Water Dialogue	Innovative Financing Models Discussion
51	Ian Parker	Managing Director, Public Sector and Infrastructure, Goldman Sachs	March 22, 2019	Small Communities Water Dialogue	Innovative Financing Models Discussion
52	Chris Shaffner	Senior Vice President, CoBank	March 22, 2019	Small Communities Water Dialogue	Innovative Financing Models Discussion
53	Hank Habicht	Managing Director, U.S. Water Partnership	March 22, 2019	Small Communities Water Dialogue	Innovative Financing Models Discussion
54	Kelly Ann Naylor	Associate Director, Water and Sanitation Section, UNICEF	March 22, 2019	Small Communities Water Dialogue	Lunch Keynote
55	Mike Messner	Co-chair, Business Task Force on Water Policy	March 22, 2019	Small Communities Water Dialogue	Lunch Keynote
56	Rodney Ferguson	President and CEO, Winrock International	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Opening Remarks
57	Laura Abrahams Schulz	Acting Deputy Assistant Administrator, Economic Growth, Education and Environment Bureau (E3)	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Keynote
58	Jennifer Billings	Leader, Global Partnership Efforts, Corteva Agriscience	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Panel Discussion
59	Claire Chase	Senior Economist, Water Global Practice, The World Bank	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Panel Discussion

60	Lauren Risi	Project Director, Environmental Change and Security Program, Wilson Center	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Panel Discussion
61	Michael Tiboris	Global Water Fellow, Chicago Council on Global Affairs	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Panel Discussion
62	Eric Viala	Director, Sustainable Water Partnership, Winrock International	March 25, 2019	Feeding a Thirsty World: Harnessing the Connections Between Food and Water Security	Panel Discussion
63	Audrey Azoulay	Director-General, UNESCO	May 13, 2019	UNESCO International Water Conference	Welcoming Remarks
64	Serigne Mbaye Thiam	Minister of Water and Sanitation, Senegal	May 13, 2019	UNESCO International Water Conference	Welcoming Remarks
65	Maria C. Donoso	Director, Division of Water Sciences, and Secretary, International Hydrological Programme a. i., UNESCO	May 13, 2019	UNESCO International Water Conference	High-level Panel
66	Zhenya LIU	Chair, GEIDCO	May 13, 2019	UNESCO International Water Conference	High-level Panel
67	Hamet Baby Ly	Chair, Intergovernmental Council of UNESCO-IHP, Senegal	May 13, 2019	UNESCO International Water Conference	High-level Panel
68	Loic Fauchon	President, World Water Council	May 13, 2019	UNESCO International Water Conference	High-level Panel
69	Jean-Louis Chaussade	CEO, Suez	May 13, 2019	UNESCO International Water Conference	High-level Panel
70	Torgny Holmgren	Executive, Stockholm International Water Institute	May 13, 2019	UNESCO International Water Conference	High-level Panel
71	Liang Xuming	Chief Technology Officer, GEIDCO	May 13, 2019	UNESCO International Water Conference	Energy Interconnection and Water in Africa
72	Moez Chakchouk	Assistant Director-General for Communication and Information, UNESCO	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
73	Erik Grigoryan	Minister of Nature Protection, Armenia	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
74	Hak-soo Lee	CEO, K-Water	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation

75	Wouter Buytaert	Professor, Imperial College London	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
76	Imre Takacs	CEO, Dynamita	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
77	Bernard De Potter	Director-General, Flanders Environment Agency	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
78	Pradeep Mujumdar	Professor, Indian Institute of Science (IISc)	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Technological Innovation
79	Stefania Giannini	Assistant Director-General for Education, UNESCO	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
80	Arlette Soudan-Nonault	Minister of Tourism and Environment, Republic of Congo	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
81	Samir Taieb	Minister of Agriculture, Water Resources and Fisheries, Tunisia	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
82	Håkan Tropp	Head of Water Governance, OECD	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
83	Eddy Moors	Rector, IHE Delft Institute for Water Education	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
84	Budtuya Genden	Principal, Khan Uul Complex School	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
85	Azbayar Azjargal	Student, Khan Uul Complex School	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water Education for Sustainable Development
86	Nada Al-Nashif	Assistant Director-General for Social and Human Sciences, UNESCO	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth
87	Abdelkader Amara	Minister of Equipment, Transport, Logistics and Water, Morocco	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth
88	João Pedro Matos Fernandes	Minister of Environment and Energy Transition, Portugal	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth
89	Grace Sirju-Charran	Vice-President, COMEST	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth
90	Rita Teutonico	Chair, UNESCO Chair on Sustainable Water Security	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth

91	Livia Pomodoro	President, Milan Center for Food Law and Policy	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Towards a New Global Vision for Water Ethics on the Earth
92	Andras Szollozi-Nagy	CEO, Water Future & Member, Advisory Board of the UNESCO Chair on Sustainable Water Security	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
93	Myung-rae Cho	Minister of Environment, Republic of Korea	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
94	Blanca Jimenez Cisneros	CEO, CONAGUA, Mexico	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
95	Yang-su Kim	Director, International Centre for Water Security and Sustainable Management (i-WSSM), Republic of Korea	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
96	Fernando Gonzalez Villarreal	Director, Regional Centre on Water Security (CERSHI), Mexico	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
97	Leonel Lagos	Deputy Director, Applied Research Center of Florida International University (ARC-FIU) & Theme Coordinator UNESCO Chair on Sustainable Water Security	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: Water Security
98	Olcay Ünver	UN-Water	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: How the UN System Supports Member States to Achieve SDG 6 and Other Water-related Targets
99	Federico Properzi	Chief Technical Adviser, UN-Water	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: How the UN System Supports Member States to Achieve SDG 6 and Other Water-related Targets
100	Daniella Bostrom	Communications Manager, UN-Water	May 13, 2019	UNESCO International Water Conference	Side-Event Panel: How the UN System Supports Member States to Achieve SDG 6 and Other Water-related Targets
101	Shamila Nair-Bedouelle	Assistant Director-General for Natural Sciences, UNESCO	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
102	Laurent Tchagba	Minister of Hydraulics, Côte d'Ivoire	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making

103	Neil Dhot	Executive Director, AquaFed	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
104	Ickhoon Choi	Executive Director, Korea Environment Corporation	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
105	Blanca Jimenez Cisneros	CEO, CONAGUA	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
106	Jean-Didier Berthault	Vice-President, SIAAP	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
107	Akiça Bahri	Professor, National Agricultural Institute of Tunisia	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Data for Water-related Decision-Making
108	Saniye Gülser Corat	Director, UNESCO Division for Gender Equality	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
109	Emanuela Del Re	Deputy Minister for Foreign Affairs and International Cooperation, Italy	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
110	Almotaz Abadi	Director of the Division on Water and Environment, Union for the Mediterranean	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
111	Diana Ulloa	Professor, Central University of Ecuador, and Former Subsecretary of SENAGUA, Ecuador	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
112	Euphrasie Kouassi Yao	Advisor to the President, Côte d'Ivoire	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
113	Canisius Kanangire	Executive Secretary, African Ministers' Council on Water	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
114	Michela Miletto	Deputy Coordinator, UNESCO World Water Assessment Programme (WWAP)	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security

115	Mariet Verhoef-Cohen	President, Women for Water Partnership, and President, Soroptimist International	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Thirsty for Change: Promoting a Gender-responsive Approach to Achieve Water Security
116	Ernesto Ottone Ramirez	Assistant Director-General for Culture, UNESCO	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
117	Henk van Schaik	Chair, Water and Heritage Initiative	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
118	Susan Keitumetse	Okavango Research Institute	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
119	Ana Aleksova	Ministry of Culture, North Macedonia	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
120	Jorge Trevejo Mendez	Civil Engineer, Ministry of Education, Peru	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
121	Slimane Hachi	Professor, Regional Centre for the Safeguarding of Immaterial Cultural Heritage in Africa	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
122	Wayan Windia	Director, Subak Research Institute	May 13, 2019	UNESCO International Water Conference	Thematic Panel: Water and Heritage
123	Vladimir Ryabinin	Assistant Director-General and Executive Secretary of the Intergovernmental Oceanographic Commission, UNESCO	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
124	Alfred Maoh	Minister of Lands and Natural Resources, Vanuatu	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
125	Bakhodir Ruziboyev	First Deputy Minister of Water Resources, Uzbekistan	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
126	András Szöllősi-Nagy	Professor, National University for Public Service, Hungary	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
127	Torkil Jønch Clausen	Chair, Action Platform for Source-to-Sea Management	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
128	Paulo Salles	President Director, Regulatory Agency For Water, Energy and	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective

		Sanitation Services of Federal District, Brazil			
129	Boram Lee	Senior Scientific Officer, World Climate Research Programme, WMO	May 13, 2019	UNESCO International Water Conference	Global Change and its Effects on Freshwater and Ocean Systems from an Earth System and SDGs Perspective
130	Marcio Szechtman	Vice President, CIGRE	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
131	Firmin Edouard Matoko	Assistant Director-General, UNESCO	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
132	Shuxiang Wang	Chief Economist, SGCC	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
133	Shengan Zheng	President, China Renewable Energy Engineering Institute	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
134	XIao-Ping Zhang	Professor & Director of Smart Grid Center, Energy Institute, University of Birmingham	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
135	Alexander Schwery	CTO, Renewable Hydro, GE	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
136	Li Li	Vice Dean, Renewable Energy School, North China Electric Power University	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
137	Richard Schomberg	President, IEC Smart Energy	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
138	Shaofeng Wang	Vice Chief Economist, China Three Gorges Corporation	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
139	Yoshihide Wada	Acting Director of Water Program, International Institute for Applied Systems Analysis	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
140	Chongde Yu	Vice President & General Secretary, China Electricity Council	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
141	David Samuel	Senior Analyst, International Hydropower Association	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
142	Yibin Zhang	Vice Director of Development Bureau, Global Energy Interconnection Cooperation and Development Organization	May 13, 2019	UNESCO International Water Conference	Sustainable Water and Energy Forum
143	Kenzo Hiroki	Coordinator, HELP	May 13, 2019	UNESCO International Water Conference	Water and Disasters

144	Kefentse Mzwinila	Minister of Land Management, Water and Sanitation Services, Botswana	May 13, 2019	UNESCO International Water Conference	Water and Disasters
145	Ambroise Ouedraogo	Minister of Water and Sanitation, Burkina Faso	May 13, 2019	UNESCO International Water Conference	Water and Disasters
146	Seung-soo Hang	Chair, HELP	May 13, 2019	UNESCO International Water Conference	Water and Disasters
147	Uschi Eid	Former Chair, UNSGAB	May 13, 2019	UNESCO International Water Conference	Water and Disasters
148	Ursula Shaefer-Preus	Former Chair, GWP	May 13, 2019	UNESCO International Water Conference	Water and Disasters
149	Toshio Koike	Director, ICHARM	May 13, 2019	UNESCO International Water Conference	Water and Disasters
150	Xing Qu	Deputy Director-General, UNESCO	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
151	Sumaya bint El Hassan of Jordan	President, The Royal Scientific Society of Jordan	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
152	Gaston Eloundo u Essomba	Minister of Water and Energy, Cameroon	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
153	Hesham Bakhit	Assistant Minister for Transboundary Water Affairs, Studies, Research and Development, Egypt	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
154	Jamal Abbas Al-Adilee	Minister of Water Resources, Iraq	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
155	Myung-rae Cho	Minister of Environment, Republic of Korea	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
156	Luqmon Isomatov	Head of the Department for External Economic Cooperation, and representing the Minister of Foreign Affairs, Tajikistan	May 14, 2019	UNESCO International Water Conference	Water and Peace: Water as a Tool for Peace
157	Shamila Nair-Bedouelle	Assistant Director-General for Natural Sciences, UNESCO	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges
158	Emmanuel Norbert Tony Ondo Mba	President, AMCOW & Minister of Water, Gabon	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges
159	Khaled Al Fadhel	Minister of Water and Energy, Kuwait	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges

160	Hamed Diane Semaga	High-Commissioner, OMVS	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges
161	Carmen Marques Ruiz	Policy Coordinator Environment & Water, European External Action Service (EEAS)	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges
162	Martina Klimes	Advisor, Stockholm International Water Institute (SIWI)	May 14, 2019	UNESCO International Water Conference	Water and Peace: Global Challenges
163	Xing Qu	Deputy Director-General, UNESCO	May 14, 2019	UNESCO International Water Conference	Closing Address

Appendix 5: UNESCO-IWC 2019 Handout

Appendix 6: PowerPoint Slides with Conclusions from the "Energy Interconnection and Water in Africa" Session

Appendix 7: Sustainable Development Goal 6 with Targets and Indicators

SUSTAINABLE DEVELOPMENT GOAL 6
Ensure availability and sustainable management of water and sanitation for all

TARGETS		INDICATORS	
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1	Proportion of population using safely managed drinking water services
6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1	Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1	Proportion of wastewater safely treated
		6.3.2	Proportion of bodies of water with good ambient water quality
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1	Change in water-use efficiency over time
		6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1	Degree of integrated water resources management implementation (0-100)
		6.5.2	Proportion of transboundary basin area with an operational arrangement for water cooperation
6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1	Change in the extent of water-related ecosystems over time
6.A	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies	6.A.1	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan
6.B	Support and strengthen the participation of local communities in improving water and sanitation management	6.B.1	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management

(Source: Sustainable Development Goals Knowledge Platform, n.d.-b)