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

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Publication date
2023

[Link to publication](#)

Citation for published version (APA):

Bosch, H. J. (2023). *Evolving property rights in water and their impact on water allocation and reallocation*. [Thesis, externally prepared, Universiteit van Amsterdam].

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Summary

Background

Today's predominant language and logic of water governance is deeply imbued in neoliberalism. Although the vital and strategic importance of water to society should encourage states to treat water in the public interest, water governance reforms as part of the larger capitalist transformation under globalization continues to push for more private control over, and establishing of private property rights in water to achieve greater efficiency in water use and optimal water allocation. As the anthropogenic pressure on freshwater resources increases, and water availability decreases, the question of allocation and reallocation between different uses and users becomes more pressing, competition and conflict will inevitably increase, and the urgency to share will grow.

This thesis aims to understand whether the changing nature and content of property rights in water, as a consequence 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, policies, and contracts. More specifically, it studies the role instruments including, for example, historical water use rights, water use permits, and investor-state contracts play (an agreement between a foreign investor and host state). It does so by focusing on countries in Africa and Asia, including two in-depth case studies of India and South Africa.

Gaps in knowledge and research question

The scoping review on 'water ownership' and 'property rights in water' (see Chapter 3), resulted in identifying two gaps in knowledge. The first gap in knowledge is that there is limited scholarship on a country-by-country analysis of how (quasi-)property rights are allocated in water in the Global South, and how past and present instruments create new (quasi-)property rights in water. The second gap shows there is limited understanding on how quasi-property rights in water affect water allocation and reallocation in the era of the Anthropocene.

Despite the contextual differences and variations in legal regimes worldwide, the importance of water to society should move states to put water in the public domain, with the government being the custodian of the nation's freshwater resources. This, in theory would allow states, as the only legitimate authority to promote the public interest, to control, allocate, and reallocate the limited water available for the benefit of its people and nature. But in order to do so, states will first have to understand, recognize and, if necessary, abolish existing water property rights systems. There is inadequate knowledge

on a country-by-country basis of how states are dealing with this and what has been the approach adopted. Moreover, a key question is whether the relatively new water allocation instruments such as ‘modern’ water use permits, tradable water permits, and contracts, leases, and concessions create new types of quasi-property rights which may hamper the ability of states to allocate and reallocate water.

Property rights in water are mostly discussed by legal scholars who appear to be less interested in the development outcomes, and development scholars rarely understand how property rights regimes work or how new quasi-property rights emerge in instruments such as water use permits and investor-state contracts. Furthermore, while development scholars focus on Global South water challenges, property rights scholars tend to study cases in the Global North. The literature review on property rights demonstrates this lack of understanding of both what is happening in the Global South with respect to property rights in water and the role of new quasi-property rights created through permits and contracts.

In the allocation of water, most decision-makers focus on the optimal allocation of water use rights to maximize profit and economic benefits. However, most countries in the Global South inherited a situation in which some, if not most of the water was already allocated – as water rights were often linked to land ownership. States cannot simply allocate water at their own discretion, without considering the existing system and allocation of property rights and quasi-property rights in water. (Quasi-)property rights in water can affect a state’s ability to reallocate water as a response to the increasing uncertainty in hydrological and changing socio-economic conditions. Each country has a limited volume of water which can be utilised. When there is enough water to satisfy all needs, there is no allocation problem. However, as water demand is increasing, and availability is decreasing, the pressure on the freshwater availability will only increase, which requires states to have flexibility in the allocation and reallocation of water among competing uses and users.

Because states are not able to allocate and reallocate water if (quasi-)property rights are rigidly allocated, it is crucial to understand the interaction between the development of quasi-property rights in water and the different water allocation instruments, including through water use permits and investor-state contracts. The literature shows that current evidence is anecdotal and does not look at the magnitude of quasi-property rights and their implications for water allocation and reallocation, particularly in the Global South.

Given these two gaps in knowledge, this thesis addresses the question:

How are property rights in blue water (surface- and groundwater) organised in Africa and Asia and what water allocation and reallocation problems, as

part of the broader concept of water governance, does it create now and in the future?

Conceptual framework

This thesis draws on the key overarching concept of ‘water property rights’, and how this affects water allocation and reallocation – as part of the broader concept of water governance. Although the fluidity of water rights makes it hard to comprehend whether water rights can be seen as property rights, property rights in water do not imply owning the physical water itself (i.e. the water molecule), but holding property in a right to use a certain volume of water. This can be seen as “a possessory interest in the right to use water” (Caponera, 2007: 127). Most states avoid mentioning property in relation to water, in practice, however, legal water use entitlements can lead to ‘quasi-property rights’. When an actor holds a quasi-property right, *de jure* the state still owns all the property rights, while *de facto* the state has privatized the water by granting a bundle-of-rights that resemble property rights in water. I chose the concept of quasi-property rights in water because of its analytical power and practical application, which allowed me to empirically prove and show the issue at hand.

Water governance requires states to have the possibility to respond to change and uncertainty, which includes flexibility in the allocation and reallocation of water. Water allocation can be understood as “the process of assigning rights to the use of water,” including through administrative water entitlements (e.g. water use permits and contracts) (Kreutzwiser et al., 2004: 136). Water allocation determines how the available freshwater resources, informed by a water budget, are allocated between the different uses and users, for example, agriculture, industry, and nature. Water reallocation can be understood as both the transfer of water between users and uses (e.g. from industries to urban water supplies), and as well as reducing the volume of allocated water (e.g. reducing the allocated water to agriculture to ensure enough water is left for nature).

With water becoming scarcer, it is more difficult for states to satisfy all demands, including meeting the water requirements of new and emerging users as well as the needs of nature. Already we are facing a major supply crunch, and around the world river basins are ‘closing’ – meaning no water is left to be allocated. The gap between the water demand for, and supply of water requires governments to carefully allocate water.

Economists often address the problem of scarcity by seeing water as an economic good, pricing it, and making it subject to market-based approaches in order to ensure efficient water use and optimal water allocation. This often leads to decisions where economic approaches are prioritized over social and ecological ones. If the goal is to maximize Gross Domestic Product, then this system of water allocation may work. But

if the goal is to be inclusive towards the furthest behind, then states may need a different system. To counterbalance the economic preponderance in water allocation, I take an inclusive development angle as a theoretical vision, the social, ecological, and relational inclusiveness, in relation to water allocation and water reallocation and return to this concept in the last chapter.

Social inclusiveness is about ensuring equitable access to water and allocation of the remaining water, and “aims at empowering the poorest” by focusing on the “furthest behind first” (Gupta & Pouw, 2017: 97; Gupta & Vegelin, 2016: 436). At the national level, this means considering marginalized groups and communities by ensuring access to safe and clean water. Property rights in water affect social inclusiveness because it impairs a state’s ability to reallocate water from, for example, the industry to people that lack safe access to water or household purposes or for small farms and businesses. Property rights in water affect ecological inclusiveness because it impairs a state’s ability to ensure enough water is left for nature.

A key element of relational inclusiveness in respect to the access and allocation of water, is who owns the water and who holds property rights in water. In this thesis I focus on the role of water property rights within relational inclusiveness and how it affects social and ecological inclusiveness. Property rights in water create relations between the different uses and users and the state, which can hinder a state’s development, or development for certain groups of actors. Equitable water-sharing is crucial because it is the only way to address the increasing water scarcity and related water-sharing challenges between different uses and users.

Method

This thesis applied a two-stage multimethod case study design. The first stage aimed to understand how water ownership and property rights in water are organised across Africa and Asia. The second stage included an in-depth case study of two countries that have been considered in the first stage: India and South Africa. To answer the research and sub-research questions, I applied three methods: first, a scoping review, covering the legal literature and the works of legal scholars in other journals, on ‘water property rights’ and ‘water ownership’, which informed the two gaps in knowledge. Second, a qualitative content analysis method, used in an inductive way, has been applied to understand (i) how water ownership is organised in Africa and Asia, (ii) how private quasi-property rights in water are embedded in the contemporary water allocation instruments, and (iii) how this affects the allocation and reallocation of water. The content analysis assessed: the legislation, regulations, and policies of 60 countries in Africa and Asia; 80 mineral, petroleum, and land investor-state contracts in Africa and Asia; and the water

related legislation of all 28 Indian States and South Africa, as part of the case studies. This was complemented by approaches to triangulate the results including through reading published and grey literature, conducting semi-structured online interviews, and submitting the results to peer reviewed journals.

India is chosen as a case study because: it has a federal State system; it has a history of being colonised; and with 'water' being a State matter, it is a relevant case to see the trend in how legislation develops, and on how the different States deal with property rights in water and the reallocation of water. South Africa is chosen as a case study because: it is a unitary state; it has an history of colonisation, apartheid, and now democracy which is an relevant case study from a water property rights perspective; and it has one of the most progressive water laws in the world, serving as an example for other countries. Both India and South Africa are emerging economies, are among the most water scarce countries in the world, and are particularly susceptible to the effects of climate change on water availability.

Findings

Chapter 3 asks the question: How has the state of legal knowledge on private property rights in water evolved worldwide and how are these rights embedded in the existing legal constructions? I conclude that: First, there is diversity in the current state of water 'ownership' and water 'property' rights around the world, as a result of the legal system (e.g. civil, common, religion), and Indigenous and customary systems that are in place. Second, although the studied countries sought to gain control over the water by putting it in the public domain, in fact a pluralistic legal system exists at national level, which is the result of: (i) the historical water use rights that continue to exist *de facto* and *de jure*, (ii) jurisdiction over water being parsed out constitutionally to States in some federal countries (e.g. Canada, United States, India), and (iii) countries being increasingly under pressure to acknowledge Indigenous rights to water. Third, the countries that have managed to gain control over water then try to allocate water use entitlements through some sort of statutory water allocation system. Relatively new water allocation instruments have been developed including 'modern' water use permits, tradable water permits, contracts, leases, and concessions. Fourth, these entitlements encompass clearly defined bundle-of-rights, which differ between waterbodies and instruments. The unique characteristics of water make it difficult to transfer traditional property concepts to water, however, the granted bundle-of-rights through a statutory water allocation system resemble property rights in more fixed resources. Such allocation has, according to the literature, increasingly implied a quasi-property rights in water. The dual forces of trying to regain control over water from existing water rights holders and from new water

rights holders creates challenges for water governance and confusion on who actually 'owns' and controls water, and is able to govern it.

Chapter 4 asks the question: How is water ownership organised in Anglophone and Francophone Africa and Asia, and how do states allocate their freshwater resources? I conclude that: First, most of the 60 states considered in the analysis have put water in the public domain and governments are the custodians of the nation's freshwater. Second, doing this implies expropriating existing water rights, but this is not easy, and countries are struggling to address the issues of prior customary and riparian rights. This has led to exceptions, where states recognize customary or existing legal uses in their national laws. This has caused a confused plural system where often different rules apply to the same jurisdiction. Third, having taken 'control' of the property rights in water, these states then use permits (as the main water allocation instrument), concessions, and contracts to allocate water to people and legal entities. In most countries, household use, or sometimes water use up to a certain threshold above household use, is allowed without a permit, and is subject to payment if households are connected to formal water services.

Chapter 5 asks the question: How have property rights in water evolved including through granting water use permits in Anglophone and Francophone Africa and Asia, and what are the implications for water allocation and reallocation? I conclude that: First, while all the researched countries have avoided using any mention of private property in connection to water in their water laws, they often end up *de facto* privatizing water by allocating quasi-property rights to actors through the granting of water use permits, and not having instruments in place that allow for the reallocation of water. A water use permit allocation can include 13 different kinds of 'property' elements, which I have clustered into five groups of property-like rights that may impair water reallocation. These elements are fairly homogeneous across all researched countries. These quasi-property rights include the right the use water for a specified period; the right to transfer the permit; the right of legal protection; the right to compensation; and the right to have their interest protected by the state. Any water use permit as a legal entitlement can be seen as an exception to state ownership.

Second, in the allocation of water through permits, states focus more on providing rights and security to the permit holders, and less on the reallocation aspect of the issued permits. The main policy approaches to reallocate permits include the cancelling, amendment, limiting, and suspension of permits. Moreover, the grounds on which the approaches can be applied are rather reactive than proactive. There are only six states, out of the 47 analysed states that allocate water through a permit system, that have proactive instruments in place that allow for the reallocation of water. Most states do not have a system in place to regulate the granted permits proactively, impairing a state's ability to reallocate the water to, for example, provide for growing demand for water use, facilitate

social and economic development, promote equitable access to water, redress the results of past racial and gender discrimination, and respond to changing environmental conditions.

Chapter 6 asks the question: How have property rights in water evolved through investor-state contracts on minerals, petroleum and land in Africa and Asia, and what are the implications for water reallocation? I conclude that: First, through investor-state contracts on minerals, petroleum and land, states grant 13 ‘property’ elements, clustered into six quasi-property rights – a temporal dimension; right to use and operate; dispute settlement and litigation; compensation; stability; and alienation. Second, states *de facto* privatize water by allocating quasi-property rights through the granting of contracts to foreign investors. Thus, waters exploited by virtue of contracts granted by states can be seen as being *de facto* excluded from the public domain. Third, in addition to a state’s water law, water allocation is also implicitly governed by contracts and international investment treaties, as water rights are explicitly included in most mineral, petroleum, and land contracts. Fourth, states appear to have lost their regulatory power and control over the water resources, as foreign investors’ water use is protected by Bilateral Investment Treaties, arbitration, and compensation claims, limiting the state’s ability to reallocate the water that is included in investor-state contracts. Contracts can be incompatible with the aim of a host country’s development policy, and since contracts are established for long periods, they will still be in place as the effects of climate change on water availability become more noticeable and require states increasingly to reallocate the water.

Chapter 7 asks the question: How are property rights in water access and allocation instruments organised, and how do these instruments affect water reallocation in India? I conclude that: First, the English colonial common law principles remain in place in India, which means that land ownership gives property rights to water. This has been institutionalized in court cases and the Indian Easement Act, 1882. This implies the grandfathering and codification of the existing water rights. Second, the federal system hampers water reallocation. The constitutional decentralization of water governance to the State level makes the national government essentially powerless. Although the national government is calling for the abolishment of the common law surface and groundwater rights, none of the 28 States have done so, probably because of the practical challenges of expropriation. Despite the adoption of a series of water related laws – laws on irrigation to increase State control of surface water, laws to govern groundwater, and more recently water resources, regulatory authority laws that govern both surface- and groundwater in a more integrative manner – all these laws avoid addressing the underlying riparian rights and groundwater rights, and instead perpetuate water rights linked to land through a registration process. This results in the States having a highly plural and confusing water governance model. Third, more recently, ten States have commenced

acts that take a more integrative approach to governing water. With these acts, the States have embarked on the process of implementing a full-fledged water use permit system that applies to the State as a whole. The granted rights through the allocated permits may imply quasi-property rights in water, and given that the system is superimposed on the existing common law principles, it remains unclear how this plays out in practice, and to what extent this hinders States in the ability to reallocate water.

States choose not to address the problem of common law, but instead States register (codify) existing groundwater rights, and now seek salvation in the development of a water use permit system, which may create new problems.

Chapter 8 asks the question: How are property rights in water access and allocation instruments organised, and how do these instruments affect water reallocation in South Africa? I conclude that: First, South Africa has put its water resources in the public domain and abolished on paper the existing riparian rights system which had its roots in colonisation and apartheid. Second, South Africa allows historical water use (pre-1998) to continue as an Existing Lawful Use (ELU) entitlement and allocates quasi-property rights through the granting of Water Use Licences. The holders of both an ELU and Water Use licence (mainly Historically Advantaged Individuals) enjoy strong enforceable quasi-property rights that enable them to secure and protect their water use entitlement. Schedule 1 (domestic use) and the General Authorisation water use entitlements are the only exemptions for the need to acquire a licence, and do not provide the same rights and security as licences and ELU do. In the event of a dispute, it is often the poor and marginalised, mainly Historically Disadvantaged Individuals, that lose.

Third, there is an interplay between the development of quasi-property rights in water and the ability of the state to reallocate this water. The development of quasi-property rights is strengthened by the challenges the Department of Water and Sanitation faces in implementing the policy that allow them to reallocate the water resources (e.g. Compulsory Licensing for Existing Lawful Use, and review of Water Use Licences). These quasi-property rights in turn frustrate the implementation of the NWA in general and water reallocation specifically. To date, the water reallocation policies have not been fully implemented.

Fourth, this allows for the past inequalities to continue, which are exacerbated by new inequities as a result of the implementation and execution of the NWA. The general view is that reallocation of water under the NWA over the past 25 years has been limited, the result is that the racially skewed water use under the ELU entitlements, which finds their origin in colonisation and apartheid, continue to date. The NWA aims to redress inequality; however, it is the Historically Advantaged Individuals that largely benefit from the NWA. With most, if not all water already being allocated (at least on paper),

there is little room left for development, and especially by the Historically Disadvantaged Individuals. The case study in South Africa shows that the reallocation of water is impaired to a point where both ELU and licences are left largely untouched.

Chapter 9 discusses the conclusions and lessons learned. This thesis aimed 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 reallocate water.

This research shows that through history, riparian and property rights to blue surface and groundwater have been allocated to landowners in many parts of the world. Given the vital and strategic importance of water, states have tried to take control over water by putting it in the public domain, and then reallocate the water through instruments such as permits and contracts. However, states do not fully comprehend the implications of the rights they allocate through permits and contracts, and of the allocation and reallocation policies they have in place on the creation of quasi-property rights in water. Merely putting water in the “public domain” does not preclude the *de facto* creation of private property rights in water. This research has shown that in fact, states privatize their freshwater resources by allocating quasi-property rights through the granting of permits and investor-state contracts, which is reinforced by the fact that most states do not have (proper) allocation and reallocation policies in place. The struggle of states to change some historical existing rights, and both issue quasi-property rights and the inability to withdraw or change these rights, affects the state’s ability to govern water in the public interest.

The state’s ability to allocate and reallocate water is strongly affected by existing property rights and quasi-property rights in water – states cannot simply allocate and reallocate the water at their own discretion. The allocation instruments and reallocation policies also affects social, ecological, and relational inclusiveness. The South African case study has shown that the reallocation of water is impaired to a point where the racially skewed Existing Lawful Use (ELU) and licences, both held largely by the Historically Advantaged Individuals, are left largely untouched. Although the NWA aims to redress inequality, it is the Historically Advantaged Individuals that largely benefit from the NWA. With most, if not all water already being allocated (at least on paper), this leaves limited room for development, especially for the economically emerging group of Historically Disadvantaged Individuals. The situation is exacerbated by the fact that water demand increasing, while pollution and climate change affecting water availability.

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. This creates a paradox: if the goal of

water governance is to govern a state's freshwater resources for the benefit of its people, subsequent allocation of water through granting permits and contracts – which results in the *de facto* creation of property rights and privatization of water – undermine water reallocation and social, ecological, and relational inclusiveness, affecting the poorest and furthest behind the most. This results in the continuation, if not worsening of an often already unequal distribution of water in society.