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Water Rights in South Africa: Insights from Legislative Reform

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Abstract

Inequality of access to water resources marks South Africa's history even more profoundly than inequality of access to land. Redistribution of rights to water to redress the results of past discrimination is an explicit purpose of the National Water Act of 1998 (NWA). In other respects the NWA is consistent with 'best practice' embodied in the 1992 Dublin principles. Under the NWA, water management is devolved to 17 Catchment Management Agencies (CMA), each with a governing board that is representative of the water users within the catchment. This paper traces the development and current status of the Inkomati CMA, the first to be approved (in 2004) by the South African government. In the Inkomati catchment water use is dominated by established commercial agriculture and forestry, by important environmental interests, including the Kruger National Park, and by the demands for improved access to water from a black population of around 1.5 million living in ex-bantustan areas. The paper reflects on the experience of the Inkomati CMA and considers the insights it provides, both on universal 'best practice' principles and also on the role of water management as an arena of political struggle, compromise and experimentation in South Africa.

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South Africa's water reform

South Africa's National Water Act of 1998 (Act No 36 of 1998) is widely regarded as a pioneer of an international wave of reform in the water sector, including the EU Water Framework Directive (EU, 2000) and Mexico's National Water Plan (2001-2006), which embodied a set of guiding principles agreed at the 1992 International Conference on Water and the Environment (ICWE) in Dublin (Calder, 1999; Heathcote, 1998; World Bank, 1993, 2003). The key ICWE principles are:

1. The River Basin is a natural unit of analysis and management. A holistic approach to water management is advocated, i.e. Integrated Catchment Management.
2. Action should be taken at the lowest appropriate level (subsidiarity). This will necessitate the devolution/decentralisation of management.
3. Water has an economic value. Economic instruments should be used to encourage the efficient use of the resource.
4. A Participatory approach is advocated – all stakeholders (with particular reference to women) should be involved in the planning and management of water resources.

South Africa's water reform differs from the international norm, however, in making an explicit goal of the legislation the redress of past inequality in water use. Thus the purpose of the National Water Act (NWA) is stated (section 2) as:

“to ensure that the nation's water resources are protected, used, developed, conserved, managed, and controlled in ways that take into account.....

- meeting basic human needs of present and future generations;
- promoting equitable access to water;
- *redressing the results of past racial and gender discrimination;*
- promoting the efficient, sustainable and beneficial use of water in the public interest
- facilitating economic and social development;
- providing for growing demand for water use;
- protecting aquatic and associated ecosystems and their biodiversity;
- reducing and preventing pollution and degradation of water resources;
- meeting international obligations;
- promoting dam safety;
- managing floods and droughts.

And, for achieving this purpose, to establish suitable institutions and to ensure that they have appropriate community, racial and gender representation”. (emphasis added).

This goal is perhaps unsurprising given the legacy of extreme inequality from the apartheid policies of the twentieth century. Inequality in access to water is particularly acute, with a Gini coefficient of 0.96 in terms of direct use of water (van Koppen, pers comm.). However, the goal of redressing past inequality means that South Africa's water reform is expected to deliver not only changes in process (holistic, decentralised, participatory and economically costed), but also a change in social outcomes. The prospect of redistribution from existing 'haves' to 'have nots' raises considerably the political risks attached to the implementation of reform. Indeed, contemplating reform at the close of the apartheid era, a World Bank-funded centre for policy analysis in Johannesburg observed: “the political will [needed] to amend the [water] law is probably greater than that required for land distribution” (LAPC,

1994, quoted in Woodhouse, 1995: 543). This observation arose from a recognition that irrigated agriculture is the largest user of water in South Africa, and that access to irrigation is a key element of economic viability for much of South Africa's commercial farming sector. Despite the intimate relationship this implies between the outcomes of land reform and water reform, these have largely followed parallel paths governed by separate state agencies (the Department of Land Affairs, and the Department of Water Affairs and Forestry). In both cases the pace of actual redistribution of resources to historically disadvantaged people has been slow. The government's goal of transferring 30 percent of agricultural land (sometimes stated as commercial (i.e. white-owned) farmland) into black ownership remained a distant prospect when land reform had only achieved the transfer of 4.3 percent (of which a considerable element of state-owned land) in the first decade (1994-2004) of majority rule (Bernstein et al. 2005).

Continuing high levels of inequality, unemployment and poverty in South Africa have renewed political pressure to quicken the pace of land reform. The process of land restitution - to individuals and groups claiming land from which they had been evicted as a result of racially discriminatory laws since 1913 - is due to be completed by the end of 2007 (70 percent of claims had been settled by late 2005 according to Bernstein et al, 2005). A Land Summit in 2005 committed the government to renew its efforts to assist black farmers to purchase land through grants and loans to achieve its redistribution goal of 30 percent of commercial farmland by 2014. At the same time, however, opinion remains sharply divided between those, including the government's newly-merged Department of Agriculture and Land Affairs, who see the goal of land redistribution as establishing black-owned commercial farming, and those who see it as providing security for rural communities in which "(M)ost households survive on welfare grants supplemented with subsistence agriculture and natural resources harvested from the commons" (Cousins and Hornby, 2007). However, even where land redistribution is seen as serving primarily a poverty reduction role, there is increasing recognition that this role may be substantially undermined by the risks attached to rainfed agriculture in much of South Africa. Consequently there is increasing attention on water access for small-scale farmers (Botha and de Lange, 2005), and hence a convergence in the hitherto largely separate paths of land reform and water reform. The use of water in agriculture, and the intensification of production thereby enabled, raises questions about property rights and income flows that are not straightforwardly addressed by the political discourse of restoring land to communities from whom it was taken, and demands a more explicit treatment of the relationship of land and water use to the broader economy of advanced capitalism in South Africa. The remainder of this paper outlines trends identified in a study of the implementation of water reforms in the Inkomati Water Management Area in Mpumalanga Province.

The Inkomati water management area

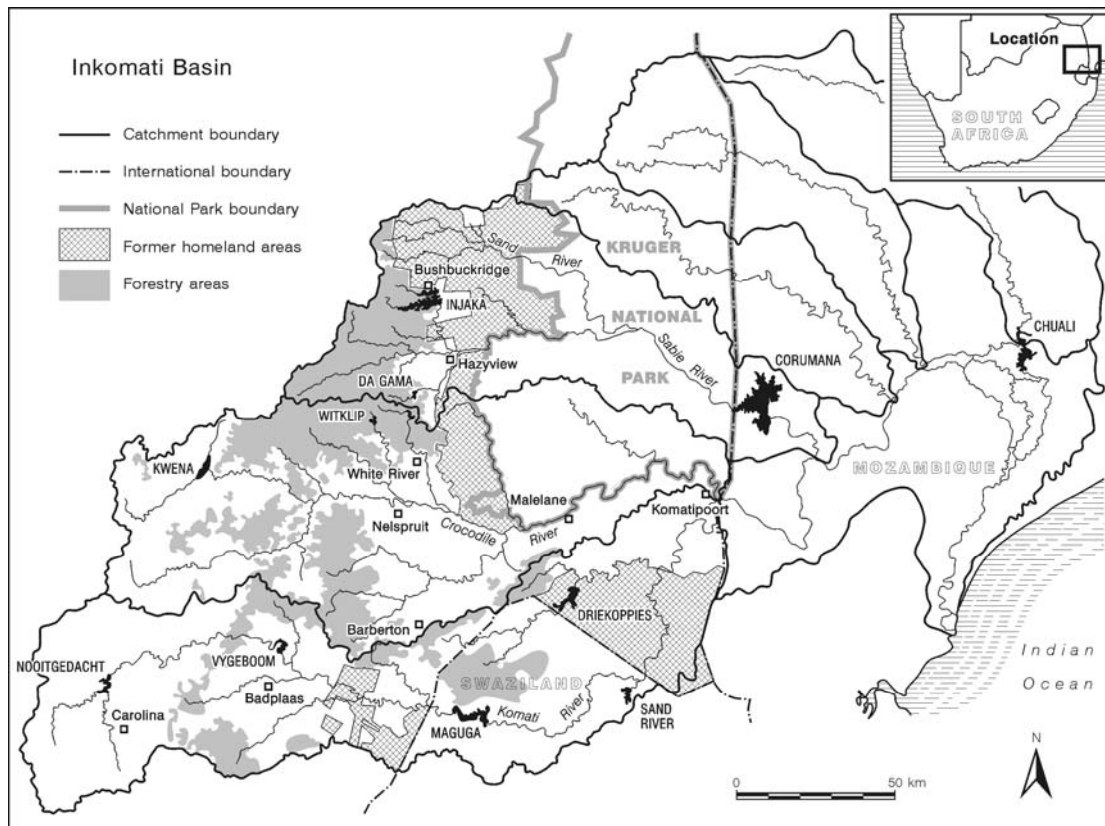
The National Water Act divides the country into 19 Water Management Areas (WMAs) based on river catchments, each to be managed by a Catchment Management Agency (CMA). The Inkomati WMA is located in Mpumalanga Province, north-eastern South Africa, bordering Mozambique to the East and Swaziland to the South-East. It is made up of three principle river catchments: the Sabie-Sand, the Crocodile and the Komati (top to bottom on Map 1). All drain in an easterly direction and eventually flow into Mozambique. The water in the catchment is mostly generated by rainfall (up to 1500mm per year) in the summer months on the Highveld plateau in the west (2,000m above sea level), and on the Great Escarpment, which divides the Highveld from the Lowveld (140m above sea level) to the east where

rainfall is lower (400 to 1,000 mm) and temperatures higher. Annual evaporation rates vary across the WMA, from less than 1,400mm on the Highveld to more than 1,900mm in the Lowveld, and as a result irrigation requirements vary (DWAF,2004), with higher demand in the drier and hotter Lowveld.

During the apartheid government, the black population was evicted from the Highveld and escarpment and much of the Lowveld, and resettled in a series of ethnically-designated 'homeland' areas in the Lowveld, governed from the 1970s by tribal 'national' administrations funded by the South African state. The homeland area known as KaNgwane had a population of about 1.5 million by the turn of the century. The areas from whence people had been evicted were used for white-owned business: commercial forest plantations on the Highveld and escarpment, and irrigated agriculture (principally sugar cane, and orchards of citrus, banana, avocado, mango and macadamia) on the Lowveld. A substantial part of the eastern Lowveld is occupied by the Kruger National Park.

Water resource infrastructure (dams and canals) is well developed in the majority of the Inkomati WMA reserved for the white population, but with the end of apartheid a further burst of dam construction was initiated, with major dams constructed in the 1990s at Driekoppies (237M m³ capacity) and Maguga (303M m³ capacity) to provide water for irrigated agriculture, and at Injaka (120M m³ capacity), on a tributary of the Sabie, to augment domestic water supplies for the densely populated townships of the ex-homelands. Despite these investments, irrigated agriculture remains vulnerable to drought, with severe droughts in 1992-3 and in 2003-5, and severe flooding – most recently in 2000. Estimates of water use in the WMA are subject to dispute (see below), but official figures (DWAF, 2004) state that irrigated agriculture accounts for 57 percent of all water use, forestry plantations 11 percent, industrial use (including inter-catchment transfers) 10 percent, international treaty obligations (cross-frontier flows to Mozambique) 11 percent, urban water supply 6 percent, and rural water supply 2 percent. More recent estimates (Water for Africa, 2006) claim *demand* for water for irrigation to be as high as 83 percent of all water demand in the WMA, and that total demand is approximately double the water available in the catchment. Despite large discrepancies in such estimates, there is consensus that the WMA is 'water-stressed', particularly in the Lowveld stretches of the Crocodile and Komati catchments.

Map 1. The Inkomati water management area.



Implementing water reform

Under the terms of the National Water Act, all water in South Africa is considered to be an 'indivisible national asset', for which the government's Department of Water Affairs and Forestry is the custodian in the public interest (DWA, 1997). Integrated catchment management is to be achieved following the principle of *devolution / decentralisation of water management* in each Water Management Area to a single Catchment Management Agency (CMA), representing the interests of different water users at the catchment level. According to section 80 of the National Water Act, the CMAs will have three initial functions:

- To investigate and advise on the protection, use, development, conservation, management and control of water resources in its WMA.
- To develop a catchment management strategy
- To coordinate the related activities of water management institutions within the WMA.

The NWA provides that central government (DWA) may delegate far-reaching powers to the CMA, phased over time as and when the CMA is deemed a 'responsible authority'. A key function, not initially delegated, is the issue of licences to replace 'existing lawful use' of water authorised under previous (apartheid) legislation. This will require all water users to apply for a licence to continue using water. Under licencing arrangements water may be re-allocated from existing use so as to achieve a fairer allocation of water, to improve the efficiency of resource management or to protect water quality (section 43). In order to undertake such a function, the CMA would effectively take over many of the operational functions currently undertaken by the DWA regional office in Nelspruit. The staffing and

operation of the CMA is to be funded by a water management charge levied on all water users.

Within the WMA, water management at a local level is to be undertaken by Water Users' Associations (WUAs), defined as 'co-operative associations of individual water users who wish to undertake water-related activities for their mutual benefit'. Each WUA is to be managed by a management committee, and may charge its members to fund its activities.

The implementation of the CMA in the Inkomati WMA has been characterised by a struggle between the main local water users, particularly white-owned commercial farming interests, and officials of the DWAF national headquarters in Pretoria. This process, set out in more detail elsewhere (Woodhouse and Hassan, 1999; Brown and Woodhouse, 2006) involved a local consultation culminating in a proposal for catchment management based on 'executive committees' at the level of three sub-catchments (the Sabie-Sand, the Crocodile, and the Komati). This proposal, submitted to DWAF in 2000, was rejected as dominated by existing large water users – the Irrigation Boards that represent and coordinate water use by commercial farmers – and insufficiently representative of historically disadvantaged groups. Thereafter, local impetus for institutional change stalled until the Inkomati CMA was launched – the first in the country – in March 2004 by the Minister for Water Affairs and Forestry, and an advisory committee was established to identify and propose membership of a Governing Board for the CMA. In September 2005 a Governing Board of 14 representatives of different sectors was given Ministerial approval, and in May 2006 a chief executive officer was appointed. Transfer of technical (water resource management) staff from the DWAF regional office to the CMA was due to take place in April 2007. Progress on water management to date has been heavily dependent on outsourcing work to consultants. Separate teams of consultants were contracted to undertake the preparation of the CMA business plan (2005-6), and elements of registration and verification of water use in the WMA (2004-7, see below), and a further team of consultants will be hired to undertake the drafting of the CMA's catchment management strategy in 2007.

Emerging dynamics of change

A central issue confronting the redistribution of water from white to black water users is that little precise information exists as to the actual amount of water used by the main existing water use: commercial agriculture. Such information that exists is held by the irrigation boards and by individual farm operators. This creates a significant asymmetry of information favouring existing water users over 'emerging' or 'potential' water users, such as residents in ex-homeland areas seeking access to water for domestic and agricultural use. A limited programme (totalling 7094 ha) of irrigation of small-scale (7ha plots) sugar cane holdings began in the 1990s in the ex-homeland area of Nkomazi, following the construction of the Driekoppies Dam. However, despite requests from black communities for further irrigation, totalling about 19000 ha, no further allocations of water have been made for at least seven years, as local offices of the DWAF and the Department of Agriculture engage in arguments about whether sufficient water is available to supply new agricultural projects.

In an effort to break through the paralysing effects of lack of information on water use, the DWAF head office in Pretoria invoked the provisions of the NWA to undertake compulsory licensing of all water use in the Inkomati WMA. This requires all existing water users to register the quantity and source of their water use during a specified 'qualifying period' (1996-8), and all those seeking a water allocation to

register a formal application. Registered water use is then verified by means of satellite images for both the qualifying period and currently (2004). Following verification, a proposal of overall water use is made for specific sub-catchments, taking account of priorities to provide water for basic human needs and for ecosystem maintenance (together referred to as 'the reserve') and any international obligations. This proposal is then translated into allocations for individual farms, published as a 'preliminary allocation schedule', which is then finalised (subject to appeals heard by a water tribunal) in the form of licences issued to water users. In the Inkomati WMA, the initial verification stage indicated that in 2004 the area of land being irrigated had increased by about 17000ha relative to that observed in 1996-8. Some of this was possibly due to more efficient irrigation, allowing more land to be irrigated with the same amount of water. Some was possibly an unlawful increase in the amount of water being used. Resolving this question requires officials to visit the farms concerned to investigate in more detail. This process of 'Water Allocation Reform' is hugely time-consuming, having taken four years up to the time of its expected conclusion in late 2007. The time required reflects to some extent the fact that it was imposed on existing water users by a central government agency. However, the delays in establishing the CMA, and the relatively sophisticated technical requirements of the exercise, and the ever-present threat of litigation from influential local commercial farming interests made it almost inevitable that it would be implemented by a central government agency – albeit using a team of specialists ('consultants') hired for the purpose.

The struggle of government to establish a licensing system for existing water use is seen by the officials concerned as a means to make water available to black people who need it either for domestic or small-scale agricultural use, by reducing the amount of water which commercial agricultural operators are licensed to use. The actual impact of this reallocation is likely, however to be heavily modified by two other dynamics at work. Both relate to the nature of governance of natural resources under customary, or 'tribal' authority. The first dynamic is that of land and water governance in ex-homeland areas, which is still formally under the authority of 'tribal' authority. Authorisation for individuals to use water for domestic use, for watering livestock, and for small-scale irrigation in such areas will not involve the issue of individual licences, but will be the subject of a 'general authorisation' applicable to a defined area. However, since land use is subject to local chiefs' authority, so will be access to water. Decisions by such authorities may leave some groups, notably women, at a disadvantage, as exemplified by public protests by women in Buffelspruit, Nkomazi, following the local chief's decision to allocate their crop-growing areas for grazing cattle purchased with the profits from irrigated sugar-cane growing (Rangan and Gilmartin, 2002).

A second dynamic involves the large-scale transfer of commercial farmland to black communities as a result of land restitution claims: the restoration of ownership of land from which they were evicted under the apartheid regime. In the main sugar-cane growing areas of the lower Crocodile River, some 18000ha of commercial sugar-cane and fruit orchards have been subject to such claims. Following initial resistance, the existing white farm-owners have all agreed to sign over ownership of the land to the communities who have registered claims to them. Much of the leadership in these settlements has come from the Transvaal Sugar Company (TSB) that owns two sugar mills in the area, as well as 5000ha of the farmland that is subject to restitution claims. TSB has been active in promoting the development of small-scale sugar production in the ex-homeland areas of Nkomazi and has proposed that commercial farms on land transferred as a result of land claims should be maintained in production by means of a joint venture between the company and the community who now own the land. In effect, the land is leased from the land-owning community

by a production company jointly owned by the community and by TSB. The community (who typically number 2000 –3000 on a 2000-3000ha restitution claim) will receive the lease income and also a share of the profits of the production company. This model, proposed as more widely applicable to other farms where land ownership has been transferred, offers the prospect of maintaining production on highly capitalised farms and (of particular importance for TSB) maintenance of supply of cane to the sugar mills. Two factors promote this type of settlement.

Firstly, the restitution of land does not bring with it the ownership of the infrastructure that is now associated with it, such as irrigation equipment, farm machinery, vehicles, or packing sheds (in the case of fruit farms). Those to whom land is restored do not receive it in its 'natural' form, but as a commoditised asset of a highly capitalised business. Moreover, such assets are integrated into a supply chain to the sugar industry. This provides the second factor driving this particular form of restitution settlement, in view of the relatively high failure rate of farms transferred from white to black ownership under the government's grant-assisted 'willing buyer-willing seller' (LRAD) land redistribution scheme. High failure rates have been attributed to inadequate appraisal of farm potential (marginal farms have been offered for sale) and unrealistic business plans designed to maximise advisors' commissions paid by government (Joubert and Kruger, 2005). For the sugar industry, the prospect of significant transfer of its cane supply into black ownership presents an important step in a political strategy of establishing itself as a site of 'black economic empowerment', rather than a refuge of white landed privilege. Even more, it may be viewed as a means of safeguarding existing water allocations for the production of sugar cane. More than one official interviewed in the area commented that, with the transfer of land-ownership, perhaps there is now no need to pursue water reallocation from existing commercial farming use.

Many questions remain as to the benefits of arrangements of the kind TSB is implementing. Will the level of income be of appreciable benefit to community members? Will the community trust that owns the land be managed in a sufficiently transparent and accountable way that their management of income will be regarded as legitimate by community members? Will there be other, longer term, benefits to community members, in terms of education or employment opportunities arising from their involvement with the commercial enterprise? These questions put into sharp relief the question of the purpose of land redistribution. It suggests that the simple political discourse of *restoring that which was taken away* may need to be reassessed as too suggestive of a return to a vanished past, rather than providing a basis for engaging with the realities of a present and future dominated by the logic of capital. More fundamentally, however, the transformation of 'community' into a property-owning 'community trust' requires an explicit consideration of the rules governing relationships between individual members of the 'community'. Although in an apparently unrelated context, this is no less the case in the emerging conflicts between women cultivators and chiefly authority in the nearby ex-homeland area of Buffelspruit. In both instances, it appears that 'customary' relationships in relation to land and water use now confront new types of resource use. An explicit renegotiation of the 'African' relationship between individual and community in relation to shared property, and the benefits that flow from its use, will lie at the heart of determining the outcome of redistributive reform of both land and water.

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