

Unlocking the “Prisoner’s Dilemma” of Corporate Water Stewardship in South Africa—Exploring Corporate Power and Legitimacy of Engagement in Water Management and Governance. *Sustainability* 2015, 7, 6893-6918

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1. Methodology

1.1. Research Design

Due to the evolving nature of the research topic and the emerging nature of the research field, an explorative and later an explanatory case study design [1] was applied to the investigation of water-using corporate power and legitimacy of their engagement in water management and governance and corporate water stewardship in South Africa. The practical and theoretical concepts and the propositions describing their relationships, *i.e.*, the analytical framework, leading to the research questions, were first derived from the existing academic and grey literature. They were constantly reflected on and adjusted as the study proceeded. The adaptive theory process combined elements of both deductive and inductive reasoning [2]. Corporate power and the different constituents of source-, process- and outcome-based legitimacy were eventually identified as the independent variables, whereas legitimacy of water-using corporate engagement in water governance and corporate water stewardship was identified as the dependent variable.

South Africa was deemed a representative and a critical national case [1] due to its pressing water challenges and the high number of stewardship initiatives active in the country, and hence its importance to setting global best practices and development. Furthermore, the author was not aware of any previous analyses on corporate water stewardship and corporate engagement in water management and governance conducted at a national scale, a central policy and political economy unit, the study thus contributing to filling an important research gap.

The largest water-using corporations in focus were first selected because of their leadership position in the most water intensive sectors (by their operations or supply chain) in South Africa (agriculture, forestry, beverages, retail, energy, chemicals, mining). The scope was then further narrowed to cover the corporations engaging in five corporate water stewardship initiatives, the initiatives forming five embedded units of analysis, which enabled theoretical replication of the findings [1]. At the time of

the study, two of the initiatives represented features of supply chain engagement (collaboration to reduce water risks in supply chains), four local project implementation (joint action and investment on shared water resources or infrastructure challenges), two novel financing mechanisms (payment for ecosystem or watershed services; water funds), and two convening on policy (national or basin scale multi-stakeholder engagement) (after [3,4]), all of them “mature”, “beyond the fence-line” stewardship actions [5]. Besides the embedded units, data was also gathered on the general national context of water management and governance, corporate power and corporate water stewardship.

1.2. Data Collection and Analysis Methods

Data collection and analysis occurred in parallel. Besides independent research, active professional engagement by the author herself as a consultant in the emerging research field was deemed necessary and useful for data access and hence scientific credibility, and, on the other hand, for practical relevance of the work. The bias this potentially introduced was mitigated by triangulating data from multiple sources of evidence. Data collection methods consisted of document review, semi-structured and unstructured key-informant interviews (48 informants), participating observation of ongoing events, and field visits related to the stewardship initiatives between May 2013 and May 2014. The informants represented different stakeholder groupings, as described in Table S1, giving a cross-validated view. They were interviewed on aspects of corporate power and normative legitimacy of water-using corporate engagement in water management and governance and corporate water stewardship. Informant sampling started with identifying informants linked to or with known views on the initiatives in focus or corporate engagement on water in South Africa in general, proceeding to snowball sampling and later theoretical sampling to reach saturation under the respective embedded case study and the emerging general categories on findings [6].

The data analysis focused on content, starting with identifying the operational measures (e.g., different forms of power and components of legitimacy) for codes matching the dependent and independent variables. The data was coded and categorized with Atlas.ti®, linking the findings to the research questions and the theoretical propositions of the analytical framework via pattern matching, explanation building and cross-(embedded)-case synthesis, resulting in analytical generalization of the findings (after [1,6]). Due to the predominantly exploratory design of the research and the evolving nature of the research field, theoretical saturation of the research categories (concepts fully explored and no new insights emerging) remains to be reached in further validating studies (see [2,6]).

Table S1. List of embedded cases and informants.

	Supply Chain Engagement: Collaboration to Reduce Water Risks in Supply Chains	Local Project Implementation: Joint Action and Investment on Shared Water Resources or Infrastructure Challenges	Novel Financing Mechanisms: Payment for Ecosystem or Watershed Services; Water Funds	Convening on Policy: National or Basin Scale Multi-Stakeholder Engagement	General Views	Total Number
Number of initiatives	2	4	2	2	NA	5
Informant stakeholder grouping						
Partner corporation/other private sector	3	8	4	10	12	12
Consultants	4	6	2	4	10	10
Partner NGOs and Stewardship Organizations	5	9	5	9	9	9
Partner governmental organizations	1	4	3	5	4	4
Partner donors	1	1	1	1	1	1
Other NGOs and CSOs	-	3	2	4	5	5
Academic/Research Institutes	1	1	2	3	7	7
Total number	15	32	19	36	48	48

Numbers of informants across each initiative type indicated above do not match with the total number of informants under each stakeholder grouping, as some informants provided insights across more than one project and/or general views. Also, some of the initiatives studied resembled features of several corporate engagement types.

References

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