The politics of security in the Okavango river basin:
From civil war to saving wetlands (1975 – 2002); a preliminary security impact analysis

By

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INTRODUCTION

The Okavango Delta is a near-pristine wetland in a semi-arid region. Sustainable development means a compromise between respecting the ecosystem's integrity and the economic well-being of future generations – safeguarding the economic, environmental and, the cultural values of the Okavango area. The current consensus in the international water world is that a catchment like the Okavango is best managed in an integrated manner, in which hydrological boundaries rather than administrative boundaries are, respected (Wester & Warner, 2002).

However, the clash between securitised environmental and economic values of water conflict, and indeed, interventions (projects) in the Okavango Delta has given rise to conflicts between states and interest groups as well as minor inter-state disputes.

The Okavango case is hardly unique. Other projects in the region (Epupa and the Lesotho Highlands Water Project) have provoked similar standoffs, particularly between interest groups and governments. We therefore propose a way of understanding how and why such projects elicit such strong responses and if these can be modified to attenuate existing and future disputes. In so doing, the case study provides building blocks and empirical testing material for a Security Impact Analysis (SIA) for new projects. Our approach will be 'strategic-constructivism' which is shorthand phrase to express the assumption that people have perceptions, theories, and stories about security. These aspects are used in a goal-oriented manner – in which the goal may not be security itself but where 'security' opens a space of urgency that might otherwise have remained closed.

Buzan *et al*. (1998) have called attention to the experiential fact that the domain of security presents special possibilities and limits to move the playing field by calling on existential threats. Likewise in the field of political ecology, Lees (2001) has shown how threats of crisis proportions have special purchase on the intended audience legitimising extraordinary measures. Invoking a danger to life and limb, or by extension, vital symbols of identity, and religion, or similarly sacrosanct values can release special economic, social, and political capital.

In this chapter, we shall introduce the idea of an SIA. After describing the theoretical tools, we shall first inventory the *hydropolitical (security) positions*, *roles* and *strategies* of the riparian countries, including securitising moves. The problem statement to be addressed is: to what extent, do internal security issues endanger or promote the sustainable use of the water resources of the Okavango River? The hypothesis is: internal security issues will have a negative impact on the sustainable development of the water resources of the Okavango River. The supposition is that more sustainable management of the Okavango can be addressed by better communication and information between the actors involved in the hydropolitics of Okavango River basin. These actors include both the state and non-state entities, like governments, interest groups, non-governmental organisations, and members from the epistemic community. The chapter roughly covers the period 1975 to 2002; starting with Angola's independence in 1975 and ending with the death of the rebel leader Jonas Savimbi in 2002. Angola is the upper most riparian in the river basin, and therefore a pivotal state in its hydropolitical configuration.

In the final lap of the chapter, we explore why it could be a sound idea to institutionalise such a dialogue between proponents and opponents, initiators and implementers, beneficiaries and

adversaries, as a mode of Alternative Dispute Resolution. South Africa's National Water Act (Act No. 36 of 1998) contains strong elements of this in creating Catchment Management Agencies (CMAs). It would be commendable to consider the establishment of a multi-stakeholder forum at the international level.

CONCEPTUAL DEVELOPMENT

Transboundary water systems are part of a regional security complex

The Okavango Delta is part of an international river system. The International Law Commission (ILC) of the United Nations (UN) defines an international river as a waterway of which parts of it is situated in a number of states (McCaffrey, 1995:89). This means that a plethora of actors, from these basin states, can be involved in the security and risk perceptions concerning transboundary rivers.

A transboundary river is part of a *regional security complex*, defined by hydrological interdependence (Lindholm, 1995). Buzan (1991) has a valid point in stating that a transboundary river in itself does not necessarily form a regional complex, as water is often not the mainstay of a country's security. However, if we realise that water conflicts are very often only the focus of a wider-ranging conflict, we can indicate that transboundary rivers do involve security and risk concerns for both the environment and humans. For instance, a large dam project can have both environmental and human security impacts and opportunities: contributing to global warming[1], but at the same time provide much needed water resources to society and the environment (Scudder, 1997).

A regional security community is interdependent, a key condition for any multi-stakeholder resource negotiation (Röling, 1994). As we shall show below, regional security hinges on different domains and levels – a project in one area has ramifications across borders and social boundaries.

Projects redistribute risk and security

What is security? Literally, *s(in)e cura* means a state of living without care or concern. Security, then, is a psychological state. Usefully, the German word *Sicherheit* refers both to certainty, safety, and security, all of which, as Bauman (1999) notes, are under threat in the modern world. It is important to be aware of these connotations as people especially dread uncertainty, and while uncertainty is endemic to complex water systems like a delta, we shall argue that information and knowledge exchange can go some way to alleviating the sense of insecurity.

Each water project inevitably redistributes (in)security. Changes resulting from developmental interventions may unduly expose some domestic or foreign groups to hazard and excluded actors from security benefits. Rather than concentrate upon the function of undifferentiated nation states, we need to reflect as much as possible on *all* of the groups who gain or lose (Linklater, 1995: 9-10).

A key step therefore is to inventory actors' *security positions* vis-à-vis the water resource (in which, as we shall see, 'position' can both relate to physical location and discursive stance) and how the project changes this position. This is to recognise the damage that can be done

[1] An argument made by environmental interest groups to highlight the negative implications of large dams.

by (any) sudden change of security positions - a checklist of risk excesses (security deficits) to be attended to. Nonetheless, it is neither fair nor correct to treat all stakeholders in water interventions as losers or fragile 'eggshells'. Some are in fact clear or unexpected winners; others may be offered a package that improves their prospects for a better future. While an intervention may present a crisis, change does not have to spell disaster for all. Depending on their resilience, actor groups may find opportunity and gain in change. Indeed, several of us court risk (mountaineers, stock brokers, *etc*.), because the opportunity it provides them outweighs the potential losses. To give a fairer hearing to both the pluses and minuses we need to consider both opportunities (+) and threats (-) resulting from the intervention, in keeping with the two sides of risk.

But unlike risk, which can have a positive connotation of adventurousness (risk taking), *insecurity* is an intuitive bad. Security discourse is therefore almost inherently conservative, aimed at retaining a certain *status quo*. Any change, disturbance of the safe stasis, may therefore be perceived as risky.

This is important to note, as the study of security is only related to the 'danger' side of risk, while projects bring opportunities as well. As different types of security are at stake, a negotiation process may take place in which one type of security is traded off for another – ample financial compensation may make up for the loss of one's land. Often projects involve some kind of *security (risk) exchange or swap*, which we can make explicit in an SIA (to be discussed later in the chapter).

In economist terms, we may say that security demand is matched by security supply. Demand in the 'risk market' is met by actors offering to absorb risk (the insurance industry), provide protection from hazard (civil engineers), or risk-free profit on investment (economic security) since providing this good provides them with economic, social or political clout, status, and power. This aspect is important, as suppliers of security can be expected to seek a problem and a clientele for their 'security solution'. Their problematisation of a situation will point at a particular type of solution, a proposal for a particular social arrangement – which represents a claim to provide agency and a claim to scarce resources to enable the solution. Thus, the motives for initiating a project may be ulterior, beyond the stated benefits of the project itself.

In this respect, Leiss and Chiciolko's (1995) claim that each actor seeks to off-load risk on others is flawed. Risk offload would mean an endless shifting back and forth of risks. The recognition of 'positive insecurity' and 'security supply' seeks to restore the balance.

A strategic-constructivist approach

The above has indicated the possibility of strategic manoeuvring in the 'security market' for water projects. This is made possible by the nature of risk and security and is about what *might* happen, and who or what will do the damage – for good or for bad.

Furthermore, there is both a lack of universally agreed certainty on the 'facts' and on the values at stake. While scientists still have a duty to bring in the best evidence they can, they cannot expect to convince their audience but will need to engage with other perspectives and incommensurable values (Espeland, 1998). Such problems cannot be solved by expertise and rule making but need to be negotiated between stakeholders. The combination of pervasive uncertainty and value differentiation involved in both the water management and security domains easily create 'wicked problems' – problems that will not bear addressing solely on

technical and scientific grounds and are fraught by protracted conflict and ineffective outcomes.

In 'wicked problems', uncertainty and incompatible value orientations tend to prevent quick closure through an 'objectified' (expert) security discourse leading to one best approach. The issue is so close to the hearts and minds of important interested parties that stakeholders in security, once 'aware' of risk and insecurity, form opinions about whether their current and expected levels of security are secure enough.

In constructivist terms (Berger & Luckmann, 1966), there is no single best approach to security. We do not claim a position of total relativism ('strong constructivism') – when enemy tanks are at your door or a flood washes your house away. There are few basic 'facts' to haggle about. We shall take a 'weak constructivist' approach (e.g. Tansey, 1999) that maintains that a great deal, but not all of reality, is constructed in the eye of the beholder[2].

Security, then, is a perception, a gut feeling rather than a fact out there. Short of psychometric research, there is no way in which to know how (in)secure people 'really' feel. We can only analyse their utterances about the issue. Risk perception and risk representation is not the same thing. Those who speak in the public arena – politicians, interest groups, NGOs, media commentators *etc*. – tend to be aware of how a message comes across, and therefore are less likely to speak from an emotion of fear like ordinary citizens do. They are more likely to reflect on the effects of their representation. In fact, the professed sense of risk, insecurity, and vulnerability may or may not be different from the experienced, but unexpressed, sense of risk.

From a political science approach, we allow for the possibility that people do not express their views on risk out of the blue, but for a purpose, that is, with strategic (instrumental) goal rationality. That assumption opens important alternative avenues for understanding discourse. With garbage-can theory in the back of our minds we can see that means and ends are frequently reverse: a 'solution' is there, a problem needs to be found to legitimise and enable the solution. Just like military interventions are often legitimised by winning coalitions of (spurious or real) arguments such as hegemonic aspirations, access to resources, humanitarian considerations, personal advancement *etc*. (Jaap de Wilde, pers. comm., 2003) building a dam can be legitimised by security arguments, but informed by other considerations – employment, technological challenge, symbolic national pride, *etc*. We thus surmise that a security claim can be a means as well as an end.

This may or may not always be a conscious strategy. We just note that the definition and language of 'security', with its powerful connotation of survival, can be fungible, that is, it can be instrumentalised to meet a set of (ulterior) goals. One powerful use of security language is to provide closure in a protracted debate.

Securitisation and TINA-isations

[2] Cultural studies of risk, with landmark publications by Holling (1978) and Douglas and Wildawsky, suggest that risk perception correlates with the degree of social organisation and rules/solidarity links ('group' and 'grid'). In the case of great *uncertainty* different 'stories' on how a mishap emerged, based on competing cultural knowledge systems, can take on great significance. As they need to support their way of life against others, different groups will construct the world such that their worldview best supports their way of organising. This leads to 'contradictory certitudes', that is, each group is certain of certain things, but the certainties clash with those held by the other groups (Thompson, 1989).

Above, we have broached the possibility that stakeholders use language to improve their security position. This has an important consequence for understanding debates on security.

First, it is often observed that political actors make moves for closure by foreclosing alternatives. Most famously, UK Prime Minister Thatcher used to say 'There Is No Alternative' (TINA) ignoring the fact that, *strictu sensu*, there always is an alternative (as noted by Beer, 1995). Premature closure of project alternatives means that degrees of freedom for negotiations are reduced, and thus conflict potential enlarged. (Of course, if closure never happens, the process also is mired). We shall coin the phrase 'TINA-isation' to denote an attempt to provide a shortcut towards rapid decision-making, shutting out time- and energy-consuming competition and democratic debate.

A particular form of TINA-isation is securitisation. As Barry Buzan, Ole Waver and Jaap de Wilde (1998) have shown, actors in fact use language to move a project from the realm of everyday political negotiation to the realm of non-negotiable absolute of life and death (security) issues. Such *securitisations* (Buzan *et al*., 1998), where we run up against (discursive) absolutes, pose a serious limit to a process of negotiation.

To analyse the value and impact of those strategies we shall take a strategic constructivist approach – accepting that actors ultimately construct security, but that these constructions may be conscious, goal serving strategies rather than mechanistic outcomes of social processes. We argue that 'facts out there' are not necessarily decisive for the political outcome – a strong example of which was the Brent Spar furore in 1995, in which Greenpeace won the day despite the superior information provided by Shell.

The security speech act of 'securitisation' is a claim of an extraordinary threat legitimising extraordinary measures, elevating a non-security issue to a security issue. In light of the key political science question 'who gets what, where and how', we may ask whether a securitisation plays a role in the process of accessing such resources. From both sides, these arguments are aimed at enhancing or undermining the legitimacy of the project more than anything else is. We may feel justified in discounting for inevitable amplification and dramatisation of both (security) cost and benefits in the heat of the debate, but not overlook this eminently political aspect.

As all is fair in political struggle, one often cannot tell whether a securitisation is a genuine cry of despair or cunning strategy. In the struggle for funds and attention, stakeholder groups can pose as beneficiaries or victims – or be hijacked as such, when outsider groups depict them as vulnerable, either to the supposed illness (the flood) or the side effects of the remedy (the project). Buzan *et al* (1998) really claim that securitisation strategies are deliberate strategies to manage the risk perceptions of intended audiences to justify policies, by representing risks as mortal dangers or as acceptable and even useful discomforts.

A securitising move may take the form of the reproach of 'under securitisation' (the wilful neglect of an extraordinary pressing threat), which is presented as a 'fact' by those who seek to voice concern at an absence of securitisation (Buzan *et al* 1998). In the strategic constructivist approach, we can call attention to different motives and interests for calling attention to a shortage of securitisation (raising alarm). People problematise the (imputed) sense of *se-cura*, where a state of 'living without a care' becomes 'careless living'. Deliberate under securitisation no doubt happens, for reasons of (institutional) survival or other, but it is

more interesting to understand why certain issues become securitised while others remain un-securitised.

A security claim cannot fall out of the clear blue sky. Security claims are constructed on a body of knowledge – whether intuitive fear or scientific knowledge that provides an *attribution* of who or what is the threat, who or what is being threatened and how grave the danger is and who should remedy it (Buzan *et al*., 1998). As certainty is an important aspect of security, the accuracy and transparency of information about risks would seem to be paramount. Yet, in their need to connect cause and effect, people are quite willing to fill in the blanks, so that the validity of the information turns out not to be a necessary requirement. The lack of certainty also gives rise to opposing risk stories (attributions), paving the way for politicisation.

Below we explore what the factors for 'felicity' (happy landing) of the risk story may be.

Who can speak security?

A speech act is not really performed unless its context and audience respond in the intended way. In the well-known Westphalian model, the state is the sole arbiter of security – hegemonic in the international arena, sovereign in the protection of its citizens by virtue of its rightful monopoly on the means of violence. This Pandora's box is opening up, however, as new types of security have taken the scene, new referents for security as well as actors (private and civil-society) who claim to be able to provide security (Gleditsch, 1998). This provides new audiences and new 'selling points' of a securitisation.

As to our knowledge, there is no theory of felicity; we shall provisionally mark the territory. How 'felicitous' this security claim is with the intended audience depends on the legitimacy of the sender (e.g. power position, social status) and message, how it resonates with the fears and concerns of that audience. Apart from that, the key condition for felicity of a securitisation is *urgency* (Buzan *et al*., 1998). As a proxy, we propose that 'urgency' has four key elements: time, scale, existentiality (evidenced in a discourse of 'survival' and 'annihilation') and affinity. For the scale element, Buzan's five-by-five grid is useful in categorising the level of risks and securitisations[3]. As for time and existentiality, a threat that is 'clear and present' commands more 'felicity' with the intended audience than a 'creeping catastrophe'. Thus, the inundation of an island now commands greater urgency than a secular process, and the debate for climate change necessarily a lower political urgency than that on *Al-Qaeda*. This by no means makes sea-level rise a lesser evil, but it has the benefit of making it more negotiable, while talks on terrorism easily reach a point of no return, demanding or killing off legitimacy for the project. Finally, *affinity* (cuddlability) makes children, seals and backyards so much more successful than amoebas and ozone layers as 'securisitable' goods.

Not everybody's claim is accorded equal value. Out of the many people making security claims, the *hegemonic* security discourse tends to originate in the world of experts – military ones in the case of conflict, water experts in the domain of threats like floods, droughts, pollution, and integrated water resources management (IWRM). The water balance, hydrographs and flood contours produced by the hydrological community provide the starting points for any discussion about 'objective/objectified flood security. This may well be at odds

[3] It is helpful in this respect to follow Venter's (1998) identification of macro- and micro-political risks, the former affecting the whole system, the latter only a sector or industry.

with the (less scientifically validated) fact finding by other security claimers – 'subjective securities'.

The present analysis concentrates on people's (discursive) security strategies around a water project. Conflicts easily arise over the (re)distribution of security positions, which necessarily follows from major changes in the management of the water resource – whether autonomous processes (climate change, population pressure) or planned (interventions, new rules, and regulations). Water projects are bound to entail differential costs and benefits to different stakeholders. As a result, water projects change stakeholders' security positions. They create facts because they are not always well anticipated. The analysis starts from this assumption.

Towards a Security Impact Analysis

So far, we have postulated that actors' security positions and perceptions are affected by project interventions, and that there are suppliers and customers for security. The supply of water security has become a problematic issue in the course of the 1980s and 1990s. Controversies over water projects have caused those who supply or facilitate the goods and skills and design the works - donors, engineers, consultants, NGOs, and interest groups - to reflect more on the consequences of interventions - not only on the technical indicators such as efficacy and reliability, but also socio-political equitability issues. A lack of perceived legitimacy (to be justified in playing one's role and use the means to the ends) can kill a technically and economically sound project.

There is, however, no coherent framework for project assessment in security terms. In evaluating public works projects, 'value-for-money' or benefit-cost-analyses are still the norm. However, the values involved in pushing through (or resisting) a project are quite often non-economic. In the Netherlands, 'insecurity' itself is often enough to justify a project almost irrespective of costs. The environmental movement, on the other hand, could score victories by stopping projects by invoking environmental values over economic considerations. Political motives like national pride or reputation, or cultural motives like archaeological heritage can be said to 'securitise' an issue. It is, then, important to consider the social-political project environment, and the psychological forces at play, before embarking on a major water project. Later, it will be argued that such an assessment should take place in participation with a diversity of stakeholders, to arrive at a multifaceted picture of gains and losses.

level/type	Military	Economic	Environmental	Societal	Political
International					
Macro-region					
Unit (state)					
Local					
Individual					

Fig. 1. Security Diagram, after Buzan *et al.* 1998. This 25-area model employed to categorise and structure the debate. It provides multiple domains and levels of security. Any water project crosscuts these levels and domains.

In any such area, some actors ('security suppliers') may be called in because they are prepared to take or shoulder certain risks or are able to improve security. Other actors will force themselves into the debate by insisting that certain types of security should be provided/guaranteed ('security claimants/demand').

In each grid area, there will be risk ceilings (security thresholds) that may not be surpassed on pain of project abandonment, for example excessive vulnerability to terrorist attacks, or the exit of crucial stakeholders who find their basic values compromised beyond redemption. Acceptance will only be possible through remedial measures, a trade-off where one type of security is sacrificed for another type of security, such as economic compensation for physical harm. In addition to scoring risks in terms of magnitude and impact in a risk index (Venter, 1999), we could therefore have different alternative arrangements for risk alleviation.

As we have seen, such swaps are difficult to make where securitising moves have taken place. For such cases, desecuritising strategies need to be developed, which may involve a re-politicisation of issues. Finding alternatives where there is 'no alternative' can create new degrees of freedom for negotiating win-win situations.

Below, we shall make a preliminary analysis of the controversies over the development of the Okavango River system with the help of the above concepts. After a physical description of the actors and factors impinging on the development of the Delta, we will inventory the relevant security positions and securitisations[4].

A scale is devised to determine the security impacts of the issues identified. This scale will be structured in such a way to indicate whether an issue has a positive (+) or negative (-) impact on the water resources of the Okavango River basin. The scale will look as follows, namely:

<Insert Figure 2 here>

Figure 2. The SIA scale.

The scale is compatible with the risks (both positive and negative) that can impact (positively or negatively) on the water resources development trajectory of the Okavango River. An issue that will have a most positive impact will be graded as a +5 issue. An issue that will have the most negative impact will be graded as a -5. An issue that can go either way (positive or negative) will be graded as 0 (zero). The arrow indicates that the security issue can move along the scale according to the change in political situation, time, and level of salience. Thus, the security issues within a river basin are not fixed according to level, time, and scale, but are dynamic. The riparian position (upper riparian *etc*.) and the discursive attitude of the actors towards the water resources of the Okavango will also be graded by using the scale.

A PHYSICAL DESCRIPTION OF THE OKAVANGO RIVER BASIN

[4] Note that such an Assessment may not only be based on the current opinion of stakeholders but may also on reasoning to predict what people might think in the future. The latter also has the advantage that the stakeholders can less easily try to manipulate the outcome if they are aware of the research aim. Since we are interested in predicting strategies and underlying opinions of stakeholders it is important to compare the prevailing perceptions, even if illogical from the perspective of the researcher.

The Okavango River rises in central Angola (where it is known as the *Cubango*) on the Bié Plateau south of Nova Lisboa and east of Huambo. It flows south-eastwards for 650 kilometres (km) before it forms the border between Angola and Namibia for 400 km. It dissects the Caprivi Strip, crosses Namibia and enters Botswana. Afterwards it flows for 100 km before it 'fans' out to form the Okavango Delta. The Delta lends to the river a unique characteristic. The Okavango is an endoric river system, with its outflow not into the sea but an inland delta (Meissner, 1998a:70; Ashton, 2000a:94; Ashton, 2003:165).

The river has a total length of 1,727 km, with a mean annual run-off (MAR) of between 10 to 11.6 billion cubic meters (bcm). Some experts note that the Okavango River has surplus water resources of high quality (Conley, 1995:7) due to low intensive utilisation.

The main tributary of the Okavango River is the perennial *Cuito* River with its source also on the Bié Plateau. Another tributary of the Okavango is the ephemeral Omuramba-Omatako River. This river does not contribute any significant water to the Okavango's flow, except during seasons with considerable high rainfall. The Nata River joins the system from Zimbabwe and flows into the Makgadikgadi Pans. However, and because it does not contribute water to the Okavango, it is not considered part of the Okavango system. Based on this, Zimbabwe does not form part of the water political milieu of the Okavango River basin. Three riparian states therefore share the Okavango River: Angola, Botswana, and Namibia (Heyns, 1995a:9; Ashton, 2000b:80; Ashton, 2000a:94; Heyns, 2003:16).

THE ACTORS

From the physical description of the Okavango River basin three state actors are identified - Angola, Botswana, and Namibia. Because of their dependence, to a lesser or greater extent on the river's water resources, these actors will securitise the Okavango, depending on prevailing internal security issues. This will, furthermore, be influenced by the riparian's geopolitical position in the river basin.

Within, and crosscutting this hydro-political actor configuration, sub- and transnational actors have an impact on the Okavango politics: Interest groups and the scientific (epistemic) community. This section of the chapter scrutinises the internal security issues of the states sharing the river.

Angola

Internal Security Issues

The Economy

In 2000, the World Bank estimated the GNI *per capita* of Angola at US$ 1 180, while the Angolan economy was ranked 181st out of 208 economies. If this is compared to South Africa (the regional economic power house in the SADC region), it clarifies Angola's economic capacity. In 2000, the World Bank estimated South Africa's GNI *per capita* at US$ 9 160, while its economy was ranked 72nd in the world (Internet: The World, 2000a). This indicates to what extent the Angolan economy was hindered to develop due to years of civil war, despite its huge natural resource base (consisting of oil, diamonds, arable land, and water).

Angola is a potentially wealthy country. It is expected that oil production will increase from around 900,000 barrels/day (b/d), at present, to 1.4 million b/d by 2005 and to nearly 2 million b/d by 2007. Offshore oil production dominates the economy contributing 60% to the GDP (Internet: The World Bank, 2000b).

Therefore, to facilitate economic development due to increased oil production Angola might start looking at its surface water resources to supply bulk water to its expanding economy. The Okavango River might be one of these water resources.

The Civil War

One of the outstanding features of Angolan domestic politics was the civil war (from 1975 to 2002). This violent event had a profound impact on Angola's political setting. The war broke out after Portugal relinquished its African colonies after the Lisbon *coup d' etat* of April 1974. Portugal withdrew from Angola in 1975 and left behind a Marxist dictatorship. Yet, this new government was a complete failure because it could not foster political stability and economic growth. Following independence, the civil war broke out when the *União Nacional para a Independência Total de Angola* (UNITA) tried to get rid of the one-party government system that took power after Portuguese withdrawal (Calvocoressi, 1987:196; Huntington, 1993:57-58; Kirsten & Bester, 1997:51; Davenport & Saunders, 2000:527).

The conflict between the *Movimento Popular de Libertação de Angola* (MPLA) and UNITA ended after the killing of the UNITA leader, Jonas Savimbi on 22 February 2002 (Pearce *et al*, 2002; Meissner, 2002:100) but political and socio-economic problems remain that need to be tackled by the political leadership.

The civil war has led to the squandering of human, natural, financial and institutional resources coupled with rampant corruption. After the cold war, the MPLA leadership became openly bureaucratic and corrupt, losing its moral claims as the leaders of the struggle for independence. The corruption of the state bureaucracy is still rampant with a blurring between governance and business on the part of the political élite (Campbell, 2000:162-163; Cilliers, 2000:11). It is for this reason that Angola has a weak power political position within the Okavango River basin, for it does not have the second-order resources Botswana and Namibia has for water resources development. However, this might change especially after the end of the civil war.

The Future

A number of security aspects can be isolated that will have an impact on Angola's political future, namely:

- The end of the long civil war appears to be final. This, despite logistical difficulties that have delayed the process of integrating UNITA rebels into the regular government forces and food shortages that pose the risk of unrest at demobilisation camps. In August 2002, UNITA announced its transformation form a military force to a political party.
- That the civil war is over does not mean that the risks thereof have completely abated, although they were significantly reduced. The ending of the fighting will bring its own risks, especially in the near future. According to Political Risk Services (PRS) (2003a): "The most significant of these is the danger that the end of the war will unleash pent-up

hostility over the misdistribution of the country's wealth and the corruption that permeates all layers of government . . ."

- If the government hopes to finance the investments in infrastructure and social services - water included - a lending arrangement with the International Monetary Fund (IMF) will be required. This will be needed to dampen social discontent. If this scenario plays out the IMF will demand from government that it take steps to improve transparency of government accounts, especially the payments received from oil companies (PRS, 2003a).

Thus, the security issue is shifting from the military to the economic domain. This is likely to increase the pressure on the environmental (Okavango River) resource, jeopardising the integrity of the resource (environmental security).

Probable use of the Okavango's water resources by Angola

Angola is the upstream riparian in the Okavango River basin. Post-war reconstruction in Angola is likely to see a rapid acceleration in the demand for water upstream in the basin. About 140,000 people live in the *Cuando-Cubango* province, with most of them engaging in subsistence agriculture. According to the United Nations Development Programme (UNDP), 'current use of the basin's water resources is limited to water supplies to small regional centers and some small scale floodplain irrigation'. Moreover, since independence, there have been no considerable developments and investments in the headwaters of the *Cubango* and *Cuito* Rivers. A 1995 Provincial rehabilitation plan indicated that the Province's development would entail a considerable investment in water supply, sanitation, agriculture, and transportation. These plans are still to be undertaken, that could have severe potential consequences for the two downstream riparians. The Angolan Minister of Energy and Water, Botelho de Vasconcelos, stated that his country is considering the development of agricultural zones in south-eastern Cuando-Cubango province, using the Okavango River's water for irrigation (Porto & Clover, 2003:76; Turton, *et al*., 2002; Heyns, 2003:17; Mukumbira, 2003).

There is therefore uncertainty about Angola's plans to utilise the Okavango River as a source of water for either domestic or agricultural purposes. However, according to Porto and Clover (2003:76), "Largely as a result of this last phase of the war [during 2001 and early 2002], there are now 66,431 confirmed internally displaced peoples (IDPs) and 204,024 unconfirmed IDPs in the Province . . . These waves of de-population and displacement in the Province of *Cuando Cubango* have the potential to affect the hydro-environmental integrity of the source [of the Okavango River].

To face the current socio-economic condition, the Provincial government has identified the following priorities under a Provincial Emergency Plan of Action. Three of the seven priorities hold direct implications for water resources utilisation of the Okavango River:

- Agriculture and food security – to improve food security by distributing land and providing agricultural inputs and technical support, and the promotion of reforestation initiatives in resettlement areas. *Reforestation poses an additional demand on the resource, due to the environmental water demand of trees.*
- Water and sanitation – improvement of sanitation facilities by the construction of pit latrines in areas with high concentrations of IDPs, and the conducting of awareness and information campaigns on safe water and excrement disposal (this could lead to groundwater pollution seeping back into the river system); and

- Resettlement – support the resettlement of 4,000 families, and establish a reception area for new IDPs arriving in *Cuito Cuanavale* (Porto & Clover, 2003:76).

The other five priorities are health and nutrition; education; protection of IDPs, de-mining actions; and the resettlement of IDPs. These priorities are associated with the development priorities in the *Cuando Cubango* Province as peace becomes re-established (Porto & Clover, 2003:76).

Botswana

Internal Security Issues

The Economy

Botswana's GDP is about $4 318 million and between 1990 and 1995 the GNI grew at 4.2%. Between 1997 and 2000 the GDP grew by 7%. This is for a country that was classified as one of the six poorest countries in the world, at independence in 1966. So poor was Botswana that it received grants from the British government to cover its government expenditures (Handley, 1997:24; Fidzani, 1998:232; Meissner, 1998a:74).

By 1976, this had changed significantly. Botswana had uncovered some extensive sources of natural resource wealth. The most important of these were diamonds, copper and coal deposits. Today, Botswana is ranked one of the top seven diamond producers in the world (Fidzani, 1998:233).

Because of the discovery of diamonds, Botswana adopted a trickle-down approach to development. The government got rapid and large returns from the intensive capital investments in mining and reinvest those returns to improve the living standards of those who do not benefit directly from the mining sector. This strategy resulted in an economy that is too dependent on the mining sector and on imported foodstuffs, leading to a neglect of the agricultural sector (Fidzani, 1998:233). Thus, huge savings in water resources are afforded by Botswana through the importation of virtual water. This has a positive impact on the water resources base of the country, in that less water is consumed by the agricultural sector.

The Delta as a Ramsar Site and a Prime Tourist Attraction

The government of Botswana acceded to the Ramsar Convention on 4 April 1997, and the Okavango Delta was listed as a Ramsar Site of International Importance. In accordance with Article 3 of the Convention, Botswana is required to promote the conservation and wise use of the Delta. Regarding this, the country, under the leadership of the National Conservation Strategy Agency, has embarked on a management plan for the entire Delta. According to Pinheiro *et al*. (2003:111) "The need for the plan was necessitated by the fact that existing land use patterns for different areas are often guided by somewhat conflicting guidelines, and these need to be integrated in a single overall planning framework. The long-term goal of the management plan is to provide an integrated resource management for the Okavango Delta that will ensure its long-term conservation and provide benefits for the present and future well being of the people, through sustainable use of its natural resources".

The Delta is not only a Ramsar site, but also an important source of foreign revenue. The near pristine Delta is a big tourist attraction. Over the years, the tourism industry has grown

significantly, and the Delta has been one of Botswana's prime destinations. The Botswana government makes all possible efforts to keep the Delta a prime tourist site. Regarding this, the government has opted for a low volume/high cost tourism policy (Pinheiro *et al*., 2003:110) resulting in lessening the impacts people have on the environmental integrity of the Delta.

Nonetheless, the Okavango Delta's water resources represent a valuable source to meet a number of needs. Yet, the Delta is far removed from any human settlements of significant size. This means that no notable water abstractions have been implemented by Botswana, apart from the local use of water by communities situated in and around the Delta (Pinheiro *et al*., 2003:110).

HIV/AIDS

Botswana had one of the healthiest populations on the African continent until the onset of the HIV/AIDS epidemic. HIV/AIDS is a growing problem that has begun to damage the economy and the people. The Batswanas' average life expectancy dropped from more than 60 years to 47 years in 1999. Official reports indicate that 25% of adults are infected with HIV/AIDS, but as many as one-third of the sexual active population may be infected (PRS, 2003b:61).

We can thus say that economic expansion is matched by a prioritisation of environmental security, which will support economic security in another form as eco-tourism brings economic benefits. The overlay of HIV/AIDS affects the human security of people.

Developments in Botswana's portion of the Okavango system

According to Heyns (2003:17) "[N]o major development of the water resources of the Okavango River or the delta have taken place in Botswana, except for the Mopopi Dam, which was built to supply water to the Orapa diamond mine and was created by using the basin of the Putimolonwane pan and constructing earth embankments around it to impound more water". This dam is situated at the southern end of the Delta and is supplied by water pumped from the Boteti River, the outflow of the Delta. Nonetheless, this system has been replaced with groundwater due to the weak flow of the Boteti from the Delta (Heyns, 2003:17).

In the early 1990s, Botswana planned the Southern Okavango Integrated Water Development Plan (SOIWPD). It was temporarily shelved in 1992, even before the World Conservation Union (IUCN) could publish its draft review report on the project in October 1992. This was after the Botswana government was criticised by interest groups for planning to implement the project (Neme, 1997; Meissner, 1998:93; Heyns, 2003:17).

In theory, as the delta is entirely in Botswana, the country can do as it pleases with it. However, national and international pressures from interest groups influence the management. Botswana is now presenting itself as a socially and environmentally responsible actor, liaising with IUCN on wetland conservation, promoting another, less tangible type of security: a positive reputation.

Namibia

Internal Security Issues

The Economy

The Namibian economy relies heavily on the extraction and processing of minerals, processed fish and other manufacturers for export. The country is also the fifth largest producer of uranium in the world and an important source of gem-quality diamonds. Namibia has also one of the richest potential fisheries in the world. Furthermore, real GDP growth averaged 5% from 1990 to 1993, but has slowed down to an average of 3% during the period 1994 to 2001 (Internet: The World Bank, 2000c).

The largest contributor to GDP is government service, accounting for one-quarter. This is followed by primary sector activities, such as mining, large-scale commercial livestock farming, and fishing. Mining contributes one-tenth to the GDP. Namibia has a large natural resources base, good infrastructure and access to regional and international markets. These factors bid well for the development of a more diversified economy (EIU, 2002).

Water as a scarce resource

Although Namibia is endowed with a large natural resources base, water is extremely scarce. "Owing to low rainfall, rapid water evaporation caused by high temperatures, and the absence of perennial rivers except along the northern and southern borders, Namibia is highly susceptible to drought, and water supplies to the expanding populations in the main towns are coming under increasing pressure" (EIU, 2002) since independence.

Extraction of groundwater resources is increasingly exceeding aquifer replenishment because of recurrent drought and rising demand. Demand in Windhoek has increased substantially due to population growth. Water-saving measures have had a limited impact in this urban centre. The state-owned water company, NamWater, is implementing progressive tariff increases. This is an attempt to achieve full cost-recovery on new water-supply projects. The innovative Windhoek wastewater reclamation plant is being upgraded, to increase the supply of potable water. Supplies to Walvis Bay and the central coastal area are also under pressure. Falling water levels in local aquifers are the main reasons (EIU, 2002).

Namibia's Second National Development Plan (NDP2), which covers the period up to the year 2006, makes clear reference to the central role water plays in Namibia's development plans. The NDP2 is an indication of the necessity to align the activities of all government departments that influence the country's water resources with this strategic objective (Republic of Namibia, 2001; Ashton & Neal, 2003:41).

Namibia seems bent on a 'hydraulic mission', a water-fuelled economic development plan to escape drought and underdevelopment. This is coupled, to a certain extent, with water demand management (WDM) as the upgrading of Windhoek's wastewater reclamation plant indicates. As economic resource development is equated with security, the integrity for the resource may be less of a concern.

HIV/AIDS

According to *The Economist Intelligence Unit* (2002), HIV/AIDS has overtaken tuberculoses as the major killer disease in Namibia. Moreover, and according to the Joint United Nations Programme on HIV/AIDS (UNAIDS), 22.5% of the population were infected with HIV at end- 2001 and 13,000 people died from AIDS in 2000. The number of so-called AIDS orphans, at the end of 2001, was an estimated 47,000. It is estimated that by 2021, AIDS will cut average life expectancy to 47 years for males and 54 years for females, from 59 and 66 years respectively in 2001 (UNAIDS, 2002).

A CONCISE HYDROPOLITICAL HISTORY

So far, consideration was given to the individual actor's relation with the water resource. In this part of the chapter, the hydropolitical history of water resources development and cooperation in the basin is sketched (see Table 1).

Table 1. A concise hydropolitical history of the Okavango River basin.

Year/Period	**Event**	**Rationale (in the case of water related plans, policies, or projects)**	**Implemented (regarding water related plans, policies, or projects) (Yes/No?)**
1908	Proposed development, by the British government, of Ngamiland by using the Okavango Delta's water for irrigation.	Agricultural development of the region.	No
1918	Prof. Ernest Schwarz's proposed grand plan to alter the climate of Southern Africa by using the Okavango's water to turn Makgadikgadi Pan into a vast lake.	Meteorological manipulation to make the region suitable for agriculture.	No
1949	Proposed plan to construct a barrage at the Delta's inlet.	To tap the Delta's agricultural potential.	No
1956	Reconnaissance mission to look for a suitable dam site along the Okavango River.	To construct a hydroelectric and irrigation project.	No.
1964	Treaty between Portugal and South Africa.	Regarding rivers of joint interest, which included the Cuvelai, Okavango, Limpopo, Maputo, and Incomati Rivers.	Yes.
1966	Botswana gets independence from Great Britain.	-	-
1975	Water master plan for Namibia by South Africa.	To implement the Eastern National Water Carrier.	Yes
1975	Angolan becomes independent.	-	-
1976	Symposium organised by the Botswana Society.	To look into ways on how the Delta's environment would be affected by development plans.	Yes The symposium concluded that the resource potential of the Delta should be exploited in an integrated manner.
1990	Namibian independence from South Africa.	-	-
18 September 1990	Treaty between Angola and Namibia.	To establish a Joint Commission of	Yes

		Cooperation (JCC) regarding general cooperation between the two countries.	
13 November 1990	Treaty between Botswana and Namibia	To establish a Joint Permanent Water Commission (JPWC) covering aspects regarding Chobe-Linyanti River system and operates separately from OKACOM.	Yes
15 September 1994	Establishment of the Permanent Okavango River Basin Water Commission (OKACOM).	Multilateral legal forum between Angola, Botswana, and Namibia for the development of the Okavango River.	Yes.
1992	Botswana shelves the Southern Okavango Integrated Water development Plan (SOIWDP).	Opposition from interest groups was too strong.	Yes.
Mid-1990s	Namibia announces plans to extend the ENWC from Tsumeb to Rundu on the banks of the Okavango River.	To deliver more water to the central region of the country, because of a severe drought.	No
2002	Namibia announces plans to develop the Popa Falls hydroelectric installation.	To produce electricity for the ever increasing energy demand in Namibia and elsewhere.	Uncertain

Sources: Schwarz (1921:166-181); Meissner (1998:85, 86); Turton *et al*. (2002); Wellington (1949:566-567); Smit (1991:166, 167-168, 172); DWA (1974); Stern & Lau (1990:75-76); Heyns (1995a:10); Ohlsson (1995:60); Treaty (1994); CSIR (1997:13-6); Treaty (1990); Ramberg (1997); Ashton (2000a:82); Nampower (2003a).

From table 1 it is evident that it was not only states that played a role in the hydropolitical history of the Okavango River. Non-state actors were also involved. In the following parts of the chapter the role and involvement of interest groups is scrutinised more closely, followed by the epistemic community's role.

NON-STATE ACTORS IN THE WATER POLITICS OF THE OKAVANGO RIVER BASIN

Over the past decade the number of actors involved in the water politics of the Okavango River basin has increased substantially. This section will look at the involvement of interest groups and the epistemic community in the water politics of the Okavango River basin. Although a transnational matter, interest groups operate as linkage actors, connecting domestic security issues (mainly water resources projects) with the international political domain.

Interest groups

The SOIWDP

The interest groups involved are mainly concerned with the environmental integrity of the Delta, should any upstream developments take place in future. In 1992 Botswana shelved the

planned SOIWDP, to use part of the river's water resources for urban and mining water needs (Heyns, 2003:17).

The role and involvement of interest groups, lobbying against this project was an important factor in it being 'temporarily shelved'. The people of the delta opposed it, contending it would ruin their livelihoods, as the project could adversely affect the delta. The international environmental lobby also condemned the project, particularly Greenpeace, who started a campaign against Botswana's diamond industry (a portion of the delta's water was used to supply water to the Orapa Diamond mine in the north of the country) (Neme, 1997; Meissner, 1998b:30; Meissner, 1998c:20).

Phase 5 of the ENWC

In the mid-1990s, interest groups again played a role, when the Namibian government planned to implement Phase 5 of the ENWC. Presently, the Project's purpose is to divert water from the upper catchment of the Omatako River and the Karstveld aquifer for domestic and industrial consumption in the Windhoek-Okahandja-Karibib complex in the Swakop River catchment in central Namibia (Meissner, 1998a:88; Heyns, 2003:17).

The extension was planned due to a severe region-wide drought. In 1995, with the end of the drought, it remained dry in Namibia. It was for this reason the Namibia planned to implement Phase 5 (Swatuk, 1996:19; Meissner, 1998a:88).

Namibia's plans led to a low level dispute between itself and Botswana. The media and interest groups were quick to brand the dispute a "water war" (Meissner, 1998c:20). Was it in fact a water war or were the (national and international) interest groups only attempting to create a "water war" discourse to further their arguments against Phase 5? Looking at the definition of 'conflict', 'armed conflict', and a 'water war' will shed more light on the question.

The Africa Bureau of the United States Agency for International Development (USAID) defines a conflict "as a struggle over values or claims to status, power (i.e., through the politicization of identity) and scarce yet economically viable resources (i.e., land, water, natural resources, minerals and food), among two or more parties that perceive incompatible interests or express hostile attitudes (Internet: USAID, Date Unknown).

An armed conflict (war) takes place when two actors "engage in hostilities and military operations, usually for some political purpose" (Viotti & Kauppi, 1999:499). Meissner (1998c:20) and Turton (2000:112) note that a 'water war' can mean one of two things. Firstly it is when water is used as a weapon, either to bring about destruction, or to deny a population access to it, by targeting water installations, such as dams or by shutting off water supplies. Secondly, water resources can be the direct cause of conflict between two states - defined as a true water war.

Seen thus, there was no question of a "water war" between Namibia and Botswana, as the two countries did not engage each other militarily over the Okavango's water resources. The interest groups created a *discourse* of war, because war is one of the most undesirable situations to which human beings can be exposed to in the modern world. By creating a "war" discourse the interest groups painted a stronger and more negative image of the project and indicated the threat it posses towards the Okavango Delta. This was an attempt to raise

the issue to a higher level on the national (Botswana and Namibia), regional, and global agendas. Had they succeeded in doing so, it would have assisted their "crusade" against the ENWC.

Thus, not only states were involved in the low-level dispute. Interest groups, from Botswana, Namibia and abroad, lobbied the Namibian government not to implement Phase 5. In 1997, it rained over large parts of Namibia ending the drought. This prompted the Namibian government to temporarily shelve Phase 5 of the ENWC. However, the need to complete Phase 5 can only be delayed until 2009 (Meissner, 1998b:31; Pinheiro *et al*., 2002:8).

The Popa Falls hydroelectric installation

The Okavango River was yet again a target for development in 2002/2003. This time it concerned the 1969 plan to produce hydroelectricity at the Popa Falls in the Cavango Region of Namibia (DWA & Hydroconsults, 1969; Internet: NamPower, 2003a).

The plan is to construct a hydroelectric installation on the Okavango River for the production of 20 MW of electricity. A low-level weir that allows for no water abstraction but constant intake levels will produce the electricity. This system will release adequate water to maintain the flow of the falls, while diverting water from the diversion weir into a channel towards the hydropower station. The pre-feasibility study (permission for it was granted by OKACOM) of the project will be completed in July 2003 (Terblancé, 2002; Internet: Nampower, 2003a; Internet: NamPower, 2003b).

The hydropower installation will be able to provide electricity to south-eastern Angola, north-western Botswana, and southern Zambia and will lead to the extension of NamPower's (Namibia's electricity utility) electricity grid (Terblancé, 2002; Maletsky 2003).

The project has not yet been implemented, and it already garnered criticism from the epistemic community and interest groups alike. Geologists monitoring the development of the proposed project have expressed "grave concern". The geologists, under the leadership of Prof. Terence McCarthy of the University of Witwatersrand in South Africa, said the most significant impact would be the impoundment of river sediment by the weir. "Approximately 100,000 cubic metres of sand are brought into the panhandle portion of the Okavango swamps each year. This sediment is vital to the functioning of the ecosystem", McCarthy said. The sediment forces constant change, resulting in continuous ecosystem renewal within the Delta (Maletsky, 2003).

A number of public meetings, in Namibia and Botswana, were organised in February 2003, to gauge public opinion concerning the project. In Botswana, participants at one of the meetings in Gabarone rejected the plan. Fears, mainly from proprietors of safari companies, were expressed that the installation would destroy the Delta. Residents of Maun also said that they would not allow the Namibian government to continue with the project. They are dependent on the Okavango Delta as a source of revenue for Maun is the base for safari operators, hotels, and lodges. Residents stated that plants and animals would die if the project were implemented. The livelihood of people living around the Delta would therefore end (Terblancé, 2003; Maletsky, 2003; Retief, 2003) according to them. The same fears, as were expressed over the SOIWDP and the ENWC, were raised, and again it was interest groups in Botswana most vociferously opposing the proposed project.

Despite the aversion towards the project, NamPower's general manager, John Langford, indicated that it will not continue with the project if there ". . . are some concerns that we [Nampower] cannot mitigate . . . We will be transparent and if this project is not feasible we will look at other options". Moreover, OKACOM also has to approve the project. At the time of writing OKACOM has not yet given its approval (Maletsky, 2003; Mukumbira, 2003). There is therefore at this stage uncertainty regarding the implementation of the proposed project.

The epistemic community's role

The role of the epistemic community has already been touched upon to a certain extent in the previous section. This part will look more into the community's role in the hydropolitics of the Okavango River. Again, as in the case with interest groups, the epistemic community acts as a linkage between internal security matters and the international domain.

Regarding this, the involvement of the community may be important as an information broker. Information itself may be withheld or even classified (securitised) invoking national security. We have seen that 'security' can be a strategic construct, and that non-military reasoning can underlie securitisation. A plethora of reasons can lie beneath non-sharing of information, from a desire to monopolise strategic knowledge, a sense of vulnerability down to sheer embarrassment because the information is incomplete, ill understood, disorganised, or inaccessible (based on observations by Van der Schans, pers. comm., Verhallen, pers. comm., 2003) which can breed distrust and hostility.

Reasonably impartial knowledge brokers can help take the sting out of information deadlock or fill knowledge gaps. Indeed, during the past decade the epistemic community started to become increasingly involved in the matters concerning the Okavango River basin. This is not to say that previously there was no interest, but the frequency of the involvement increased significantly during the 1990s, due to the water discourse putting more focus on the river basin as a potential source of conflict and cooperation and because of the unique natural characteristics of this aquatic system (the Delta's Ramsar site status and it being seen as one of Africa's last "untouched wildernesses") (Meissner, 1998:99).
So-called multi-stakeholder platforms (MSPs) bringing conflicting parties and neutral knowledge facilitators around the table can function as fora for defusing conflict, and facilitate constructive negotiation and joint learning (Röling and Woodhill 2001, Warner 2006). So-called 'water governance games' are role-playing MSPs in which actors (preferably those involved in or close to the conflict) play each other's role, can simulate actor responses to intervention and crisis scenarios (Baraglio Granja and Warner 2006). This facilitates , and facilitate an analysis of security positions, and how they are affected by change – a participatory Security Impact Analysis. A precondition for this is that actors recognise their interdependence in both the problem and solution (Röling and Woodhill 2001)

A number of studies have been conducted on the socio-economic and natural conditions of the Okavango River basin. This part of the chapter will briefly focus on two such projects – the Green Cross International (GCI) *Water for Peace Okavango Project* and the *Water and Ecosystem Resources in Regional Development* (WERRD) project.

The GCI project

GCI's project consists of a number of scientists from a wide range of academic disciplines, from the natural to the social sciences. The *Water for Peace* Project is an initiative implemented in conjunction with the United Nations Educational, Scientific, and Cultural Organisation's (UNESCO) *"From Potential Conflict to Cooperation Potential"* project. The GCI Project's main rationale is the building and strengthening of OKACOM. The crucial factor ". . . in ensuring sustainable and equitable water resources sharing is the level of cohesion within OKACOM. This will contribute to the social integration of a marginalised state such as Angola, as well as allowing civil-society to engage with the respective governments, through the commission" (Turton & Earle, 2003:2).

The WERRD project

The WERRD project, under the auspices of Linköping University in Sweden, is running parallel with that of GCI's project, but with dissimilar objectives. This project also consists of scientists from the natural to the social sciences. WERRD's general objective ". . . is to increase the understanding of the pre-condition for improved livelihoods for people living in different parts of the Okavango river basin without compromising essential environmental concerns, and to elevate relevant policies concerning land and water. Apart from policies within national entities, the attempts to formulate and assist in the execution of basin-wide policies are of key interest" (Lundqvist, 2002:1).

These projects, and the involvement of the epistemic community through them, is an indication of an attempt to present a balanced view to prevent resource conflict, build grassroots diplomatic contacts, and strengthen cooperation within an international river basin. Interest groups and governments are usually at loggerheads concerning the sustainable utilisation of an international river basin's water resources. The GCI and WERRD projects can contribute to a more stabilised political environment. In such an environment governments and civil society actors can engage each other through meaningful dialogue and come to an understanding regarding the environment and the security issues at stake. The epistemic community can therefore act as a stabilising agent through the scientific validation of certain securitised issues and an initiator of dialogues agent between stakeholders. It is also a linkage agent, connecting the internal and external political milieus of the Okavango River basin.

CONCLUSION

A number of internal security aspects of the basin countries play a role in the development of the Okavango River. In Angola, the end of the civil war, resettlement of IDP's and their reintegration into the Angolan economy through agriculture and the rehabilitation of the Angolan economy are high on the security agenda. Botswana, on the other hand, is concerned with the 'pristine' quality of the Okavango Delta, as a tourist and Ramsar site. For Namibia, sustained socio-economic development, through the implementation of water resources management projects tops the agenda. Thus, different security issues (in different security domains) are at stake within the Okavango River basin and have an impact on its hydropolitics.

In Table 1 below the actors and the securitised objects within the Okavango River are identified. While we have assigned values on the basis of the above anbalysis such an analysis should preferably be done together with conflicting parties or actors able to credibly represent them, of course in much more detail. The method recognises that actors – both state

and non-state actors have the ability to securitise issues in the basin. In the case of states the issue will be complementary to the political and socio-economic conditions within the country. Regarding non-state entities, like interest groups and the epistemic community, this also holds true, but non-state entities, especially interest groups, will be more ideologically driven than their state counterparts regarding the generation of securitised issues.

In addition to incompatible core values, both groups can be at loggerheads over facts. By providing verifiable information, the epistemic community (though, we hasten to say, this doesn't have to be limited to this community), can take the lead in desecuritising issues from this environment. It is also well placed to take a 'holistic' (integrate, basin-wide) view of the area[5].

Table 1. A Security Impact Analysis of the Okavango River basin.

Actor	Geopolitical position	Power political position	Securitised object
Angola	Upstream **-2**	Weak economy, because of civil war, but has potential to become stronger **-3**	Water for post-civil war rehabilitation. **-3**
Namibia	Mid-riparian **-1**	Strong economy/HIV/AIDS epidemic **+3**	Water for socio-economic development. **-2**
Botswana	Downstream riparian **+1**	Strong economy/ HIV/AIDS epidemic **+3**	Water for tourism in the Delta. **+4**
Interest groups	Internal and external to the Okavango River basin **+4**	Can be influential in the policy processes of the Okavango River basin **0**	The entire Okavango River basin and especially the Okavango Delta **+5**
Epistemic community	Internal and external to the basin **+4**	Can be influential in the policy processes of the Okavango River basin **+1**	The entire Okavango River basin **+4**

Table 1a: The Buzan model applied to the Okavango case: securitisable issues by domain.

Level Type of security	PHYSICAL	ECONOMIC	ECOLOGICAL	CULTURAL	POLITICAL
International			Threatened Integrity of Ramsar site (Botswana, international interest groups)		
Regional	Threat to peaceful co-existence				Reputation of OKACOM
National	Civil war	National	Drought (Namibia	Threatened	Water

[5] We should of course not be naïve about the impartiality of the epistemic community – research is being paid for, and sometimes pressure is applied by paymasters to come up with a particular view. A diversity of views, as represented in so-called Multi-Stakeholder Platforms, seems the best guarantee to overcome such bias.

	HIV/AIDS Hydraulic mission, socio-economic development, and the Ramsar site	socio-economic development (Namibia, Angola, Botswana)	and Botswana)	identity (Community groups); Internally Displaced Persons (Angola)	resources development policies

From Table 1 it is clear that different security issues are important in the context of different political and socio-economic environments. The grading of these issues on the SIA scale also differs according to the type of actor, the milieu, the geopolitical and power political positions, and the securitised object (presented as a Buzan diagram, securitisable issues organised by domain in Table 1a).

The general conclusion to be drawn is that most of the security issues can be rated as positive for sustainable management of the water system. Only one is neutral; the role and impact of interest groups on the policy processes of the Okavango River basin. The only negative aspects are Botswana's geo-political position in the basin and Angola's weakened economy.

This general positive outlook should be viewed with caution. The internal security issues inform the regulations and policies by which the three riparian countries manage their water resources. These regulations and policies are quite divergent, making it difficult to come up with a comprehensive plan to manage the water resources of the Okavango River. This could lead to the unsustainable development of the Okavango River by each of the riparians. There is, therefore, an endangering element inherent in the internal security issues towards sustainable development. However, there are three balancing factors in this regard.

The first is the role and involvement of interest groups. Although environmental interest groups have the ability to develop a "water war" discourse, it is their efforts in 'saving' the delta that has truly raised the awareness level about the area throughout the world. This has directly led to the second element – the role and involvement of the epistemic community as a stabilising, dialogue initiator, and linkage agent. The epistemic community is therefore a go-between between non-state entities and OKACOM – the third balancing factor. Having the necessary information from non-state entities and the epistemic community, OKACOM can make informed decisions regarding the sustainable development of the Okavango River basin.

Thus, internal and transnational security issues have the potential to endanger the sustainable development of the Okavango River basin, but a number of actors (interest groups, the epistemic community, and OKACOM) can mitigate this danger through dialogue and an informed understanding of these issues.

<Insert figure 3 here>

Fig. 3. The position of the Okavango basin on the SIA scale.

It should be noted that the SIA scale is based on our subjective observation of the actors, environments, and security issues operating within the Okavango River basin. Other observers might come to a different conclusion that ours, using more refined methodology. It is only tentative and subject to change over time. What is important though is that the basis for a model for the analysis of security issues has been introduced to the water discourse.

Hopefully, the instrument can kick off a more participatory approach to water management and security issues.

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