Countering Academic Hegemony, Conflict Transformation and the Hydrosocial Cycle: Identity, Recognition, Altruism and Selfishness in Hydro-Cooperation along the Jordan River

paper presented at the 7th International Workshop on Hydro-Hegemony, Contesting Hegemony, 10-11 May, Water Security Centre, University of East Anglia, UK

Wessels, Josepha Ivanka

Publication date:
2014

Document version
Early version, also known as pre-print

Citation for published version (APA):
THE PROCEEDINGS OF
The Seventh International Workshop on Hydro-Hegemony

Contesting Hegemony

10-11 May 2014 | UEA London: 102 Middlesex Street
To cite this document:

This document and supporting materials are available online at http://www.uea.ac.uk/watersecurity/events/hh7.

Comments and requests for additional information should be directed to:
Dr. Mark Zeitoun, Water Security Research Centre
School of International Development
University of East Anglia
Norwich Research Park
Norwich, UK NR4 7TJ
+44 (0)1603 59 3232 • M.Zeitoun@uea.ac.uk

Credits:

Writing and Design:
Rebecca Farnum

Writing Support Team:
Elise Allély, Benjamin Roberts-Pierel, Amy Fallon, Tyler Farrow, and Lucy Goldsmith

Photography:
Heather M. Carson and Richard Hendrickson
Planning Committee

Ana Cascão
Rebecca Farnum
Nathanial Matthews
Naho Mirumachi
Jeroen Warner
Mark Zeitoun

Workshop Volunteers

Elise Allély
Heather Carson
Amy Fallon
Tyler Farrow
Lucy Goldsmith
Makoto Goda
Stephanie Hawkins
Richard Hendrickson
Masaharu Nogami
Benjamin Roberts-Pierel

Institutional Supporters

HH7 was sponsored by the School of International Development, University of East Anglia. As with all London Water Research Group events, presenters and attendees covered their own expenses. The informal London Water Research Group captures the institutional affiliations of the members of the Planning Committee, including the UEA School of International Development, the UEA Water Security Research Centre, and the King’s College London Department of Geography.
Contents

Foreword ................................................................................................................................. 9
Chapter 1: Introduction ........................................................................................................ 12
Chapter 2: Strategies for Contest I ..................................................................................... 18
Chapter 3: Rethinking the Hydro Cycle ............................................................................. 23
Chapter 4: Persistent Hegemony ......................................................................................... 31
Chapter 5: Dams .................................................................................................................. 39
Chapter 6: Virtual Water Hegemony .................................................................................... 49
Chapter 7: Strategies for Contest II .................................................................................... 54
Appendix A: Workshop Programme ..................................................................................... 59
Appendix B: Workshop Participants ................................................................................... 64
Foreword
Foreword

This report documents the themes and discussions of the Seventh International Workshop on Hydro-Hegemony, run by the London Water Research Group. The London Water Research Group was not so much launched as it emerged from the academic and activist work inspired by Tony Allan at the School of Oriental and African Studies and later King’s College London. The LWRG grew out of research focused on the Middle East and North Africa, which challenged the idea that limited water resources circumscribed options and increased conflict. Explaining the absence of armed conflict over hyper-scarce water resources led to a long-standing interest in embedded water (or “virtual water”).

During the second half of the 1990s, several graduate researchers deepened academic understandings of water security, financing water resource development, and the challenges of sharing transboundary waters. Since 2000, the Group’s research and publication focus has been on transboundary waters and water security, increasingly with an emphasis on the role of the private sector, corporate engagement, and the water/food/trade nexus.

Water studies are by nature interdisciplinary, touching upon several sciences; the LWRG seeks to provide a global network of academics, researchers and professionals who are devoted to the promotion of critical water research primarily in transboundary and developing contexts, working across both disciplinary and political boundaries.

In May 2005, the LWRG held the International Workshop on Hydro-Hegemony. The workshop was to become became the first in a series discussing and refining the concept of hydro-hegemony and transboundary water management. May 2014 saw the Seventh International Workshop on Hydro-Hegemony, held by the London Water Research Group at the University of East Anglia’s London Campus. Under the theme “Contesting Hegemony”, attention was called to the ways theories of social change can inform action against negative forms of hegemony and control over water in all its forms. Consideration was also given to dominant assumptions about what water fundamentally is.

The Workshop Planning Committee would like to extend their thanks to the School of International Development of UEA for financial and moral support. Additional thanks go the over one hundred researchers, practitioners, journalists, and activists who attended the workshop and whose ideas are summarised in this report. Their insights, opinions, questions, and experiences were as challenging as they were inspiring, and their work continues to influence the field of transboundary water interaction.

Disclaimer! These written proceedings are the result of a compilation of views, and are meant to summarise discussion and critiques voiced during the workshop. The summaries of presentations include issues addressed in subsequent discussion sessions and cannot be attributed solely to the presenters. Similarly, any issues attributed here to the presenters may be mischaracterised or misplaced. Please therefore cite this document rather than individuals, and contact the individuals concerned or London Water Research Group if clarification or further detail is needed.
Chapter 1

Introduction
HH7 kicked off with an introductory session by the Organising Panel overviewing theories of social change and the work of the London Water Research Group. Naho Mirumachi (King’s College London) presented a history of the work done in previous Workshops, considering Where are we now? Summary of Previous International Workshops on Hydro-Hegemony. The First International Workshop on Hydro-Hegemony, held in 2005, was intended to explicitly consider the role of power in seemingly silent conflicts, properly defining and refining the concept of “hydro-hegemony”. The Second Workshop sought to understand why hydro-hegemony exists and how it is maintained. The idea of TWINS (the Transboundary Water Interaction Nexus) and the coexistence of conflict and cooperation was examined at the Third International Workshop on Hydro-Hegemony. HH4 addressed how hegemony could be challenged theoretically, on the ground and globally, beyond the river basin. The role of soft power in producing compliance was considered at Workshop 5, with a particular focus on dominant discourses and framing. HH6 brought theories of social justice to bear on the discussion of hydro-hegemony, examining issues of equity, equality, and fairness in transboundary water interactions. With HH7, the Organising Panel wished to consider how negative hydro-hegemonic realities on the ground and hegemonic conceptualisations of water can be challenged.

Mark Zeitoun (University of East Anglia) then gave a theoretical overview, considering Counter Hydro-Hegemony and Transboundary Water Interaction. Previous HH workshops created an understanding of how hegemony is achieved, but work is needed to understand how it can be challenged. Motivated by a sense of justice, a tendency toward action, concerns with the replication of injustices, a hope that negative water conflicts can be resolved, and a belief that research and academia can help in these endeavours, HH7 convened to question how the status quo can be challenged. Central to the theoretical discussion are questions of compliance and contest. Building from Cascão’s 2008 consideration, Zeitoun et al. explore the role of coexisting compliance and contest in shaping, reproducing, and changing extant realities (2014, “Transboundary Water Interaction III - Contesting Hydro-Hegemonic Arrangements”).

If people are not actively contesting the status quo, they are complying: People consent by default within systems. This may be via conscious consent, assimilation, or subconscious internalisation. Those perpetuating the system may
use coercive (use or threat of force), utilitarian (encouraging/incentivising), normative (instilling beliefs of duty), or ideological (unquestioned acceptance) mechanisms to produce compliance.

People consciously aware of and opposed to a system may contest it in different ways through non-strategic resistance, conscious resignation, veiled contestation, or active counter-hegemonic engagement. Coercive, leverage (increasing influence and authority), and liberating (undermining the status quo’s foundations) mechanisms may all be part of counter-hegemonic strategies of criticism, consent-breaking, and offering alternatives.

Individuals, groups, and society as a whole consents to and contest many systems. Compliance and contest can – and often do – coexist. The role of academics in systems may be one of simultaneous compliance and consent, working well within the system even whilst criticising it.

Ultimately, there is a dual nature of compliance and contest. HH7 began with an assumption that there are two major modes through which to affect change:

1. **Influence the powerful** by addressing their interests while encouraging reform.
2. **Challenge the powerful** by working to level the playing field and the players.

and worked to understand how this change does and can happen on the ground and in our thinking.

---

**Coexisting contest and compliance.**

Figure adapted from Cascão (2008); Zeitoun, Cascão, Warner, Mirumachi, Farnum, and Matthews (2014).
Countering Academic Hegemony
Rebecca Farnum, University of Edinburgh

Hegemony happens on the ground over water resources, but it also happens within academia itself. Rebecca Farnum laid out three major traps academics often fall into:

1. The Jargon Trap. Shared and specific vocabulary is useful and can help further discussions and allow for deeper exploration. However, conference attendees come from different backgrounds. Excessive jargon can be alienating and create unnecessary barriers to interdisciplinary work. Academics need to find ways to push dialogue while remaining inclusive.

2. The Self-Referential Trap. Academics have a tendency to cite themselves and those without their known circles. To push dialogue and ensure exposure to new ideas, additional and further collaborations are needed.

3. The Hegemonic Concept Trap. We are trapped not only in our actions and our ways of working, but also in our thinking. Within the HH community and line of thinking, particular hegemonic concepts include:
   i. Scalar Concerns: Research and attention is needed to levels other than the state, considering other actors.
   ii. Other Forms of Water: Beyond the river basin and ‘obvious’ blue water, scholarship is needed on virtual water, green water, groundwater, and the like.
   iii. Dominant Discourses: There are basic assumptions and dominant claims strongly ingrained in academic thinking. Ideas such as the status of water as an economic good and integrated water resources management (IWRM) constrain thinking around water.

Academics need to constantly ask themselves what they are buying into and where they are falling into hegemonic traps. At HH7, Farnum called all participants to work toward accessible language, note who was talking, and note whose voices were absent.

Contemplating A-Hegemony
Jeroen Warner, Wageningen University

Aside from counter-hegemony, ahegemony can also be considered. Ahegemony refers to a communicative rationality, where people can talk without the constraints of politics, ideology, and religion and power does not matter. In nonhegemony, power dissipates or is voluntary abandoned.
Jeroen Warner discussed questions of ahegemony and exodus from the system: Some people are not interested in levelling the playing field or engaging in (counter-)hegemony. Rather than trying to win, they want to change the rules of the game. It is important to realise that to those who are winning, the world may appear as ahegemonic – while to those who want change, it appears to be hegemonic. Too, there is another ‘world’ of egalitarians, as well as a counter-public pushing against the entire system of power, not only those who currently have power.

This counter-public pushes against the soft power that so greatly aids hegemonic structures, whereby the reputation of power may be more important than its exercise. The authority ‘always’ wins, and so people stop asking questions or pushing against it. The job of HH7 and academics is to actively work against this mindset, considering hegemony, counter-hegemony, ahegemony, and nonhegemony in all their forms.
Chapter 2
Strategies for Contest 1
Gramsci’s Wars of Movement and Position

**Alex Lofts, King’s College London**

Antonio Gramsci was an Italian communist leader, imprisoned during the reign of Mussolini. While in prison, Gramsci considered hegemony and its contestation. In considering how the possibility of socialism was shut down in Italy, Gramsci theorised the War of Position as well as the War of Movement. The War of Movement refers to the more obvious, traditional form of warfare: Open conflict and direct clashes between parties. The War of Position is strategic, a more hidden and ongoing conflict during which actors seek power. The War of Position does not necessarily imply reformism, but it does provide a space in which we can build resistance within civil society, questioning and revolutionising common sense. It also highlights the importance of the organic intellectual.

For Gramsci to be useful to counter-hegemonic work, we need to look to the grassroots, better historicise common sense, and look beyond overt forms of conflict to the hidden positioning of players.

**Countering Hegemony in Transboundary Waters in Palestine and Israel**

**Fuad Bateh, Former Negotiator with the PLO Negotiations Affairs Department**

Palestine’s water resources (the Jordan River and many aquifers) are all transboundary, with Israel the major neighbour. Israel started exercising control of water resources very early in its state-building, and has now securitised the Jordan River such that Palestine needs permission from Israeli authorities in order to develop its water resources. Claims to prior use, stronger infrastructure, and narratives of scarcity and security make Israel a strong hydro-hegemon. Palestinians appeal to diplomacy and international law in an attempt to balance power. An example of direct action includes the village of Nabi Saleh, a community that lost its water spring when an Israeli settlement was built on top of it. Each Friday for the last several years, the village has marched on the spring in order to directly challenge the resource use. Palestinian communities also cooperate, if only to get just a little more water in the here and now. Case studies from the country can shed light on counter-hegemonic action ideas while also highlighting the difficulty of pushing against deeply entrenched inequalities.
Dams in Nepal and Bhutan: Resisting and Bandwagoning India’s Hydro-Hegemony

Paula Hanasz, Australian National University

India is the hydro-hegemon on most of its rivers and basins. Two of its neighbours, Nepal and Bhutan, have seemingly similar positions. But their outcomes with the hydro-hegemon and water resources are vastly different. India may be accused of failed as an effective leader in transboundary management, but it has not necessarily engaged in overly coercive tactics against Nepal or Bhutan. India and Bhutan have an apparently cooperative, positive-sum relationship. Bhutan has high levels of cheap electricity. There are elements of counter-hegemony in Bhutan’s behaviours, with the country seeking international support and building a brand around ‘gross national happiness’ and sustainability. Bhutan works primarily within the rules and leverages its advantages to achieve the best outcomes. It asserts itself as a sovereign nation while developing bilateral relationships. Nepal, on the other hand, seems more resentful of India’s influence. It engages in resigned compliance, entering into various agreements with India but attempting to foster a closer relationship with China as an alternative. Nepal is more distrustful and perhaps has not fully come to terms with its relatively weak position. Instead of the ideological compliance India exerts with Bhutan, then, it deploys utilitarian and normative mechanisms with Nepal. Comparing these two countries, we see how different responses to and forms of counter-hegemony help shape the kind of actions a hydro-hegemon will engage in, suggesting that the mechanisms of hydro-hegemony and counter hydro-hegemony are strongly interrelated.

Countering Downstream Hydro-Hegemony through Formal Negotiations and Infrastructure: The Nile

Ana Cascão, Stockholm International Water Institute

The Nile is a fascinating case study for hydro-hegemony. The hegemon in the basin, Egypt, is geographically very vulnerable, as the most downstream of the riparians. Yet it holds a great deal of material, bargaining, and ideational power. But finance and political power may be shifting, and slowly changing the flow of the river.

Dams, far apart from being about water and electricity, are about political power. The Grand Ethiopian Renaissance Dam sends a message and is an element of a counter-hegemonic strategy. It is setting a new agenda, new rules of the game, and new discourses, with a clear message: We are not consenting anymore.
Beyond the GERD, the Cooperative Framework Agreement is a coalition of upstream interests. Its ratification has begun. It is likely to have a more far-reaching impact on the hegemonic configuration of the basin than the Dam. New rules means that upstreamers are no longer isolated. A new discourse is saying that cooperation is desirable and possible. A new agenda is establishing a commission to legitimise investment in new infrastructure. A new order is emerging based on a new legal agreement that undermines the legitimacy of Egypt’s claims. Whether the Nile is facing a new hegemonic configuration, new hegemons, or the end of hegemony remains to be seen. And while it is too early to be excited about the changes or sure of their direction, it is no longer merely business as usual.

**Discussion**

During the first Q&A session of HH7, participants questioned the viability of various counter-hegemonic strategies, considered the role of broader social, political, and economic systems on hegemonic arrangements, and asked what we – as individuals, academic communities, and movements – are trying to achieve through counter-hegemony. Each of these case studies exists in a much larger system, with its own hegemonies. Sociopolitical factors at each scalar level come together to form complex hegemonic structures. Pushing against hegemony at one level may inadvertently (or purposefully) be complying with hegemonies at other levels. Too, contests over water resources are far from the only game being played by actors: People and groups may be hegemons in one game but have a need for counter-hegemonic action in another. Organisations may push against one particular hegemon whilst ignoring another hegemon also in the system. The interplay between consent and coercion considered by Gramsci happens not only in a single War of Position, but in the many multiple wars of position we all face in our daily lives.
Chapter 3
Rethinking the Hydro Cycle
Scene Setter: Water in the Anthropocene
Naho Mirumachi, King’s College London

The classic hydro cycle has been taught in hydrology and social sciences for nearly a century, with a strong emphasis on the biophysical processes and flows of water. But this classic cycle misses a great deal in its lack of attention to the social impacts of and on water. An anthropocentric view of water includes consideration to ecosystem services, resource management and development, hydropower, recreation, tourism, mining, wastewater, and the like. Water in the anthropocene does not move only via gravity and heat. This panel seeks to consider:

• How is the hydro cycle conceptualised, and what kinds of mechanisms for water allocation, basin planning, and management does it give rise to?
• Where do ideas of the hydro cycle and water resources management draw their legitimacy? How do they become hegemonic, dominant discourses?
• Who benefits and loses from these conceptualisations and mechanisms? What can be done to challenge them?

The Hydrosocial Cycle: Affecting Change by Relating Water and Society Internally
Jessica Budds, University of East Anglia

Abstract: The relationship between water and society has come to the forefront of critical inquiry in recent years, attracting significant scholarly and popular interest. As the state hydraulic paradigm gives way to modes of water governance, there is a need to recognize, reflect and represent water’s broader social dimensions. In this article, we advance the concept of the hydrosocial cycle as a means of theorizing and analyzing water-society relations. The hydrosocial cycle is based on the concept of the hydrologic cycle, but modifies it in important ways. While the hydrologic cycle has the effect of separating water from its social context, the hydrosocial cycle deliberately attends to water’s social and political nature. We employ a relational-dialectical approach to conceptualize the hydrosocial cycle as a socio-natural process by which water and society make and remake each other over space and time. We argue that unravelling this historical and geographical process of making and remaking offers analytical insights into the social construction and production of water, the ways by which it is made known, and the power relations that are embedded in hydrosocial change. We contend that the hydrosocial cycle comprises a process of co-constitution as well as material
circulation. Existing work within the political ecology tradition considers the co-constitution of water and power, particularly in relation to processes of capital accumulation. We propose the hydrosocial cycle as an analytical tool for investigating hydrosocial relations and as a broader framework for undertaking critical political ecologies of water. (Jamie Linton and Jessica Budds, “The hydrosocial cycle: Defining and mobilizing a relational-dialectical approach to water”, *Geoforum*.)

**Workshop Notes:** The vast majority of water research focuses on water as water – the physical material H₂O. But considering the strong interplay between society and water, water is not merely two hydrogen and an oxygen molecule bonded together. Instead of looking at water as the topic of analysis, more holistic scholarship might consider hydrosocial relations. Water embeds and expresses power relations. Taking water as given – defining it only by the dominant biophysical understanding – has strong political and scholarly implications.

Breaking from the classic hydro cycle, incorporating primarily biophysical processes, the hydrosocial cycle can be seen as a process through which water and society make and remake each other over space and time. Water, in this understanding, instead of being simply H₂O, is produced by and produced social relations.

Approaching water as a social construct and questioning the very nature of water allows scholars and practitioners to interrogate how water is made known to us (e.g., question science, methods, and data), reveals power and politics (e.g., the social circumstances of circulation), and enables us to look beyond the water (viewing social relations through water as a lens). This more nuanced and flexible view of water can help inform counter-hegemonic strategies in working to identify exclusive structures, problematise technical interventions, challenge discourses, and move toward democratisation.

---

**The Hydro-Spiral as a Participatory Tool for Counter Hydro-Hegemony**

*Charlie Thompson, United States Geologic Survey and Ruth Macdougall, University of East Anglia*

**Abstract:** In 1934, the Natural Resources Board of the United States of America published the first visually descriptive hydrologic cycle diagram. Like water itself, this simple graphic has evolved in some ways and remained stagnant in others throughout the past eighty years. Multiple edits have been made, graphics have become more realistic, and many agencies and organisations have developed their own diagrams. Yet the majority of hydro cycle diagrams continue to ignore or understate the role of humans in the hydrologic
system and the vast diversity of watersheds. This presentation highlights the results of a working group on the "hydro spiral", a dynamic, participatory tool visualising the multiple geographic, environmental, social, political, and economic processes that impact how water moves in and shapes our world. The presenters will address the creation of the hydro spiral tool and its potential use in informing activism against dominant water models and management assumptions.

**Workshop Notes:** The Hydro Cycle Working Group was convened at UEA in 2013 to identify issues and gaps in the hydro cycle as classically conceptualised and taught. The Group named over one hundred processes and elements of water and society that would need to be included in a truly complete hydro model. Particularly important to the group was a model that somehow incorporated the political and economic facets to water movements – core concerns like money and borders are completely absent in the classic diagram.

Environmental artist Ruth Macdougall was tasked with the rather Herculean job of creating a visual representation of the group’s ideas. In an emerging process, Ruth is using a spiral helix to convey complicated water processes. The shape’s circular movement with alternately increasing or decreasing circles evolving from a central point allows for concepts such as time, technology, money, politics, borders, and water volumes to be plotted together.

While the group is working toward one diagram that can be printed, the hydro spiral itself allows for a participatory element. Instead of pinning images and scenes to the hydro spiral, separate discs portraying various water concepts can be moved around the shape. In a workshop, community consultation, or seminar, participants can be given the outline of the spiral helix, sample discs (portraying issues such as virtual water, ‘water moves uphill to water’, desalination, political borders, etc.), and blank discs. Through these tools, participants can visually articulate the way water moves in their own community. While the hydro spiral needs more development and testing, it has the potential to be a powerful participatory tool guiding discussion and research around water flows and society.

**“Normal Water”: The Making of a Narrative**

*Jeremy Schmidt, Harvard University*

**Abstract:** There is a surprisingly hegemonic narrative underwriting the project of global water governance. In it, water was once abundant but then became
scarce. Then, as scarcity became more acute, issues of water security arose with respect to both interstate conflict and human development. Far from a neutral narrative, this refrain reflects implicitly forwards a particular cultural story about, and policy history of, water management. Using original archival research, this presentation will outline the key touchstones of this narrative as they pertain to the link between political liberalism, the project of international development post-WWII and the conditions that arise for global water governance in the decade after the 1977 UN Conference on Water in Mar del Plata.

Workshop Notes: To us today, the need for managing water globally may seem like ‘common sense’. But governing water – let alone doing so on a global level – has not always been common sense or the norm. We know from climate science projections that the availability and quality of liquid water sources around the planet and at different scalar levels has fluctuated over time. But in the past century or so of sociopolitical history, a specific story about water and its availability has been told. This story points us toward a specific way to manage water and validates the regimes that today govern water.

The story emerges with the United States as a primary actor, and can be traced in US government documents and those that form the basis for international water management meetings in the late 20th century. These tell the tale of water as a resource. Once abundant, water resources have since become scarce. Humans mismanaged scarcity and because of this water security has become a strong concern.

‘Normal water’ might be seen as a geological driver, a social convention, a technical issue of hydrology or economics, or a health concern for ecosystems, cities, and individuals. In the midst of all these ways to view water, framing it as a resource has become strongly dominant. This framing upholds the narrative. And the story is not a universal or unbiased one.

Anthropologists in Washington, D. C. began trying to naturalise the Constitution in the late nineteenth century: It did not say anything about the environment. These anthropologists reclassified geological phenomena in order to communicate their views, arguing that water is a unifying factor to various processes and systems and thus the key to evolutionary and social progress. The Tennessee Valley Authority (TVA) built from these arguments to legitimise the State’s re-entrance to the economy during the New Deal era in American political economy. The TVA then became the model for international development through resource development. Geographers began to develop large, global databases for water.
By the Marta del Plata Conference in 1977, the scarcity of water was widely accepted. Questions of inequitable distribution began to enter the discourse. With the neoliberal era of the 1980s, procedural ways of managing water (decentralisation, markets, etc.) were emerging with claims of handling the distribution issue.

This story of abundance, scarcity, mismanagement, and security serves to make governing water globally seem like ‘common sense’. The framing of water as a resource legitimises and makes seem positive global regimes and controls over water. If another cultural story were told about water, a very different set of management techniques might seem more sensible. If the many multiple cultural and technical views of water are to be respected, it cannot be considered strictly as a resource.

From hydro-cycle to hydro-babel-tower: Re-thinking the Commons of Water “Losses” at the System, Basin, and Transboundary Levels

Bruce Lankford, University of East Anglia

Abstract: ‘Who gets the material gain of an efficiency gain?’ This is the underlying question implied by those who argue that programmes to improve the efficiency of water systems benefit the environment. However by using a new framing of ‘paracommons of losses, wastes and wastages’, these material gains are perceived to flow to four destinations; the proprietor, the neighbour, the wider economy and the natural common pool. Furthermore this distribution is mediated by a number of technological, institutional and legal factors resulting in the proprietor often being ‘first in line’. During the HH7 session, the paracommons framework will start by showing how ‘losses’ are poorly understood in most hydrological cycle conceptions. Then the paracommons will be tested for its ability to explain or raise counter-hegemonic influences that shape alternative distributions of these material gains.

Workshop Notes: Hegemony exists on the ground around material water resources. But it also exists, very really, in our minds, as thought itself is conditioned by power and language. The freedom to think is constrained by dominant paradigms and models. Being counter-hegemonic around water resources thus involves not only action on the ground but also rethinking and re-expressing nature, science, and our knowledge.

One dominant approach to water is our focus on volumetric concerns and cyclical movement. Even ‘new’ approaches like the hydro-spiral, hydrosocial cycle, green and blue water, and big water fall into these traditional castings of
water. Beyond volume and flow, technical dimensions to water also include velocity, depth, time-duration, distance, quality, temperature, probability...and a whole host of other qualities. It is not merely water volume, but instead overlapping physical resource patterns, that create and shape social relations around water. But how do we create the analogies and imaginaries that capture these non-volumetric qualities of water?

The idea of the ‘paracommons’ is to view water in a different way: As yet-to-be-conserved gains within a system. Water movement and use can create waste or ‘save’ previously wasted water. But where does that ‘saved’ water go? Who has claims to freed up water resources from improved technological or social practices?

The paracommons idea is an example of a counter-hegemonic disruption to language and ideas, presenting a new framework for understanding and considering water. But, like all disruptions, it may feed into a complex conglomeration of ideas, relations, and resources. One might even see water as a Tower of Babel; complex, cascading, and see in different ways by different types of scientists and resources users. Scientists and scholars grapple with these multiple frameworks, models, and terminologies to try and understand water. Many multiple ‘builders’ try to use these new approaches to fix the ‘Tower’, but this fixing is often defective and contested as well. And over time, what was a counter-hegemonic model may become the new hegemonic idea on the block.

Discussion

During the discussion, HH7 participants explored questions about the fundamental nature of water and how we, as a society, approach water. Are ideas like the hydrosocial cycle and hydrospiral merely an academic exercise, or is pushing against counter-hegemonic ideas in scholarship and research part of very active counter-hegemony on the ground around water resources? What is the value of science and the legitimacy of hydrology? Where might those ‘hard science’ disciplines go wrong and what might they be missing?

Discussants also considered the power of metaphor, game, and non-traditional teaching techniques in combatting these hegemonic conceptions.
Chapter 4
Persistent Hegemony
Rethinking TWINS for Counter-Hegemony

Naho Mirumachi, King’s College London

Traditional analysis presents conflict and cooperation as polar opposites, the ends of a spectrum. But events do not occur in a linear fashion along a dualistic scale; rather, conflict and cooperation can coexist and inform each other. Thinking too linearly about specific events such as treaties and the creation of organisations allows policy to become apolitical as it loses it contextual process. Nor is all ‘cooperation’ necessarily a good thing.

The Transboundary Water Interaction Nexus (TWINS) provides a framework for evaluating levels of conflict and cooperation simultaneously. Low levels of both cooperation and conflict indicate that little interaction is happening, and thus the status quo likely being upheld. TWINS can help indicate the quality of the interaction: When high cooperation and low conflict are present, cooperation is likely ‘pretty’. What is generally considered ‘ugly’ cooperation is present in situations of high conflict and low cooperation, where ‘cooperation’ generally occurs as the hegemon desires, ignoring the real problems in favour of tokenism and coercion.

Putting the TWINS matrix to work in considering counter-hegemony, another dimension might be added to the Conflict x Cooperation Grid: a contest and compliance ratio. This allows for the visualisation of both hegemony and counter-hegemony in a wide variety of situations. More testing is needed to confirm the use of TWINS in analysing contest and compliance, but this revised approach demonstrates its potential and highlights the need for flexible methods able to capture multiple coexisting pairs.
An Integrity Framework for Corporate Water Stewardship: Counter-Hegemony on the March, or Counter-Productive Concession?

Nick Hepworth, Water Witness International

Abstract: Along a new front of hydro-hegemonic discourse and action, water stewardship partnerships (WSPs) with the private sector are receiving increasing levels of attention, finance and political patronage globally. For those who have striven for greater user engagement in managing the resource, this represents a potential breakthrough in influencing for sustainable means of production. For others, it represents the hegemonic capture of policy, institutions and water behind a façade of legitimacy, and a tactic to divert attention from pressing questions about water justice, erosion of the state and the limits to growth.

Donors and NGOs are in the process of developing an integrity framework to guide and evaluate WSPs so that ‘partners are credible, processes are fair, and outcomes provide genuine societal benefit’. By flagging the social equity risks associated with WSPs and advancing a package of mitigation measures this integrity framework is a potentially powerful counter-hegemonic tool (in a rather rusty and empty toolbox). Alternatively, given that it may exist as mere guidance it could just validate new forms of hegemony.

Workshop Notes: Water stewardship partnerships (WSPs) are meant to help corporations, communities, and states work together to manage water sustainably in their practices. Whether these WSPs actually advance sustainability and help communities or ‘whitewash’ business practices through a guise of legitimacy is debatable. Those partnerships with integrity have accountable partners, inclusive and transparent processes, clear objectives, and demonstrable outcomes. There are numerous risks and challenges to WSPs. Involved organisations’ reputations and track records, capabilities, intent and incentives, representation, continuity, and conduct need to be understood and harmonised. Successful WSPs’ methods necessarily include problem and feasibility analysis, stakeholder engagement, coordinator, financial management, evaluation, and whistleblowing – but being good at all of these is a challenge for any organisation, let alone small, understaffed operations. WSPs have thus far not generated a great deal of demonstrable contributions or outcomes, putting their sustainability and strategic relevance in question. Whether a specific WSP is contesting or complying depends greatly on its performance of the elements named above. Not all WSPs will successfully contest hegemony. But the model is a potentially powerful one, and the possibilities tempting.
Countering Corporate Hydro-Hegemony by Identifying Catalysts for Change

Suvi Sojamo, Aalto University

Abstract: Theories of power and agency are useful in identifying whose behaviour should change if different outcomes are to emerge. For example, they point towards transnational corporations as agents having considerable influence and power on global water security due their central position in the value chains and networks of the global political economy. These corporations are currently waking up to this role, and to their water risks in the form of increasing engagement in water policy and governance. Academic research is slowly catching speed with this new engagement, but still puzzled with the most appropriate research strategies in investigating and understanding the phenomenon. Are we witnessing just new forms of corporate capture, is any research on corporations just supporting their hegemony, or can the corporations be governance agents of their own right if properly scrutinised?

I propose that in order to understand and then counter what we call a corporate and neo-liberal hegemony, we need to analytically break it to finer pieces, open the “black box” of corporations, see the full complexity of private sector value chains and networks reaching to ourselves, and understand them to the level of units and persons as agents. People can be real catalysts of change, and have multiple identities which can change too. Countering a hegemony may need to start with bringing back a human face to it. We need rigorous research processes and proper evidence for new kinds of ideational power to counter the structural hegemony.

Workshop Notes: When considering issues like virtual water, aquifer depletion, and water justice, it is quite tempting to blame corporations for unsustainable and inequitable practices and processes. And certainly corporations hold a great deal of power and are, all too often, relatively unregulated given their transnational nature. But notions of corporate social responsibility are becoming more and more mainstream, and most corporations exhibit a willingness to work with partners in their production and consumption lines. Scholarship must also wake up to its role, studying in detail the nuances, problems, and potentials for corporate involvement in both hegemonic systems and counter-hegemonic action.

In this work, the role of individuals as consumers and persons must be carefully considered. Corporations must be held accountable for their actions, but they cannot be wholly blamed for the entire system. Doing so denies the agency of people. In order to counter hegemony, individuals should be identified as agents of change and their catalytic potential developed through study, training, and strategic engagement with them, corporations, and other actors.
Challenging Hegemonic Structures through International Law

Owen McIntyre, University College Cork

Abstract: In recent years we have witnessed the emergence of a number of legal mechanisms or approaches which can function to challenge (or at least ameliorate) hydro-hegemony, such as the elaboration of clear and unambiguous obligations regarding proceduralised (and institutionalised) inter-State engagement over shared water resources (e.g. the Pulp Mills Case), or the emergence of individual human rights-based entitlements which arguably extend across State borders to create obligations for a hegemonic State vis-à-vis the citizens of a weaker neighbouring State (see CESC, General Comment No. 15).

One might even mention the emergence of ever-clearer international legal obligations regarding ecosystems protection (Kishenganga Arbitration; San Juan River Case), which might be understood as supporting objective (and thus non-negotiable) State obligations regarding ecological protection, which can operate to restrict the discretion and influence of hegemonic States.

Workshop Notes: The system of international water law emphasises the duty of states to prevent significant harm, cooperate in good faith with other states, and engage in equitable and reasonable utilisation of shared waters. IWL is supported by international environmental law, which requires environmental impact assessments when projects may cause transboundary harms and includes protection for ecosystems; international human rights law, which creates duties for the protection and provision of rights including water, food, and life; and international investment and trade law, which govern economic interactions between states.

International law can be enforced by second parties through bilateral, regional, and basin negotiations. It can also be enforced by third parties through judicial and arbitral dispute settlement. However, there is not a global ‘police’ force. And while the multiple systems of law that impact water may allow wronged or weaker parties a greater number of options to make claims, they can also lead to fragmentation and confusion. Nonetheless, there is increasing certainty about the legal status and concrete duties of states around key norms relevant to transboundary water. International law does have normative power and, increasingly, punitive options based on material power as well. States have equivalent status under international law, and thus legal claims may provide a powerful tool for counter-hegemonic strategies even in the midst of other power imbalances.
Countering Academic Hegemony, Conflict Transformation and the Hydrosocial Cycle: Identity, Recognition, Altruism and Selfishness in Hydro-Cooperation along the Jordan River

Joshka Wessels, Lund University

Abstract: The Jordan River Basin (JRB) is one of the most conflictuous basins in the world, where the establishment of a viable and comprehensive transboundary river basin institution has been prevented by a history of protracted military conflict, hydro-hegemony and a lack of conflict transformation. Neoliberal theories of collective action failed to explain why riparians are not cooperating on water in the JRB. The main question of our research is focused on what role various cognitive and emotional dimensions play in transboundary water management? The sociopolitical history of the JRB was used to contextualise a Jordan River Basin Boardgame Exercise (JRBBE) as a metaphor for the hydrosocial cycle and implemented as a methodological tool to investigate the role of identity, recognition, altruism and selfishness in decision-making processes in transboundary water cooperation. The JRBBE is a cooperative management game and simulates processes of water cooperation between the five riparians of the JRB; Lebanon, Syria, Jordan, the Palestinian territories and Israel. First played in a classroom environment, experiments were implemented with respondents at location in Israel, occupied Palestinian territories (oPt) and Jordan with political advisors, students and various members of civil society organisations. 

Workshop Notes: The conventional hydro cycle focuses on biophysical processes and leaves out most anthropogenic ‘disturbances’. In the Jordan River Basin, multiple quantitative and qualitative methods for conflict resolution toward water cooperation are done. But backed up by the class hydro cycle, these methods focus on rational choice, managerial, and zero-sum assumptions about water. They ignore the importance – and potential – of identity, cognitive, and emotive dimensions of conflict, violence, cooperation, and justice. In the midst of structured hegemony around the basin involving protracted military conflict and occupation, asymmetrical communication, and dehumanisation, effective strategies for empathetic learning and analysis are sorely needed. The Jordan River Basin Boardgame Exercise allows participants to consider allocations between the basin’s riparians while giving explicit attention to identities and emotions. It illustrates the ongoing dilemma of playing to win individually (focusing on national interests, selfishness, and unilateral action) or playing to win together (through transboundary water management, altruism, and collective action). Peace cannot emerge in a solely technocratic, managerial domain; an equitable, just hydro-peace in the Jordan River Basin within the neoliberal paradigm is unlikely. But focusing on the human ecosystem and utilising cooperative management may make durable hydro-peace possible.
Discussion
The Structured and Persistent Hegemony Panel, in addition to fielding questions from HH7 participants, asked a set of their own. These questions guided conversation around the causes of, and strategies for action against, deeply entrenched systems and injustices.

- How do we identify the actual causal links from structural elements to influence the ‘contest & compliance ratio’?
- Is an integrity framework for corporate and other forms of water stewardship counter-hegemony on the march or counter-productive concession? Is it a valuable strategy?
- Does the emergence of clear rules and principles of international water law curb the exertion of hegemonic power, or does international law provide yet another means for exerting technical, economic and political dominance?
- Can structural hegemony be challenged and countered by emphasising the role and importance of empathy for sustainable transboundary water management, recognition and altruism in water cooperation? If so, how can this be reflected in effective policies for a fair and just peace between riparian states locked in a protracted military conflict?
Chapter 5
Dams
Invisible Dams - No Impact, No Problem!

Nate Matthews, King’s College London

Abstract: A number of countries in the Mekong Basin are rapidly expanding their hydropower. Governments and developers in the region continue to downplay and sometimes outright deny that dams cause transboundary impacts. It appears that after 40+ years of outsiders like the World Bank and the IMF telling countries that they need to develop their hydropower regional states are now moving forward with a gusto that is completely dismissive of science, and the governance agendas that have been agreed upon across most of the region. This disregard of science and governance is driven mainly by the potential power that dams bestow on the elite, while at the same time placating the concerns of the middle class. In this way, dams are used as a tool to pre-empt counter hegemony - making sure the wealthy get wealthier, the middle class are happy and the poor stay repressed.

Workshop Notes: Many hegemons are able to pre-empt counter-hegemony by countering the points activists are likely to make and using them as leverage. Laos has done this quite effectively with dams. Hydropower maintains class orders: The powerful receive the benefits of large dam projects, giving the government a way to keep the upper class happy. The same projects please the middle class by bringing in an influx of money to ministries and employers. Resettlement initiated by the dams represses the poor and makes them into consumers. But the government is able to align the benefits of hydropower with internationally popular norms: Dams are spun as a way to ‘clean’ energy, sustainable futures, and poverty alleviation. Such narratives may effectively quash counter-hegemonic action before it even gets off the ground. Forms of resistance must understand the forms of oppression if they are to be effective.

Can Feathers be Mightier than Bulldozers? Indigenous Movement Fight Belo Monte Brazilian Megaproject in the Amazon Rivers

Barbara Arisi, Universidad Federal de la Integración Latino-Americana

Abstract: In the last two years, I have been ethnographing indigenous demands in global arenas. I have researched and participated in the indigenous movement in the Cumbre de los Pueblos organised at the same time as the intergovernmental Rio+20 Summit. As an Amazonian ethnologist, I usually work with indigenous cosmologies and economies that include animals, disincorporated beings/spirits and foreigners - like German tourists and South Korean television crews. Since I started following the indigenous movement’s
demands in global arenas, my research became populated by other kind of actors such as BNDES (Brazilian Federal Bank for Socioeconomic Development), electricity sector bureaucrats and indigenous leaders that travel worldwide to attract international support against Dilma Roussef administration’s megaprojects in the Amazon. In this paper, I focus on the indigenous movement fight against Xingu river’s Belo Monte dam. Belo Monte is an important knot - to use a term proposed by Latour (2005) - in the network that links Amazonian waters with governmental interest in accelerating Brazilian growth, and investors of private sector financed by public money with indigenous and river dwellers' resistance. During 2012 and 2013, the indigenous movement was the strongest and the most visible actor in this fight.

Workshop Notes: Similar to Laos, the Brazilian government presents dams as a way to accelerate development. The Brazilian Growth Acceleration Plan funnels public money to private projects, with the power generated used in mining and aluminium production. The government frames the project as ‘in the public interest’, making it very difficult to oppose. Again, we see the potential for counter-hydro-hegemonic projects to be hegemonic at another level, with a divide between government and indigenous perspectives. Many indigenous communities in Brazil are involved in a fight for the highest possible mitigation and compensation action. Their strategy involves making their fight as visible as possible, giving weight to feathers against bulldozers.

The Grand Ethiopian Renaissance Dam: a counter-hegemonic project or a start of a new hegemonic order?

Rawia Amer, Cairo University

Rawia Amer from Cairo University brings another perspective to the Grand Ethiopian Renaissance Dam (GERD) discussed by Cascão at HH7. She argues that the GERD presents an interesting example of how dams may combine leverage, liberating and coercive elements. For Ethiopia, the dam is a liberating tool to break Egypt’s hegemony. Through securing the support of some upstream riparians by offering benefits from potential power generation Ethiopia succeeded in using the dam as a leverage tool. This is combined with an alternative agenda which focuses on ‘equitable use’ to counter Egypt’s focus on ‘acquired rights’ and uses a discourse of development to mobilise domestic financial and political support for the project.
For Egypt, however, the dam is seen as a coercive tool given the unilateral planning and implementation of the project and its potential negative impact on downstream countries. Inconsistent messaging from Ethiopia alternatively frames the dam’s purpose to be hydropower or irrigation. Egypt criticized the Ethiopian position that refuses to halt the construction of the project until the remarks raised by the International Panel of Experts on the dam are addressed. To maintain compliance, Egypt has so far employed tactics that are more coercive and normative than utilitarian. It withdrew from negotiations on the dam and tried to block the use of foreign developmental assistance to fund the dam. Its discourse has focused on the importance of respecting past agreements and defending its water security. But these tactics proved to be ineffective. While it is too early to say whether or not a new hegemonic order is emerging in the Nile, there exists a potential for a new unequal order to emerge if Nile basin countries, especially Egypt and Ethiopia, did not pursue mutually beneficial policies and projects.

**Hydropower in Sikkim: Coercion and an Emergent Environmental Justice**

*Deepa Joshi, Wageningen University*

**Abstract:** A decade ago, dam building was on the decline globally. The social and environmental costs of large dams constrained both socio-political space, as well as financing for mega-water infrastructure. The renaissance of large-scale hydropower development is therefore intriguing, particularly the sharp turn-round in the seemingly universal consensus positioning of hydropower projects as being environmentally and socio-economically positive. The new hydropower development discourse is couched in ostensible win-win scenarios: securing energy for the rapidly developing national economy; accelerating development in hitherto ‘backward’ but hydro-potent areas; and generating ‘clean’ energy. This presentation discusses the synergistic coupling of these imperatives in the Eastern Himalayan State of Sikkim in India. The initial construction of a win-win consensus was in line with the cultural politics of a state hegemony: contestations to the dams were blamed on divisive outsider civil society
organisations, even as coercive strategies were adopted to silence local dissent. Such “anti-politics” tactics are not uncommon in the imposition of “development”. What our research in Sikkim demonstrates is that the hegemonic attributes of the “anti-politics” machine are not always linear. Occasionally, the anti-politics machinery reverses, setting in place an unexpected politicization dynamics. In Sikkim, a coercive hydropower agenda inflicted with popular connotations of water, river, nature and culture resulted at a certain time and space in crossing the tipping point in the state’s apolitical democratic deadlock – setting in place the foundations of an emergent environmental justice.

Workshop Summary: There is a persistence of the neoliberal agenda in the water section through various policies and policy ‘flipover’. In order to counter that agenda, consolidating soft power is needed. But do ideas of justice and equity actually translate into any results on the ground?

‘Dams’ and ‘hydropower projects’ are very different positionings of the same infrastructure: Policy ‘flipover’ allows them to become carbon offsetting projects – and/or any other number of things – as they help promote a desired discourse. There is a kind of ‘climate hegemony’, a political consensus amongst elite politicians, academics, activists, and businesses that promotes certain spins on projects and realities. The careful packaging of issues, though, may neglect the interlinking aspects of climate, dams, and other infrastructure, systems, etc.

In Sikkim, an ethically fragmented territory, twenty-six hydropower projects were designed under policies even though the needs for power were already met. They were proposed as benign projects designed to bring socioeconomic development to the region. Resistance is branded as anti-social and anti-national, making counter-dam action difficult and unpopular. But how can/should the full benefits – and costs! – of hydropower be shared in emerging economies?

Creating Space for Counter-Hegemony on the Nile: The Merowe Dam

Mohammad Jalal Hashim, Khartoum University

Paragraph abstract of the information about the presentation including Q&A as Dam projects represent the hegemony and power of the State. They often do not reflect the interests or needs of its people, especially locally. Dams in Sudan, if completed, will depopulate a great deal of its territory from Barbar to Anwan. The Nubians believe it is a conscious effort to evacuate them from the region. In addition to the Sudanese Government, Egypt has agreed to all of these dam
projects. It would seem the dams may be being built more for the benefit of Egypt: Sudan will lose four billion cubic metres of water through evaporation from three dams, hindering its potential for agricultural expansion. The benefits of hydropower generation seem minimal, given its costs.

Even while Sudan sold a large portion of Nubian land to Egypt and agreed to resettle millions of Egypt’s peasants, the people of Manasir resisted the dam – only to be purposefully flooded out in an attempt to evacuate them from the region. No relief agencies were allowed in and no political leaders visited. Dams, here, are being used for demographic engineering, highlighting the wide range of purposes such large projects can have, and the close ties of water resources to a multitude of other powers and interests.

**The Merowe Dam: A Case of Resistance and Activism against Forced Displacement**

*Ali Askouri, Leadership Office of the Hamadab Affected People*

**Abstract**: Over the last few decades forced displacement has become a worldwide socio-political phenomenon. Of the many types of development projects which caused forced displacement, dam projects in particular have caused unprecedented forced eviction in human history. The World Bank, World Commission on Dams and many International Non-Governmental Organisations (INGOs) working in the field put the figure of people displaced by dam projects over 80 million. Most of these people were/are subsistence communities depending mainly on the land for their livelihood.

In sharp contrast to the world attempt to reduce poverty and raise living standards, the living standards of the displaced communities have deteriorated. Numerous studies and researches undertaken among these communities showed a clear contrast to what governments promised before relocation and the realities of impoverishment in the resettlement projects. Following their displacement, the communities were ignored and forgotten by the governments, left to fetch and eke out a new life for themselves in difficult conditions and foreign environment. As a result, they were subjected to further impoverishment. Due to this, there isn’t in fact a single example world-wide to show a community which its life has improved after resettlement. To this end, there is a consensus among financiers (World Bank and Others) and Governments that the past experiences of resettlement projects were anything but failures! These failures have over the years led to what Oliver-Smith calls Development Displacement Resistance (DDR). While DDR may mean different
things to different actors involved, for the affected communities it primarily means resistance to relocation as we will discuss in the paper.

DDR has grown over the years into international movement bringing dams affected communities, national and INGOs together to oppose government displacement policies. Like any other Human Rights movement, DDR has grown in number and scale, experiencing failures and successes. At grass –roots in particularly level, DDR has endured government excesses and violence that led in numerous cases to loss of lives.

In this paper I attempt to highlight the experience of Merowe dam Affected Communities (MDAC) (Sudan) and how the communities succeeded in resisting displacement from their traditional land.

Despite confronting the most brutal Government on earth, the MDAC were able to organise themselves and coordinate their efforts in collaboration with INGOs succeeding eventually in determining their destiny despite the Government policy to relocate them to different desert locations.

Workshop Notes: Ali Askouri has been personally affected by the displacement and flooding in Sudan discussed by Mohammad Jalal Hashim. Ali provided two major insights to the case study: A critical consideration of the power of discourse and an insider’s perspective to the Manasir people’s experience.

Forced displacement has a legal connotation. Involuntary displacement and resettlement, however, do not. The language surrounding people and movement during dams projects has great impacts on what the government can or needs to do, and can nearly make or break the chance for resistance even before counter action has begun. In Sudan, the dominant idea and discourse focused on the State’s right to develop. Affected communities might find a greater possibility of resisting if they work to shift the attention from that right to the question of whether the government has the power and right to displace communities. The debate needs to be reframed in order for action to be effective.

The Manasir people were ‘consulted’ during the production of the Merowe Dam...but the ‘representatives’ of the community were handpicked and locally chosen representatives denied. The community was purposefully flooded. But even so, the Manasir people have not left their territory and continue to resist hegemony by their very presence in the area.
Dams in Nepal and Bhutan: Resisting and Bandwagoning India’s Hydro-Hegemony

Paula Hanasz, Australian National University

Abstract: India, the hydro-hegemon in South Asia, is addressing its energy security concerns by pursuing Himalayan hydropower. The development of dams in Nepal and Bhutan has the potential to not only feed India’s growing energy demand but also facilitate socio-economic prosperity for its impoverished upstream neighbours. However, the significant power asymmetry between India-Nepal and India-Bhutan is a challenge for water interactions between them and complicates the development of positive sum outcomes. Nepal and Bhutan have responded to India’s hydro-hegemony in contrasting ways. Within Nepal, resentment lingers toward India over the perceived unfairness of past water agreements. This affects Nepal’s negotiations with India regarding current and future projects. In juxtaposition to Nepal is the case of Bhutan, which has taken the ‘bandwagoning’ approach to counter-hegemony and is applying non-zero-sum thinking to its negotiations with India. In this way, both parties are able to maximise benefits shared.

Workshop Summary: Dams are not inevitably hegemonic or counter-hegemonic, but rather a product of various and complex contextual factors. Dams may be mutually beneficial for multiple actors. And while India may be taking the ‘Not In My Backyard’ approach and benefitting from ‘clean’ energy projects in Nepal and Bhutan, these dams are only part of the energy and financial mix. Bhutan, for instance, remains highly economically dependent on exporting power to India. The dams that have been built are not merely manifestations of India’s hegemony: Large projects bring with them a great deal of complexity and ambiguity. Scholarship and counter-hegemonic action needs to consider ‘good’ case studies and examples of positive hegemony as well as the bad.
Discussion

Questions to the panellists ranged from very specific queries about the production, implementation, and ongoing operation of the dams to broader concerns about the role of State, water, and power. The difficulty in measuring how various counter-hegemonic strategies affect change was acknowledged.

Discussant Jeroen Warner considers rivers as symbolic of much larger hegemonic struggles involving development and solidarity. They are often caught up in securitisation discourses and now, increasingly, national liberation and poverty. Dams are a powerful and resilient idea – a ‘Nirvana concept’ (Molle) that can take on many meanings. Those with hegemonic ideas often think they are exceptional – allowing them to accept negative consequences of their ideas and actions, accommodating collateral damage through claims of participation, compensation, and benefit sharing.

The panel also considered whether dams are a ‘special case’. Some presenters believe that dams are not inherently special and that any form of infrastructure can make an equivalent impact. Paula Hanasz pointed out that, unlike some projects, those who benefit most from dams are far removed from those who are negatively impacted. Ali Askouri pointed out three features of dams that make them particularly worrisome: their impact on physical landscape both instantly and long-term, their impact on biodiversity, and their status as the only project that blocks rivers, the ‘lungs of the Earth’.
Chapter 6
Virtual Water Hegemony
Decoupling: A Silent, Pragmatic Means of Countering or Circumventing Hydro-Hegemony

Michael Gilmont, King’s College London

Decoupling refers to removing the link between national population growth and national water supply growth. It explains how an economy and population can grow beyond traditional limits of natural resources. Decoupling might be trade-based (‘virtual water’) or through natural water (recycling, desalination, etc.).

Trade-based decoupling enables countries to maintain food supplies in the face of limited new resources by importing food. Its limits are driver by environmental and political restrictions, but it is fairly silent politically and can enhance local resource security. Lesotho, for example, has increased its crop imports drastically over the last fifty years...but 95.2% of those imports are from South Africa. Though Lesotho has escaped natural resource constraints, it remains heavily restrained by political hegemonies.

Natural water decoupling can contest hydro-hegemony by changing resources limits and definitions. Israel, for example, is reducing the amount of natural water it is using, but the country’s net use of water is increasing. This is made possible through desalination and water recycling.

Food trade and the ‘creation’ of ‘new’ water supplies change the impact and execution of hydro-hegemony, and hegemonic relationships impact food trade. Food trade gives a population access to virtual water, while natural water decoupling can change political judgments and volumetric facts. These kinds of decoupling also shift the consent and contest of hydro-hegemony far beyond the local resources and groups of a hegemonised basin.

Virtual Water but Actual Hegemony: Expanding the Analytical Framework of Hydro-Hegemony to Inform Food Trade

Rebecca Farnum, University of Edinburgh

While food trade allows for decoupling and gives populations access to ‘virtual water’, it is hardly free of the hegemonic relationships surrounding river basins and blue water. Economic comparative advantage suggests that virtual water should ‘flow’ from water-rich to water-poor countries, that is, food should be exported by water-rich countries and imported by water-poor countries. But trade is happening both ways, and the more powerful country in a trade relationship may be the exporter or the importer.

Can the original Framework of Hydro-Hegemony be used beyond the basin to
analyse power relations in other settings? Adapting the four pillars of Zeitoun and Cascão’s revised Framework (geography, material power, bargaining power, and ideational power) for virtual water hydro-hegemony, domestic endowment (local water availability, evapotranspiration rate, etc.) can be substituted for geography and the relationships between trade partners plotted. Applying this expanded Framework of Virtual Hydro-Hegemony to three case studies (Peruvian asparagus exported to the United Kingdom, American cereals imported by Egypt, and Israeli agricultural produce consumed in the European Union) indicates that virtual water flows are highly subject to hydro-hegemony, shaped by material, bargaining, and ideational powers. Bargaining power, using international law and norms, is often the type of power held most equally between partners, and thus a potential tool for counter-hegemonic action by weaker states.

Virtual water, and thus hydro-hegemony around food trade, is generally invisible in policy. Making the water consequences of trade more apparent to decision-makers could go a long way in helping counter hegemonic trade relations.

**Invisible “Virtual Water Rivers”: Blinding Transboundary Interaction and Consumers to the Need for Counter-Hegemony**

*Francesca Greco, UNESCO*

Virtual water ‘flows’ can be activated and deactivated, as they are human-induced. The Disi Pipeline between Jordan and Saudi Arabia can convert water into domestic use. Events, human action, and technologies can modify power balances in hydropolitical contexts and challenge water allocation entitlements.

Unlike the average river, though, virtual water is often somewhat invisible, and thus difficult to grasp. Also unlike many state-led hydraulic projects, most virtual water ‘flows’ are managed by private actors. But they can be balanced by state actors, depending on reciprocal political power balances.

Virtual water analysis enables the use of a Gramscian approach to thinking about hegemony and the exertion of diffused power by linking what we eat with water consumption, considering the interactions between everyday processes such as opening the fridge, ideologies like consumerism, and power.
In order to challenge this silent form of hydro-hegemony, invisible virtual water concerns need to be made visible to the public at large. Counter-hegemonic action around virtual water inequalities might include water labelling or benchmarking. Such programmes must avoid water-blindness, and thus also take into consideration the other means of production (CO₂, labour, land, etc.).

**Discussion**

Conversation between the panellists and with participants emphasised the fact that virtual water is far from a silver bullet. Food and other trade happens in a much wider sphere of action with multiple political and economic factors. These greater contexts make clear-cut, causal analysis difficult to carry out but also highlight the need for greater attention to and visibility around virtual water concerns.

Discussion also considered the role of the state in virtual water interactions. Some trades with virtual water impacts include state actors. Others are almost exclusively run by private corporations and individual consumers. State-based power relations and political histories certainly impact trading relationships and possibilities, but these issues require significant attention to and action around producer, corporate, and consumer engagement.
Chapter 7
Strategies for Contest II
Models of conflict and co-operation: shaping the discourse

Tony Brauer

Workshop Notes: The way we model conflict and co-operation is likely to affect the way we think about and respond to them. In one tradition they are seen as binary alternatives: either you’re co-operating, or you’re in conflict. The Oregon School used this to categorise risk in water basins. The London School criticised this system on the ground that apparent co-operation can co-exist with and conceal conflict. In response a design was adopted in which conflict and co-operation appear on x and y axes, so that all states of affairs are simultaneously co-operative and conflictual. The disadvantage of this approach is that in order to resolve conflict, it is often essential to disaggregate conflict and co-operation, rather than leave them entangled.

There is no great difficulty in modelling them so that disaggregation is possible. Co-operation is seen as arising from the internalisation of others’ needs, and conflict as a result of the repudiation of others' needs. All that is then required is the construction of a continuum, with pure co-operation at one end and pure conflict at the other and the remainder a gradient between the two. With this continuum on the y-axis, the x-axis can be used to represent time, space, a market chain, or the implementation of sets of rules, depending on what phenomenon you wish to analyse.

The exploration of systems of rules is an extension of Elinor Ostrom’s IAD analysis. On the x-axis start with informal rules. Operational, collective choice, and constitutional rules more or less then emerge of their own volition. These are underwritten by ideologies, which in turn depend on often tacit assumptions about the nature of life, the universe and everything. The locus and dynamics of conflict can then be much more accurately understood.

In the workshop, Tony Brauer showed how this model can be applied to a variety of
different contexts, including the Palestine-Israel conflict, and a problem posed by Nat Matthews: how is compliance treated in these systems of representation? (An answer applying the disaggregation technique in graphic form can be found on the HH7 website: https://www.uea.ac.uk/watersecurity/events/hh7.)

As Abraham Maslow once remarked, if the only tool you have is a hammer, every problem looks like a nail, but this technique is both flexible and accessible. Once you have grasped the principle, diverse events and states of affairs can be explored, simply by allowing the primary stakeholders to decide in which aspect of the affair they wish to discover the scope of agreement and disagreement. This is, of course, often an essential step towards the transformation of conflict into a less wasteful way of life.

Of River Linkage and Issue Linkage – Conflict and Cooperation on the River Meuse

Jeroen Warner, Wageningen University

The more cooperation can be built in projects and communities, the more integration and the greater linkages. Linkages between states and actors has the potential to eventually lead to ahegemony: Theoretically, Hobbesian realism progresses to Lockeian institutionalism and then Kantian integration. But as the Rivers Meuse and Scheldt in Europe indicate, regional integration at the political and economic levels does not immediately or necessarily lead to integration around water.

The Netherlands is a hegemon over Belgium on the Meuse and Scheldt. The rivers are contested by the two countries through three faces of power relations: Pluralism, whereby water is captured by both sides through channelisation; Agenda setting, where the Netherlands set the rules on the River Scheldt only to break them but the River Meuse saw mutual negotiation; and Hegemony, where underneath a placid surface, deep suspicions and frustrations lie, with Belgium having a sense of somehow being ‘less’.

Using Social Accountability: Monitoring & Community Activation of WRM Law across Tanzania

Jane Joseph, Uhakika wa Maji Project Manager, Water Witness International

The Fair Water Futures Project believes that effective and equitable water resource management (WRM) is vital for economic and pro-poor growth. But the limited performance of WRM institutions creates and sustains power imbalances. While the discourses put forth by WRM and legal systems may be seemingly helpful, their presence, enforcement, and implementation on the
ground is questionable. Limited awareness of policies affects citizens’ ability to hold their governments accountable. Jane Joseph works to do action-based research with affected communities to activate WRM law. By presenting alternatives and building capacity, WWI is working to level the playing field through citizens’ agency.

The British Nile Empire as the Hegemon - and Its Implications
Terje Tvedt, University of Bergen

Britain became the ruler of the entire Nile Basin in the 19th century. In order to maintain stability in the Suez Canal, the water issues needed to be resolved. Given the focus of British interests at the time, attention was geared toward Egypt. And the Egyptian question was one of irrigation. This greatly shaped British policy and the ways it exerted hegemonic control in the Basin.

Though Britain was the greatest hegemon in the region, it was also the greater creator of counter-hegemonic strategies. The 1926 Agreement between Egypt and Sudan was a key turning point. The British, by criticising Egypt’s monopolistic attitude, legitimised bringing Sudan into the debate. And though Uganda and Ethiopia have always contested this hegemonic arrangement, the two have not had a voice until now. The Sudanese Government has assessed the Renaissance Dam as being in its own interest, and one that is not necessarily a counter-hegemonic strategy but perhaps simply the result of historical and natural processes. It is possible that framing the Dam as counter-hegemony may exacerbate the potential for conflict along the Nile.

The Ethiopian Hydraulic Mission: Consolidating National Hegemony for an Outward Expansion of Power in the Eastern Nile River Basin?
Mattia Grandi, Scuola Superiore Sant’Anna

Abstract: The Lower Omo Valley in Ethiopia has been the main playground of a rapid and intense strategy of “hydraulic mission” developed by Addis Ababa in recent years. Building massive water infrastructures for hydroelectric power production and irrigation of agribusiness industries has inevitably impacted on the social dynamics of indigenous people on the course of the Omo River and on
the environmental equilibrium of south and south-western regions of Ethiopia.

Considering that the Omo is a transboundary river flowing into Lake Turkana in Kenya, the configuration of water control within Ethiopia leads to critical backlashes beyond its borders, which affect both the political relationships and the social order in the Region. It is assumed that the Government of Ethiopia is consolidating a hegemonic power at domestic level, in order to expand and project its influence outward and pursue its own economic and political interests at regional and international level.

Building on neo-Gramscian intuitions over the hegemonic features of political structures, trans-nationalization of state-building processes and hybridization of local and international economic cultures, this presentation aims at shading light upon the current dynamics of hydropolitical relationships in the Eastern Nile River Basin. Focusing both on domestic and regional level, the analysis of power relations in the basin will involve social as well as economic insights in order to fulfil the urgency for a broader and deeper understanding of multi-layered dialectical hydropolitics in the Region.

Workshop Notes: Upstream riparians are currently fighting for a greater allocation of the Nile. In order to counter this, Egypt is applying a national security discourse. But there is strong evidence of Ethiopia’s increased bargaining power in recent years: The country is beginning to set more of the agenda as energy deals play a major role. It is also slowly gaining material power, which raises two hypotheses and questions: Is economic development a precondition for a power shift, or is a power shift necessary for economic development? The shifting power in the Nile also illustrates that hegemony is neither positive nor negative: Rather, it can take various forms. And once hegemony is consolidated domestically, it can move outwards. Lingering questions remain in the Nile about whether counter-hegemonic movements can do anything other than reproduce hegemonic arrangements.

Discussion

This second panel on counter-hegemonic strategy raised discussion points about how big users can take advantage of the ignorance of local people, the need for more hydrological data and education made available to communities, and the necessity of considering historical processes and wider contexts.
Appendix A
Workshop Programme
DAY 1: SATURDAY 10 MAY 2014

9am Registration and Coffee

10am Introduction
   Where are we now? Summary of Previous International Workshops on Hydro-Hegemony
      Naho Mirumachi, King’s College London
   Counter Hydro-Hegemony and Transboundary Water Interaction
      Mark Zeitoun, University of East Anglia
   Countering Academic Hegemony
      Rebecca Farnum, University of Edinburgh
   Contemplating A-Hegemony
      Jeroen Warner, Wageningen University

11am Contesting Hegemony in Practice: Strategies for Contest I
      Mark Zeitoun, University of East Anglia, Chair
      This panel will investigate whether the effectiveness of different forms of counter-hegemony are dependent on the forms of hydro-hegemony they challenge. The hypothesis is that forms of resistance must understand the forms of oppression and hegemony they seek to counter if they are to be effective.
   Gramsci’s Wars of Movement and Position
      Alex Loftus, King’s College London
   Countering Hegemony in Transboundary Waters in Palestine and Israel
      Fuad Bateh, Former Negotiator with the PLO Negotiations Affairs Department
   Dams in Nepal and Bhutan: Resisting and Bandwagoning India’s Hydro-Hegemony
      Paula Hanasz, Australian National University
   Countering Downstream Hydro-Hegemony through Formal Negotiations and Infrastructure: The Nile
      Ana Cascão, Stockholm International Water Institute

12:30pm Lunch

2pm Contesting a Hegemonic Model: Rethinking the Hydro Cycle
      Naho Mirumachi, King’s College London, Chair
      This panel will explore the extent to which water resources management and transboundary water conflict and cooperation are constricted by deeply-entrenched ideas about the hydrological cycle and water itself. It will begin with a scene setter by the chair on anthropocentric analyses of the hydro cycle and transboundary water politics.
   The Hydrosocial Cycle: Affecting Change by Relating Water and Society Internally
      Jessica Budds, University of East Anglia
   The Hydro-Spiral as a Participatory Tool for Counter Hydro-Hegemony
      Charlie Thompson, United States Geologic Survey and Ruth MacDougall, University of East Anglia
   “Normal Water”: The Making of a Narrative
      Jeremy Schmidt, Harvard University
   From hydro-cycle to hydro-babel-tower: Re-thinking the Commons of Water “Losses” at the System, Basin, and Transboundary Levels
      Bruce Lankford, University of East Anglia
**DAY 1: SATURDAY 10 MAY 2014 (CONTINUED)**

4pm  **Contesting Structured and Persistent Hegemony**
Nate Matthews, King’s College London, Chair

_This panel will consider the most effective approaches to addressing particularly persistent forms of hegemony. The hypothesis is that persistence derives from structural elements in the political economy (i.e., occupation, inequitably liberalised trade, and other forms of interaction within a neoliberal global capitalist economy)._  

**Rethinking TWINS for Counter-Hegemony**  
Naho Mirumachi, King’s College London

**An Integrity Framework for Corporate Water Stewardship: Counter-Hegemony on the March, or Counter-Productive Concession?**  
Nick Hepworth, Water Witness International

**Countering Corporate Hydro-Hegemony by Identifying Catalysts for Change**  
Suvi Sojamo, Aalto University

**Challenging Hegemonic Structures through International Law**  
Owen McIntyre, University College Cork

**Hegemony, Conflict Transformation and the Hydrosocial Cycle: Identity, Recognition, Altruism and Selfishness in Hydro-Cooperation along the Jordan River**  
Joshka Wessels, Lund University

**DAY 2: SUNDAY 11 MAY 2014**

9:00am  **Recap of Day 1**

9:30am  **Contesting Hegemony in Practice: Dams**
Ana Cascão, Stockholm International Water Institute, Chair

_This panel will test whether large-scale dams are understood as expressions of hydro-hegemony, and whether they can be counter-hegemonic tools, seeking to understand how they are determined by the form of transboundary water arrangements they challenge._  

**Invisible Dams - No Impact, No Problem!**  
Nate Matthews, King’s College London

**Can Feathers be Mightier than Bulldozers? Indigenous Movement Fight Belo Monte Brazilian Megaproject in the Amazon Rivers**  
Barbara Arisi, Universidad Federal de la Integración Latino-Americana

**Grand Hydraulic Projects in the Nile Basin: A Counter-Hegemonic Strategy or a New Hegemonic Order in Sight?**  
Rawia Amer, Cairo University

**Hydropower in Sikkim: Coercion and an Emergent Environmental Justice**  
Deepa Joshi, Wageningen University

**Creating Space for Counter-Hegemony on the Nile: The Merowe Dam**  
Mohammad Jalal Hashim, Khartoum University

**The Merowe Dam: A Case of Resistance and Activism against Forced Displacement**  
Ali Askouri, Leadership Office of the Hamadab Affected People

**Dams in Nepal and Bhutan: Resisting and Bandwagoning India’s Hydro-Hegemony**  
Paula Hanasz, Australian National University
DAY 2: SUNDAY 11 MAY 2014 (CONTINUED)

12:30pm Lunch

1:30pm Exploring Virtual Water Hegemony
Jeroen Warner, Wageningen University, Chair

This panel will examine the extent to which hegemony is active in global food trade. Critical analysis will identify who has and employs various forms of power to maintain, replicate, or contest the established political economic order.

Decoupling: A Silent, Pragmatic Means of Countering or Circumventing Hydro-Hegemony
Michael Gilmont, King’s College London

Virtual Water but Actual Hegemony: Expanding the Analytical Framework of Hydro-Hegemony to Inform Food Trade
Rebecca Farnum, University of Edinburgh

Invisible “Virtual Water Rivers”: Blinding Transboundary Interaction and Consumers to the Need for Counter-Hegemony
Francesca Greco, UNESCO

2:30pm Coffee Break

3pm Contesting Hegemony in Practice: Strategies for Contest II
Mark Zeitoun, University of East Anglia, Chair

This panel will investigate whether the effectiveness of different forms of counter-hegemony are dependent on the forms of hydro-hegemony they challenge. The hypothesis is that forms of resistance must understand the forms of oppression and hegemony they seek to counter, if they are to be effective.

Models of conflict and co-operation: shaping the discourse
Tony Brauer

Of River Linkage and Issue Linkage – Conflict and Cooperation on the River Meuse
Jeroen Warner, Wageningen University

Counter-Hegemonic Action Using Social Accountability: Monitoring & Community Activation of WRM Law across Tanzania
Jane Joseph, Uhakika wa Maji Project Manager, Water Witness International

The British Nile Empire as the Hegemon - and Its Implications
Terje Tvedt, University of Bergen

The Ethiopian Hydraulic Mission: Consolidating National Hegemony for an Outward Expansion of Power in the Eastern Nile River Basin?
Mattia Grandi, Scuola Superiore Sant’Anna

4:30pm-6pm Capstone Discussion
Nate Matthews, King’s College London, Chair

This last session will invite participants to share insights, lessons learned, questions yet to be asked, and next steps in counter-hegemonic action and research.
Appendix B
Workshop Participants
Elise Allély  
*University of East Anglia*

Xavier Garcia Acosta  
*SANITAS - Marie Curie Initial Training Network*

Rawia Amer  
*Cairo University*

Marta Antonelli  
*King’s College London*

Barbara Arisi  
*Universidad Federal de la Integración Latino-Americana*

Ali Askouri  
*Leadership Office of the Hamadab Affected People*

Ed Atkins  
*University of Bristol*

Fuad Bateh  
*Former Negotiator with the PLO Negotiations Affairs Department*

David Blake  
*Independent Researcher*

Steve Boyall  
*University of East Anglia*

Tony Brauer  
*Brendan Bromwich UNEP; Environmental Cooperation for Peacebuilding*

Jessica Budds  
*University of East Anglia*

Regina Buono  
*King’s College London*

Heather Carson  
*University of Edinburgh*

Ana Cascão  
*SIWI*

Gabriele Cassetti  
*Politecnico di Milano*

Xin Chen  
*Imperial College London*

Tony Colman  
*University of East Anglia*

Ahmet Conker  
*University of East Anglia*

Friederike Cossey  
*Central European University*

Hannah Crichton-Smith  
*International Service Burkina Faso/ Tigoung Nonma*

Jesse DeMaria-Kinney  
*Freelance Consultant - Environmental Sustainability*

Satish Dixit  
*ICFAI University Raipur India*

Jeauberte Djamou  
*BPW YAOUNDE*

Lama El Hatow  
*Amy Fallon  
University of East Anglia*

Rebecca Farnum  
*University of Edinburgh*

Tyler Farrow  
*University of East Anglia*

Danielle Feldstein  
*Maplecroft*

Wuhibegezer Ferede  
*Mekelle University*

Berhane Fisseha  
*Minister Counsellor, Ethiopian Embassy London*

Birte Fuehrling  
*Water Witness International*

Osamu Fukui  
*University of East Anglia*

Michael Gilmont  
*King’s College London*

Makoto Goda  
*University of East Anglia*

Lucy Goldsmith  
*University of East Anglia*

Diana Gonzalez Botero  
*University of East Anglia*

Mattia Grandi  
*Sant’Anna School of Advanced Studies*

Francesca Greco  
*King’s College London*

Frezer Haile  
*King’s College London*

Maeva Hall  
*Unilever*

Paula Hanasz  
*Australian National University*

Ramy Lotfy Hanna  
*Institute of Development Studies*

Mohammad Jalal Hashim  
*Khartoum University*

Stephanie Hawkins  
*University of East Anglia*

Rich Hendrickson  
*University of Edinburgh*

Nick Hepworth  
*Water Witness International*

Nick Hildyard  
*Corner House*

Nina Hissen  
*University of East Anglia*

Forough Jafary  
*University of Birmingham*

Jane Joseph  
*Water Witness International*

Deepa Joshi  
*Wageningen University*

Yalew Kebede  
*Diaspora Affairs Expert, Ethiopian Embassy London*
Kyungmee Kim
SIWI

Bruce Lankford
University of East Anglia

B Latif

Thomas Lodge

Alex Loftus
King’s College London

Ruth Macdougall
University of East Anglia

Braeden MacGuire
Sciences Po

Kaveh Madani
Imperial College London

Laureline Magnin
University of Geneva

Nate Matthews
King’s College London

Owen McIntyre
University College Cork

Musa McKee
School of Oriental & African Studies

Sali Mechref
Imperial College

Naho Mirumachi
King’s College London

Jack Morris
University of East Anglia

Beatrice Mosello
Water Policy Programme, ODI

Janan Mousa
LSE

Faye Moutzouri
Business in the Community - BITC

Magdalena A K Muir
Board Member Climate, Coastal and Marine Union (EUCC)

Suvi Sojamo
Aalto University

Karen Nash
Independent Strategy Consultant

Diana Nenz
Adelphi

Masaharu Nogami
University of East Anglia

Elif Okumus Oksuz
Environmental Engineer

Maureen Papas
Macquarie University

Anna Pérez Català
University of East Anglia

Arantza Pi Gonzalez
Wageningen University

Josh Roberts
ClientEarth

Ben Roberts-Pierel
University of East Anglia

Therese Rudebeck
Cambridge University

Juan Carlos Sanchez
University of Dundee

Aydan Sarikaya
University College London

Jeremy Schmidt
Harvard University

Jan Selby
University of Sussex

Gulnara Shalpykova
University of Nottingham

Davinder Singh Ahuwalia
YWC Shahkot

Charlie Sladden
MoD

Ebel Smidt
Delft University

David Stonestreet
I.B.Tauris Publishers

Mia Tamarin
SOAS

Kimberley Thomas
Rutgers University

Vincent Thomas
Afghanistan Research and Evaluation Unit

Charlie Thompson
U.S. Geological Survey

Terje Tvedt
University of Bergen

Dr. Alluri Varma
Andhra University

Sarah Wade
Water Witness International

Zhijian Wang
Institution of International Rivers, Hohai University, China

Jeroen Warner
Wageningen University

Julie Watson
Oregon State University

Joshka Wessels
Lund University

Kevin Wheeler
University of Oxford

Louise Whiting
WaterAid

Mark Workman
Imperial College, London

Adel Yasin
Palestine

Yumiko Yasuda
Centre for Water Law, Policy and Science, University of Dundee

Mark Zeitoun
University of East Anglia