



The Dynamics and Discourses of Water Allocation Reform in South Africa

Synne Movik

Reform



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Perceptions of water as an increasingly scarce resource have gained global dominance, and caused many countries to reform their water legislations. South Africa has positioned itself in the vanguard of such reform efforts, as it passed the National Water Act in 1998, four years after the end of apartheid. The Act was lauded as a progressive piece of policy, with the redress of past injustices as one of its overarching aims. But, to date, there has been little progress in terms of redistribution of water use rights. This paper argues that bringing water under the ambit of the State, in combination with the particular political conjunctures in post-apartheid South Africa, opened up space for the emergence of particular narratives around water use rights that framed the continued use of existing users as pivotal for sustainability, and redistribution to 'historically disadvantaged individuals' as associated with a high degree of risk. These framings of sustainability contrasted with more complex and dynamic framings at the regional and local levels. Though water allocation reform is essentially a deeply political issue, the increasing technocratisation of the reform process served to mask contested understandings, through e.g. the use of innocuous-sounding terms such as 'existing lawful use'. Through an analysis of the allocation discourses emerging at the national level and a case study of Inkomati Water Management Area, this paper argues that the entrenchment of existing users in the interests of 'sustainability', the increasing technocratic approach to redistribution, and the social dynamics and discourses at the regional and local levels narrowed down the room for manoeuvre, resulting in the water allocation reform ending in a temporary impasse.

About the Author

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INTRODUCTION

Water, crucial for human survival, is an inherently dynamic resource, an ephemeral substance that cannot be exclusively possessed. The increasing recognition of water as a truly vital substance for which demand is spiralling has resulted in scenarios of scarcity and tales of 'the looming water crisis' becoming staple fare at international conferences and gatherings. Numerous efforts at quantifying how much water is actually available have produced 'water poverty' indices that provide numerical estimates of the amount of water present in a given country (Lawrence et al. 2002; Falkenmark and Widstrand 1992). Though attention has largely been focussed on the physical aspects of water scarcity, recent research (see e.g. Mehta 2005a; 2005b) has questioned these assumptions, highlighting the fact that the water issue is not only about physical availability, but involves social, political and distributional issues (UNEP 2006).

The increasing perceptions of water scarcity have prompted many countries to engage in reforming their water legislations and systems of water use rights. The dominant discourse of Integrated Water Resources Management (IWRM) has been highly influential on such reform efforts. It promotes the devolution of decision-making power to the lowest possible level (the principle of subsidiarity) and argues the case for market-oriented solutions to allocating water resources, whilst simultaneously advocating holistic and integrated management that necessitates greater bureaucracy and centralisation (Biswas 2004). As a consequence of the latter aspect, water resources have increasingly been brought under the ambit of the State through the imposition of administrative water use rights such as licences (Burchi 2004). The rationale for instituting such rights is often to facilitate more efficient allocation. Questions that emerge in this respect include: how do such reform efforts play out in practice? How are use rights and allocation mechanisms conceptualised at policy level, and how do different understandings of sustainability manifest themselves? What role is played by science and technology in facilitating reform? South Africa, in the vanguard of global reform efforts and unique in its emphasis on equity, provides an interesting example to explore.

The paper will argue that vesting the State with the discretionary power of determining use rights led to the emergence of 'allocation discourses' that were also deeply influenced by the particular political context in post-apartheid South Africa. The overriding notion of achieving equity was subsumed by framings of socio-ecological-technological dynamics that represented redistribution as a potential environmental risk, and presented the continued use of already privileged users as vital to sustain South Africa's economy. Furthermore, the increasing technocratisation of the policy process, the failure to deal with local dynamics, and the inability to determine the extent of existing users contributed to leading the reform efforts into an impasse.

The paper is organised as follows: it first sets the scene in terms of the South African political context, then goes on to describe the water legislation and policy in brief, highlighting how particular allocation discourses emerged during the policy-making process. It proceeds to examine what happened in the case of the Inkomati Water Management Area (WMA), one of the pilot regions of reform efforts, before discussing ways in which the reform process can be understood, and drawing out the wider implications for water reform in South Africa and elsewhere.

THE POLITICAL CONTEXT OF POST- APARTHEID SOUTH AFRICA

South Africa's bloodless transformation in 1994 from an oppressive apartheid state to a multiracial democracy was hailed as nothing short of a miracle (Sparks 2003a), but 300 years of turbulent history takes time to remedy. The historical trajectory resulted in South Africa becoming a country of 'plenty amidst poverty' (Nattrass 1983: 12, quoted in May 2000: 16), with staggering levels of inequality. This legacy of inequality can be traced back to the early history of colonial conquest by the Dutch in the seventeenth century, followed by the British in the early eighteenth century. The exploitative nature of colonisation deepened and hardened in the modern era, through more than 40 years of segregationist and deeply repressive policies under the apartheid regime, and apartheid's ideology of separating peoples according to their skin hues left indelible marks on the South African national psyche. The ending of apartheid with the transition to democracy in 1994 saw the inauguration of Nelson Mandela as the country's elected president, and placed the leader of the liberation struggle, the African National Congress (ANC), firmly in the corridors of power. A new era had begun. The Constitution of 1996 enshrined equality and respect as cornerstones of the fledgling 'Rainbow Nation', and reforming the country's various legislations, particularly those governing land and access to natural resources, became a key concern for the new Government. Water, perceived as a scarce resource that was very unequally distributed, was high on the agenda, and was one of the first legislations to be overhauled and aligned with the principles of the Constitution.

THE IMPACTS OF THE NEGOTIATED SETTLEMENT: GETTING INTO GEAR

The ANC's election manifesto, the Reconstruction and Development Programme (RDP), was a piece of development policy with socialist resonance aimed at redressing past inequities through socio-economic and institutional reform, including educational and cultural programmes, employment generation and human resources development (Villa-Vicencio and Ngesi 2003). Key to the RDP was the emphasis on basic service provision and the view that the State needed to be restructured in order to facilitate a more equitable distribution of resources and deal with the socio-spatial distortions of the apartheid era (Maharaj and Ramutsindela 2002; see also Bond and Khoza 1999).

However, this initial socially-oriented policy was relatively quickly subsumed by the Growth, Employment and Redistribution policy (GEAR) in the initial years of Mandela's successor, Thabo Mbeki's, reign. GEAR was a macroeconomic strategy that emphasised liberalism, deregulation and giving a loose rein to market forces with a concomitantly reduced role for the Government (Villa-Vicencio and Ngesi 2003), and was 'blatantly misrepresented as the concrete form of the ditched and more ambitious and progressive RDP' (Fine 2003: 571). This marked turn in policy generated considerable controversy, and presented a government facing budgetary constraints and social pressures with the major dilemma of reconciling a 'social, rights-based, gap-filling and developmental approach with an approach based on productivity and efficiency' (Perret 2002).

But how and why did this happen so fast? One would have expected an organisation that played such a pivotal role in the anti-apartheid struggle – that was the anti-apartheid struggle – not to have succumbed so easily to the flawed logic of the Washington consensus. Instead, the nature of the 'negotiated settlement', where the ANC was thought to reach a compromise with powerful economic interests in order to secure political power, paved the way for the rise of the neoliberal paradigm in much of post-apartheid politics. The irony, according to Fine, was that the ANC 'discovered neo-liberalism just as it was at its most extreme and its most vulnerable, in light of theoretical, empirical and policy failings' (Fine 2003: 572, emphasis in original). It is ironic that the political capital built up by the ANC during the liberation struggle is now being spent to enforce neo-liberal structural reforms. (Carmody 2002; see also Bond 2004; 2000). According to Carmody (*ibid*: 260, footnote omitted):

...the negotiated nature of the settlement meant the basic maintenance of the previous economic system, including respect for private property 'rights'. Thus, rather than enforcing redistribution and resource mobilisation internally, 'industrialisation by invitation' - drawing capital from overseas - became an attractive strategy for the South African state.

Thus, though the new Constitution (Government of South Africa 1996) was lauded for leading on social issues – e.g. recognising access to drinking water as a human right – it also protected existing property rights through section 25, or what became known as the 'property clause', in the interests of economic growth.

BROAD-BASED BLACK ECONOMIC EMPOWERMENT, AND THE NOTION OF TWO ECONOMIES

In terms of redressing the inequities of the past, Black Economic Empowerment (BEE) became a buzzword in the post-apartheid political atmosphere. In the RDP, the notion of BEE was initially conceived of as a means to facilitate redistribution of productive resources to those groups that had been oppressed and disadvantaged under the apartheid regime. However, the notion of BEE over time evolved into a process of affirmative action that provided black individuals, rather than groups, enhanced opportunities (e.g. through the preferential granting of shares). It became more concerned with how black people could access the returns of higher economic growth rates, than with real redistribution of productive assets (Ponte et al. 2007). This rendered the BEE initiative vulnerable to criticism that it was enriching a small black elite, and prompted the Government into launching a second phase of BEE, redubbed 'Broad-Based' Black Economic Empowerment (BBBEE), to emphasise the intended broadly inclusive approach and to make its policies more palatable to the ranks of the Congress of South African Trade Unions (COSATU) and the South African Communist Party (SACP). Some observers hold that the BBBEE is an attempt at legitimating the Government's neoliberal policies through facilitating the establishment of a black capitalist class, which in turn guarantees the survival of the white capitalists and their property rights (see e. g. Malikané and Ndletyana 2006, cited in *ibid*: 934). Others argue that fostering a black capitalist class would provide a feasible route to achieving the much vaunted 'trickle-down effect'. Hence, the BBBEE approach contains contradictory objectives. Corporations often interpret BBBEE charters in purely managerialist terms, which has laid them open to charges that BBBEE is merely implemented to provide a route to acquiring legitimacy (Hamann et al. 2008).

Pervading these issues is the ubiquitous tendency to describe South Africa's socio-economic condition using the metaphor of 'two economies' (Bond 2007; Du Toit and Neves 2007; Cousins 2007). This metaphor construes the South African situation as comprising two isolated economic realms that exist in disconnected parallel, the realm of 'traditionalist' modes of production and sustenance, and the realm of modernised, industrialised production. In agricultural terms, subsistence agricultural production is pitted against the modern agricultural sector, where modernising is equal to consolidation and commercialisation of farming activities. The gist of the 'two economies' discourse is that those 'stuck in the backwaters' need to be given a route of access into the 'first economy'.

Having laid out the main characteristics of the political situation in South Africa, the next section deals with how the water act and ensuing water allocation reform aligned with these debates.

THE NATIONAL WATER ACT 1998

During apartheid, there were huge inequalities between blacks and whites with regard to access to such natural resources as land and water. The predominantly White Republic of South Africa (RSA) created reserves that came to be known as 'Homelands' or 'Bantustans' for black people, thus depriving them of both freehold title and dignity (Villa-Vicencio and Ngesi 2003; Van Koppen et al. 2002). The inequalities still prevail, reflecting the extent of overcrowding and land deprivation resulting from the apartheid policy. Some progress is being made in terms of land redistribution, but it is painfully slow (Lahiff 2008). There are even greater inequalities in access to water. As much as 95 per cent of irrigation water is consumed by predominantly white, large-scale farmers, with the remaining 5 per cent accessible to smallholders, mainly blacks (Cullis and Van Koppen 2007; Schreiner and Van Koppen 2002).

In 1998, South Africa ratified one of the most sophisticated and progressive Water Acts in the world, the National Water Act no. 36 (Government of South Africa 1998), which explicitly emphasises equity as being the primary objective for instituting a water use rights reform.

The Act introduces a novel concept, that of the Reserve, which refers to both an ecological reserve¹ in terms of retaining a minimum level of instream flow to ensure ecosystem sustainability, and that of a human reserve, which refers to the quantities of water necessary to meet basic human needs. Over and above the Reserve, the Act categorises water uses into Schedule One uses, which includes water used for domestic purposes such as drinking, washing, watering livestock and homegardening; General Authorisations (non-transferable), which covers water uses in specific geographical areas or for particular purposes that are deemed to have a low impact; Existing Lawful Uses (ELUs) which refers to uses that were actively taking place within two years of the new Act being promulgated and which were recognised as lawful under the previous legislation; and finally water use licences, which covers all other uses. All water use, bar Schedule One, needs to be registered in a national database, the Water Authorisation and Registration Management System (WARMS). What constitutes 'use' is also defined in terms of the nature of the use, and divided into 11 categories, including

¹ In the NWA, the whole of chapter 3 is devoted to protection of water resources and deals with the development of a classification system for water resources and resource quality objectives, determination of the Reserve, and pollution prevention. Hadley Kavin, the lawyer and member of the Water Law Drafting Team, emphasised the importance of the technical aspects, and that the 'hijacking' of the process by environmentalists had profound technical implications – he was primarily worried about the feasibility of the ecological criteria. '(...) we are now ten years down the line, and I haven't seen a draft of the regulations yet' (interview, 10 August 2006).

taking water from a water resource, storing water, impeding or diverting the flow of water in a watercourse, and engaging in stream flow reduction activities.

In the National Water Act (NWA), licences were conceived in terms of facilitating reallocation of water resources through the process of compulsory licensing in which all water uses in a stressed basin would be cancelled and new uses issued licences according to the criteria of equity and efficiency set out in the Act (section 27.1b).² Basically, compulsory licensing is a mechanism whereby all the water uses in a specific area are cancelled, and a call for licences issued; and will primarily be used in areas where there is considered to be water stress, which was considered to be the case for 11 out of the 19 WMAs (Director: Water Utilisation, interview 15 August 2006).

In terms of management, the country was partitioned into 19 WMAs, based more or less on drainage regions, that were to be governed by a Catchment Management Agency (CMA). The purpose of the CMA was first and foremost outlined as 'co-ordinating and promoting public participation in water management' (Anderson 2005: 1; see also Brown 2005), though it was envisaged that these responsibilities could be expanded to include setting and collecting water use charges and issuing water use licences (Schreiner and Van Koppen 2002). Moreover, the NWA outlines the development of a National Water Resources Strategy as the overarching instrument for managing national water resources. Its purpose is to 'set out the strategies, objectives, plans guidelines and procedures of the Minister and institutional arrangements relating to the protection, use, development, conservation, management and control of water resources' (DWA 2004: 8).

The NWA represented a significant departure from the previous 1912 Irrigation Act and the 1956 Water Act that both rested on the principle of riparianism. Riparianism essentially held that only those owning land adjacent to rivers – riparian land – were entitled to use water 'reasonably'. Water use rights were therefore dependent on land ownership, and all landowners along a stretch of river would have to cooperate to ensure that no one infringed on another's

² 27. (1) In issuing a general authorisation or licence a responsible authority must take into account all relevant factors, including -

- (a) existing lawful water uses;
- (b) the need to redress the results of past racial and gender discrimination;
- (c) efficient and beneficial use of water in the public interest;
- (d) the socio-economic impact. (...)

Moreover, according to the NWA section 43(1), undertaking compulsory licensing should be considered in order to:

- (a) Achieve a fair allocation of water from a water resource which is under water stress, or when it is necessary to review prevailing water use to achieve equity of allocation
- (b) Promote beneficial use of water in the public interest
- (c) Facilitate efficient management of the water resource
- (d) Protect water resource quality

ability to enjoy his or her entitlement to reasonable use of water. Riparianism was essentially a 'closed commons'; each individual's use right being in principle correlative to the use of others (Backeberg 2005; Tisdell 2003; Rose 1994). The problem was, of course, that this was an elite closed commons, comprised of people that had access to land, which through the passing of the notorious 1913 Land Act had been an asset almost entirely reserved for South Africa's white minority.

THE WATER ALLOCATION REFORM: EMERGING NARRATIVES OF EQUITY AND SUSTAINABILITY

The passing of the 1998 Act vested the State with the authority of issuing licences, and the earlier system of user-user correlative rights was transformed into a relation of state-user administrative rights (Movik 2008). This shift in relations meant that the State gained a large degree of discretionary power in terms of making decisions on how, and to whom, to allocate water, rather than water use rights deriving from a legal principle such as the riparian doctrine (Burger 2006). This implied that the way use rights and potential users were conceived would be open to particular framings at the policy level (Fischer 2003; Rein and Schön 1993), creating space for contestations and ambiguity. 'Framing' in this context refers to the way notions of sustainability and equity were understood, in particular how different characteristics of social, ecological and technological system interaction and functionings were highlighted and others downplayed, effectively shaping the nature of use rights themselves (Movik 2008). Scoones et al. (2007) argue that the term 'sustainability' is not only an objective concept that refers to a system's ability to maintain its structures and functionings in the face of short-term or long-term disturbance - it is also a normative concept open to particular framings, as different people will emphasise different system functions as being of more importance than others. They distinguish these two dimensions of sustainability through referring to normative Sustainability with a capital S - Sustainability, then, refers to the particular goals that are identified by different actors, and these goals are inherently value-laden and political, reflected in the particular framings that emerge in policy discourse. I will argue in the following that particular notions of Sustainability were allowed to dominate through the emergence of privileged accounts, which emphasised particular features whilst downplaying others.

On the face of it, the main driving force for the implementation of administrative licences was that it facilitated the reallocation of water from the haves to the have-nots (former Minister of Water Affairs Buyelwa Sonjica speech, 4 May 2006). But even though the NWA contained the core principles of reallocation, it did not spell out in detail how redistribution should be carried out in practice. A more pragmatic and practice-oriented policy to guide allocation reform was therefore needed, and work on putting together such a guiding document, the Water Allocation Reform (WAR) began in 2003. An Expert Panel was put together, consisting of lawyers, environmental advisers, representatives from the Department of Water Affairs and Forestry (DWAF), the Water Research Council and NGOs. However, nobody on the Expert Panel had any competence on land issues, as the one person asked to join the Panel that could have provided inputs on the land reform process, had to opt out due to personal reasons (Movik 2008: 91). Thus, the water reform process missed an early opportunity to connect with the land reform process and all its internal dynamics (see Hall 2004a: for an overview). The final draft of

the policy document was completed in November 2006. A pillar of the WAR was the concept of compulsory licensing. The process of drafting a practical policy to detail how allocation of rights should be carried out in practice gave ample room for particular narratives on how rights should be allocated to emerge.

In the NWA, the notion of 'existing lawful uses' was defined as part of provisions to deal with the transition mechanism from the riparian principle to an administered authorisation system. Thompson (2006) states that 'for practical reasons, the change could not occur immediately.' DWAF officials, however, explained the retention of ELUs primarily in economic terms. The energetic Director for Water Allocations stated how, even though the existing users had greatly benefited from skewed landownership and the associated access to water through riparian rights, their uses were allowed to carry over 'because the economy depends on that kind of use' (interview 31 October 2006). Drafting a policy for how to reallocate water would either downplay or strengthen this notion of ELUs, and could potentially even ditch the term altogether. In the Water Allocation Reform Programme draft dated January 2004, the section on 'principles to guide water allocation' contains no less than three principles dealing with ELUs, under the heading 'promoting accountable and fair governance.' The principles are:

- Existing lawful uses will only be curtailed as a last resort and only after all other options to find water for the poor and BEE have been exhausted.
- Existing lawful uses of water will not be curtailed unless there are clear procedures and support programmes established to promote the productive use of water by emerging users.
- No existing lawful consumptive use of water will be completely curtailed.

In later versions, these three principles are condensed into one:

- It is critical to address equity needs, but attempts to deal with this must be balanced with the consideration that many existing lawful water users are making productive, efficient and beneficial use and are contributing to socio-economic stability and growth.

During the process of crafting allocation reform, two broad views emerged, namely the economic productivity perspective, which essentially held that water rights should be allocated to the most productive uses in economic terms, and the livelihoods perspective that emphasised the need to spread water resources more evenly and focus on water's role as a means to sustain the livelihoods of poor people in rural areas, in particular focussing on the potential for reallocating water for subsistence agriculture.

The economic productivity narrative maintained that existing uses were making productive and beneficial use of water and needed to be protected. The productivity perspective resonated with the principles of the GEAR macroeconomic policy that focussed narrowly on how to stimulate economic growth and promote investor confidence. The main message was that redistributing water away from ELUs would threaten environmental degradation; Sustainability was therefore understood to hinge on the continued practice of ELUs. Consider the following excerpt from the first WAR policy document draft: 'If reallocations occur too quickly, the country will suffer economic and environmental damage as emerging users struggle to establish productive uses of the reallocated water.' In particular, the second component of the argument, that 'environmental damage' will occur as 'emerging users struggle to establish productive use', posits putative causal links (Roe 1991) and implicitly draws on a larger meta-narrative of environmental myths (Forsyth 2003; Adger et al. 2001). In this case, the metanarrative is the 'poverty-environment-degradation' hypothesis, a myth that has gained a strong hold on the imagination of both international development agencies and policymakers (see Angelsen and Vainio 1998). There is an implicit assumption that reallocating to those that are not existing lawful users will result in environmental degradation, thus disregarding the potential environmental threat – such as the pollution from the mining industry – posed by the consumption levels of existing users (see Duraipah 1998).

The phases of the work to craft a Water Allocation Reform generally strengthened the productivity discourse. Through 'privileged accounts' (Freudenburg 2005), existing uses were largely portrayed as productive and 'beneficial in the public interest', downplaying the negative impacts associated with these uses such as inefficiency and pollution, not to mention how water use rights had come to be appropriated in the first place; through discriminatory land laws (see Ntsebeza 2007: for an overview of South Africa's land politics). The potentially negative impact of certain mining enterprises in particular were downplayed (see e.g. Limpitlaw et al. 2005).³ The end result of the process was that the existing users were entrenched, and the case for redistribution to historically disadvantaged individuals (HDIs) was tightly tied to their potential for economic productivity. This was reflected in the phrase '(...) start people along the journey to becoming commercial and competitive users' that occurs in the final draft, implying that potential water users will be judged on their capacity to make economically productive use of water.

A corollary of retaining ELUs was that these would have to be accurately determined before compulsory licensing could commence, to avoid any accusations of

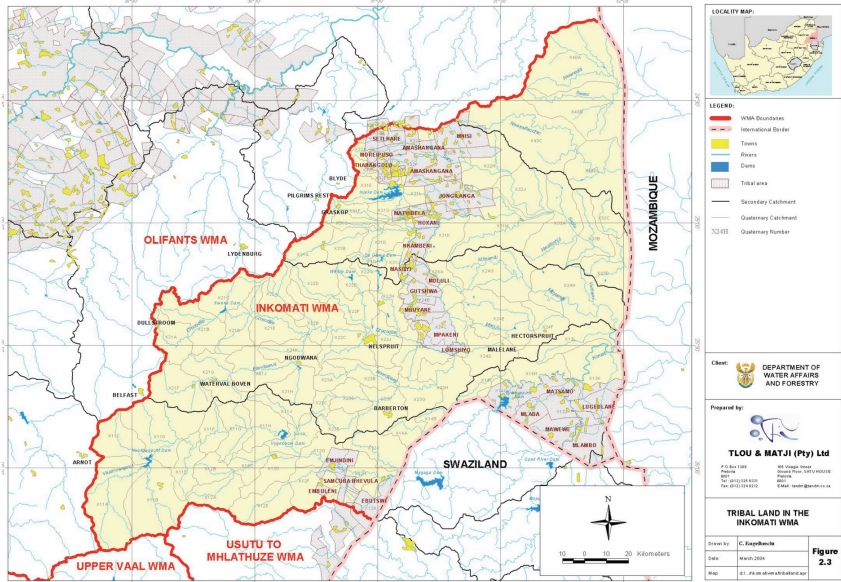
³ The threat to water quality by the mining industry has recently led to a storm in South Africa's water circles. Anthony Turton, a former senior researcher at the Council for Scientific and Industrial Research (CSIR), was expelled from the institution after publishing a paper that brought to the fore the issues of how industry, in particular mining, are threatening to degrade the quality of South Africa's water resources.

arbitrary reallocation. Any such allegations would render the State liable to go through expensive litigation procedures with existing users to establish whether or not reallocations were deemed to be 'fair'. Existing uses, therefore, would have to be validated; meaning that the current use had to be accurately quantified, and verified, i.e. checking the legal status of the use (whether it was considered as lawful under the previous Act).

The following section will describe the situation in one of the basins designated as 'stressed', and singled out to be one of the three pilot regions where compulsory licensing would be carried out first – the Inkomati Water Management Area (WMA) in north-east Mpumalanga (see map 1). A brief overview of the area's history, geography and water management practices is provided, before going on to describe the particular perceptions and constellations that characterised this area, and how the reform efforts fared.

IMPLEMENTING REFORM: DYNAMICS AND DISCOURSES IN THE INKOMATI

Map 1. Inkomati Water Management Area



While the notion of the need to protect ELUs was gaining ground at the national level, the power constellations and discourses emerging at the regional and local levels were more complex. In contrast to the national level discourses that tended towards pitting HDIs against ELUs, the local-level discourses revolved around agriculture versus other users.

The Inkomati WMA is situated in north-east Mpumalanga, straddling parts of the Drakensberg mountain range and the highveld plateau in the west and the Lowveld in the east, which is characterised by verdant vegetation and a subtropical climate. Rainfall is strongly seasonal and increases along an east-west gradient, with more than 1,200mm per annum in the mountains and on the plateau in the west, to as low as 400mm in the eastern Lowveld area (DWF 2004a). Essentially, three independent catchments make up the WMA: the Crocodile, the Sabie-Sand, and the Komati. The Komati and Crocodile rivers both

originate on the plateau and then flow downwards to feed the Lowveld, which has 'some of the most productive and valuable agricultural land in South Africa' (Bate and Tren 2002: 135). The paper focuses on the lower Komati, as this is an area of high demand and complexity.

The area has a turbulent history. When the Boers embarked on what became known as the Great Trek (Sparks 2003b; Terreblanche 2002; Morris 1998) in the 1830s, they arrived to find the area easily occupied as a result of the Difaqane⁴. Parcelling out the fertile land among their kin, the Boers came to settle in what they named the Eastern Transvaal, today Mpumalanga. The Boers deepened and widened the repressive policies of indirect rule embarked on by the British, passing increasingly discriminatory and oppressive laws. The notorious 1913 Land Act effectively prohibited black Africans from owning land of their own, pushing the black peoples into cramped reserves.⁵ Moreover, their access to water was severely restricted as the Land Act, in combination with the 1912 Irrigation Act, endorsed the principle of riparianism, which essentially meant that only the owners of land adjacent to rivers were entitled to use water, and those owners were invariably white. After the Second World War and the victory of the National Party in 1948, the Government lavished generous subsidies on white ex-soldiers to enable them to settle down and farm in the area, which gave rise to a '...featherbedded and inefficient agricultural industry' (Sparks 2003b: 133).

In the Inkomati, the KaNgwane homeland was created to be the 'home' of siSwati-speaking peoples residing outside the borders of Swaziland. This area, about 320,000km² in size, accommodated about a million people. Most people living in the homeland areas were either engaged in dryland agriculture or were migrancy mine workers (King 2005). Some development occurred in terms of top-down irrigation schemes and in 1992 a water allocation treaty was forged between KaNgwane and South Africa, which saw the lion's share of the water resources being apportioned to the latter. When the ANC government came to power in 1994, the old homelands became a thing of the past. But it takes a long time to break these structures, and hence the lower Komati area is still a very divided society.

⁴ Mfacanane, alternative spelling mfecanane, means 'the crushing' in Zulu, whereas Difaqane means 'forced migration' in Sotho. The Difaqane referred to the widespread Nguni conquests in which the powerful Zulu tribe, led by the legendary Shaka, had engaged in numerous campaigns to put the land under their control, scattering tribes and peoples. The newcomers easily crushed what little resistance they met from an already weakened population. See e.g. Morris (1998)

⁵ In 1952, the Bantu Authorities Act was passed, which effectively made Black South Africans aliens in their own land. They were restricted to the reserves, which were designated 'Homelands' or 'Bantustans', and which were destined to become separate, independent nations. Since there was little possibility of securing any kind of sustenance in these cramped, barren areas, most able-bodied men were forced to migrate and work in the mines or towns, and thus were laid the foundations of the labour-migrancy system that enabled much of South Africa's wealth accumulation.

WATER USERS AND MANAGEMENT STRUCTURES IN THE INKOMATI

Water use in the Inkomati include irrigated agriculture, plantation forestry, ESKOM – the state energy utility – urban, industrial, mining and domestic use. Brown and Woodhouse (2004) note that the reasons for water scarcity are deeply contested, a view corroborated by my own observations during fieldwork in the area. There was a tendency amongst farmers to lay the blame for scarcity on other upstream users, in particular ESKOM, the forestry sector and Swaziland. However, commercial agriculture was viewed as the biggest waster by other users, such as dryland farmers, urban and domestic uses.

In terms of management institutions in the area, a new three-tiered structure of government took shape after 1994, with provincial government departments forming the middle layer between local municipalities and national government. The DWAF does not quite conform to the three-tier pattern, as it has no provincial department, but rather regional offices within the national sphere, with the Regional Office (RO) for the Inkomati WMA based at Nelspruit (Faysse and Gumbo 2004). With respect to land affairs, the Department of Agriculture (DoA) and Department of Land Affairs (DLA) under the Ministry of Agriculture and Land Affairs have their provincial equivalent in the Mpumalanga Provincial Government Department of Agriculture and Land Administration (DALA), which is tasked with providing support to all farmers in Mpumalanga. When the administration of the homeland of KaNgwane was disbanded in 1994, many of those who were employed there were absorbed into DALA. The Inkomati CMA, the first – and at the time of fieldwork, only (of 19 proposed) – was established in March 2004, after seven years of protracted stakeholder negotiations (Anderson 2005). It was officially launched on 2 November 2006, though at the time a number of positions had yet to be filled. However, the Governing Board, which is a statutory stakeholder platform, has been established and consists of 14 members led by a Chief Executive Officer. The Board must meet at least twice annually, and is accountable to the Minister of Water Affairs and Forestry, whilst the individual board members should report back to their constituencies.

IRRIGATED AGRICULTURE VS. OTHER USERS: PATRONAGE, PATERNALISM AND CONCEPTIONS OF SUSTAINABILITY

Historically, the political clout of the commercial farming sector stood in stark disproportion to its economic importance. Agricultural capital was mainly on white hands, and white commercial agriculture had traditionally been a vital political constituency of the National Party governments under apartheid (Bate and Tren 2002), and had built up a strong agricultural union, the Agri South Africa (AgriSA), to represent its interests. The black counterpart to the AgriSA, the National African Farmers' Union (NAFU) is neither a particularly large nor powerful interest group. Following the demise of apartheid, agriculture was increasingly deregulated, signalling the end of a long era of state intervention in a strategically important sector. While Vink and Kirsten (2000) argue that deregulation potentially results in a net welfare benefit, Hall (2004b) argues that the process causes the gap to increase between 'winners' and 'losers' and that the State's emphasis on creating a cadre of commercial black farmers 'sits uneasily with its removal of subsidies and other support which have combined to produce a uniquely hostile environment for new entrants into agriculture' (ibid: 220).

Irrigated agriculture is by far the major user in the Lower Komati area, and users can be roughly distinguished in terms of large-scale commercial farmers and small-scale emerging farmers. Whilst the large-scale farmers grow fruits, sugarcane and some vegetables, the small-scale farmers are basically involved in sugarcane growing through the Government-initiated sugar schemes, known as the Nkomazi Irrigation Expansion Programme (Movik 2008; Brown and Woodhouse 2004; Waalevijn 2002). Where the commercial farmers' water use rights were acknowledged in the Act as existing lawful use, the emerging farmers status was uncertain as the 1992 KaNgwane-RSA treaty which had allocated them the water ceased to be valid once the homelands were abolished at the onset of democratic rule. The principle of riparianism did not apply in the homelands, as most land was under chiefly authority and not individually owned, but gained access to through Permission to Occupy – see e.g. Hall (2004a) for an overview of land issues in the former homeland areas, and the status of reform efforts.

The commercial sugar farmers had a good deal of flexibility in that they did not depend solely on sugar for their income, but diversified into bananas, citrus and other crops as well. They also enjoyed a high degree of 'hydrological security' in that they were able to store river water, in addition to catchment flows and storm water, for use during the drier months when irrigation was restricted. The 'emerging' farmers that formed part of the Nkomazi Irrigation Expansion Scheme did not enjoy the same level of flexibility. The NIEP was initiated in the 1990s by the then

KaNgwane Administration to promote small-scale farming by black farmers.⁶ The emphasis was squarely on sugarcane, with some additional vegetable projects for subsistence purposes. Sugar was chosen primarily because it was considered to be a very easy crop for small-scale farmers to grow; there was also a strong support system and guaranteed market providing a dependable income (Head of Technical Support Services at DALA interview 23 June 2006). The projects were developed in two phases, the first initially aiming to support some 950 farmers on about 7,000 ha, with an average size of seven ha per individual plot (TSB staff interview 8 June 2006). In 2000, a second phase was made possible with grants from the Land Redistribution for Agricultural Development (LRAD)⁷ scheme. This second phase became known as 'the seven', but these were developed on marginal soils.

Many of the schemes were struggling at the time of fieldwork. An evaluation report on the projects noted that though initially most of the farmers were able to make enough money to raise their standard of living and boost the economy, it didn't take long before ratoon age increased, yields declined, and soils were depleted. Input costs increased and the sugar price stagnated and even reduced [sic] in real terms (Swart 2006: 2). A contributing factor to the falling levels of productivity was, according to the extension officer, the system of land access. During the apartheid era, chiefs often became puppets of the apartheid regime, which built on the 'indirect rule' policy of the British (Mamdani 1996). Chiefs amenable to the government line were placed in charge of tribal areas, where they acted as 'clenched fists', with few of the traditional trappings that used to function as checks and balances to chiefly power, such as councils (Levin and Mkhabela 1997). This situation led to the chiefs having little credibility in some areas, and traditional leaders were often treated with disdain, in part due to their linkages with the apartheid government. After the transition, the ANC vacillated with respect to the role of the chiefs, and coalitions were formed with what were regarded as 'progressive chiefs' in several homelands, amongst them the KaNgwane (Levin and Mkhabela 1997). However, land access in many areas still depended to a large degree on chiefly authority (Claassens 2005; Cliffe 2004; Ashley et al. 2003; Lahiff 2003; Ntsebeza 2000), and there were indications that individuals were gaining access to the NIEP scheme not on the basis of their farming skills, but on the basis of their relationship with the chiefs (Movik 2008; King 2005).

Nevertheless, there was a feeling among many of the farmers and extension officers that 'we need to keep this thing together' (extension officer interview

⁶ Which was facilitated in part by the decision to build the Driekoppies and Maguga dams (Brown and Woodhouse 2004).

⁷ LRAD was initiated by Thoko Didiza in 2001, shelving the former Settlement/Land Acquisition Grant (SLAG) programme. The LRAD scheme provides an initial R 20,000 grant on a sliding scale and has been criticised for moving away from the pro-poor focus of the SLAG programme to align with GEAR policy of emphasising entrepreneurship; favouring those with capital.

25 May 2006). The farmers viewed agriculture – including ‘emerging’ agriculture – as the backbone sustaining the community in the region, and something that needed to be upheld in order to maintain social stability, though they were loth to share any of their own water with the emerging farmers. The emerging sugar projects were generally viewed favourably in the media and national policy circles. From the point of view of the actors participating in the water allocation reform process, the sugar projects in the Inkomati were seen as backing up their ideas about promoting ‘productive’ and ‘efficient use’ of water for historically disadvantaged uses.

Hence farmers - both commercial and emerging – came to be pitted against other water users. Stealing water from the local municipality supply pipelines to irrigate sugarcane was not uncommon among emerging sugar farmers, according to a senior engineer at the municipality (interview 26 September 2006). Moreover, the CMA representative for domestic users told us how many people, women in particular, resented the sugarcane farmers’ water use. ‘You see, the sugar farmers, both the commercial and the emerging, they are taking all the water from us...It’s a problem’ (interview 23 August 2006).

The local municipality had approached the Regional Office to ask for their help in augmenting water supply, but had been told that if they wanted more water, they would have to trade with other sectors. In the words of the Deputy Director of the Regional Office, ‘the municipalities are very reluctant to buy water; they want us to give them the water. But we can’t just take water from other sectors (...) we can’t do it’ (interview 8 September 2006). Though informal trading took place within the agricultural sector, there was little evidence of trade between sectors. However, DALA did not entertain any thoughts of engaging in intersectoral trade in water. A senior official at DALA commented that:

...they [DWAf and the developers] say we do not stimulate development as a department, [because we do not want to give out water...they regard us as not stimulating for development. Developers want to buy water from agriculture and convert it into primary water use...and when we say “sorry,” they then go to the politicians and say that the development is going to generate employment and stimulate growth. But agriculture is not giving the water. (Interview 23 June 2006)

When asked why they were not interested in trading, he explained that they had invested in planning and infrastructure, they had made a great effort in order to utilise that water, so now why should they sell it? It was their right, they had worked hard for it, and they deserved to hold on to it. This feeling of ‘deserving’ to retain water, combined with the perspective that irrigated agriculture was vital to uphold the social fabric in the area, led to a situation where it was ‘agriculture against the rest’.

CURBING AGRICULTURE: 'THE LITTLE MAN AGAINST THE STATE'

Whilst the DALA was intent on supporting agricultural expansion, the DWAF Regional Office was determined to curb it. Some of the staff at the Regional Office were quite mistrustful of both the emerging farmers and the commercial farmers. Whilst the commercial farmers regarded themselves as making efficient and beneficial use of water, views at the Regional Office were far less favourable. As the Deputy Director put it, 'the guys are over-irrigating,' 'guys' referring to both the large and small-scale farmers.

The soil is actually decreasing in quality, by over-irrigation. Very few farmers want to think about this. They just say 'give me water'...if we can cut twenty per cent of agriculture, it makes a huge difference. In a drought period, the crops won't drop the same way the water drops. If water drops by forty per cent, the crops only drop by ten per cent. (Deputy Director, interview 8 September 2006)

The stance of the Regional Office was clear: the desire to curb agricultural water use; and compulsory licensing was regarded as the primary means of achieving this aim. In the Deputy Director's words: 'Don't look to agriculture as your saviour. They should start building more factories...we are exporting too much raw material, and importing too much processed goods (...) Compulsory licensing will be a way to cut down agriculture' (interview 8 September 2006). The view emanating from the Regional Office that farmers should be curbed via compulsory licensing and lowering assurance of supply effectively basketed emerging farmers and commercial farmers into one category as 'wasteful' and 'inefficient'.

The commercial farmers were increasingly viewing themselves as victimised. According to an attorney specialising on water issues who worked in the area:

(...) the main problem is that we are not able to get a licence out of DWAF (...) my clients go bankrupt while they are waiting for a licence. It is taking them years—four years in one case—to process applications. That is unacceptable. Now, what is reasonable for an application is about three months; that is what would be normal for a moderately complicated case. I don't really want to, but now I am advising my clients that they should start claiming damages for lost yields, etc., after three months (...) There are thousands of illegal developments going on, because you cannot get permission. Between the man on the ground and the policymaker, there is a huge gap. (Interview 7 June 2006)

The attorney observed that many of the commercial farmers in their appeals noted that when farmers appealed against DWAF's decisions, the judges tended

to be largely sympathetic towards the farmers and rule in their favour because, as she explained to us, to the judges the appeals represented the struggle of the 'little man' against the State. As the judiciary, it was part of their remit to function as a check on the State's power and supposedly, they were fulfilling this role in helping the appellants win their cases.

Thus, the fault lines ran between agriculture and non-agricultural interests, with the commercial farmers increasingly viewing themselves as victimised, drawing upon images of the 'little man against the State.' This was in contrast to the fault lines created at the national level, which mainly revolved around narratives based on the benefits of retaining ELUs. At the local level, discourses and access routes were much more fragmented and dynamic. Nevertheless, the retention of ELUs implied that these had to be accurately determined before the process of compulsory licensing could go ahead.

PREPARING FOR COMPULSORY LICENSING IN THE INKOMATI

Scientists are very eager to quantify, to get figures, black and white statistics...but water itself refuses to be accurately regulated, because you cannot predict water. It is very unpredictable. But scientists want to analyse, they want figures, they want to be able to say here there is a use of three litres per day, etc. You can't manage water like that...they think that we need regulation to the final and last drop. (Legal practitioner in Inkomati, interview 4 August 2006)

As a necessary corollary of retaining ELUs, a validation and verification project had to be undertaken prior to implementing compulsory licensing. The first part of the project, concentrating on the validation of existing water use in the Olifants (the neighbouring WMA) and Inkomati WMAs, started in early 2003 and was completed in June 2006. Validation entailed confirming how much water the user was actually using in the qualifying period, how much they said they were using (or registered), as well as how much they were currently using. Verification determines the extent of existing lawful water use, but the terms caused much conceptual confusion and misunderstandings. In effect, verification should determine if any previous laws would have limited the use in the qualifying period.⁸ If not, the use in the qualifying period is lawful.

⁸ The qualifying period was defined as the two years prior to the promulgation of the National Water Act 1998.

Validation of water use was carried out through combining modelling approaches, LANDSAT and cadastral data, field visits and telephone interviews. Since historical water use was rarely measured, determining use in the qualifying period represented the most challenging element of the project, and plenty of problems were encountered. The SAPWAT model used to estimate water abstractions basically provides estimates of crop-water requirements. Results generated by SAPWAT vary greatly depending on the quality of the information attributes it is fed - crop characteristics, crop requirements, crop type, planting dates, soil type, infrastructure, irrigation practice, slope gradient, etc. - and the variable interpretation of operators. Even estimates of the model's error margins differ substantially.⁹

Farmers were often quite unwilling to provide data to project members, or at least the type of information asked for:

They wanted to know everything in detail, e.g. how many mangoes you grow, etc. Thing is, I'm not necessarily going to stick to that specific regime what they asked about at that specific point in time – things are going to change. The lady [the project leader] was sweet enough, but they wanted very specific data, very accurate data. (Commercial farmer, Lomati River, interview 24 May 2006)

From the commercial farmers' point of view, the project was too engrossed in its own ideas of scientific detail to be of any relevance. Science was regarded by those affected by it as an 'illegitimate and exploitative set of discursive practices' (Lidskog and Sundqvist 2002; in Haas 2004: 571).

With regard to verifying water use – i.e. confirming whether a specific water use was lawful or not – the nature and history of land transactions served to render this exercise fraught with problems, as the dynamics of continuous land transactions influenced the legal status of water rights. Where land had been subdivided, it was often not possible to determine to which plot the riparian water right was now attached; similarly with consolidations. The dilemmas inherent in using a relatively static database to mirror dynamic land relationships have been extensively documented in research on land titling efforts across Africa (see e.g. Benjaminsen and Lund 2003), but the implications for water rights have seldom been explored. In addition to land dynamics, informal trade in water rights contributed to complicating the picture. According to the previous legislation – the 1956 Act – users were permitted to trade riparian rights as they saw fit, but not rights attenuated through Government-issued permits or quotas. Illicit trade had nonetheless taken place with the covert consent of local Irrigation Boards (Bate and Tren 2002). Another aspect of the need to attach water rights to land was the

⁹ One internal DWAF source reports SAPWAT as having an error margin of up to 40 per cent, whereas others quote figures as high as 60 per cent (DWAF internal memo 2006).

uncertain nature of land tenure in former homeland areas. These factors led to the rather disheartening result, for DWAF, that in only about 17 per cent of the cases could the project team determine water use as 'possibly lawful'. Further work was needed in terms of verifying water use, and the project was tendered to a different group of consultants. However, their contract was not extended, and DWAF is currently (as of February 2009) considering scrapping the whole verification project as it is too costly and resource-intensive.

Since SAPWAT was so inaccurate, DWAF realised that 'it will be very difficult to prove a water use that exceeds the allocated verified volume in a court (or Tribunal) with the presently available mechanisms and legal framework in the NWA' (DWAF internal source). Garduño and Hinsch (2005) point out that the support of compulsory licensing requires much more sophisticated modelling techniques, and it would take 10 consulting teams approximately 20 years to complete. Interestingly, the proposed way out of this dilemma was to argue that unlawful use was inefficient (DWAF internal note):

If users may have registered more than the SAPWAT requirement, [they] may argue that they used more [than] this during the qualification period. As it may be difficult to prove that this was not the case (and hence to prove this use as unlawful), the use could be flagged as inefficient and be considered as such during the compulsory licensing process.

Thus, the early discourses of existing lawful use as 'efficient and beneficial' are now undergoing scrutiny. The failure of the State to curb unlawful use is, in a sense, closing the circle. Since they are not technically or scientifically able to pin down unlawful use, the 'weapon' resorted to is again a discursive one, in labelling users as 'inefficient.'

IMPASSE

DWAF was increasingly realising the shortcomings of the scientific approach to determining lawful use, and beginning to outline alternative means of coping with this, through e.g. labelling existing users as 'inefficient' (in direct contrast to the earlier focus on ELUs as efficient and productive). The people within the Directorate for Water Allocations were growing impatient in terms of providing water to the HDIs; they wanted to speed up the reform process and needed to find new ways of doing so in light of the increasing difficulties.

One possible pathway that emerged was to develop further the notion of General Authorisations (GAs). GAs were one of the four categories of use rights defined in the Act. However, at that time, it was viewed primarily as a means of lessening the administrative burden associated with licensing, and intended for use in unstressed catchments that did not yet need to go through the compulsory licensing process. But as the water allocation reform dragged on into its seventh year without much progress, the idea of developing GAs as a tool to be integrated into the compulsory licensing process slowly formed, although opinions on its potential differed within DWAF. Nevertheless, a team of consultants was asked to develop the idea further, and in November 2005 an inception workshop was held for interested stakeholders.¹⁰ GAs were seen as sitting in the 'grey area' between Schedule One users - water for small-scale domestic use and non-commercial purposes - and licences, which were viewed as providing access to water for commercial purposes. The view that emerged at the inception workshop was that GAs should be reserved for small-scale use by people with their own abstraction technologies, and that water should be allocated primarily to users that were able to take up the water and use it productively, not simply because the users were HDIs. There was no mention of infrastructure in terms of enabling access to water for HDIs. The consultants had been asked to prepare fictitious case studies to illustrate the potential benefits and drawbacks of GAs. The DFID consultant stated that the case studies did not need to 'actually work in practice' but were 'useful in understanding the approach outlined in the methodologies.' Whilst this may be the case, it strengthened the impression of 'centralised' and rather abstract knowledge-making.

The then Deputy Director at the Inkomati Regional Office pointed out that prioritisation of GAs would become a problem, stating that '[the] scary thought about GAs is that this one guy can get as much as he likes, but not that other... Who do you give it [the water] to?' (interview 8 September 2006). He continued:

¹⁰ The stakeholders comprised the regional directors, as well as representatives from other interests, such as IWMI and officers from the Department of Agriculture and Land Affairs and various financial institutions.

It's a nice idea (...) but I'm very scared of the term 'General Authorisations'. It implies that you don't need control. If five per cent of the water [is] set aside for General Authorisations and you don't monitor it, you don't authorise it, you don't keep records of it (...) it means you don't have control.

He noted that there was a study underway to assess the water availability in the system, which was planned to take about two years, and added:

...if the politicians say they can't wait to reallocate, then there's going to be a huge risk. I have a major problem with that. To do [compulsory licensing], without having all the data is very risky. You cannot reallocate without the necessary information. They haven't even set the international requirements yet.

At a meeting some weeks later with the then Director, Water Allocation at DWAF; he observed that:

Hydrologists, modellers, they want great detail; you can't, you've got to take some risk (...) It takes them too long (...) How much should you study a system before making a decision? (Director, Water Allocations, interview 31 October 2006)

The above quote succinctly sums up the crux of the situation, the perception of uncertainty and risk, and the continuous attempts of the modellers and hydrologists to reduce, if not eliminate, uncertainty, and the differing perceptions of risk and need for control.

UNDERSTANDING WATER REFORM: ALLOCATION DISCOURSES, DYNAMICS AND UNCERTAINTY

The paper started out by highlighting how perceptions of scarcity have triggered reform efforts across the globe, emphasising the trend of bringing water resources under the ambit of the State and highlighting the fact that policies often tend to ignore and downplay dynamics and incertitude. A main point was that, in the shift from a riparian to a licence-based system of water allocation, the onus is now on the State to flesh out conceptions of use rights and to justify particular allocation mechanisms – the shift towards greater state authority provided a fertile ground for the emergence of particular narratives with respect to who should have rights to water. Water policy reform is not simply a tabulated, neutralised exercise of applying certain given principles, but a protracted struggle for meaning; policy discourse itself actively shapes use rights (Movik 2008). This notion builds on the idea of rights as social relations, i.e. that use rights are constituted through the social recognition of certain claims and categories over others. Eggertsson (1996: 157) argues that property rights, as all social phenomena, ‘abstract from the real world by stylising select characteristics of human behaviour, organisation, and physical environments’. It is the nature of this ‘stylising’ that is of interest, how it gives rise to certain narratives, and how the forging of particular subject positionings (Fischer 2003; Laclau and Mouffe 2001; Fairclough 1995) in policy narratives define certain categories’ relations vis-à-vis each other and the resource. Fairclough (1995), drawing on Willig (2001) states that a systematic exploration is required of how discursive constructions open up particular pathways for action.

Through the exercise of categorising water uses, users are created correspondingly – subjects have been created in the process of transformation, being invented and reinvented. Where before there were only irrigators, the National Water Act has created a host of new categories and correspondent subject positionings: stream flow reducers, ELUs, HDIs, potential water users, etc. The water allocation reform largely revolves around these main categories, that of ELUs and that of HDIs, with an additional category of the ‘commercial HDI’. The notion of ELUs was formed through the process of creating a ‘chain of equivalence,’ i.e. emphasising what is equal, what is held in common, by a diversity of actors (Laclau 1996). This creates an ‘equivalential chain’, in which disparate identities are collapsed in order to serve a particular purpose. In Laclau’s words, ‘the more the chain expands, the more differential features of each of the links will have to be dropped in order to keep alive what the equivalential chain attempts to express’ (ibid: 208). The equivalential chain, in this instance, is all the different water users: mining, agriculture, industry, domestic, urban; these are all collapsed into the basket term ‘existing lawful uses’, converting of possible subject positionings into a monopolising dichotomy of existing lawful and historically disadvantaged.

Discourse, according to MacDonald, can be regarded as form of 'ideological practice' (MacDonald 2003: 153), in the sense that it contributes to construing certain goals and system functionings as more worthy or sustainable than others, and this process of construction will be deeply influenced by the prevailing political terrain. Similarly, the notion of subject positionings hinges on the idea that the construction of the subject in discourse is inherently political, asserting the primacy of politics in terms of determining subjects and their relations.

Understanding how these discourses and subject positioning emerges, then, requires the teasing out of the wider socio-historical and political setting. The legacy of inequality left by apartheid laid the ground for the focus on redress and redistribution, but the nature of what became known as the 'negotiated settlement' under the transition, where the ANC was thought to reach a compromise with powerful economic interests in order to secure political power, paved the way for the rise of the neoliberal paradigm in much of postapartheid politics. This paradigm influenced in various ways the water reform, as for example in the heavy emphasis placed on the role of water for economic productivity and the recognition of ELUs, justified through the fear of disrupting the economy. It is also reflected in the emphasis on the notion that those who had been wronged in the past should be given access to water, but with the general ideal that they should become commercial and economically productive users of water. What this does, is to tie a tight knot between the constitutional claims of HDIs to greater access to water and their capacity for productive use. Greater equity can thus only be achieved through either HDIs gaining capacity to use water productively, or by getting access to 'benefits accruing from water' through being employed by someone who uses water productively. Through the emphasis on scarcity and making efficient use of scarce resources, the notion of redistribution is hinged on the capacity to use water efficiently. Even if this rendition may seem self-evident at first, it arises out of particular framings of social and ecological dynamics, which in turn point to equally self-evident solutions. By questioning the manner in which the problem is framed in the first instance, this also opens up the 'closure' (Stirling 2005; Fischer 2003) achieved in terms of advocating a particular solution. Through the privileged account of ELUs as beneficial and productive, then, the orientation of the problem effectively obscures from view the fact that large-scale supply schemes serving mining and agricultural interests and the huge subsidies lavished on the agricultural sector contributed to wasteful and inefficient use.

Such privileged accounts arose out of, and were nurtured by, the prevailing political economy conditions. In particular, the emphasis on the notion of 'two economies' served to portray the commercial sectors as the modern engine of economic growth, which the 'traditional' sectors needed to be integrated into. The BBBEE policy further contributed to reinforcing the legitimacy of this view, in terms of providing blacks access to the benefits of economic growth occurring in the 'modern' sector. This was particularly true with respect to the mining sector. The ubiquitous notion of the 'two economies' and the need to integrate the traditional sector into the commercial one also explains much of the emphasis on

HDIs making commercial use of water in the water allocation reform, defining the problem narrowly as one of scarcity and how to distribute scarce resources. This framing of the problem, coupled with the nature of the 'negotiated settlement', which in effect preserved colonial land grabs by constitutional sanction (Hendricks and Ntsebeza 2000), provided the rules of formation for the discourse on existing users as making beneficial and productive use. Francis (2005: 15), drawing on John Pilger,¹¹ notes that 'the prevailing political rhetoric, which placed an emphasis on the reallocation of land, water, and other natural resources to the people, was merely expedient during the decades of struggle for liberation and the early years of democratic transition.' Hence, property was protected through the 'existing lawful use' category. The issuing of licences was made conditional on the productive capacity of new entrants. Retaining ELUs also meant that such users would have to be accurately determined before compulsory licensing could begin an issue which was to bedevil the whole reform process.

The subject positionings created at the national level did not resonate in the Inkomati. Rather the situation was a more fragmented and dynamic one, with the emergence of an alliance between the established commercial farmers and the emerging farmers characterised by patronage and paternalism. Rather than existing lawful users pitted against historically disadvantaged individuals, it was the agricultural interests pitted against other sectors in competition for water, with access to irrigated agriculture for emerging farmers shaped by land dynamics. Moreover, whilst agriculture viewed other sectors as culprits in terms of creating water scarcity, others, such as e.g. domestic users, viewed the commercial agricultural sector, comprising both the commercial and emerging farmers, as the big wasters. Again, an understanding of the historical trajectory and political context is key to appreciating the particular positions and constellations that were present in the Inkomati, in particular the role played by traditional authorities and the strong position of commercial farmers.

Though the economic productivity perspective spurned commercial agriculture for its perceived marginal contributions to the economy, and the livelihoods perspective concentrated on the notion of 'emerging' in terms of agriculture, viewing it more as a route to emancipation, the particular political economic conditions prevailing at the time, which saw the protection of property rights as key to gaining investor confidence, meant that the agricultural lobby was indirectly favoured by the reform's insistence on retaining the notion of existing lawful use. This points to another feature, namely the tendency wherein issues of a political nature come to be 'bureaucratised' and how technical and 'self-evident' terms – such as 'Existing Lawful Use' – come to cloud the inherent political decision-making. The emphasis on registering all water users over and above Schedule One, and then embarking on the project of validating and verifying such use had more to do with a desire to gain control over the resource and its uses than with facilitating redistribution.

¹¹ World-renowned Australian journalist, author and documentary film-maker

The State effectively tripped itself up with the retention of ELUs and the reliance on scientific certitude to determine unlawful use that ignored dynamics. As Scoones et al. (2007) have pointed out; uncertainty is inherent to dynamic systems. The problem is that policy does not deal with it head-on, but implicitly assumes some sort of equilibrium state. These contestations in terms of the inability of the scientific and technological expertise to determine use rights led to an impasse in terms of redistribution efforts. After long delays, there is currently talk of scrapping the whole process of verification, and changing the Act to enable reallocation to go ahead without having to determine the extent of lawful use. Currently, the water legislation is under review, with an aim to getting rid of the cumbersome validation and verification process, and to find better and easier ways of providing water to those hitherto excluded from access (Ndileka Mohapi, interview 5 February 2009). The process of reviewing the legal foundations for water reform will likely take at least another year (Charles M'Marete, Director Water Allocations, interview 4 February 2009), and major revisions of the institutional set-up are also underway. There is, on the whole, a feeling that the approach to reform the current water allocation has been too centralised and technocratic, and there is a shortage of capacity to implement it.

Hopefully, this will entail greater focus on the dynamics at work on the ground and closer collaboration with the land reform processes. The ousting of Mbeki and the recent inauguration of Jacob Zuma as the country's new president will open up new spaces for potential radical policy change. But the uncertainty and infighting that has beset the ANC for several years will likely not go away anytime soon. Though Zuma enjoys wide support among the grassroots of the ANC, who have been increasingly alienated by Mbeki's aloofness, the charges of corruption and rape that have been levied against him means that his aptitude for the highest office of the country is doubtful – a fact that serves to create a climate of uncertainty and apprehensiveness about the country's future. It will, therefore, be very interesting to see what will happen in terms of a shake-up of the legislation and institutional set-up, and how the interactions of ecological, social and technological systems in the context of water resources will be reframed.

CONCLUDING REMARKS AND WIDER IMPLICATIONS

Drawing together the main issues of the water allocation reform, it is possible to argue that the initial emphasis on equity early on in the reform process came to increasingly shift towards a concern with control. I claim that this shift is best understood if one regards property rights as constituted not only through social relations and material characteristics, but also through discourse. The basis of this argument is the contention that the shift from the riparian system of water use to formal licences was akin to a shift in emphasis from individual acquisition to state authorisation. This shift from individual to state authority, which occurred with the introduction of licences in the National Water Act, permitted policy actors to engage in competitive story-telling in terms of vesting the idea of use rights and licences with particular meanings.

Though the allocation of water resources in the South African context was initially explicitly political – with the aim of bringing about a more equitable distribution – the process of allocation reform ended up couching inherently political issues in innocuous sounding and neutralising terms such as existing lawful use. This is the risk in other settings as well, that questions of water allocation that were previously founded on more or less easy-to-define legal principles, are now subject to state deliberations through the issuing of state-authorised licences or permits. Even if seemingly objective criteria are deployed to aid decision-making in favour or disfavour of any given individual applicant or group for a water use right, these criteria are liable to be deeply influenced by the particular political economy context and the associated discourses that emerge. Over time, this influence is likely to be camouflaged in technical or legal language, and may mask inherently political decisions as purely technical or bureaucratic ones. It is, therefore, necessary to be aware of the way that the policy process can contribute to obscuring the power constellations present in particular narratives around rights and rights holders.

In addition, by providing the State the authority to issue use rights, the onus of defining the content of such rights is also placed on the State. In situations where government capacity is stretched to the limits, as is the case in many developing countries, this may be an almost insurmountable task and a questionable use of government resources. Even in developed country settings the process of attempting to accurately quantify the portion of a resource to which a user holds rights is fraught with problems. The tendency towards rigid determination of use rights is undermined by the presence of incertitude, which further renders the task of backing legal claims with reference to scientific quantification moot. The difficulties in terms of quantifying and legally backing up state-authorised use rights, then, seriously bring into question their merit. Finding ways to deal with incertitude would likely provide a more fruitful pathway to managing water resources than sticking with the current pattern of attempting accurate quantifications.

These observations open up broader questions about state-citizen relations. Implementing IWRM and institutionalising use rights ultimately concerns issues of state versus citizen authority over resources, and how that authority is negotiated. This insight implies that attempts to implement permit or licensing systems in different contexts needs to be explicit regarding the political nature of such reform efforts, rather than treat them as purely technical or management exercises. There is, then, a need to raise awareness in terms of the ways in which discourses arise, and how language at the policy level is deployed in such a manner that it contributes to fashioning property relations and to make sure that the inherently political nature of defining and allocating use rights does not become obscured.

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