Evolving property rights in water and their impact on water allocation and reallocation

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The growing globalization and the dominance of neo-liberal capitalism have permeated in public policies in both industrialized and developing countries. This has led to the current dominant water governance language and logic being deeply infused with neoliberalism.

This thesis aims to understand whether the changing nature and content of property rights in water as part of the ongoing water governance reforms support or undermine the efforts of states to allocate and reallocate water. It examines the organisation of water ‘property’ rights in laws, and more specifically, it studies the role of policy instruments, including water use permits and investor-state contracts between foreign investors and host states and its potential effects on water allocation and reallocation. It does so by focusing on Africa and Asia more broadly, with two case studies in South Africa and India.

The challenge for developing countries is that they are struggling with the legacy of property rights regimes created in the colonial era. As they attempt to dismantle that, they are creating a new quasi-property right regime.

Hilmer Bosch studied Environmental Entrepreneurship at the University of Strathclyde, Glasgow and Water Management and Governance at UNESCO-IHE Delft, Delft before pursuing a PhD at the Amsterdam Institute for Social Science Research (AISSR), University of Amsterdam.
Evolving Property Rights in Water and Their Impact on Water Allocation and Reallocation

Hilmer J. Bosch
Evolving Property Rights in Water and Their Impact on Water Allocation and Reallocation

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Evolving Property Rights in Water and Their Impact on Water Allocation and Reallocation

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ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. ir. P.P.C.C. Verbeek
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in het openbaar te verdedigen in de Agnietenkapel
op vrijdag 30 juni 2023, te 10.00 uur

door Hilmer Jan Bosch
geboren te Dongeradeel
Promotiecommissie

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prof. dr. M. Hurlbert University of Regina
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dr. M.A. Hordijk Universiteit van Amsterdam
prof. dr. I.S.A. Baud Universiteit van Amsterdam

Faculteit der Maatschappij- en Gedragswetenschappen
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## List of Abbreviations

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<th>Full Form</th>
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<tbody>
<tr>
<td>BITs</td>
<td>Bilateral Investment Treaties</td>
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<tr>
<td>BRICS</td>
<td>Brazil, Russia, India, China, and South Africa</td>
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<tr>
<td>CAR</td>
<td>Central African Republic</td>
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<tr>
<td>DRC</td>
<td>Democratic Republic of the Congo</td>
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<tr>
<td>DWS</td>
<td>Department of Water and Sanitation</td>
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<tr>
<td>ELU</td>
<td>Existing Lawful Use</td>
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<tr>
<td>GA</td>
<td>General Authorisation</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HAI</td>
<td>Historically Advantaged Individuals</td>
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<tr>
<td>HDI</td>
<td>Historically Disadvantaged Individuals</td>
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<tr>
<td>IB</td>
<td>Irrigation Board</td>
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<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
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<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>MPRDA</td>
<td>Mineral and Petroleum Resources Development Act 28 of 2002</td>
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<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>WUL</td>
<td>Water Use Licence</td>
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# Publications

This thesis builds on 5 scholarly papers and 3 chapters in books on water governance.

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<td>3.</td>
<td>The tension between state ownership and private quasi-property rights in water.</td>
<td>Wiley Interdisciplinary Reviews Water (WIREs)</td>
<td>Published, October 2022</td>
<td>Bosch, H.J., &amp; Gupta, J.*</td>
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<td>4 &amp; 5.</td>
<td>A water property right inventory of 60 countries.</td>
<td>Review of European, Comparative &amp; International Environmental Law (RECIEL)</td>
<td>Published, May 2021</td>
<td>Bosch, H.J., Gupta, J, &amp; Verrest, H.J.L.M.**</td>
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<td>4 &amp; 5.</td>
<td>Water Permits: Do they enhance or hinder water governance?</td>
<td>IUCN AEL Journal of Environmental Law</td>
<td>Published, April 2021</td>
<td>Bosch, H.J., &amp; Gupta, J.*</td>
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<td>6.</td>
<td>Water property rights in investor-state contracts on extractive activities, affects water governance: An empirical assessment of 80 contracts in Africa and Asia.</td>
<td>Review of European, Comparative &amp; International Environmental Law (RECIEL)</td>
<td>Published, April 2022</td>
<td>Bosch, H.J., &amp; Gupta, J.*</td>
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<td>8.</td>
<td>Access to and ownership of water in Anglophone Africa and a case study in South Africa.</td>
<td>Water Alternatives (WA)</td>
<td>Published, June 2020</td>
<td>Bosch, H.J., &amp; Gupta, J.*</td>
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<td>Book chapters</td>
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<td>1.</td>
<td>SDG 6: Ensure Availability and Sustainable Management of Water and Sanitation for All</td>
<td>Cambridge University Press.</td>
<td>Published, September 2022</td>
<td>Gupta, J., &amp; Bosch, H.J.***</td>
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* Bosch conceptualised and developed the research, analysed the data, and wrote the first draft of the manuscript which was revised with inputs and constructive comments provided by Gupta.

** Bosch conceptualised and developed the research, analysed the data, and wrote the first draft of the manuscript which was revised with inputs and constructive comments provided by Gupta and Verrest.

*** Gupta conceptualised and developed the research. Gupta with input from Bosch wrote the manuscript.