

Naho Mirumachi

Transboundary Water Politics in the Developing World

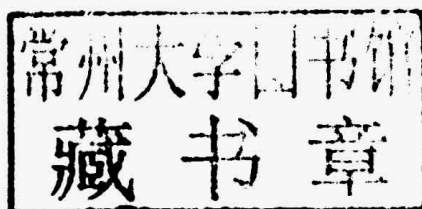


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Transboundary Water Politics in the Developing World

Naho Mirumachi



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Transboundary Water Politics in the Developing World

This book examines the political economy that governs the management of international transboundary river basins in the developing world. These shared rivers are the setting for irrigation, hydropower and flood management projects as well as water transfer schemes. Often, these projects attempt to engineer the river basin with deep political, socio-economic and environmental implications. The politics of transboundary river basin management sheds light on the challenges concerning sustainable development and utilization between sovereign states.

Advancing conceptual thinking beyond simplistic analyses of river basins in conflict or cooperation, the author proposes a new analytical framework. The transboundary Waters Interaction NexuS (TWINS) examines the coexistence of conflict and cooperation in riparian interaction. This framework highlights the importance of power relations between basin states that determine negotiation processes and institutions of water resources management. The analysis illustrates the way river basin management is framed by powerful elite decision-makers, combined with geopolitical factors and geographical imaginations. In addition, the book explains how national development strategies and water resources demands have a significant role in shaping the intensities of conflict and cooperation at the international level

The book draws on detailed case studies from the Ganges River basin in South Asia, the Orange-Senqu River basin in Southern Africa and Mekong River basin in Southeast Asia, providing key insights on equity and power asymmetry applicable to other basins in the developing world.

Naho Mirumachi is a Lecturer in Geography at King's College London, UK.

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The importance of this book extends beyond transboundary water and the developing world to bring intelligent insights to many water issues. Naho Mirumachi critically examines a number of shibboleths in water management such as: conflict and cooperation are opposites; agreement means decisions are equitable; templates like the creation of strong river basin organization structures leads to better decisions; and increasing resources for the hydrocracy serves the public interest. This is the best book about water I have read in a long time.

Helen Ingram, *The Southwest Center, University of Arizona and Professor Emeritus, University of California at Irvine, USA*

Transboundary Water Politics in the Developing World brings insight and nuance to a field of inquiry dominated by speculation and generalisation. We often hear that wars of the future will be fought over water by states locked in competition for a shared but increasingly scarce commodity. But we are also told that it is far more common for states to cooperate than it is for them to conflict over transboundary waters. Applying a rich theoretical framework dubbed 'TWINS' – the transboundary waters interaction nexus – to three case studies, Naho Mirumachi sheds new light not only in terms of her cases – the Mekong, Ganges-Brahmaputra, and Orange-Senqu river basins – but in terms of what we know and what we can expect from transboundary water politics. This is a must-read for all those interested in the complex ways a multiplicity of actors, forces and factors come together in the simultaneously conflictful and cooperative world of water resources development and management

Larry A. Swatuk, *University of Waterloo, Canada*

Figures

1.1	Map of international transboundary river basins in the world	2
2.1	Strategies and tactics of control over transboundary water resources according to the Framework of Hydro-Hegemony	23
3.1	Coexisting conflict and cooperation	41
3.2	The TWINS matrix	41
3.3	Summary of conflict and cooperation intensities	50
4.1	Map of the Ganges River basin	57
4.2	Map of the Ganges tributaries	58
4.3	TWINS matrix of Nepal-India relationship: Sequences 1-2	60
4.4	TWINS matrix of Nepal-India relationship: Sequence 3	64
4.5	TWINS matrix of Nepal-India relationship: Sequence 4	66
4.6	TWINS matrix of Nepal-India relationship: Sequences 5-6	70
5.1	Map of the Orange-Senqu River basin	83
5.2	TWINS matrix of Lesotho-South Africa relationship: Sequences 1-2	85
5.3	TWINS matrix of Lesotho-South Africa relationship: Sequences 3-5	88
5.4	TWINS matrix of Lesotho-South Africa relationship: Sequences 5'-6	94
5.5	Map of project sites for phases 1 and 2 of the LHWP	95
6.1	Map of the Mekong River basin	107
6.2	TWINS matrix of Thailand-Vietnam relationship: Sequences 1-2	110
6.3	TWINS matrix of Thailand-Vietnam relationship: Sequences 3-4	113
6.4	TWINS matrix of Thailand-Vietnam relationship: Sequences 5-7	116
7.1	Shallow transboundary water interaction within the TWINS matrix	141
7.2	Problem frames based on information and normative uncertainty	144

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This book is published in 2015, which happens to be the closing year of the ‘UN Decade of Water for Life’. During these past ten years, I have noticed that there has been more awareness around water issues, if not for the increasing number of people attending major ‘water’ conferences and international fora. Yet at the same time it seems that there are recurring unanswered themes and questions, especially with regard to the governance and politics of water resources. This book is an attempt to dig deeper into some of these themes and questions.

My interest in transboundary water issues has allowed me to meet many enlightened and critical minds. My thinking has benefited from the intellectual rigour and friendships found within the London Water Research Group (LWRG). I owe much to Tony Allan as a mentor, colleague and friend. His drive for major original ideas continues to inspire me. When he kindly read a draft of the manuscript, he mentioned that I should ‘write for the world’. While imperfect, this book is a first stab at pointing out what *really* matters in the politics of water allocation and management. I have enjoyed working with Mark Zeitoun, Jeroen Warner and Ana Cascão over the years. They continue to probe and challenge transboundary water issues, all the while mixing in some good fun whenever/wherever we meet. While my ideas have since evolved, Elizabeth Kistin Keller, Suvi Sojamo, Clemens Messerschmid and Francesca Greco seriously engaged with the idea of TWINS when I first presented to the LWRG.

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Through these discussions, conversations and field experiences, I have been able to sharpen my arguments and refine ideas, some of which have been presented in earlier work. Sections of this book draw on material from the following publications for revised and reworked content: Mirumachi, N. (2013) 'Securitising shared waters: An analysis of the hydropolitical context of the Tanakpur Barrage project between Nepal and India', *Geographical Journal*, vol. 179, no. 4, pp. 309–319, published by John Wiley & Sons, © 2013 The Author, the *Geographical Journal* © 2013 Royal Geographical Society (with the Institute of British Geographers); Mirumachi, N. (2008) 'Domestic issues in developing international waters in Lesotho: Ensuring water security amidst political instability', in N.I. Pachova, M. Nakayama and L. Jansky, eds, *International Water Security: Domestic Threats and Opportunities*, pp. 35–60, © 2008 by the United Nations University, published by the United Nations University, reproduced with the permission of the United Nations University; Mirumachi, N. (2007) 'The politics of water transfer between South Africa and Lesotho: Bilateral cooperation in the Lesotho Highlands Water Project', *Water International*, vol. 32, no. 4, pp. 558–570, published by Taylor & Francis, reprinted by permission of the publisher (Taylor & Francis Ltd, www.tandfonline.com); and, with kind permission from Springer Science+Business Media: Mirumachi, N. (2012) 'How domestic water policies influence international transboundary water development: A case study of Thailand', in J. Öjendal, S. Hansson and S. Hellberg, eds, *Politics and Development in a Transboundary Watershed – the Case of the Lower Mekong Basin*, pp. 83–100, © Springer Science+Business Media B.V. 2012. I received useful feedback on an earlier version of Chapter 6, presented at the PEAS Research Group meeting at the Department of Geography, during my stay at the National University of Singapore in summer 2013 with the King's–NUS Partnership Award. I also thank Helen Ingram and Larry Swatuk for providing constructive comments on the manuscript.

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List of abbreviations

ADB	Asian Development Bank
ANC	African National Congress
ASEAN	Association of Southeast Asian Nations
CFA	Cooperative Framework Agreement
cusec	cubic feet per second
DEDP	Thailand Department of Energy Development and Promotion
DFID	Department for International Development, Government of UK
DPR	Detailed Project Report
DWA	Department of Water Affairs, Government of South Africa
DWAF	Department of Water Affairs and Forestry, Government of South Africa
ECAFE	United Nations Economic Commission for Asia and the Far East
EGAT	Electricity Generating Authority of Thailand
EGCO	Electricity Generating Company Limited
EIA	environmental impact assessment
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
FHH	Framework of Hydro-Hegemony
GAP	<i>Güneydoğu Anadolu Projesi</i> ; Southeastern Anatolia Project
GBM	Ganges-Brahmaputra-Meghna
GDP	gross domestic product
GEF	global environment facility
GW	gigawatt
ha	hectare
IFI	International Financial Institution
IMC	Interim Mekong Committee
IPP	Independent Power Producer
IR	international relations
IWRM	Integrated Water Resources Management
JCWR	Nepal-India Joint Committee on Water Resources
JPE	Joint Group of Experts
JPTC	Joint Permanent Technical Committee

KCM	Kong-Chi-Mun
km ²	square kilometres
km ³	cubic kilometres
KW	kilowatt
LHDA	Lesotho Highlands Development Authority
LHWC	Lesotho Highlands Water Commission
LHWP	Lesotho Highlands Water Project
m ³	cubic metres
m ³ /sec	cubic metres per second
MC	Mekong Committee
MENA	Middle East and North Africa
MOU	Memorandum of Understanding
MRC	Mekong River Commission
MW	megawatt
MWG	Mekong Working Group
n.d.	no date
n.p.	no page
NGO	non-governmental organization
NMC	National Mekong Committee
ORASECOM	Orange-Senqu River Commission
OVS	Orange Vaal Transfer Scheme
pers. comm.	personal communication
PNPCA	Procedures for Notification, Prior Consultation and Agreement
PoE	Panel of Experts, Lesotho Highlands Water Project
R	Rand (South African currency)
RBO	River Basin Organization
SAARC	South Asian Association for Regional Cooperation
SADC	Southern African Development Community
SAGQ	South Asian Growth Triangle
SAWI	South Asian Water Initiative
SEA	Strategic Environmental Assessment
SPP	Small Power Producer
TCTA	Trans Caledon Tunnel Authority
TFDD	Transboundary Freshwater Dispute Database
TWINS	Transboundary Waters Interaction Nexus
TWP	Thukela Water Project
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWC	United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses
US\$	United States Dollar
WUP	Water Utilization Programme

Contents

<i>List of figures</i>	viii
<i>Acknowledgements</i>	ix
<i>List of abbreviations</i>	xi
1 Introduction: how water becomes political	1
2 Explaining transboundary water conflict and cooperation	18
3 The Transboundary Waters Interaction NexuS (TWINS) framework to understand coexisting conflict and cooperation	39
4 Securing and securitizing cooperation in the Ganges River basin	57
5 Engineering the Orange–Senqu River	82
6 Developing the Mekong waters	106
7 Making sense of transboundary water politics	134
<i>References</i>	153
<i>Index</i>	181

1 Introduction

How water becomes political

Wicked water

Water resources management has often been described as a ‘wicked problem’, defying easy solutions. It is wicked because there are unknown dimensions to the science of the natural resource. In addition, there are multiple stakeholders who hold an array of values inherent in water resources management, rendering decision-making difficult (Smith and Porter 2010). International transboundary river basin management presents an even more wicked problem because these rivers are shared by two or more sovereign states, causing decision-making to be all the more complex. Much of the water for human consumption comes from rivers, and there are 276 international transboundary river basins in the world (De Stefano *et al.* 2012; see also Figure 1.1). As major sources of freshwater, many of the world’s river basins are already over-exploited, giving rise to concern about water scarcity and diminished economic activity (2030 Water Resources Group 2009). Scientists have warned of the risk of conflict if threats to both the biodiversity of rivers and human livelihoods are not fully understood and addressed with appropriate means (Vörösmarty *et al.* 2010: 560).

To address this wicked problem, there are global calls for water cooperation. The United Nations International Decade for Action ‘Water for Life’ highlighted water cooperation as one of the key themes between 2005 and 2015. The various policy reports and awareness-raising campaigns of this initiative argue that cooperation brings about efficiency in water resources utilization, spur on regional cooperation and provide broader political benefits not just on water issues (see UN Water 2013a). With the increasing concern for impacts of climate change in international transboundary river basins, cooperation is presented as necessary to limit such impacts and to achieve development goals (World Bank 2010b). A state-of-the art report by the UN agencies commented: ‘The unavoidable reality that water resources do not respect political boundaries demonstrates the supranational dimensions of water, and represents a compelling case for international cooperation on water management’ (WWAP 2012: 32). According to the authors of these reports and protagonists of the global calls, international transboundary river basins would seem to be the epitome of cooperation.

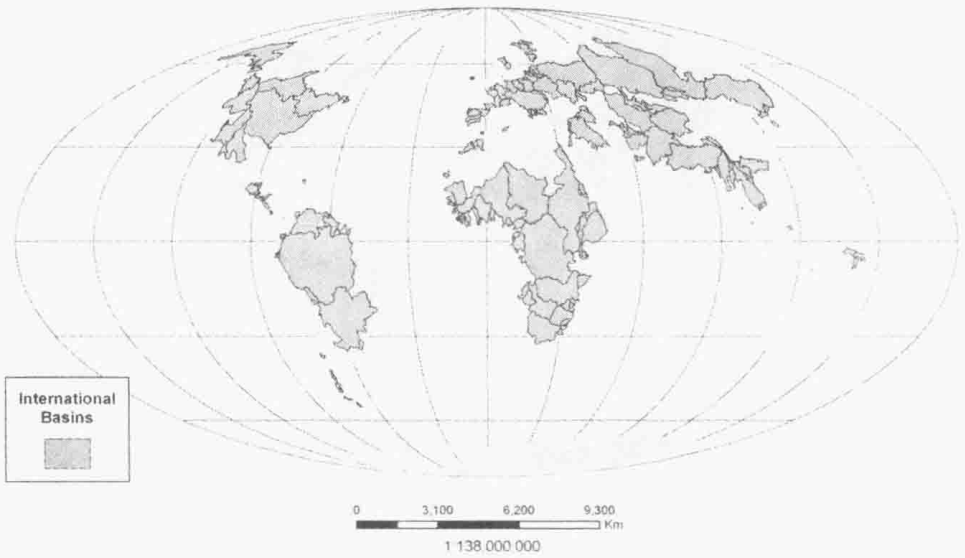


Figure 1.1 Map of international transboundary river basins in the world (Source: Product of the Transboundary Freshwater Dispute Database, Department of Geosciences, Oregon State University. Additional information about the TFDD may be found at: www.transboundarywaters.orst.edu).

However, I question this fixation on cooperation in international transboundary river basins. The imperative for cooperation seems to obscure the very wickedness and messiness of dealing with these shared waters. Regarding the Nile River, the cooperation fostered by the Nile Basin Initiative, an institution established between ten basin states, is claimed to be a *de facto* issue: ‘nobody in the basin any longer questions whether cooperation on the Nile is necessary, desirable or doable. Rather, the conversation has shifted focus onto how to promote and expedite it’ (Seid *et al.* 2013: 37). But what specifically does cooperation mean for the basin states? What does ‘Nile cooperation’ look like? The relationship between Ethiopia constructing the Grand Ethiopian Renaissance Dam and downstream Egypt poses some interesting questions over such ideals of cooperation. The dam represents an opportunity for the economic development for Ethiopia, symbolizing its ambition and prowess in the region (Wuillercq 2014). For Egypt, the dam raises concerns for its national security, with the premise that ‘[i]f Egypt is the Nile’s gift, then the Nile is a gift to Egypt’ (BBC 2013). This bilateral relationship has experienced stalled negotiations over downstream water availability and environmental impacts (Al Jazeera 2014). The issue flared up at one point in 2013, with the Egyptian prime minister invoking spilling blood over water (George 2013). Unlike the claim that cooperation is unquestioned, the political reality presents a complex situation in which the distinction between whether cooperation will happen and how it can happen is not so black and white.

While there are calls for cooperation in international transboundary river basins, it is worth examining the contrast between the number of these rivers and levels of institutionalization achieved. The 276 international transboundary river basins are shared by 148 sovereign states, and over 2.7 billion of the world's population is reliant on these waters (De Stefano *et al.* 2012: 198). Acute militarized conflict between basin states is non-existent (Yoffe *et al.* 2003). Rather, between 1820 and 2007, approximately 688 agreements, amendment documents and protocols on international transboundary rivers were signed. Despite this volume of agreements, fewer than half of the international transboundary river basins have established treaties. In basins with three or more sovereign states, there is a tendency for treaties to be signed by only a partial group of states, and treaties that govern the entire basin area in the minority (Giordano *et al.* 2014). Rather than asking how cooperation may be improved, it is first necessary to understand what is happening in a situation where there is no overt conflict but agreements are being signed, though the reach of cooperation is limited by the number of formal treaties. What kind of transboundary water management is being achieved in this situation? What is the relationship between conflict and cooperation?

A critical examination of conflict and cooperation is required if we are to improve our knowledge of international transboundary river basin management. I argue that conflict and cooperation coexist in these basins, and that a narrow focus only on cooperation misses out on a full understanding of the politics of transboundary waters. The focus of this book is the politics that surround the use, management and governance of international transboundary river basins. The main aim is to understand how, and why, conflict and cooperation occur during the process of addressing shared water resources. This process poses serious allocative challenges, not only for the natural resource itself, but also for the values associated with its use and the social order established to manage it. Coexisting conflict and cooperation is a reflection of this socio-political process.

Understanding conflict and cooperation over international transboundary rivers

Examining water conflict or water cooperation only would provide a partial picture of how water becomes political. The aforementioned case between Ethiopia and Egypt cannot be simply and sensationally described as one of 'water war' as the media has done (see Schwartzstein 2013). Instead, the project represents how diplomatic conflict through provocative words coexists with deliberations over project details, in an attempt to maintain and challenge water utilization and allocation in the Nile. In the lower Mekong River basin, Laos, Thailand, Cambodia and Vietnam have been celebrated for achieving a water agreement based on sustainable development principles and for establishing the Mekong River Commission (MRC). However, the implementation of the agreement has been controversial, exemplifying

degrees of conflict coexisting with the cooperative outlook of the MRC mission. Consensus for basin development plans was lacking among the four states, compounded by an institutional limitation of the MRC and confusion among the development agencies funding it (MRC 2013: 35–36). A critical analyst would point to this mix of conflict and cooperation to explain how riparian relationships are not a given and are subject to a range of factors that shape visions of basin development and ‘water cooperation’.

As Wolf (2007) noted, while acute militarized conflict has not occurred between basin states, water scarcity and degradation of water quality can cause political tension between states and instability within states. Even in a comparatively developed region like the Danube River basin, environmental degradation and water quality issues have led to inter-state disputes in the past (Jansky *et al.* 2004). Flooding or water abundance can also be a cause for conflict, especially as many of the existing transboundary water institutions are not sufficiently equipped to deal with flood management (Bakker 2009). Water scarcity is often suggested as a determinant, if not one major factor that makes water allocation and utilization challenging, thus risking conflict. It is argued that competition for limited water availability intensifies political relations between states that may already be fragile (Haftendorn 2000). The Middle East is a frequent example of a region with the high potential for conflict as a result of water scarcity (e.g. Kliot 1993; Lowi 1993; Wolf 1995; Haddadin 2001; Sosland 2007).

Importantly, Mehta (2010c) contended that ‘scarcity’ may be discursively framed to justify certain solutions, such as technological innovation and fixes. For example, building dams as a viable solution utilizing advances in engineering may serve this discourse of water scarcity. By doing so, scarcity is naturalized, to be taken for granted and as something universal, leading to ‘self-fulfilling prophecies around “crisis”’ (Mehta 2010a: 252). These expressions of scarcity expose state power manifested with policies and institutions to manage ‘crisis’, supporting what Michel Foucault called governmentality (Mehta 2010b).¹ The effect of governmentality is that, through discourses of water scarcity, control of society is achieved by the state in a way that is not imposed in an overtly top-down fashion, but through a more pervasive manner (Foucault 1991). However, building more and ‘better’ dams to deal with water scarcity may in fact only exacerbate the rate of water abstraction beyond ecological limits, leading to loss of livelihoods and other socio-economic problems. In fact, scarcity is now a hegemonic concept so uncontested that it is seen by many stakeholders as ‘almost universally applicable to the water-related challenges of the 21st century’ (Sneddon 2013: 17). The observation by Trottier (2003) usefully points out that there are decision-makers who gain from the ‘water war’ discourse drawing on such notions of scarcity because it consolidates their political power and benefits their agendas. She also emphasized that cooperation expressed as ‘water peace’ can be manipulated to advance one’s interests, allowing it to become a hegemonic concept.

It thus becomes evident that by itself, water is not about politics. As Warner and Wegerich (2010) usefully reminded us, water is not political by default and not always about conflict. Rather, water acts as the medium through which politics occur. They point out that moments of water scarcity, abundance and degraded water quality often give rise to situations of conflict, leading to politics over water. Naturalized, universalized and hegemonized perspectives of scarcity, abundance and other problems relating to water resources are projected and contested by those with a vested interest in international transboundary river basin management. I argue that this politics over water reflects discourses of water as a threat, opportunity, or even a non-issue that allows for both conflict and cooperation to coexist within the relationships between states. Analysis will reveal how ‘cooperation’ may in fact pose a discursive space where no alternative water management practices or policies are entertained – a position in which decision-makers from Nepal found themselves vis-à-vis India over river basin development plans, explored in Chapter 4 (this volume). It is not necessarily the physical state of the river basin that brings about conflict and cooperation but rather the socio-political process that attempts to determine the solutions and means to address water scarcity, abundance, degradation and environmental stewardship.

A new analytical approach to transboundary water politics

To support the claim that conflict and cooperation coexist in transboundary water politics, I develop an original analytical framework that draws upon several academic disciplines. Scholarly work on the relationship between water and conflict/cooperation has, in large part, been influenced by environmental security studies in the wake of the new post-Cold War world order. The discussion of the management of this natural resource is difficult to tease out from issues of security. For example, a report for the US Department of State expressed the reasons for its concerns about water and security:

We assess that during the next 10 years, water problems will contribute to instability in states important to US national security interests. Water shortages, poor water quality, and floods by themselves are unlikely to result in state failure. However, water problems – when combined with poverty, social tensions, environmental degradation, ineffectual leadership, and weak political institutions – contribute to social disruptions that can result in state failure.

(Intelligence Community 2012: 3)

The academic disciplines of international relations (IR) and political science have an important legacy in the development of studies on conflict and cooperation over international transboundary river basins. Quantitative work has examined the correlation between conflict and water, and the role of