Hydro-hegemony in the context of the Orange River Basin

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Abstract

Hydro-hegemony is about power, usually expressed as a problem. In the real world we find that the concept of power is far more nuanced than this simplistic notion would allow us to understand. South Africa is clearly a regional hegemon in the context of the Orange River Basin, but it has used that power to create a stable basin-wide regime to the mutual benefit of all riparian states. This has been done over time when the regional setting was one of hostile military-styled confrontation as a local theatre of the Cold War. South Africa is an example of a plus-sum hydro-hegemon. Power is thus highly nuanced and needs to be analysed as such if that analysis is to be meaningful at a higher level of generalization. A counter theory is offered in the form of a Hydropolitical Complex in which different forms of power can be deployed to reach an outcome that is mutually beneficial to all riparian states. This paper analyses the Orange River basin as a Pivotal Basin in the Southern African Hydropolitical Complex and illustrates that power can be a solution as well.

Keywords: Basin closure; Benefit-sharing; Desecuritization; Hydropolitical Complex; Hydro-hegemony; Impacted State; Pivotal State; Plus-sum Hegemon; Regime; Securitization

1. Introduction

South Africa is a regional hegemon with the capacity of projecting power way beyond its national borders (Bernstein & Strasburg, 1988). At different times in its political history, this capacity has been displayed to varying degrees, with the most aggressive period being the Total Onslaught. South Africa is also an industrialized state, accounting for a substantial portion of the industrial output of the whole African continent. There are limitations to this economic potential however, with water resources being one of the most significant (Ashton & Turton, in press). The history of South Africa is thus one of political power as it...
has been manifest in military conflict and the desire to capture water resources and control its economic future through river basin management (Turton et al., 2006). These two elements fuse together to brand South Africa as a hydro-hegemon. This paper examines elements of this fusion by focusing on strategic elements of South Africa’s history, namely the evolution of what became known as ‘the struggle’ for the liberation from Apartheid. After setting the broader historic scene, this paper deals specifically with the Orange River Basin as a case study in which high politics and water resource management became two key factors in order to understand how the hydro-hegemon interacted with other riparian states at different times. The paper shows that there are different forms of power—best identifiable by their French labels of puissance and pouvoir—that are associated with different phases of history. Successful wielding of these forms of power has enabled the hydro-hegemon to gain security of supply in transboundary flows and a stable basin-wide regime has been created as a result. In the post-Apartheid era this has resulted in the desecuritization of water resource management, to the benefit of all riparian states.

2. A brief hydro-political history of South Africa

In order to understand the processes of hydro-hegemony, a brief description of three distinct phases of political dynamics is necessary in order to lay the foundation for the subsequent analysis of the Orange River Basin. The hydro-political dynamics of South Africa can be broken down into three distinct time periods (Turton, 2003c, pp. 190–204), each reflecting different forms of power projection. Here it becomes important to define the French concepts of pouvoir and puissance.

Le pouvoir has several facets and can be described as the ability or power to do something, the power to govern or, more generally, as control or domination. In the South African context, however, a more specific definition can be attributed to the concept, namely ‘the control of an outcome through diplomatic interaction, persuasion, engagement and the mobilization of public opinion’ (Turton, 2006, p. 161). La puissance, on the other hand, is defined either as the strength or force of, for instance, a car, or could be used as a noun when describing a powerful state. The latter definition is also applicable to the South African context, as here puissance can be defined as a manifestation of military might (Turton, 2006, p. 160).

It is also important to emphasize that an understanding of the social, economic and political context is crucially important to any analysis of the significant hydro-political events that have shaped Southern Africa’s history. With this in mind, the next three sections deal with an analysis of important historical events that have defined Southern Africa within which more specific issues of hydro-political significance are nested.

2.1. Genesis of the hydro-political dimension: the failure of pouvoir

While the roots of South African international relations date back to the Anglo-Boer War (Turton et al., 2004, pp. 29–46), for the sake of brevity details of this early phase are excluded. From a

2 When related to the water sector, both forms of power, pouvoir and puissance, can be closely linked to the Pipelines of Power thesis (Turton, 2000). According to this thesis, varied and uneven precipitation in a water-scarce country can lead a government to monopolize control over water by constructing the hydraulic infrastructure so as to allocate resources to certain sectors of the population. Thus, pouvoir features in this action as it is a subtle way of controlling a crucial resource. Puissance, however, is also present in this act of ‘distribution’, as water becomes a weapon of choice when used as part of an aggressive hydraulic mission aimed at advantaging certain sectors of the population.
hydro-hegemonic perspective, the interesting period starts in 1948 when the National Party (NP) won an election victory in South Africa and started consolidating its position by implementing the policy of Grand Apartheid. This was seen as a major triumph for Afrikaners with strong nationalist sentiments, many of whom still had a living memory of their defeat in the Anglo-Boer War and their subsequent maltreatment in the British concentration camps (Evans, 1999; Farwell, 1999; Nasson, 1999; Lee, 2002).

Economic development was high on the agenda when the NP came to power, given the impact of the Anglo-Boer War that resulted in massive poverty among the Afrikaner nation (Turton et al., 2006). Without water, however, this would be impossible. For this reason early reconnaissance work was begun on the hydrology of Basutoland as a possible external source of water for the South African goldfields and their related industrial complex (Ninham Shand, 1956).

The Sharpeville Massacre took place in 1960 and resulted in the deaths of 69 people with 180 being wounded (Spitz & Chaskalson, 2000, p. 7), which undermined foreign confidence in the South African economy. Sharpeville reverberated around South Africa (Turton, 2006), with the banning of the African National Congress (ANC) and the Pan Africanist Congress (PAC), as well as the imprisonment of leaders like Nelson Mandela. This dramatic series of events resulted in the birth of the ‘armed struggle’. The 1961 Commonwealth Conference in London saw Prime Minister Verwoerd trying to defend South African racial policies, which led to the country’s expulsion (Geldenhuys, 1984, pp. 24, 205; Turton et al., 2006) and laid the foundation for South Africa’s position as a ‘garrison state’ (Frankel, 1984, p. 30). On the water and development side of the hydro-political equation, the South African focus again turned to Basotholand, but this time as a source of water for the rapidly growing industrial complex in the Witwatersrand that was outstripping the capacity of the Vaal Basin (Young, 1961; Carter, 1965).

The birth of the aggressive hydraulic mission is associated with the Orange River Project (ORP) (Turton et al., 2004, p. 174), which was designed to transfer water from the Orange River downstream of present day Lesotho, through the escarpment into the Fish River, and then across another catchment into the Sundays River (Conley & van Niekerk, 1998, p. 145; Snaddon et al., 1999). This had a profoundly political undertone to it as it was designed to restore investor confidence in South Africa in the post-Sharpeville period. The strategic importance lies in the fact that the ORP started to make inroads into the economic underdevelopment in the so-called ‘border’ area, which was the geographic home of the ‘armed struggle’, thereby designed to stem the flow of impoverished militants to the military wings of the respective liberation movements. The ORP was hailed as a triumph of Afrikaner independence and technical ingenuity at the time (Turton et al., 2004, p. 188).

In 1966 the guerrilla war was launched in South West Africa (present-day Namibia), significantly drawing South African security forces into the Caprivi Strip where the Okavango and Zambezi form a water-rich haven in the midst of surrounding aridity (Frankel, 1984, p. 102). Faced with this reality, which was manifest as increasing isolation for South Africa, diplomatic contact with Black Africa was deemed to be vital. One of the targets of this period of détente (or peaceful coexistence) was Chief Leabua Jonathan, who was destined to become the Prime Minister of Lesotho, when it gained its independence in 1966 (Geldenhuys, 1984, p. 19). Strong relations were forged with him, until Jonathan became one of South Africa’s strongest critics, openly declaring his support of the liberation struggle in an attempt to divert growing criticism of his own domestic political style (Turton, 2006, p. 257).

Early aspects of the water, economic development and energy nexus can be found in two agreements between South Africa and Portugal during 1969 (Turton, 2004, p. 257; Ashton et al., 2005). The first was on the Cahora Bassa Project on the Zambezi River in Mozambique, while the second was on the Cunene River (Treaty, 1969a, b). Both saw the need to mobilize water resources
on a grand scale in order to create the necessary energy infrastructure on which subsequent economic developments could be based. They also laid the foundation for a regional network of water resource projects that was to have far-reaching implications for Southern Africa as a whole in the 21st century.

In 1970 the Jonathan government was toppled in a military coup d'état and Lesotho was plunged into political crisis. The State Security Council (SSC) was established in South Africa during 1972 against the background of this rising insecurity (Gutteridge, 1994, p. 215). This was later to become an extremely important organ in the formulation of South African foreign policy (Geldenhuys, 1984, p. 93). The end of this period is characterized by the deterioration in the threat perception and the publishing of the 1973 White Paper on Defence, which for the first time introduced the concept of a ‘total strategy’ (Republic of South Africa, 1977; Geldenhuys, 1984, p. 140).

2.2. From détente to total onslaught: recourse to puissance

Similar to the 1960 period, when a series of events rapidly shaped a transition phase, 1974 can be called a watershed year in a political sense. The start of this was signalled by the coup d'état in Portugal (Geldenhuys, 1984, p. 78). This event set off a domino effect that was associated with the rapid decolonization of the former Portuguese territories. Overnight the Angolan and Mozambican Wars of Liberation turned into civil wars (Turner, 1998, pp. 100–125). The Cahora Bassa Project immediately became a target for military attack, with the long power lines to South Africa proving impossible to defend. This drew in South African military support, further strengthening the garrison state mentality that had already taken root in South Africa (Frankel, 1984, p. 30).

The 1977 White Paper on Defence was largely devoted to refining the concept of a Total National Strategy as an official policy (Republic of South Africa, 1977). This saw the development of a two-pronged approach to security-related issues and heralded the start of the gradual securitization of water resource management. The one element was based on a strong military response to any threat (puissance), supported by the enticement of economic development (pouvoir). Central to this Total National Strategy was economic development and the resultant dependences that would emerge from this. When P.W. Botha came to power, he used what he called a Constellation of Southern African States (CONSAS) as the basis of his policy (Geldenhuys, 1984, p. 41; Turton et al., 2004, p. 72). In short, CONSAS was to be a regional non-aggression pact that bound the various states together, using economic development and infrastructural projects as an inducement to cooperate (pouvoir).

During the same year, a scheme to divert up to $3000 \times 10^6\text{ m}^3\text{ yr}^{-1}$ of water from the Zambezi, through the Thamalakane and Boteti rivers in the lower Okavango basin downstream of the delta, was found to be economically competitive with the Tugela–Vaal scheme (Williams, 1986, p. 57; Midgley, 1987, p. 15; Scudder et al., 1993, p. 263). This project, designed to abstract water from the Chobe River (a tributary of the Zambezi in close proximity to the Okavango Delta) and feed it down to South Africa, where it would account for 130% more than was currently available in the Vaal River Basin at the time, became an element of this emerging strategy (Trolldalen, 1992, p. 138). Another study from the same period found that as much as 7% of the Zambezi River mean annual runoff (MAR) at Katima Mulilo ($95\text{ m}^3\text{ s}^{-1}$) could be diverted to South Africa, without having to develop storage facilities on the Zambezi River itself (van der Riet, 1980; Basson, 1995, p. 46). The water, economic development and
state security nexus was becoming stronger, with augmentation plans becoming increasingly sophisticated and ambitious.

When Robert Mugabe came to power in Zimbabwe’s first independent elections in 1980 he immediately announced that he had no intention of joining the proposed CONSAS (Turton et al., 2004, p. 73). Instead Zimbabwe, along with Botswana, Lesotho, Swaziland, Mozambique, Angola, Zambia, Malawi and Tanzania, joined forces in the Southern African Development Coordination Conference (SADCC), which was formally launched in Lusaka during 1980 (Pallett et al., 1997, p. 70). This new grouping of states was specifically designed to reduce their combined dependence on South Africa (Bernstein & Strasburg, 1988, p. 13) and was quickly dubbed the ‘counter-constellation’ (Geldenhuys, 1984, p. 41; Baynham, 1989, p. 88; Conley & van Niekerk, 1998, p. 145).

The emergence of the Total National Strategy approach saw South African foreign policy becoming captive to the SSC, which had an all-consuming security focus to it (Frankel, 1984, p. 149). Seen in this light, every aspect of foreign relations became securitized, including cooperation over water resources. An example of the impact of the Total National Strategy in the water sector can be found in a paper that was written by the Chief Engineer of the Rand Water Board (RWB), who used the concept to contextualize the need for the South African economic heartland to gain access to secure supplies of water (James, 1980; Blanchon, 2001; Blanchon & Turton, 2005).

In 1980 the armed struggle intensified (Gutteridge, 1990, p. 167). A three-year-long spate of violent ‘tit for tat’ exchanges between the ANC and South African Defence Force (SADF) Security Forces ushered in a new era when in 1984 the South African constitution was changed and P.W. Botha was elevated to the status of Executive President. This was followed shortly afterwards by the Nkomati Peace Accords (Treaty, 1984a; Ashton et al., 2005) which were signed by President Samora Machel of Mozambique and President P.W. Botha of South Africa (Gutteridge, 1985a, p. 94; Turner, 1998, p. 140). Water was intimately linked to the Nkomati Peace Accords when an agreement was signed during May in Cape Town between Mozambique, Portugal and South Africa on the revival of the Cahora Bassa Project (Treaty, 1984b; Ashton et al., 2005).

Similar security agreements were mooted between South Africa and Botswana, where economic cooperation and possible access to the Okavango River was discussed; and Lesotho, where access to water was also a feature (Gutteridge, 1985a, p. 100). The need for such a security agreement was underscored by unrest within South Africa that was escalating uncontrollably, with the SADF being increasingly committed to internal riot control (Turton, 2004). The situation deteriorated rapidly, with a flight of foreign capital threatening a total collapse of the economy (Gutteridge, 1985b, p. 144). The security situation was also precariously balanced, with the possibility of a collapse of the South African Apartheid State a very real one at the time.

In neighbouring Lesotho, Major General Justin Lekhanya overthrew Leabua Jonathan during a military coup d’état on 20 January 1986 (Esterhuysen, 1992, p. 46; Lawrence, 1986). Shortly after this the Treaty on the Lesotho Highlands Water Project (LHWP) was signed on 24 October 1986 between ‘Pik’ Botha of South Africa and Colonel Thaabe Letsie of Lesotho, fuelling speculation about possible South African involvement in the coup d’état (Treaty, 1986; Homer-Dixon, 1994, p. 19). Commentary on the LHWP from that time reflects the pouvoir-styled socio-economic benefit angle that was central to the Total National Strategy approach (Vorster, 1988, p. 95).

During 1987 an agreement was reached between South Africa and the Transitional Government of Namibia on the creation of a Joint Technical Committee to oversee future projects on the Orange River (Treaty, 1987). During the same year another study on the feasibility of transferring water from the
Zambezi through Botswana found that the cost of water delivered to Pretoria was competitive with existing water supply schemes (Williams, 1986, p. 57; Midgley, 1987, p. 15; Scudder et al., 1993, p. 263). The existing (smaller) transboundary water supply from the Molatedi Dam in South Africa to Gaborone should be seen in light of this Total National Strategy approach (Turton, 2008).

This era drew to an end in the upper reaches of the Okavango River Basin, where the Battle of Cuito Cuanavale took place in 1988 (Operations Hooper and Packer) (Turner, 1998, pp. 115–119). This battle represented the final Cold War showdown in Southern Africa and featured two powerful military forces, namely the SADF and the Angolan Armed Forces (FAPLA), in their last roles as superpower proxies. Its outcome was somewhat confusing and inconclusive as there was no clear strategic victor (Turner, 1998). It can be argued that SADF’s orderly withdrawal could be seen in light of the negotiations that were taking place at Ruacana to establish the Joint Military Monitoring Commission (JMMC) and hence reflected the reality that puissance was no longer needed because the strategic landscape had changed fundamentally (Turton, 2004).

2.3. The post-Cold War era: the renaissance of pouvoir

This era was ushered in by the political demise of P.W. Botha and the assumption of power by F.W. de Klerk (Turton, 2004, p. 263). On 2 February 1990 de Klerk made a watershed speech in which he appealed for a united South Africa as a way to overcome the divisions of violently conflicting nationalisms (Gutteridge, 1994, p. 214). Almost immediately Nelson Mandela was released from prison and the ‘normalization’ of South African politics began. This was being actively brokered behind the scenes by the National Intelligence Service (NIS), the security agency that favoured pouvoir over puissance, with the Convention for a Democratic South Africa (CODESA) as a key high profile component (Turton, 2004).

Namibian independence followed shortly after the release of Nelson Mandela, heralding the end of a liberation struggle that was second in duration only to that of South Africa itself (Simon, 1991, p. 185). This series of events threatened to outpace SADCC, whose raison d’être was now being challenged by the rapidly changing political climate as pouvoir-styled politics began to take root all across Southern Africa. A decision was therefore made to transform SADCC into the Southern African Development Community (SADC), which was concluded formally in Windhoek, Namibia in 1992 (Treaty, 1992a; Pallett et al., 1997, p. 70; Granit, 2000).

The first democratic elections took place in South Africa in 1994 and marked the end of isolation and the puissance-dominant response by the hegemon. One of the first tasks of the newly elected ANC Government was to resume full state control over water, most of which was linked to the land rights of approximately 60,000 white commercial farmers, on behalf of the majority of South Africans (Conley, 1997, p. 23). Significantly, the first protocol that was agreed on within the context of SADC after the admission of South Africa as a full member was the SADC Protocol on Shared Watercourse Systems that was signed in Johannesburg in 1995 (Ramoeli, 2002, p. 105). This was amended in 1997 and became known as the Revised Protocol on Shared Watercourses in order to incorporate the principles found in the United Nations Convention on the Non-Navigational Uses of International Watercourses (Granit, 2000; Ramoeli, 2002, p. 106). While this has laid the foundation for greater cooperation in the water sector, economic development is still threatened by the current political turmoil in Zimbabwe and the aftermath of the civil wars in Angola and the DRC (Granit, 2000). Xenophobic violence that killed
50 foreigners in South Africa during May 2008 is an example of this (Johnston & Wolmarans, 2008; Sibanda, 2008).

3. The Southern African hydro-political complex as a concept

Using the work by Buzan (1991), Schulz (1995) and Buzan et al. (1998) as a point of departure, a conceptual model was developed that factors in the hydro-political dimension of international relations within the SADC region (Turton, 2003a, b; Turton & Earle, 2005; Ashton & Turton, in press) (see Figure 1). The rationale for this is based on the fact that international rivers provide permanent linkages between different states within the Southern African Regional Security Complex as originally defined by Buzan (1991, p. 210). However, the exact nature of the relationship is too nuanced to be understood merely in terms of geography, and a study that focuses only on the river basin level misses this complex reality (Turton & Ashton, 2008). The relative stocks of power, for instance, are noted only through a more hydro-political and power-based analysis. The nexus of the emerging concepts of hydro-hegemony and hydro-political complex theory are particularly well suited to explore such nuances, because the former analyses different forms of power, while the latter provides an analytical tool to assess the way that power is exercised in different circumstances. Definitions of the four key components of the Southern African Hydro-political Complex are as follows (Turton, 2003b; Turton & Earle, 2005):

- **Pivotal States** are riparian states with a high level of economic development that also have a high degree of reliance on shared river basins for strategic sources of water supply, with the real prospect of water scarcity posing a limitation to future economic growth and development. This higher level of economic development means that the Pivotal States also have the capacity to project their power outside of their borders (either as *puissance* or *pouvoir*), which becomes a factor in understanding the dynamics of hydro-hegemony. In Southern Africa, four states fall into this category: Botswana, Namibia, South Africa and Zimbabwe.

- **Impacted States** are riparian states that have a critical need for access to water from international river basins that are shared with a Pivotal State, but appear to be unable to negotiate what they consider to be an equitable allocation of water. In Southern Africa, seven states are seen to be in this category: Angola, Lesotho, Malawi, Mozambique, Swaziland, Tanzania and Zambia.

- **Pivotal Basins** are basins that face closure[^3], and which are also strategically important to any one (or all) of the Pivotal States by virtue of the range and magnitude of economic activity that they support. In Southern Africa, three basins fall into this category: Orange, Limpopo and Incomati. Significantly, all three of these are Basins at Risk (Wolf et al., 2003, p. 29; Turton, 2008).

- **Impacted Basins** are those where at least one of the Pivotal States is a co-riparian, and where there appears to be less freedom of choice for an Impacted State to develop its water resources in a manner that is deemed to be fair and equitable. In Southern Africa, six basins are in this category: Cunene, Maputo, Okavango, Pungué, Save-Runde and Zambezi. Significantly, three of these are Basins at Risk (Wolf et al., 2003, p. 29; Turton, 2008).

[^3]: Basin closure is defined as a river with no utilisable outflow of water (Seckler, 1996). A basin is said to be facing closure when all of the available water has been allocated to some productive activity and there is no more water left to be allocated (Svendsen et al., 2001, p. 184).
By using the Southern African Regional Security Complex as defined by Buzan (1991, p. 210), it is possible to use these concepts, linked as they are via the Southern African Hydropolitical Complex, to develop a more nuanced understanding of the patterns of cooperation and competition in international river basins. More specifically, a nuanced understanding is possible by analyzing the hydro-political configuration of Pivotal States versus Impacted States in each basin. In short, one can understand the power-based dynamics of hydro-hegemony as it has evolved in South Africa, by using the Southern African Hydropolitical Complex as an analytical tool, and the concepts of puissance and pouvoir as highly nuanced forms of power.

3.1. The Orange River Basin within a broader regional setting

The Orange River Basin is an extremely important source of water for three of the most economically developed states in Southern Africa—South Africa, Botswana and Namibia (Ashton & Turton, in press). While it is the largest single water resource available to South Africa, it is also extremely important for Namibia, with a quarter of the total basin area falling under the sovereign control of that state, containing no less than five dams with a combined capacity of $452 \times 10^6 \text{ m}^3$ (Pallett et al., 1997, p. 80). Botswana’s main economic development is centered on the city of Gaborone, which can be supplied with water from Lesotho, and which is being fed at this moment in time from an IBT from South Africa and a major
scheme in the form of the North–South Carrier (NSC), which derives its water from the Limpopo River Basin (see Figure 2).

3.2. Historical progression of regime creation in the Orange River Basin

Regime creation within the basin has been fragmented but intense where it has occurred, reaching degrees of sophistication not evident in any of the other basins in Southern Africa. An historic overview of regime creation is presented in Figure 3. For the purposes of a detailed analysis, the basin has been divided into three distinct components—the upper, middle and lower basin—with international relations in the hydro-political realm having been characterized by the creation of various bilateral regimes of increasing sophistication over time, until a multilateral basin-wide agreement was reached between all riparian states in 2000, known as the ORASECOM Agreement (Treaty, 2000; Ashton et al., 2005).

The Orange-Senqu River Commission (ORASECOM) that was established through the ORASECOM Agreement is the fourth basin-wide regime to be established in Southern Africa and the first under the SADC Protocol on Shared Watercourse Systems (Treaty, 2000; Ashton et al., 2005). A significant aspect of the ORASECOM Agreement is the fact that Botswana is a recognized riparian state, even though it

![Fig. 2. The Southern African Hydropolitical Complex showing the three Pivotal Basins, major inter-basin transfers and the location of the capital cities of the Pivotal States (Ashton & Turton, in press).](https://iwaponline.com/wp/article-pdf/10/S2/51/406628/51.pdf)
contributes no streamflow and makes no use of the surface water from the Orange River. This gives Botswana a wider range of diplomatic options by allowing concessions to be granted to other riparian states in return for political support in River Basin Commissions (RBCs) where they have a greater strategic interest, such as in the Limpopo and Okavango basins (Turton, 2003a, p. 152).

The ORASECOM Agreement recognizes the right of the parties to form bilateral arrangements (such as the Lesotho Highlands Water Commission (LHWC) and the Permanent Water Commission (PWC) although these are not mentioned by name) and says that any new commission will be subordinate to ORASECOM, while existing commissions must merely liaise with ORASECOM (Treaty, 2000, Article 1, para. 1.4). As such, South Africa, as the hydro-hegemon, will still have direct control over its strategic interest in the basin, while Botswana will have formally gained a foothold into negotiations on future water-sharing agreements between the riparians. This translates into a plus-sum outcome for all stakeholders in the Orange River Basin, made possible only by pouvoir-based politics, but this outcome has evolved over time and thus needs to be understood by looking in more detail at the earlier bilateral relationships.

3.2.1. The upper basin South Africa and Lesotho. In 1986 the Lesotho Highlands Water Project Treaty was signed (Treaty, 1986). It consists of four protocols covering in detail aspects of design, construction, operation and maintenance, and the institutional arrangements needed to manage such a complex project. From an institutional perspective, the Lesotho Highlands Water Commission (LHWC) and the Permanent Water Commission (PWC) were established as autonomous statutory parastatal bodies (Heyns, 1995, p. 11). The Lesotho Highlands Development Authority (LHDA) is responsible for the management of the dam construction and related issues within Lesotho itself (Treaty, 1986, pp. 23–32), whereas the Trans-Caledon Tunnel Authority (TCTA) is responsible for the management of the complex set of delivery tunnels into South Africa (Treaty, 1986, pp. 33–39). In addition to these, a Joint Permanent Technical Commission (JPTC) was established, consisting of delegates from both riparian states, with the responsibility of coordinating the two parastatals, as well as to report back to their respective governments.

This regime was further strengthened in 1999 with the agreement on what became known as Protocol VI of the Lesotho Highlands Water Project Treaty, which upgraded the JPTC into the Lesotho Highlands Water Commission (LHWC) (Treaty, 1999; Ashton et al., 2005). This in turn resulted in the implementation of a new governance model that retained the two parastatal bodies (TCTA and LHDA). In essence the implementation of the new governance model marked the end of the initial construction phase (Phase 1a) and the commencement of water delivery.

Lesotho benefited from its bilateral engagement with South Africa by way of infrastructure development, gaining a sustainable cash flow to the extent that it is one of a few African countries to have no substantial foreign debt (Earle, 2007), as well as developing a stable supply of electricity on
which future economic development can be based (Mirumachi, 2005, 2008). South Africa in turn, during the Apartheid era, was able to ensure that Lesotho would not harbour guerillas (this can be seen as a security pay-off), and from a technological perspective in the post-Apartheid period was able to gain access to high altitude storage and thus increase the assurance of supply to the industrial heartland along the Witwatersrand ridge (Turton et al., 2006). The latter is significant because South Africa does not really buy water—it buys high altitude storage where evaporative losses are low and gravity can be used in future to supply Johannesburg (and potentially even Gaborone in Botswana).

3.2.2. The middle basin: South Africa and Botswana. There was no regime creation with respect to the Orange River Basin between South Africa and Botswana prior to the ORASECOM Agreement, but there is a strong history of close cooperation between the two riparians on the management of the Limpopo (Ashton et al., 2005; Turton, 2008). This is because, although Botswana is technically a riparian state by virtue of its geographic location within the Orange River Basin, it has contributed no streamflow in living memory, and the tributaries in that country can be regarded as being endoreic (Heyns, 1995, p. 10; Conley & van Niekerk, 1998; Basson, 1999, p. 17). Botswana therefore had no overt interest in the Orange River Basin prior to the ORASECOM Agreement; or stated differently, had not been given a chance to articulate those interests, because during the puissance-dominated past, regime creation was bilateral in nature, always involving South Africa as the hegemonic state, and one other hydro-politically weaker riparian state. This is now changing as the Botswana Government has begun to realize that one of its strategic future options is to possibly obtain water from Lesotho (or at least to keep that alternative open to future exploration) (Turton, 2003a, p. 151).

Botswana’s involvement in the ORASECOM Agreement means that it now has increased diplomatic leverage when engaging with fellow riparians in those basins it has a greater stake in (Limpopo, Okavango and Zambezi). In addition to this, Botswana now has a guaranteed assurance of groundwater supply in the Orange River Basin. None of this threatens the hydro-hegemon and together this creates a form of stability from which all benefit.

3.2.3. The lower basin: South Africa and Namibia. In 1987 a Joint Technical Committee (JTC) was established to advise the South African Government and the South-West African Transitional Government on matters pertaining to the Orange River, referred to as the Co-operation Agreement (Treaty, 1987; Ashton et al., 2005). Given that Namibia was not a sovereign state until 1990, and was therefore unable to enter into formal agreements with its co-riparians, there was a spate of agreements signed immediately after independence (Pinheiro et al., 2003, p. 117). It was against this background that the JTC was upgraded during 1992, when a treaty was signed between South Africa and Namibia, known as the Agreement on the Establishment of a Permanent Water Commission (PWC) (Treaty, 1992b; Chenje & Johnson, 1996, p. 165; Pallett et al., 1997, p. 70; Ashton et al., 2005). At the same time an agreement was signed on the establishment of a Joint Irrigation Authority (JIA) to implement the Agreement on the Vioolsdrift and Noordoewer Joint Irrigation Schemes (VNJIS) (Treaty, 1992c; Chenje & Johnson, 1996, p. 165; Pallett et al., 1997, p. 70; Ashton et al., 2005). This was followed in 1994 by the launching of the Orange River Replanning Study (ORRS) (DWAF, 1998). Subsequent to this, negotiations were started between all of the riparian states, motivated largely by Namibia, on the establishment of a basin-wide regime. This came to fruition when the Orange-Senqu River Commission (ORASECOM) was formally established on 3 November 2000 under the ORASECOM Agreement.
Namibia benefited from its initial bilateral agreements with South Africa via a guaranteed supply of water in its very dry southern part. For South Africa bilateral co-operation with Namibia meant agricultural and economic benefits in an arid portion of the country where poverty is endemic and economic opportunities are limited.

3.3. Critical hydro-political issues within the Orange River Basin

From the perspective of regime creation, there are five critical issues to note within the Orange River Basin.

3.3.1. ORASECOM and existing bilateral regimes. Paragraph 1.4 of Article 1 in the ORASECOM Agreement specifically states that all parties have the right to form bilateral agreements, and that existing commissions will merely liaise with ORASECOM. As such, the existence of ORASECOM does not threaten the hegemonic status of South Africa within the overall hydro-political configuration of the basin, but this situation may not go unchallenged by other riparian states. The robustness of the ORASECOM Agreement as a regime vis-à-vis the existing bilateral arrangements will be tested in the medium-term future, with hydro-politically weaker riparian states like Namibia and Botswana probably throwing their support behind ORASECOM as a multilateral structure, while the hydro-hegemon (South Africa) is likely to opt for a maintenance of the status quo and the retention of the existing bilateral arrangements as the dominant instruments of cooperation.

3.3.2. Impact of basin closure. Basin closure is generally known to result in a growing sense of insecurity for the respective riparian states in international river basins. In this regard, the key element is likely to be the extent to which water deficit impacts negatively on the economic growth potential of the respective riparian states. It is in this context that Sectoral Water Efficiency (SWE) starts to become relevant. The existing water use in the Orange River Basin is known to be inefficient, with around 90% of the current allocation going to irrigation, which in turn produces low value crops (Basson, 1999, p. 10). The relatively low SWE of agriculture will thus become a management focal point in the near future, with attempts being made to redirect agricultural water to industrial and other activities. Significantly, the Namibian interest in the basin is mostly agricultural, so the shift to industry is likely to favour South Africa and thus be complex to negotiate.

3.3.3. Strategic ramifications of IBTs. Given the high level of economic development in the basin, and its central role in a number of existing IBTs, the Orange River Basin is likely to become more of a recipient basin in future as current resource capture trends continue. This has the capacity to increase the conflict potential within the basin, particularly when donor basins, such as the Thukela, Incomati, Maputo and others, have their own economic growth potential capped as the result of what is in essence a form of induced scarcity.

3.3.4. Hydrological data and regime creation. The role of shared and uncontested hydrological data is clearly manifest in the Orange River Basin. While the decision to make the ORRS an inclusive process was regarded with some misgiving at the time, it ultimately yielded a body of data that is transparent and uncontested. It can be argued that this aspect, combined with other factors such as the historic linkage
between the Namibian and South Africa Departments of Water Affairs, is one of the main reasons why the conflict potential in the Orange River Basin remains well within manageable limits, to the extent that the sovereign issue of border demarcation has become a de facto non-event.

3.3.5. Water quality. There is a growing threat of deteriorating water quality in the basin. While agriculture and urbanization is a well-documented source of this problem (Turton et al., 2006), a new threat is emerging in the form of radionuclide and heavy metal contamination arising from gold mining in the upper basin (Coetzee, 1995; IWQS, 1999; Coetzee et al., 2006). This will challenge future relationships and will need a robust regime if outcomes are to be mutually acceptable to all parties.

Thus, despite the positive aspects of ORASECOM, it is evident that some crucial challenges exist, and it remains to be seen whether this multilateral structure will be sufficiently strong and flexible to effectively deal with these.

3.4. Links between the hydro-political complex and hydro-hegemony

It is possible to link elements of the Framework of Hydro-hegemony (Zeitoun & Warner, 2006) with the concept of a Hydro-political Complex, thereby demonstrating the relevance that these two approaches have for each other. The Framework of Hydro-hegemony postulates that power asymmetry between riparians will either lead to cooperation (a positive-sum outcome) under hegemonic leadership or to a situation where the hegemon dominates the weaker riparians. This all depends on the form of hydro-hegemony that has been established, which will typically be in favour of the most powerful actor (Zeitoun & Warner, 2006).

There is a definite element of power asymmetry between the Hydro-political Complex’s Pivotal and Impacted States, with the former having the definite advantage of economic development and, in the case of South Africa, added political power and influence. South Africa as the hegemon of the Orange River Basin is thus able to use its political and economic power to its advantage, yet, at the same time, is forced to acknowledge that it is a water-scarce country and thus is dependent on shared basins for strategic sources of water supply. This, it can be argued, may lend some leverage to other riparians in the basin.

Namibia, one of the Pivotal States in the Orange River Basin, has managed to assert itself as an important cooperation partner for South Africa, the hegemon. It played a crucial role in driving the ORASECOM Agreement negotiations, which reflects the fact that downstream riparians with a high resource need have a vested interest in taking the lead in regime creation, because it is perceived to be in their own national interest. This is consistent with the findings of Gleditsch et al. (2005) (see Turton, 2008). In short, the Namibian engagement merely reflects the realization that pouvoir is more robust than puissance, because it enables asymmetrical power arrangements to be engaged through the clever use of negotiations and international legal instruments like negotiated inter-governmental regimes. Namibia has reached a degree of hydrological security by means of negotiations, driving regime creation to a point where their future strategic needs are adequately taken care of. This is a manifestation of the enduring value of pouvoir or the power of engagement.

Similarly, Botswana, a Special Case State in the Orange River Basin, is a signatory of the ORASECOM Agreement, even though it contributes no streamflow and makes no use of the surface water from the Orange River. It became involved in ORASECOM because of its potential role as a
balancer of hydropolitical power and because it has come to realize that one of its strategic future options is to possibly obtain water from Lesotho (or at least to keep that alternative open to future exploration) (Turton, 2003a, p. 151).

This has provided impetus to the emergence of a Hydro-political Complex, clustered on Pivotal Basins in which key riparian states have a high dependence on the transboundary resource base for their long-term economic security. The real significance of this dynamic is associated with the desecuritization that is inherent in the pouvoir-dominant process. Seen in this light, a plus-sum outcome, under a positive form of hegemonic leadership, has been possible with all riparian states emerging with their key strategic interests having been met. This suggests an enduring nature to the cooperative solution in the form of basin-wide management that the pouvoir approach seems to engender.

South Africa’s chosen role as a ‘positive-sum outcome’ hydro-hegemon is commensurate with findings by Gleditsch et al. (2005) that states with endemic water scarcity have a vested interest in finding cooperative solutions that minimize the potential for future conflict (Turton, 2008). This has major ramifications for the study of hydro-political power and negotiation strategy, with the Orange River case showing a preponderance of pouvoir over puissance over time, associated as it is with a plus-sum outcome that benefits all of the riparian states.

The question that can now be asked is which strategy South Africa resorted to in order to gain control of the Orange River Basin’s water resources? Zeitoun & Warner (2006) postulate that there are different options that hegemons can choose to adopt. South Africa, it seems, has chosen a strategy of integration, which seeks to encourage compliance with agreements through incentives. The result of such a strategy is interaction characterized by ‘shared control’ and a resultant hydro-hegemonic configuration that all riparians would likely perceive as positive (Zeitoun & Warner, 2006).

In the case of the Orange River Basin, it seems that bilateral agreements were a pre-requisite for the multilateral ORASECOM Agreement which only later came into existence. South Africa’s hydropolitical relationship with Lesotho is predominantly characterized by the Lesotho Highlands Water Project Treaty, which is the most complex bilateral arrangement in existence in SADC. This experience has subsequently been cascaded across to the Incomati River Basin via the Komati Basin Water Authority (KOBWA) and the Incomaputo Agreement, and is also starting to find its way into the Limpopo Water Commission (LWC) (Turton, 2008). The negotiation of such complex arrangements is a classic example of pouvoir at work, because it reflects the power of the state, not as naked military might (puissance), which is always difficult to sustain over time, but rather as the more robust yet subtle power to control through political engagement. This bilateral agreement meant that South Africa’s and Lesotho’s relationship could become sufficiently stable and mutually beneficial, the hegemon not only taking into account its own needs but also to a certain extent those of its non-hegemonic partner in order to establish stability.

A similar development took place in South Africa’s relationship with Namibia regarding the Orange River Basin. A stable, relatively mutually beneficial relationship was set up first, before a move was made towards a multilateral regime set-up, interestingly also including Botswana for reasons mentioned above.

A remarkable fact underlying South Africa’s incremental move towards a multi-lateral agreement set-up, as far as the Orange River Basin is concerned, is evidenced by the global finding that within multilateral basins (three or more riparians) the most common agreement is a bilateral regime, by a ratio of 2:1 (Conca, 2006, p. 109). Thus it is rather exceptional for South Africa to have entered into a multilateral agreement at all, and specifically also to have included Botswana. This is strong evidence
of South Africa’s role as a ‘plus-sum’ hegemon that wants to create benefits for itself as well as all non-hegemons. This role was made possible only by pouvoir-based politics, and is a foundation of the emerging regional discourse on benefit-sharing (Phillips et al., 2006).

4. Conclusion

This paper has set out to discuss South Africa’s hydro-hegemony over its fellow riparian states situated in an historical and political context. An important distinction is also made between the different types of power that South Africa employed in the course of this history, namely pouvoir and puissance. Upon closer investigation of South Africa’s hydro-political history, three distinct periods of development can be identified. The first refers to the genesis of the hydropolitical dimension of South African international relations, prior to 1974, which was marked by the birth of the hydraulic mission as a fundamental driver and elements of pouvoir. The second can be labeled From Détente to Total Onslaught and covers the period from 1974 to 1990, which was marked by an era of transition from a policy of détente to the emergence of the official approach that was known as the Total National Strategy, with puissance as a core element. Finally, there is the post-Cold War era, in which South Africa still finds itself. This has been marked by the end of the Cold War and Apartheid, both of which resulted in a reduction of the impact of overlay in the SADC region, with pouvoir emerging as a core element of South Africa’s hydro-political relations in the context of a Regional Hydro-political Complex.

The paper demonstrates the history and nature of South Africa’s relations with its fellow riparians, which in the post-Apartheid era has seen a definite move away from puissance towards pouvoir. This has meant a positive development in terms of benefit-sharing for all of the basin states. In addition, a discussion to draw links between Turton’s Hydro-political Complex and Zeitoun & Warner’s Framework of Hydro-hegemony shows that South Africa could be considered as a ‘plus-sum’ hegemon that engages in a positive form of leadership, ultimately ensuring benefits for all riparians in the Orange River Basin.

References


