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The securitization of water discourse: theoretical foundations, research gaps and objectives of the special issue

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Abstract The water literature is saturated with securitization jargon. Coloring a discourse that could have been political, technical or economic in securitization rhetoric is especially prominent in the literature and policy on the securitization of transboundary water. However, despite the tendency to address water as a securitized resource, it is often unclear what the term "water security" means. Also, unclear are the contextual variables that trigger the use of such discourse; the way in which securitization is institutionalized; and its impacts on the decision-making process. This paper aims to systematically review the missing gaps around the securitization enigma. It also provides a rudimentary typology for potential mechanisms to securitize the water discourse and their potential impact on decision-making processes. Among the mechanisms identified are structural ones such as setting buffer zones around water infrastructure; institutional ones such as the exclusion of civil society from decision-making processes; and linguistic ones such as the use of framing and narratives for justifying military involvements. The securitization of the discourse is not likely to be distributed equally in time and space and is likely to be triggered by disasters, resource scarcity and power asymmetry. Some institutional venues are likely to be more receptive to such rhetoric.

Keywords Securitization · Water · Discourse

Abbreviations

IWRM Integrated water resources management
IBWC International boundary and water commission

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1 Natural resources and water securitization

Scholarly work on natural resource governance acknowledges the decisive role language plays in the shaping and understanding of environmental issues (Dryzek 1997; Hajer and Versteeg 2005). Grounded in the social-constructivist tradition, discourses do not reflect one absolute reality, but rather the amalgamation of multiple realities that are shaped by language and communication (Hajer and Versteeg 2005), which in turn ultimately determine the willingness of policy makers and the public to act on pressing issues (Ihlen 2009; Lakoff 2010; Dryzek 1997). This indicates that discourses shape what can and cannot be thought, delimit the range of policy options available and serve as precursors to policy outcomes (Liftin 1999).

One discourse that has increased in popularity is that of environmental security, a discourse that presupposes environmental threats as urgent and interrelated to human safety and well-being (Græger 1996; Baldwin 1997). A commonly used example is the association of ecological safekeeping with peace and social justice (Conca 1994). Another example is a 2003 report to the Department of Defense which argues that climate change "would challenge US national security in ways that should be considered immediately" (Schwartz and Randall 2003, p. 1). This nexus between environmental factors and conflicts has therefore resulted in a great deal of research on how natural systems and often disasters may lead to human conflict or on how sustainable environmental agendas may promote peace (Ullman 1983; Myers 1989; Homer-Dixon 1999). Indeed, nowadays, many scholars have called for national security agendas to encompass environmental concerns (Floyd 2008) such as water, food and energy scarcities, arguing that a failure to do so may lead to the eruption of conflicts that disturb the economic and political stability of states. These connections between natural resources and security have also been publicly recognized by top political and military officials (e.g., CNA 2007), which has led to governmental and intergovernmental initiatives that have resulted in the establishment of research centers dedicated to the study of environmental security and to the formation of non-governmental organizations dedicated to pursuing joint environment and security goals (e.g., Conca et al. 2005). Similarly, documents produced by international forums, such as the Rio Declaration on Environment and Development (Principle 25, UNCED) and the European Security Strategy, also refer to this link.

Perhaps the most obvious resource that is prone to securitization is transboundary water. Water negotiations and allocations as a national security priority have already been identified in various international river basins in Southern Africa, such as the Okavango River basin (Turton 2003), in the Tigris and Euphrates basin (Schulz 1995), in the Nile (Mason 2004) and in the Mountain Aquifer shared between Israel and the Palestinians (Katz and Fischhendler 2011). Not only have numerous scholarly papers been framed around the notion of water securitization, but recently academic programmes and water conferences have been organized around this securitization buzz word. One example is the Water Security, Risk and Society Conference of 2012 held at Oxford; another is the University of East Anglia Water Security Research Centre which addresses water security and related issues. Lately, it seems that instead of securitizing the discourse around discrete resources such as water, food and energy, academic circles have securitized the nexus and the potential detrimental interplay between these resources. One example is the high-profile conference in Bonn on the Water Energy and Food Security Nexus intended to facilitate new cross-sectoral collaborations through such rhetoric (Merdes 2012).

However, despite the commonality of addressing water as a securitized resource (Tarlock and Wouters 2009), it is often unclear what the term "water security" means as the concept is open to multiple interpretations (Zeitoun et al. 2013. p. 21). Cook and Bakker (2012), for example, have documented the increased use of the term "water security" and its different meanings across disciplines including empirical, modeling, conceptual and laboratory-based studies. Moreover, it seems that the focus on securitizing actors and audiences (also in the water sector) underrates the broader societal structures (Stetter et al. 2011), thus obstructing the triggers of securitization and its societal and environmental implications. The few studies that have tried to identify how contextual variables affect the propensity to securitize have resulted in weak statistical results (e.g., Fischhendler and Katz 2012). The difficulty to track the social context behind securitization has also resulted in a lack of studies on how securitization, as a rhetorical and linguistic process, impacts the decision-making process (Fischhendler and Nathan 2014).

The following section seeks to shed light on this elusive water security concept by trying to unpack its meaning.

2 What is a "securitized water discourse" and why do we securitize?

The first type of security can be referred to as *strategic* security. It relates to the hydrology of an international river basin that links all the riparian states, requiring them to share a complex network of environmental, economic and political interdependencies. The result of these interdependencies may create an affinity between water availability, conflicts, food security and economic growth. Hence, these interdependencies often raise water to a "national security" or even survival status. Associating the resource with potential conflicts has led to a conceptual shift from the classical notion of security as primarily a lack of, or safety from, military threats to a concept that has been linked to a chain of "natural" processes (such as water scarcity) and their impact on physical security and welfare (Redclift 2001). Hence, in this case, attaching a set of wider values, benefits and expected costs to water obviously elevates the resource into a national security issue. The Nile water negotiations are often used as an example of this type of water security where any harm to the Nile delta economy, which is based on water availability, can erode social stability and thus be considered a security issue (Mason 2004).

The second type of securitization is referred to as *tactical* securitization. This happens when low politics issues, such as water, are linked with the high politics issues of national survival, such as peace and war, land ownership and refugees. For example, the motivation behind the 1979 water treaty between Iran and Iraq concerning the use of frontier watercourses "… consider[s] their desire to restore security and mutual trust throughout the length of their common frontier" (Preamble, paragraph 4). Similarly, in the 1994 peace treaty between Israel and the Hashemite Kingdom of Jordan, the impetus for the water agreement is vested in high politics, as the treaty preamble states: "Desiring as well to ensure lasting security for both their States and in particular to avoid threats and the use of force between them…" (Israel-Jordan treaty 1994, Preamble, paragraph 7).

Linking resource scarcity and high-profile issues like security is expected to be a profile raiser that increases public awareness, importance and urgency in mobilizing resources and funds (Deudney 1990; Levy 1995). Often the underlying assumption of many environmentalists is that their ability to influence is solely dependent on their ability to establish

widespread connections between environmental issues such as climate change and issues of poverty, housing, health and security (e.g., Hale 2010).

Once an issue is securitized, exceptional measures to prevent an existential threat are often legitimized as well, including the waging of war (Balzacq 2005). Hence, securitization is about breaking the rules of normal politics (Buzan et al. 1998), placing issues "beyond normal politics" and "beyond public debate" (Schmitt 1985; Williams 2003: 5), and making decisions on the basis of impulse, urgency, anxiety and a willingness to sacrifice.

3 How do we securitize: early evidences and research gaps

In order to securitize an issue, it must be presented as urgent and existential, and of such importance that it not be subjected to the normal haggling of politics, but rather worthy of attention by top leaders as a matter of priority (Buzan et al. 1998: 29). To achieve this, water is securitized via three main mechanisms described as structural, institutional and linguistic.

Structural mechanisms are concrete infrastructures that aim to protect the resource given its centrality to society. For example, Gleick (2006) identifies potential threats to water systems through infrastructural dangers, highlighting how water systems are vulnerable to terrorist attacks such as intentional contamination. As such, a number of structural responses or mechanisms effectively securitize these water systems, including the positioning of demilitarized/buffer zones around water systems and the installation of early warning systems (Gleick 2006).

Yet the structural mechanisms identified above would not be justifiable without the institutional mechanisms that put them into practice. Common institutional measures that counter threats may therefore include the representation of military or foreign affairs officials in basin authorities. This is apparent in the Nile Basin Initiative, for example, where the Nile Council of Ministers has been established as the highest decision-making body for the Nile basin by incorporating ministers of member countries. A similar mechanism is the embedding of water treaties in higher security-related agreements (e.g., peace treaties), as evidenced by the water agreements placed within the Israeli–Jordanian Peace treaty of 1994 (Israel-Jordan treaty 1994). Another manifestation of building institutions that legitimize urgency and security infrastructure is the exclusion of civil society and NGO's from governance. The International Boundary and Water Commission (IBWC) is one such example, as this international body charged with providing binational solutions to land demarcation and water issues between the USA and Mexico often excludes public stakeholders from national border and resources issues (Sanchez 1993). Despite the obvious drawback of civilian disengagement, this exclusion process also enables rapid decision making and confidentiality that may in turn lead to a lack of transparency and data exchange between parties sharing the resource. Yet, it is important to note that civilian disengagement can also be common in non-security issues as countries do not have the awareness and capacity to engage in stakeholder participation.

In addition to institutional and infrastructure mechanisms, the literature on securitization has already pointed toward the use of linguistic tools that can be deployed to portray urgency (Balzacq 2005), including metaphors, framings and narratives. Metaphors often use "alarmist" and "alarming" language (Risbey 2007) such as the use of the "tipping point" expression as a metaphor that induces feelings and images of forthcoming,

irreversible danger (Russill and Nyssa 2009). In the water sector, the most common alarmist metaphor may be the "water wars" metaphor as an evocation of scarcity-induced tensions, while the "ripple effect" metaphor may point toward the effects that unsustainable water practices have on communities. The metaphor "water-scarce hotspots" is another example that induces feelings of insecurity and survival, while the technical term "water stress" also emphasizes tension and uncertainty. Framing is another linguistic device in which water and other resources can be securitized. Framing is described as a cognitive process where individuals and groups filter their comprehension and interpretation of a particular situation "in ways consistent with their own views" (Shmueli 2008). Agro-economists may therefore talk of "virtual water[1]" when discussing supply scarcities, while American political and military officials have frequently framed military skirmishes as an "energy battlefield". Similarly Kauffman (2013) has shown how water management reforms in Ecuador were more successful when water was framed as a "production-poverty" frame that appealed to the large numbers of poor farm workers (from Framing Strategies in Transnational Campaigns for Watershed Management Reform, a paper presented at the 54th Convention of the International Studies Association, San Francisco, CA, April 3–6, 2013). Finally, narratives are yet another linguistic structure in which the environment can be securitized as seen, for example, in Rachel Carson's seminal narrative *Silent Spring* (1962).

The Table below depicts some of the potential mechanisms to securitize the water discourse and regime (Table 1).

The following section identifies three major research gaps around the securitization phenomena.

4 Triggers for the securitization gap

The assumption that securitization does not happen arbitrarily (Sjöstedt 2010) as well as the proliferation of resource-based securitization has resulted in some early works on the possible factors that encourage the use of securitization. Yet, the research that exposes the conditions or variables that encourage securitization is not comprehensive and often seems anecdotal. Perhaps the most apparent variable that may legitimize the use of the securitization discourse is the occurrence of a catastrophic event. Crises and disasters can represent threshold events leading to organizational and institutional change where dominant ways of thinking and acting are subject to critical review and revision (e.g., Gorg 2003). They may serve as triggers or catalysts that put into motion potentially provocative social processes at multiple social levels (Pelling and Dill 2006) including the exclusion of civil society from policy making and the empowering of the military, often under the pretense of urgent and emergency responses. However, the 2004 Indian Ocean tsunami also illustrates how disasters not only legitimize securitization but provide a "window of opportunity" for the flip side of securitization—namely peace building in Indonesia (Birkmann et al. 2010).

Another potential variable that may trigger securitization is resource scarcity. Scholars from the Toronto Group, for example, led by Thomas Homer-Dixon, put forth the environmental scarcity thesis, which holds the shortage of renewable resources coupled with

[1] Virtual water is considered Virtual silently and invisibly what enables some politicians and public officials to avoid discussing politically sensitive water scarcity issues. This is why I consider Virtual water as salient rhetoric as opposed to the alarmist rhetoric. For more on the virtues of Virtual water (see Allan and Wichelns 2007).

Table 1 Potential mechanisms to securitize the water discourse and regime

Securitization mechanisms	Type of mechanism	Mechanism effect
Buffer/demilitarized zones	Structural	Militarize water infrastructure
Coupling water monitoring stations with military infrastructure	Structural	
Military officials represented in basin authority	Institutional	Link water with non-water issues
Embedding water treaty in a peace treaty	Institutional	Militarize water operation
Excluding civil society and NGO's from negotiations	Institutional	Militarize water discourse Prevention of a polycentric managerial structure Lack of transparency and data exchange
"Energy battlefield"	Linguistic	Framing/narratives for justifying military involvements
"Tipping point"/"ripple effect"	Linguistic	Metaphor/framing for portraying urgency

adverse social conditions to be a cause of violent conflict, often with profound implications for state security (Tennberg 1995). A competing thesis posits that resource abundance may lead to violent conflict through the continued and aggressive seizure and attainment of environmental resources—dubbed the "honey-pot" thesis (Hartman 1998). Within the water sector, for example, Zeitoun (2012) shows how Lebanese development of the reclaimed Wazzani Springs (on the Hasbani River) in 2002 was perceived by Israel as a threat to its water supply and hence was portrayed as a national security issue. A similar example was put forward by Stefan Deconinck (2009), depicting the gridlock on the Nile negotiations as a result of water scarcity that resulted in a securitized discourse.

An additional concept related to conflict and security is power asymmetry, whereby imbalanced power between interacting parties can aid in the construction of perceived threats (Buzan et al. 1998). This is apparent in discussions regarding future water use and desalination in Israel and Palestine, as reversed riparian positioning (upstream becomes downstream and vice versa) essentially altered each riparian's water power and was suspected as a cause for securitization discourse and failed cooperation (Feitelson 2012).

A final potential trigger of securitization discourse is the venue or setting in which environmental issues are contested. Salter (2008) identifies this as the "sociological setting" of an issue, whereby deliberations on a particular issue—its relevance, acceptance and scope as well as the actors allowed to address it—are ultimately determined by this setting. This confirms the finding of Floyd (2007) that context is highly critical to the quality of securitization which is put forth, given that securitization (and de-securitization) is an "issue-dependent rather than static" process.

5 Securitization implications gap

Many scholars dealing with natural resources, followed by the general trend of security scholars (e.g., Aradau 2004), have suggested that securitization is predominantly negative for decision making. This body of knowledge has been developed around resources such as energy and land use allocation but not water. Some of these indications will be presented in the next section.

Securitization has often been described as an analytical slippery slope where the vesting of environmental threats under the logic of the war system will soon drain the term security of any meaning (Deudney 1990). First, widening the scope of security undercuts the ability to conduct traditional missions that counter explicitly military threats. Second, using the security issue to generate adequate policy response can also adversely affect the environment as a discipline as it can obscure a precise calculation of environmental threats and discourage critical thinking about which environmental problems are serious and which are trivial. Brushing all issues in colors of securitization can create a situation in which environmental public opinion is terribly out of touch with the seriousness of environmental problems (Levy 1995). Third, because securitization is a social process, stronger actors with greater influence have a better chance of convincing audiences about the importance and acuteness of their securitized issue. Security is thus an exceedingly structured field in which some actors are placed in better positions of power (Williams 2003; Buzan et al. 1998), which may further perpetuate the inequalities between those who did manage to put their problems on the security agenda versus those who did not. Finally, securitization can have negative implications since it can lead to the penetration of additional political frictions and arguments into the discourse, which eventually will freeze it entirely (Balzacq 2005: 171). This can then lead to less collaboration and cooperation, and ultimately to a full halt in the discourse of the securitized area (Buzan et al. 1998; Wæver 1995). The water literature, too, often recognizes water conflict as a result of securitization practices (Stetter et al. 2011). Indeed, given the risk of securitization, scholars working on the environment, for example, have suggested the alternative concept of environmental peace building, a concept that stresses cooperation rather than violent options (Conca and Dabelko 2002). This has been accompanied by the provision of concrete examples of the effect of a security framework. Thus, Dabelko (2009), for example, describes how framing climate change as a factor in the genocide in Darfur helps push to the background the political and economic motivations for the fighting—and unwittingly could let the criminal regime in Khartoum off the hook.

Against these calls in the security literature, there are scholars who try to critically examine the assumptions behind considering security as a negative concept (e.g., Roe 2012). Indeed, in resource governance, there are some early indications that securitizing the environmental discourse may be beneficial as it gives marginalized players and institutions a voice in the decision-making process and leverage to change the status quo. Floyd (2010) shows how framing energy as a security issue empowered epistemic communities during the Clinton Administration. Nestle (2013) shows how the 9/11 terrorist attacks led to the reframing of food concerns from being perceived as food insufficiency to food supply protection against bioterrorism. Finally, whenever it comes to water, there are early calls to weigh concerns about securitization against the gains achieved through this linkage (Matthew 2012). Indeed, embedding water in a wider geopolitical setting—as in the case of the several ongoing negotiations on the Euphrates River—seems to support an agreement. In this case, the agreement guaranteed Syria a minimum of 500 cm/s. In return, Syria made concessions on security and border issues (Elhance 1999: 143). In other words, it was the "give and take" between water and security concerns that made the agreement possible. A similar example exists in the 1997 agreement between Turkey and Bulgaria on the Black Sea as well as the cooperation agreement for the sustainable development of the Mekong River Basin. In both cases, the water agreement was blended with the need to safeguard broader cooperation which may have helped to craft an agreement. In the former Black Sea case, this was reflected in the preamble's wording: "Desiring to further develop the existing cooperation based on the Treaty on Friendship, Good-Neighborliness,

Cooperation and Security…" (Preamble, paragraph 2 of the 1997 Turkey-Bulgaria Agreement). In the latter 1995 Mekong case, this was reflected in the following wording: "Acknowledging the great political, economical and social changes that have taken place in these countries of the region…which necessitates efforts to reassess, redefine and establish the future framework for cooperation" (Preamble, paragraph 4).

Yet, it seems that the arguments of both supporters and opponents of securitization are mostly speculative as they have failed to rigorously examine the implications of securitization discourse on decision-making processes pertaining to natural resources (Fischhendler and Katz 2012). Within the broader securitization literature, this gap has been recognized (Galli 2008; Sjöstedt 2008; Roe 2012), indicating why there is a place for the emergence of a new field of "critical security studies" that will explore the policy trade-offs and unexamined assumptions embedded in conventional national security strategies (Eckersley 2009).

6 Water de-securitized gap

Given the suspected detrimental implications of water securitization, many experts have called for the setting of water negotiations in the normal political domain where they can be openly debated. They add that this would allow a wider range of players to become involved in the resolution of the core problem. This process is often called de-securitization under which "a political community downgrades or ceases to treat something as an existential threat to a valued referent object, and reduces or stops its calls for exceptional measures to deal with the threat" (Buzan and Wæver 2003: 489).

This implies that issues for which the potential use of exceptional measures had previously been legitimized gradually start to take steps backward, so that violence will no longer be considered as a legitimate option (Wæver 1995: 57).

De-securitization in the water realm is assumed to foster institutional development and is manifest as a win–win outcome, which is inherently more conducive to economic growth and hence positive peace (Turton 2003). It is also assumed to allow parties to engage in benefit sharing (Turton 2005), which is perceived as a way out of the zero-sum game associated with the sharing of water costs at the basin level (Sadoff and Grey 2005). These unverified assumptions explain why water scholars have subscribed to mechanisms that can allegedly de-securitize the decision-making process. Among them is the need for all partners to engage in data sharing and the building of river basin organizations (Turton 2003); to engage in trading virtual water, such as the water embedded in food trade (Allan 2001); and to avoid what Turton (undated) calls basin closure, where the basin functions as a self-sufficient unit in terms of water and food provision.

Once de-securitization is achieved in water negotiations, it is assumed that it will also have a positive effect on other securitized issues (Coskun 2009). On the basis of the potential of de-securitization, often the donor community (Sweden is notable) and numerous programmes are mobilized toward this direction (Nicol et al. 2001). Yet, as described by Roe (2004: 285), it is not so easy to transform a securitized issue into something that is not "asecurity". Given such resistance, it is also argued that fully fledged de-securitization requires more than one set of de-securitizing actors both among the political elite and civil society (Coskun 2009). These problems join the other criticisms of de-securitization, which argue that it is technical, managerial and instrumental, rather than genuinely political or ethical. It is therefore necessary to better theorize the de-securitization concept, to connect it to the securitization theory (Floyd 2007; Aradau 2008), and mostly to examine whether an issue like water can be de-securitized after it has been securitized.

7 Concluding remarks

This review paper has demonstrated that despite the heavy use of security jargon concerning water, there are few studies that trace its linguistic construction as a water security issue, specifically how argumentation may frame an issue as under existential threat and what this entails. Most of the studies that examine resource securitization also fail to examine how the concept of water security acquires multiple meanings along time and across different interest groups. Moreover, research that identifies under which conditions framing prevails is also lacking, in particular with regard to what promotes or discourages its use. Lastly, rigorous studies that examine the short- and long-term implications of securitization discourses are wanting. Hence, the aim of this paper is to provide a platform for launching future research directions on the development of a critical and discursive prism for water securitization.

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