TOWARDS HYDROSOLIDARITY: MOVING FROM RESOURCE CAPTURE TO COOPERATION AND ALLIANCES

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Introduction

When the Berlin Wall fell and the Cold War ground to a halt, a new wave of optimism engulfed the entire planet. It seemed, at least for a moment in time, that there was cause for a new optimism and that history itself had reached its logical end (Fukuyama, 1992). This short-lived optimism quickly saw a new post-Cold War global political agenda being set however. In this process, two things occurred. The first was the expansion of the notion of security (Buzan *et al.,* 1998), that brought with it the central concepts of securitization, securitizing actors, referent objects and security complexes. The second was the birth of a globalizing discourse with a number of key ramifications, one of which is the emergence of, "environmental issues [which] symbolize … the most salient features of the post-Cold War world, …[and] the emergence of an agenda comprising truly global issues" (Rodal, 1996). In fact, the rise of the environmental movement contributed fundamentally to a widening of the concept of security (Buzan *et al.,* 1998:2), being seen by some as the "ultimate security" (Myers, 1993). In short, from a water sector perspective, the environment and related issues have become securitized (Gebramendhin, 1991; Hjort af Ornas & Salih, 1989; Mathews, 1989; Myers, 1986; 1993), with a number of unintended consequences.

Water and Securitization Discourse

The fact that the Cold War was won by accelerating the arms race, rather than by the actual use of those arms, emphasized the importance of expanding the concept of security (Allan, 2001:244). Central to this "expansion" was the work by Buzan *et al.,* (1998), who noted that there were essentially two broad sets of circumstances in International Relations, namely 'normal' and 'exceptional'. Exceptional circumstances were defined as those where a political economy was faced with a clear threat to its security, meaning that something out of the ordinary needed to be done. The political process of resource re-allocation was called 'securitization' and the politics necessary to raise the required level of awareness and support was called 'security politics'. This new approach to security argued that it is necessary to raise awareness in order to generate the political will needed to deal with these newly identified insecurities stemming from environmental, social and political vulnerability (Allan, 2001:244-245). For threats and vulnerabilities to count as security issues, they have to be staged as existential threats, thereby endorsing emergency measures beyond the reach of 'normal' rules that would otherwise bind actors (Buzan *et al.,* 1998:5). Significantly, contemporary water literature reflects this tendency (Wester &

Warner, 2002), seeking to galvanize support by focussing on water and crisis (Clarke, 1991; Falkenmark, 1989a; 1989b; 1995a; 1995b; Falkenmark & Lundqvist, 1995; Falkenmark *et al.,* 1990; Gleick, 1992; 1993; Gruen, 1992; Haftendorn, 2000; Pearce, 1992; Redclift, 1994; Saeijs & van Berkel, 1997; Starr, 1991). As enduring evidence of the securitization of water and the environment, the American Central Intelligence Agency (CIA) had established a number of hubs to collect environmental intelligence by the late 1990s, with plans to increase this capacity (Ohlsson, 1999:26) as suggested by Rodal (1996). In addition to this, the CIA established the State Failure Task Force in order to determine what environmental linkages could be contributing factors to political instability (Homer-Dixon, 2000:298-301), largely in response to the genocide in Rwanda. Other intelligence agencies are bound to follow this lead, not wanting to be left out of this new form of International Relations, so the spiral of securitization is set to escalate dramatically. Indeed, even Agenda 21 and the World Water Vision is couched in securitization rhetoric - a sad fact that was probably unintended by the authors!

Concepts of resource scarcity and sustainability have successfully mobilized public support (Buzan *et al.,* 1998:74), which some offer as evidence of securitizing moves, but not necessary of full securitization. In order to achieve full securitization, an issue must be presented as being urgent and existential, and so important that it should not be exposed to the normal haggling of politics, being dealt with instead by top leaders as a matter of priority (Buzan *et al.,* 1998:29). This paper argues that while the existing water management discourse tends to raise the issue as an emergency or crisis, it has failed to become one of the top priorities confronting the governments of developing countries. For example, while water is considered to be extremely important, it has not yet been placed on the SADC agenda at the Ministerial or Head of State level. This is healthy, because full securitization is the result of failure to deal with the issues in the normal political framework (Buzan *et al.,* 1998:29). Having noted this, an unavoidable consequence of the environmental discourse is the fact that scientific rationale and data are used to construct the various arguments and agendas at play (Buzan *et al.,* 1998:72). Because of this, two distinct agendas can be found - one political and the other scientific - raising the issue of the construction of knowledge as a central analytical concern. By creating a sense of urgency, the water scarcity discourse seeks to justify a new set of water reforms, but this is narrow and flawed (Wester & Warner, 2002).

While securitization of water is not necessarily a desirable outcome of water resource management, the concept does help us to understand political linkages between states in shared international river basins. Central to this is the concept of a security complex, which is defined as, "a set of units whose processes of securitization, desecuritization, or both, are so interlinked that their security problems cannot reasonably be analyzed or resolved apart from one another" (Buzan *et al.,* 1998:201). Schultz (1995:97) takes this further by providing us with a definition of a hydropolitical security complex being, "those states that are geographically part 'owners' and technical 'users' of rivers and further, as a consequence, consider the rivers as a major national security issue". As such this is a useful scientific tool that has enabled some analysts to develop a deeper understanding of the political dynamics in various international river basins where water scarcity is a salient feature (Allan, 2001: 245-262; Schulz, 1995; Turton, 2001; 2002).

Water and Desecuritization Discourse

The fact that the existing water discourse tends to securitize the management of water results in some unintended consequences, one of which is the undermining of investor confidence. No serious foreign investor would consider semi-arid areas of the world when water scarcity has been identified by eminent authors as being the "ultimate constraint in Third World development" (Falkenmark *et al.,* 1990). In fact, one of the central issues confronting developing countries today, many of which are in areas of water deficit, is the lack of foreign direct investment. This leads to poor economic growth, a drop in the levels of prosperity and consequently a collapse of the institutional capacity needed to deal with water scarcity. When considering securitizing moves such as the environment, one has to weigh the problematic side effects of applying a security type of mindset against the possible advantages of focus, attention and mobilization (Buzan *et al.,* 1998:29). This suggests that a critical review of the existing water discourse can help to change the unintended consequences that the securitization process is unleashing. In order to do this, we need to focus on desecuritizing dynamics. Wæver (1995) notes that by moving away from phrasing issues as threats against which we have countermeasures, to a more public sphere of debate, is the optimal long-range objective.

For this reason it is refreshing to note that the Swedish Foreign Ministry is taking the lead. Their current project "Development Financing 2000" has resulted in a consultancy report (Nicol *et al.,* 2001) that serves to desecuritize the current water discourse by focussing instead on the management of shared watercourses as an international public good. This stresses the positive effects of cooperation rather than the negative effects of competition, and is likely to contribute to an enabling environment in which water resource management can attract the necessary foreign direct investment needed to make it sustainable. Significantly, this can take place within a 'softer' form of hydropolitical security complex, because the national security concerns of existing role-players are already linked via their co-dependence on international river basins, whether they choose to see it that way or not. In support of this, the fact that the current SIWI Seminar has allowed for the examination of this issue at an international level, suggests that we may be entering a new phase in the development of an equitable international water discourse.

Moving from Resource Capture to Cooperation and Alliances

If one frames the international water discourse as a subset of the environment, then it opens up a new range of possibilities. For example, the environment seems to be highly suited to analysis using regime theory (Buzan *et al.,* 1998:71). When it comes to regimes, we do not yet have the necessary tools or models to understand the problems of governing natural resources and the reason why some institutions fail while others succeed (Ostrom, 1990:2). This means that regime theory is a very fruitful field for aspirant researchers in the water sector. Water regimes have been defined as existing, "when the affected states … observe a set of rules designed to reduce conflict caused by use, pollution or division of a water resource or the reduction of the standing costs and the observance over time of these rules" (Haftendorn, 2000 in Jägerskog, 2001; 2002).
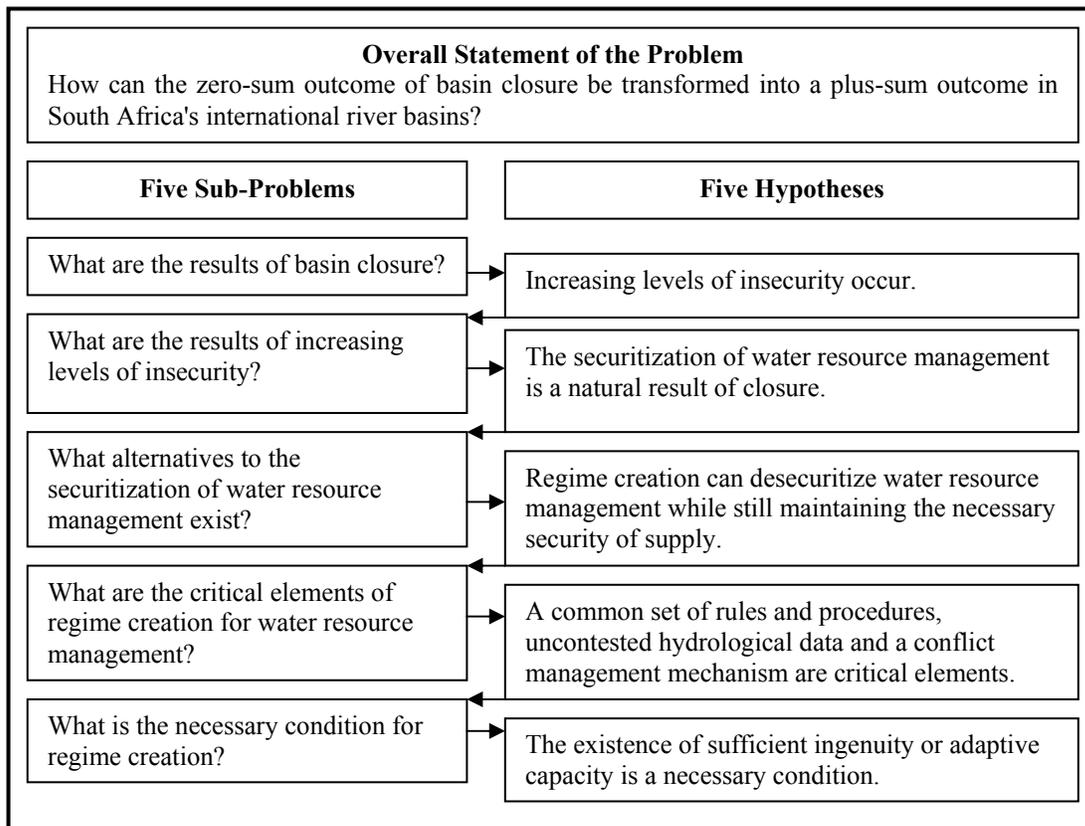
When broken down into key components, regimes institutionalize conflict potential by developing mutually agreed rules or procedures, sanction the enforcement of those rules, and generate consensus on key issues of common concern by providing uncontested data, thereby reducing uncertainty for the respective role-players. In short, water management regimes in shared river basins desecuritize the water discourse while enhancing the security of supply. As such they are a durable manifestation of Hydrosolidarity.

The central question therefore focuses on how the current securitization of water resource management can be replaced by regimes that seek to enhance cooperation and build durable alliances while still desecuritizing the discourse? In this regard a key element is the social capital that is needed to negotiate and sustain enduring institutions that effectively solve the problem of managing common pool resources (Ostrom, 1990:184) such as shared watercourses. Homer-Dixon (2000:21-23) links social capital with what he calls ingenuity. He starts off by defining ingenuity as, "ideas that can be used to solve practical technical and social problems, such as the problems arising from water [management]". There are two distinct forms of ingenuity that are both relevant to the water sector. The first is technical ingenuity that is used to solve practical problems such as managing water resources. This has a data-intensive component to it and can be considered to be the "hard" side of water resource management. The second is social ingenuity that is needed to negotiate and maintain effective institutions. This is less tangible and focuses on the "softer" side of water resource management. Both of these are necessary and can be found in water regimes, and it can be said with a fair degree of certainty that these are a necessary condition for the establishment of a cooperative environment in which alliances can be nurtured. Social ingenuity is a prerequisite to technical ingenuity (Homer-Dixon, 2000:22). Stated differently and using Ohlsson's (1999) terminology, technical and social ingenuity are a manifestation of the 2nd order resources needed to manage water scarcity in an effective way that will prevent political decay. In short, institutional success mobilizes social capital and transforms it into institutional capital (Ostrom, 1990:190), which establishes a durable structure that mitigates conflict, enhances cooperation and fosters the formation of alliances. The current Swedish Foreign Ministry "Development Financing 2000" initiative (Nicol *et al.,* 2001) seems to be focussed on the sort of issues that will desecuritize water resource management and is therefore to be encouraged.

Water regimes can be found in various parts of the world. Jägerskog (2001; 2002) shows how a water regime has been in existence in the Jordan River Basin since the 1950s, even though this region is often used as an example of potential water war (Gruen, 1992; Starr, 1991). Despite a border dispute between South Africa and Namibia (Ashton, 2000: 86-89; Meissner, 2001), the Orange/Senqu River Basin Commission (ORACOM) continues to function effectively (Turton, 2002). There are many other examples.

So, how can regimes be actively developed in international river basins, particularly those in areas of potential conflict? A research project (Turton, 2000) that is based on the logic presented in Figure 1, is developing some significant findings. South Africa is the most economically developed country in Africa. It is also one of the driest countries on the continent, having already mobilized most of its water resources in an attempt to sustain

economic development. Approximately two-thirds of the surface area of South Africa lies in four international river basins - Orange, Limpopo, Incomati and Maputo - that are all shared with other riparian states, most of who are also facing potential water deficit problems in one form or another. In fact, four of the most economically active countries in the SADC region - South Africa, Botswana, Zimbabwe and Namibia - are all linked via these four shared river basins. In this case the combination of economic dependence on the water resources, along with the fact that these four countries have all reached the limits of readily available supplies, suggests that they are in fact a classic example of a hydropolitical security complex, even if the respective riparian states do not regard themselves in this fashion. This study (Turton, 2000) is finding that the existence of durable regimes has a direct correlation with the ability of a riparian state to generate uncontested basin-wide data. In this regard, there seem to be two distinct components at work. On the one hand, the ability of a given riparian to generate accurate baseline data, is an indication of the existence of what Homer-Dixon (2000) calls technical ingenuity. On the other hand, the ability to negotiate with other co-basin states is an indication of the existence of what Homer-Dixon (2000) calls social ingenuity. One important component of this social ingenuity is the ability to legitimize data through negotiations, thereby establishing an uncontested foundation on which future cooperation can be based. Another component is the ability to negotiate additional consensus-building mechanisms that institutionalize the conflict potential and therefore increase the security of supply for each riparian by providing readily predictable outcomes and reduced transaction costs.

Overall Statement of the Problem
How can the zero-sum outcome of basin closure be transformed into a plus-sum outcome in South Africa's international river basins?

Five Sub-Problems	**Five Hypotheses**
What are the results of basin closure?	Increasing levels of insecurity occur.
What are the results of increasing levels of insecurity?	The securitization of water resource management is a natural result of closure.
What alternatives to the securitization of water resource management exist?	Regime creation can desecuritize water resource management while still maintaining the necessary security of supply.
What are the critical elements of regime creation for water resource management?	A common set of rules and procedures, uncontested hydrological data and a conflict management mechanism are critical elements.
What is the necessary condition for regime creation?	The existence of sufficient ingenuity or adaptive capacity is a necessary condition.

Figure 1. Schematic representation of the main sub-problems and hypotheses driving the current South African research project (Turton, 2000).

The Orange River Basin, which is strategically important to Lesotho, South Africa and Namibia, is the first basin within SADC to establish a regime in terms of the Protocol on Shared Watercourses, called the Orange/Senqu River Basin Commission (ORACOM), in which all riparian states are involved (Turton, 2002). Botswana has negotiated itself a position within the regime even though it contributes no streamflow to the river and does not use the resource in any significant way. This has given Botswana greater diplomatic leverage in other river basins that are more important to its own national security than the Orange River is. These are the Limpopo (shared with Zimbabwe, South Africa and Mozambique) and the Okavango (shared with Namibia, Angola and Zimbabwe) (Turton, 2002), strengthening the argument that what we are seeing is the emergence of a Southern African hydropolitical security complex. Significantly, there is an uncontested set of data that covers the entire Orange River Basin to which all riparians have easy access. This has generated the necessary consensus on which additional institutional development can occur. In the river basins that are shared with Mozambique however, this is not the case. The Limpopo, Incomati and Maputo River Basins are shared between South Africa, Mozambique and other states such as Botswana, Zimbabwe and Swaziland. In all cases, Mozambique has the least capacity to generate basin-wide data, followed by Zimbabwe. In both of these cases, the regimes concerned are the least developed institutionally and the most problematic in terms of sustained management. Where they do exist, these regimes are bilateral in nature, being unable to manage the entire basin. Therefore it seems that the ability to generate accurate data (as an element of technical ingenuity), coupled with the ability to negotiate agreements and gain consensus over the accuracy and legitimacy of that data (as an element of social ingenuity), are the critical issues when moving from resource capture to cooperation and alliances. In short, 2nd order resources tend to determine the propensity for Hydrosolidarity. It is consequently encouraging to note that the Swedish Foreign Ministry "Development Financing 2000" project (Nicol *et al.,* 2001) is gearing up to address this fundamental issue.

Conclusion

The existing international water resource management discourse has been framed in securitization rhetoric, which in turn has led to unintended consequences, despite the best intentions of the various authors. One of these is the undermining of investor confidence, which in turn is leading to economic stagnation and the inability to build and maintain enduring water management institutions. What is therefore needed is a critical review of that discourse, specifically regarding attempts to desecuritize the issues. Empirical research from Southern Africa is showing that the ability to generate uncontested, and therefore legitimate, basin-wide data lies at the heart of Hydrosolidarity. It is therefore deeply encouraging that the "Development Financing 2000" project has the necessary ingredients to turn the discourse around, thereby ensuring greater international equity and sustainability. It is hoped that the forthcoming World Summit on Sustainable Development (Rio + 10) and 3rd World Water Forum will build on this new trend.

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