

Priority General Authorisations in rights-based water use authorisation in South Africa

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Abstract

This article unravels the notions of justice in statutory water law in Sub-Saharan Africa in general and South Africa in particular. These laws, which allocate and regulate water resources, are licence (or permit) systems. Three forms of injustices are identified for small-scale water users who typically encompass all poor water users: the reinforcement of the historical injustices by which colonial powers captured ownership of water resources and undermined customary water law; administrative discrimination as a result of governments' lack of capacity to license the large numbers of small-scale users; and discrimination of the smallest-scale users whose exemption from the obligation to apply for a licence relegates them to a second-class entitlement to water. Based on the texts and implementation experiences of the National Water Act (1998) and the pro-poor prioritisation rules in the National Water Resource Strategy-2 (2013), the authors propose the transformative legal tool of priority General Authorisations for black small-scale users to overcome these injustices. Via this tool all black small-scale users, including the poor, would obtain equal access to minimum quantities of water needed to progressively achieve constitutional rights to water, food, and non-discrimination, while the remaining water resources would be allocated to high-impact users through licences with strict and enforceable conditions.

Keywords: Customary water law; Gender; Historical justice; Licensing; Poverty; South Africa; Sub-Saharan Africa; Water law; Water use authorisation

1. Introduction

1.1. Justice in water law

While debates on water justice and water and waste management from a human rights perspective are gaining momentum (Water Governance Facility, 2012; Hellum, forthcoming), little attention has been paid as yet to statutory water laws and the notions of justice that guide the legislators and implementers

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of water laws in the allocation of the nation's water resources. How are human rights of non-discrimination and the rights to water, food, and an adequate standard of living reflected in these laws? In answering this question, we trace statutory water laws in Sub-Saharan Africa in general and unravel the case of South Africa in particular. The dominant water law here is the administrative system of licences (or permits, concessions, or water rights; all refer to the same system of the continental European civil law tradition (Caponera, 1992)). The few countries, such as South Africa and Ghana, that had no nationwide licence systems at the time adopted this system in the 1990s. Most other Sub-Saharan African countries, including Burkina Faso, Kenya, Mozambique, Tanzania, Zambia, and Zimbabwe revisited and strengthened the enforcement of the licence systems they had inherited from the colonial powers (Van Koppen *et al.*, 2014).

For decades, the colonial water laws remained dormant after independence in most of Sub-Saharan Africa because governments' focus was on water storage and infrastructure development for socio-economic development. Overall, less than 6% of water resources have been developed in Sub-Saharan Africa (Bahri *et al.*, 2011), so there is still considerable scope for water development to increase year-round water availability for all. However, the question of justice has come up forcefully in the recent surge in large-scale agriculture-based and other investments, often by foreigners, which have been dubbed as a 'grabbing' of land and water (Mehta *et al.*, 2012). The issue of communities' entitlements and state's ownership over water resources is vital in negotiations for voluntary, informed consent on these investments. Even if impacts on water availability for others are still relatively minor today, without changing the approach, the moment may come in which all water resources will be concentrated in the hands of the few.

The promise of effective state regulation through licence systems drove, and still drives, the legal and water management experts who drafted and implement the revised water laws, including policy makers, senior water managers, lawyers, and international banks and donor agencies that financed the revisions and initial enforcement. Such players clearly feel that nationwide licensing allows the state to regulate water resources in the public interest. Managers can reject or approve applications for licences, and, if approved, they can set conditions for water use. Conditions concern, for example, the duration of the authorisation and the need for renewal, caps on volumes of water uses, waste discharge requirements, and fee payments to finance government or public water resource management institutions. Licensing and enforcement of licence conditions for high-impact users, such as large-scale irrigation, large industries, and mines, are the primary tools to avoid water grabbing, over-use and pollution. Such state regulation safeguards the poor, who are often hit hardest and have least means to protect themselves against water scarcity and pollution.

However, as this article argues, in their current form licence systems across Sub-Saharan Africa result in three forms of injustices for the rural and peri-urban poor, especially women: they consolidate historical injustices in which customary water laws were disregarded; they discriminate against small-scale users who are obliged to apply for a licence, while government capacity is too limited to process their applications; and they relegate the smallest-scale users to a second-class entitlement derived from the exemption from the need to apply for a licence. These injustices undermine the potential justice of state regulation in the public interest.

Rural and peri-urban small-scale water users, the focus of this article, often constitute a significant proportion, if not the majority of a country's water users and typically include the poor. Their diversified, agriculture-based livelihoods require water for domestic uses and a range of productive purposes, including horticulture, irrigation, livestock, fisheries, tree-growing, brick-making, small-scale enterprise, and ceremonial uses. To meet those needs, many invest privately in water storage in fields, wells, tanks,

rooftop harvesting, small mechanised pumps, or conveyance infrastructure. They are primary water takers, directly accessing water from surface and groundwater resources. While their efforts to store and channel water can be intensive, the total quantities per individual remain micro- and small-scale, because the volumes are capped by the small scale of their farms or other water-dependent enterprises, and by the limited ability to abstract large volumes of water. Besides being self-employed primary water takers, the poor can be farm workers or employed in other water-dependent enterprises, and many are unemployed. Even for the latter, justice in relation to entitlements to a portion of the nation's water resources is relevant. Justice in water law refers to their abstract entitlements, whether citizens concretise their entitlements by taking this entitlement up, or not.

We place the issue of justice in entitlements to water within the framing of international human rights, in particular the right to non-discrimination along gender, race, and other lines, and the rights to water, food, adequate standard of living, and participation (UNCESCR, 2003). This includes the human right to water for domestic uses and sanitation, as established in 2010 (UN, 2010). While the latter right commits the state to deliver affordable services, this article focuses on entitlements to the resource, and how state regulation can protect, respect, and promote entitlements to water to contribute to achieving the human rights pertaining to water, food, adequate standard of living, non-discrimination, and participation. More specifically, building on notions of, at the very least, safeguarding a core minimum of water for livelihoods, our question is: should licence systems incorporate a core minimum entitlement to raw water that states should safeguard especially for the rural and peri-urban poor whose access to water is a matter of meeting basic human needs? Should every citizen have an equal right to such a minimum share of the nation's water resources, whether he or she takes that water up or not, before the remaining water resources are distributed to larger-scale users? What are the considerations that could establish such a minimum core?

In South Africa, a debate has started precisely about these questions. In our view, the National Water Act and the second National Water Resource Strategy of 2013 (NWRS-2) (DWA, 2013a) provide effective legal tools to ensure such equal access to minimum quantities for all within the current authorisation system. These tools are the use of the General Authorisation provision of the Act combined with the prioritisation of water for equity and poverty eradication contained in the legally binding NWRS-2. For ease of reference, the proposed combination of these two legal provisions is referred to in the rest of the article as a priority General Authorisation. South Africa's water use authorisation system resembles the licence systems elsewhere in Sub-Saharan Africa in many ways. Hence, the tool, as unpacked below, is equally, if not more, relevant in other Sub-Saharan African countries where the proportion of small-scale primary water takers for basic livelihoods is even larger than in South Africa.

1.2. *Questions, methodology and structure*

The central questions in this article are:

- How can South Africa's water use authorisation system, based on licensing, be interpreted as a transformative, nationwide tool for poverty eradication and redressing inequities from the past by ensuring equal rights to minimum quantities of water for all according to constitutional imperatives, while distributing the remaining water resources among larger-scale, higher-impact users through licences with strong, enforceable conditions in the public interest?
- How can this design be replicated in other countries in Sub-Saharan Africa?

Our focus is on justice in the authorisation of water abstraction and the associated volumes of water. For justice in water quality or other dimensions of water regulation, similar arguments would be applicable.

Methodologically, this article is based on a global literature review; an analysis of the constitution and of legal texts and of the regulations as interpreted, operationalised and implemented by the Department of Water Affairs (DWA) in South Africa; and interviews with stakeholders. As implementation of the National Water Act in general and General Authorisations in particular are still relatively recent, there is no relevant case law as yet, as far as we are aware.

Below, we end this introductory section by elaborating on the three forms of current injustices in licence systems across Sub-Saharan Africa, and by indicating the relevance of the South African experiences for other countries. The subsequent sections analyse South Africa's current laws and regulations and discuss how these provide a potential transformative tool in General Authorisations associated with the priorities of the NWRS-2. Section two explains the underpinning concept of justice of differential regulation and support, and translates that to the water use authorisation system of the National Water Act in terms of its categories of lawful water uses and prioritisation rules. The subsequent sections discuss the three forms of injustices and the ways in which the proposed priority General Authorisation can overcome those. Section three focuses on historical justice; section four on administrative justice, including the issue of the setting of thresholds for the priority General Authorisation; and section five on the prioritisation of users exempted from an obligation to apply for a licence. Section six draws the conclusions for South Africa and elsewhere.

1.3. Injustices in licence systems in Sub-Saharan Africa

We identify the following three forms of injustice vis-à-vis poor small-scale users in the current licence systems in Sub-Saharan Africa. First, they continue the colonial imposition of one formal legal system, and, hence, by default, continue to declare customary water laws which typically governed water use by Africans at the time, as illegal. Colonial powers vested ownership of all water resources in themselves and the only 'lawful' way to access water was through licences, or, as in South Africa, through ownership of land since riparian water allocations were tied to land. While this enabled some regulation of water use by the minority white settlers and was justified on those grounds, the other side of the coin was that it formed part of a greater process of dispossessing Africans from access to a range of natural resources, including land and water. At independence, ownership of water moved to the new state as the custodian or Public Trustee of water. Without questioning these historical injustices and, ironically, while intending to achieve equality (as 'one cannot exclude the majority', as a Tanzanian official said), the obligation to apply for a licence was extended overnight to the majority of citizens, including rural areas where colonial water law had barely reached and where living customary water law still governed water management. Instead of redressing historical injustices, the blanket adoption and extension of the licence system continued colonial dispossession of customary rights. Note that we are not, in this, questioning the state as Public Trustee or custodian of water resources, but rather ask: what do states do with their power in this role, based on which forms of justice?

The second form of injustice is related to the reality that Sub-Saharan African states lack the administrative capacity to issue and enforce licences for large numbers of water users, many of whom use small amounts of water. Licence systems can work as regulatory tools for relatively small numbers,

such as a minority of colonial settlers, or in formalised industrial water economies in high-income countries, where water is distributed to limited numbers of formal water companies, parastatals or well-organised water user associations, and a limited number of individuals who directly take surface and groundwater sources, and where the state has sophisticated administrative and technical resources at its disposal. However, in low- and middle-income countries, primary water takers are the large majority, each only taking a relatively small quantity of water, while state resources are too limited to process all applications of those who are obliged to apply. Moreover, the demand on state resources to license many small users jeopardises the enforcement of licence conditions among the large-scale and high-impact users who need to be regulated most urgently. Applying for a licence also discriminates against small-scale users, especially women, who are obliged to spend time and money applying for a licence out of proportion to the value of the water used. A commonly proposed solution, vesting licences for small-scale users in collectives, also discriminates against them relative to water users who have individual licences, and even more so if such collectives are forced on them through legislation. Women lose even more as membership of collectives is typically vested in the male household head.

The third form of discrimination concerns those who are exempted from the obligation to apply for a water use authorisation, since they use a volume of water below a certain threshold. All water laws in Sub-Saharan Africa stipulate exempted uses, or *de minimis* uses (Hodgson, 2004), but international literature bears out the understanding that exempted water users have little legal recourse to hold licence holders accountable if they infringe on exempted water uses (Water Governance Facility, 2012). As a lawyer, Hodgson (2004), notes about this ‘curious type of residuary right’ of *de minimis* uses:

‘There is no great theoretical justification for exempting such uses from formal water rights regimes. Instead, a value judgment is made by the legislature that takes account of the increased administrative and financial burden of including such uses within the formal framework, their relative value to individual users and their overall impact on the water resources balance. [...] While they may be economically important to those who rely on them, it is hard to see how they provide much in the way of security. [...] The problem is that a person who seeks to benefit from such an entitlement cannot lawfully prevent anyone else from also using the resource even if that use affects his own prior use/entitlement. Indeed the question arises as to whether or not they really amount to legal rights at all.’ (Hodgson, 2004)

Exempting small-scale users from the need to apply for a licence may liberate them and the state from administrative hassles, but it is a second-class entitlement. This disproportionately affects the poor who typically use such small and micro quantities.

The priority General Authorisation has to address all three forms of injustice.

1.4. The comparative relevance of South Africa

Water allocation in South Africa offers important lessons, paradoxically because the context is different. Water allocation is already gradually becoming a zero-sum game, which renders the competition fiercer and renders the poor more vulnerable as they can lose even the very limited water quantities they are currently using. The legal tools needed to ensure minimum quantities of water for all become increasingly relevant. Increasing demand for water will increasingly warrant distributive

reform, which is, obviously, more contested by those who have to share part of their prior water uses. Other Sub-Saharan African countries, where the proportion of the rural poor depending on diversified, agriculture-based livelihoods is even larger than in South Africa, can act timeously and avoid the need for distributive reform by ensuring equitable allocation before demand outstrips supply.

South Africa shows extreme inequalities as a result of water grabbing in the colonial past. The Gini coefficient, which expresses how skewed access to attributes is, is already the highest in the world for the income distribution of South Africa: 0.69. With a Gini coefficient of 0.99 for the distribution of water use in rural areas, inequality is even worse than that for income. In rural South Africa, 1.2% of the population controls 95% of water used and, hence, also determines whether and how benefits of such water uses trickle down. The large majority of 98.8% of the population has only access to 5% of the water resources (Cullis & Van Koppen, 2008). These huge inequalities especially affect the poor. Almost three-quarters (72%) of the poor live in the former homelands where 19.9 million people, or 40% of the total population, live on 13% of the land (RSA, 2011). The other quarter of the poor are among the rural and peri-urban unemployed and wage workers and tenants on large-scale farms.

In the past 15 years of implementation of both the progressive Constitution and the National Water Act (1998), the extreme dominance of non-historically disadvantaged individuals (white men) in access to water resource entitlements has continued. Of the 4,284 licences issued between 1998 and 2012 for new water uptake, only 1,518 (35%) were for historically disadvantaged individuals (encompassing Africans, Coloureds, Indians – together also referred to as ‘black people’ – and white women). Most of these licences (76%) were for forestry as stream-flow reduction activities. The total volumes of water allocated to historically disadvantaged individuals remained negligible: just 1.6% of total water allocated through all licences (DWA, 2013b).

Obviously, many factors beyond the water law contributed to this. As a result of the negotiated settlement to end apartheid, political power has shifted significantly since 1994, but the skewed, dual economy has continued, as reflected in the applications for new water use. Also, while the DWA has done a great deal in providing potable water to households, neither the DWA nor the various other government departments have significantly invested in, or revitalised, infrastructure for productive uses by historically disadvantaged individuals. Coordination among the various government departments has also been a major challenge. For example, it was expected that the restitution and redistribution of land would include the water resources linked to the claimed land. Yet cases have been reported where water rights were sold off before the transfer of the land, so that the black recipients obtained land without water rights (Anderson *et al.*, 2008).

While this highlights that a water use authorisation system is not a sufficient condition for justice in water allocation, it remains an important question of whether and how the water use authorisation system itself may have contributed to the reinforcement of inequality. The argument that the current water use authorisation system is good, but that implementation is lacking is, at best, a partial explanation. The South African government has allocated substantial resources to the implementation of water use authorisation. If the implementation requirements appear unrealistically high, the water use authorisation regulations should become more realistic. This is even more relevant where states have fewer resources to spend.

What, then, could be the missed opportunities in enshrining justice in water use authorisation texts and regulations, and how can water use authorisation become a more robust transformative tool? South Africa’s National Water Act (Act 36 of 1998) (RSA, 1998), formulated under the leadership

of a former human rights professor, Kader Asmal, is widely hailed as world-class. It has operationalised the country's equally renowned progressive Constitution (RSA, 1996), which enshrines equality and non-discrimination irrespective of gender, race, and socio-economic status and explicitly includes the right of access to sufficient food and water (RSA, 1996: section 27(1)(b)). Unlike water law in many other countries, the National Water Act operationalises these constitutional goals to redress the highly unequal access to water and the benefits derived from water through, *inter alia*, water use authorisation. Section 27(1)(b) of the National Water Act (1998) addresses this 'need to redress the results of past racial and gender discrimination' as an important criterion in any water use authorisation (RSA, 1998).

Moreover, the Act creates the ability to re-allocate water from the 'haves' to the 'have-nots', wherever new water uptake has become a zero-sum game. In such cases, section 22(6) allows for state compensation if re-allocation from the 'haves' results in 'severe prejudice to the economic viability of an undertaking', but not if the impact is minor. Obviously, refusal of new water uptake and curtailment of existing ones, even for the purpose of redistribution, is a last resort measure to be used only after all other options to increase the availability of water have been exhausted, such as new infrastructure construction, water conservation, water re-use, avoidance of water theft, water demand management, and implementing the use-it-or-lose-it principle.

After the promulgation of the Act, further unique steps were taken to redress inequities in access to water. In 2004, the DWA launched a Water Allocation Reform programme, purposively abbreviated as WAR: a war for equity and a war against hunger. Ambitious goals for redistribution were set: 60% of allocable water should be in black hands (and of this, 50% should be for women) by 2024 (DWA, 2008). From the late 2000s onwards, licence conditions also included measures for redress, such as requiring the implementation of the country's affirmative action policy and legislation, called Broad Based Black Economic Empowerment.

In 2013, the Department of Water Affairs addressed some remaining flaws in the Act in a policy review process that paves the way for amendments (DWA, 2013c). It proposed, for example, the strict adherence to the 'use it or lose it' principle, which, in turn, abolishes water trading in the expectation that all unused water would return to the state for re-allocation to historically disadvantaged individuals. Further, due to the way that section 27 of the Act was drafted, DWA was not sufficiently empowered to demand that equity be addressed as a priority consideration in assessing water use licence applications. Indeed, DWA lost a case in the Water Tribunal when an applicant – whose application for water use had been rejected because it did not address the issue of racial equity – argued that equity cannot be taken as the highest priority among the various criteria for water allocations under section 27 of the Act. The policy review proposes that the goal of redressing inequities from the past be the decisive criterion.

Probably the boldest measure in the second National Water Resource Strategy (NWRS-2) of 2013, however, is the vesting of a legally binding high priority for 'water uses for poverty eradication and redressing inequities from the past' (DWA, 2013b). This is highly relevant for the design of the licence system. In the Water Allocation Reform programme, a debate has been running since the mid-2000s on the role that General Authorisations could play to overcome the risks of reinforcing historical injustices through administration-based exclusion of those who are obliged to apply for a licence and the relegation of exempted users to a second-class water entitlement. A General Authorisation is a resource-specific exemption from the obligation to apply for a licence, and may specify the volume of water use that is allowed, the type of water use activity allowed, the geographic area in which it applies,

and the groups that may make use of the General Authorisation. The Minister may, or may not, oblige water users whose uses fall under a General Authorisation to observe certain rules, for example to register, conduct certain measurements, or pay. General Authorisations, which are gazetted for public comment, are only valid for a specified time period, and therefore require revision and re-publication in due course.

The DWA issued General Authorisations in 1999 and 2004 for various quaternary catchments. Initially, the purpose of a General Authorisation was to reduce government administrative burdens in areas without water stress and where the volumes used under General Authorisations would be a ‘negligible’ proportion of total volumes. Therefore, the 1999 and 2004 General Authorisations only existed in non-stressed basins.

In 2012 a draft revision of the General Authorisation of 2004 was gazetted for public consultation (DWAF, 2012). By then, the Water Allocation Reform had generated important new insights on opportunities for achieving re-allocation of water through the General Authorisation tool. However, the major objection against General Authorisations was their second-class status. In our interpretation of the legal tools mentioned above, this valid concern is overcome by vesting the high priority for water for poverty eradication and redressing inequities from the past in the NWRS-2 in the tool of General Authorisations. Hence, we propose that the revision of the 2004 General Authorisation will be designed as a transformative tool of *priority General Authorisations for small-scale black water users*.

2. The priority General Authorisation

2.1. Water use authorisation categories

Our notion of how justice is to be enshrined in licence systems is based on a straightforward differentiation: instead of aiming at regulation of small-scale users, they should be protected and supported in taking up water as a basic minimum for all, especially the poor. At the same time, the smaller number of large-scale and highest-impact users should be rigorously regulated. Regulation through licensing and especially enforcement of conditions should start with them. In Figure 1 we integrate this notion into the different categories of water use authorisation in the National Water Act.

By adopting a nationwide licence system in the National Water Act (1998), two new forms of water use authorisation were introduced: licences, which are typically for the large-scale uses, and exemptions from licences, for smaller-scale uses. As any new water law has to define the legal status of water governed under preceding laws, the Act stipulates that water uses that were lawful in the period of two years preceding the promulgation of the Act (Existing Lawful Uses), continue to be lawful until they would be converted into licences under processes of ‘compulsory licensing’ in specific geographic areas with one or more water resources. The initial expectation was that the whole country could rapidly be covered by compulsory licensing in order to establish one uniform water use authorisation system. For comparison, the water laws in other African countries prescribe such conversion instantaneously and countrywide, ‘granting’ a period of some years, which is invariably repeatedly extended.

Immediately after the promulgation of the Act, all users with Existing Lawful Use entitlements had to register their water use in the Water Authorisation and Registration Management System (WARMS) database. Registration of Existing Lawful Use is clearly *not* seen as licensing that use. Registration only ‘improves claims to water in future licensing’ (<http://www.dwaf.gov.za/Projects/WARMS/>).

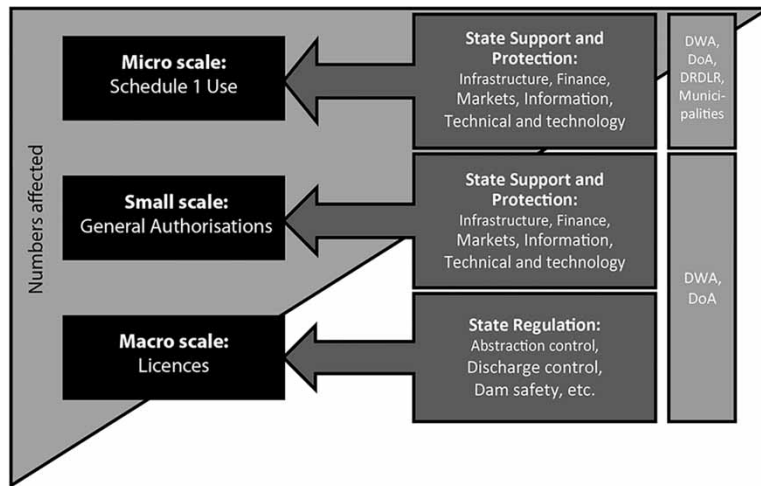


Fig. 1. Justice enshrined in the water use authorisation categories in South Africa, with corresponding responsibilities of the DWA, Department of Agriculture (DoA), Department of Rural Development and Land Reform (DRDLR), and municipalities.

While WARMS allows some rough water resources assessments, this database primarily serves billing purposes.

Thus, licences are required for post-1998 water uptake, and for pre-1998 water uses in an area subject to compulsory licensing. Newly allocated licences are also registered in WARMS. Currently, the total is some 80,000 registrations, by some 18,000 users. Keeping the register up to date requires significant human resources and updated information from water users that is not always forthcoming. In our proposed transformative tool, licences remain the main instrument for regulation.

There are two types of exemptions to the obligation to apply for a licence. The first is the nationwide Schedule One for micro-uses. The National Water Act defines Schedule One as ‘water for reasonable domestic uses, small gardening (but not for commercial purposes); and the watering of animals (excluding feedlots), provided that the use is not excessive in relation to the capacity of the water resource and the needs of other users; storing and using run-off water from a roof; or emergency uses’. While other countries quantify such nationwide micro-uses, for example $2.5 \times 10^3 \text{ m}^2$ (0.25 ha) or ‘mechanised water lifting devices’, South Africa deliberately left such judgment to the discretion of its officers to avoid having to measure and quantify such micro-use. Although there is no obligation to do so, some water users falling under Schedule One have registered the water use in WARMS.

The General Authorisation is the second form of exemption from an obligation to apply for a licence. Its initial aim was alleviation of administrative burdens in areas with sufficient water resources. Accordingly, volumes can be quite high, for example $2.5 \times 10^5 \text{ m}^2$ (25 ha) of irrigated agriculture. In areas with greater water stress, the thresholds are lower, because this is supposed to allow for more rigorous regulation. In some quaternary catchments they are even lower than Schedule One uses, as proposed in the draft revision of 2012 (DWA, 2012). The General Authorisation of 2004 excludes water-stressed areas, while Schedule One water use is valid in all areas. The purpose of our proposed nationwide priority General Authorisation for black people is protection and support. Justice in water allocation warrants protection in stressed basins *in particular*. It is in these basins that the need for water re-allocation from the ‘haves’ to the ‘have-nots’ is most likely. The advantages of a General Authorisation over

Schedule One, as currently formulated in the National Water Act, are that General Authorisations can be locally specific and that the Minister can promulgate general rules, as needed and enforceable, both nationwide and in specific contexts, such as the obligation to register or participate in surveys, avoid pollution, pay fees (if that makes sense because the collection of those fees will often be much more costly than the revenue generated), or ensure conflict resolution mechanisms in case of conflicts among General Authorisation holders or between General Authorisation holders and licensed or Existing Lawful Users. While we will not further consider Schedule One here, we note that other African countries can expand their exemptions of *de minimis* use into a tool like the General Authorisation.

Another element of the authorisation system is the Reserve, which consists of an Ecological Reserve and a Basic Human Needs Reserve. The Reserve is the nation's water highest priority and obliges the state to ensure that water is made available for these purposes. For the definition and quantitative determination of the Basic Human Needs Reserve, the National Water Act refers to regulations under the Water Services Act 1997, which confines basic human needs to domestic water needs only, as was general international practice at the time. Currently this is 25 litres per capita per day, which overall is often less than 1% of the total volume of water resources and commonly smaller than the error of hydrological models. The Basic Human Needs Reserve does *not* entail an obligation to also provide infrastructure services to access water. The latter is incorporated in the Water Services Act and its regulations. For small-scale productive uses that contribute to meeting constitutional rights, there is neither a protection in the Reserve nor any state obligation to invest in infrastructure.

The Ecological Reserve, which aims at sustainable water use, has been calculated at much higher quantities, around one-fifth of the water resources, which should remain in rivers or aquifers as local ecosystems require.

2.2. Priority setting

Sections 7 and 23 of the National Water Act stipulate that, after the Reserve, priorities for water allocation are specified in the National Water Resource Strategy (NWRS) in a legally binding manner. Thus the NWRS, which is required to be revised every 5 years, provides the framework for the assessment of licence applications. The priorities of the Strategy also guide water distribution and curtailments among all lawful water users in drought periods and other periods of temporary shortage. The yearly and even monthly average aggregate water quantities mentioned in individual licences become irrelevant under periods of water scarcity, when no water users can get their average share. Then, priorities count. Indeed, average volumes primarily serve the purpose of volume-based pricing and hydrological estimates of aggregate water uses for stochastic planning purposes.

One form of prioritisation is the allocation of a certain 'assurance of supply' to certain categories of use. Agricultural uses typically have the lowest assurance of supply of 70%, meaning that they are likely to get their full water allocation in 7 out of 10 years. Power generation and related industries obtained the highest assurance of supply (99.5%). This means that in drought periods, irrigation farmers are the first to be curtailed, with municipal water supplies second and power generation and strategic industries only curtailed thereafter.

The recently issued NWRS-2 ranks water for poverty eradication and redress of inequities from the past as the third highest priority, after the Reserve and international obligations, but before so-called strategic uses (which is mainly electricity generation) and, lastly, water for general economic purposes. In our proposal, this third priority would be addressed through a General Authorisation for

every black woman and man to obtain equal and non-discriminatory access to minimum quantities of water for basic livelihoods. This is an abstract entitlement, whether people take the entitlement up concretely, or not. Factual uptake depends on many more factors, which are not further considered here.

In the next sections, we discuss how this priority General Authorisation addresses the three forms of injustices and how thresholds can be set above which water uses are to be licensed and below which water uses are to be protected and supported through the priority General Authorisation.

3. Historical justice

3.1. Current entrenchment of inequalities from the past

The acceptance of Existing Lawful Use as lawful under the National Water Act reproduced the immense inequalities in access to water and the profoundly discriminatory pre-1998 race-, gender- and class-based water use authorisation system. Almost no black person, whether in the former homelands or living on farms and elsewhere in former white Republic of South Africa, had a formal water right in 1998. The colonial and apartheid regimes had stripped Africans from entitlements to their waters by adopting the British riparian regime in the 1912 Irrigation Act. This was grafted on the British land title deed system according to the 1913 and 1936 Land Acts. These Land Acts dispossessed Africans of 91% and later 87% of the land *and*, thereby, the often more abundantly available riparian surface and groundwater sources of the white Republic of South Africa. The remaining 13%, the later homeland areas, were declared as state land, so the water resources were also owned by the colonial state. Formally, this right could be transferred to inhabitants of the homelands. However, in practice this hardly ever happened, as ‘justified’ by referring to the bureaucracy: ‘Sometimes the problem was to determine which official of the State had to grant the necessary permission’ (Thompson *et al.*, 2001). In reality, in these areas, customary water right regimes co-existed with the formal legislative regime.

In contrast, in the pre-1994 white Republic of South Africa, a range of legal instruments for water governance among whites developed, including riparian rights; normal and surplus flows; private groundwater rights; irrigation schedules determined by the irrigation boards; permits for commercial afforestation; and area-specific Government Water Control Areas (in both the white Republic of South Africa (RSA) and former homelands) with virtually full state control. During the extensive public consultation processes when drafting the National Water Act, these vested water users strongly protected their existing water entitlements. The new government, at the same time, did not want to completely disrupt the functioning white agricultural and other sectors. The drafters of the Act were aware of the complexity of and administrative resources needed for converting one legal system into another.

The post-1994 government has paid insufficient attention to this highly unequal starting point and to ways to overcome the historical injustices. Black people’s water tenure or ‘living customary laws’ in former homelands, on white farms, and in black peri-urban settlements, have hardly been studied and rather as a cultural or ‘indigenous’ phenomenon instead of an issue of power, injustice, survival, and livelihoods. An exception is the study of public smallholder irrigation schemes in the former homelands. This shows the lack of clarity on the legal status of land and related water entitlements vested in membership of water user associations (Manona *et al.*, 2010). In contrast large-scale users, for example, in former irrigation boards have well-defined individual entitlements within a well-established collective.

Thus, white men in particular can continue defending their pre-1998 water entitlements on the basis of clearly defined, if not already recorded, Existing Lawful Use. In contrast, black people continue to lack formally recognised grounds to prove and defend their pre-1998 water uses. Moreover, the same highly unequal starting points continue to affect post-1998 processes of licensing and compulsory licensing.

3.2. *Priority General Authorisations for historical justice*

In the search for legal tools for historical justice in natural resource management in Sub-Saharan Africa, there is a strong preference for the recognition of legal pluralism; conversion into centralised titling is usually rejected (McAuslan, 2005). Land reform throughout Sub-Saharan Africa also takes living customary tenure as the starting point. Any short- or even medium-term conversion into centralised titling has been shown to be highly problematic. Accordingly, around ten African states have provided new land laws which recognise customary landholding as having the force of property as obtained under introduced regimes (Alden Wily, 2011a, b). The same holds in South Africa's reform of customary land tenure, which also recognises existing living customary land tenure and seeks to gradually remove discrimination in tenure in former homelands and, to some extent, land rights of tenants and wage labourers on farms in the former white South Africa. These changes are very gradual, with a cautionary approach to any individual titling.

For water tenure, indigenous Andean communities of Latin America take a similar approach. They strongly defend living customary water rights (Boelens & Dávila, 1998; Boelens & Zwarteveen, 2005). In Africa, conversion has also been contested in Ghana, another country with a common-law tradition that moved to licensing in 1996. Sarpong flagged the formal dispossession of tribal authorities under the proposed licensing regime (Sarpong, n.d.). After 12 years of implementation, the Water Resources Commission of Ghana had implemented the new licence system only as a taxation measure for 154 formal large-scale users (Ampomah & Adjei, 2009). Many studies on living customary water law seriously question whether conversion into centralised titling and licence systems is desirable and possible at all. Studies in Chile, Bolivia, Ecuador, Zimbabwe, Mozambique, and Tanzania expose how individual and group-based licensing disrupts customary arrangements: imposing licensing *creates* the tragedy of the commons (Bauer, 2004; Van Koppen *et al.*, 2004; Boelens & Zwarteveen, 2005; Manzungu & Machiridza, 2005; Sokile 2006; Bolding *et al.*, 2010; Sithole, 2011; Komakech, 2013).

Thus, the proposed priority General Authorisation is unique in assuming that a nationwide conversion to a licence system can still redress injustices from the past. The key to historical justice is the *priority* for exempted uses and ensuring equal access to water for minimum uses by the majority of black people who are small-scale water users in former homelands and white South Africa. A priority General Authorisation can enable more black people to take up small-scale water uses and protects their uses vis-à-vis licence holders and Existing Lawful Users, the large majority of whom are white. Both black adult men and women will be entitled to a minimum quantity of water under General Authorisation, thus meeting constitutional gender equality requirements and empowering women in male-dominated tribal and other hierarchies. (Gender inequalities in terms of access to infrastructure, land, and other production factors still need to be addressed.)

In no way would this priority General Authorisation inhibit black users from expanding their water uses beyond the threshold of the General Authorisation. Above the threshold, anyone would have to apply for a licence and abide by conditions set. Throughout South Africa, larger-scale users would

only be able to expand their water use if the access to minimum quantities of water by black people is met. Any licence holder would have a lower priority than small-scale users falling under the priority General Authorisation.

Such redress of past injustices was the main argument of the Department of Agriculture (DoA), Fisheries and Forestry (DAFF) in their comments on the draft General Authorisation of 2012. DAFF proposed a threshold of $3.0 \times 10^5 \text{ m}^2$ (30 ha) irrigated land – the Land Bank’s definition of a smallholder. As argued, with $1.3 \times 10^{10} \text{ m}^2$ (1.3 million ha) irrigated by large-scale farmers and only some $5.0 \times 10^8 \text{ m}^2$ (50,000 ha) by smallholders, the current proportion is just 3.5% .

A priority General Authorisation for black people would also serve as a country-wide redress prior to compulsory licensing. Compulsory licensing has been seen to be much more administratively cumbersome than the drafters of the law had expected. To date, the Department has implemented only three small compulsory licensing processes (Msibi & Dlamini, 2011). Yet, some officials see compulsory licensing as the only tool for redress of historical injustices in water allocation. They severely delay water re-allocation to black people by ignoring the many measures that can be taken instantly, such as the application of a priority General Authorisation.

4. Non-discrimination in licences

4.1. Current administrative discrimination

Although state capacity in South Africa is much stronger than elsewhere, even just the processing of licence applications for *new* water uses has been difficult. A serious backlog developed over a period of years, which has only recently been reduced. For example, for a sample of 23 licences out of the 70 that were allocated by mid-2009 in Limpopo Province (with 39 to black users), the average period between the application and final allocation was 5.7 years (De Jong, 2010). In spite of the intention to prioritise licence applications by black applicants, particularly those living in remote rural areas, similar delays occurred with these applications. The NWRS-2 recognises this structural inability of the state to reach all those who are obliged to apply for a licence: ‘Current licensing processes are often costly, very lengthy, bureaucratic and inaccessible to many South Africans’ (DWA, 2013b).

These administrative burdens compete with the ultimate goal of the National Water Act, which is enforcing the licence conditions where they are most needed. Such enforcement has also been difficult, with a resultant failure to achieve social and environmental justice through effective regulation. A number of mines have been operating without water use licences. Large-scale farmers continue to illegally intercept water from the expensive canals of the Lesotho Highland Projects to Gauteng. Many municipalities abstract more water than they are licensed to use and discharge poorly treated sewage effluent into rivers. Civil society has started challenging both licence holders and the DWA about the lack of enforcement. Compliance to the conditions set in such licences is a rallying point for civil society and watchdog media, for example when high-level politicians are accused of mining without licences (Mail & Guardian, 2012).

From the perspective of water users in South Africa and certainly elsewhere, there is the risk of being criminalised if state capacity is too limited to implement what the law prescribes the user to do, so that water is used without the necessary authorisation due to slow procedures or administrative inaccessibility. This especially affects those who, not through their own fault, are most difficult to reach by

the administration. These users, typically small-scale poor users and especially women, are discriminated against by the administrative systems, while the administration-proficient male-dominated elite will best be able to engage with the authorisation system.

It is true that the administrative procedures for licence applications for high-impact users are more sophisticated than for smaller users. However, the application fee for a licence is the same for all applicants, weighing disproportionately on small-scale applicants. For smaller-scale users the transaction costs to access government services compared to the benefits from water are disproportionately high. Transaction costs are aggravated by illiteracy, legal illiteracy, limited mobility in remote rural areas, and high transport costs.

Women, who make up a disproportionate proportion of the poor, are even less able to bear these high transaction costs. Moreover, administrative measures tend to vest titles in only one member of the household and administrators tend to assume that men are the heads of households, and that licences should be vested in men's names (Lastarria-Cornhiel, 1997). The limited available data suggest that the percentage of women licence holders is currently less than 10% (Anderson, personal communication, 2013). Further, poor women are least able to contest government's decisions and are more vulnerable to corruption and intimidation.

As these relatively high transaction costs for small volumes of water are also a burden for government, government has sought to allocate licences to collectives of small-scale users. However, imposing a condition of organisation on some people but not on others is also discriminatory. Group formation raises complex questions around who is in or out of the group. Moreover, formal and top-down group formation is prone to capture by a male elite, which can easily claim to be the 'representative' of a collective. In Tanzania, the government started vesting permits in irrigation groups. However, according to a ward councillor, this would 'create chaos', as only a few individuals would be group members with corresponding entitlements, while other water users in the village would not. She and many other villagers preferred vesting of licences in the existing and much more legitimate form of representation: local government (Van Koppen *et al.*, 2013).

Last but not least, licences are based on an understanding and control of water flows. Yet, the former homeland areas lack infrastructure and water measurement devices and the naturally available fugitive and unpredictable water resources are difficult to assess, let alone control. Aggregate volumes of weather-dependent streams can only be a subjective guess by water officers. In contrast, large-scale users and their lawyers have access to considerably more evidence, water control and monitoring devices, and the power to challenge arbitrariness.

Thus, the question is how these risks of administrative discrimination against small-scale water users who have to apply for a licence can be overcome, while maintaining the regulatory role of the state.

4.2. *Thresholds for licensing to prevent discrimination*

An answer to this question is to adjust the design of individual licences to the state's capacity to implement and enforce. This makes sense for water managers, who always face the trade-off between administrative burdens and actual regulation of those who need to be regulated most urgently. It makes sense to focus regulation on high-impact users. For example, the Netherlands lies partly below sea level and has intensive water management requirements and a long-standing tradition of licensing.

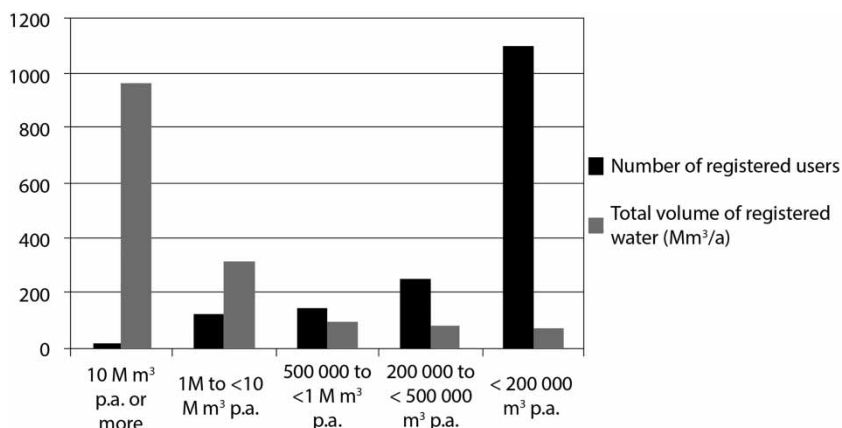


Fig. 2. Volumes of water registered by number of registered users in Inkomati Water Management Area. Sources: WARMS data; Schreiner *et al.* (2010).

Nevertheless, water managers are currently moving towards more effective general rules instead of individual licences (Van Rijswick & Havekes, 2012).

The adjustment of licences to implementation capacity is also important for water users, and even more so for poor small-scale water users. This consideration implies a key criterion for setting the threshold for the obligation to apply for a licence: preventing administrative discrimination against small-scale users. Licensing can become a well-targeted, enforceable tool for regulation of the relatively few high-impact water users that need to be regulated most intensely. Once strategic priorities in regulation have been met, which may take years, thresholds can be lowered for stricter regulation.

A quantification of administrative burdens and related water quantities is essential for setting thresholds. The WARMS database of *registered* uses allows plotting water users according to volumes used (and related transaction costs, even just for registration, let alone licensing) and the volumes registered (or licensed). For South Africa as a whole, 70–90% of water use by volume is captured by registering the 10% largest users only. Registering (and licensing) of the 60–80% of small users hardly adds any volume (Cullis & Van Koppen, 2008).

Thresholds can be locally specific. Figure 2 shows numbers of registered uses and volumes registered in the Inkomati water management area. The volume of about 1,100 registered users below 200,000 m³ per annum (the equivalent of about 2.5×10^5 m² (25 ha) under irrigation), is only a tiny fraction of what the 16 largest users use. Such locally specific quantifications should inform decision-making on the allocation of the scarcest good: government resources for regulation.

5. Equal access to small-scale water quantities for all

5.1. The second-class status of exemptions

As mentioned, Schedule One and General Authorisations risk discriminating against water users falling under these tools because the entitlements of water uses exempted from an obligation to be licensed are less strong than licences, whether only perceived as such, or by law, or both. In South Africa,

licences are certainly seen as a stronger entitlement than uses under Schedule One or a General Authorisation. Also, a number of water users with Existing Lawful Uses have applied voluntarily for the conversion of their Existing Lawful Use into a licence, as the latter are seen as more secure entitlements. Similarly, throughout the debates of the Water Allocation Reform on the possible role of General Authorisations (Anderson *et al.*, 2007), the single most important objection was that a General Authorisation would be a lesser entitlement than a licence, and would thus discriminate against those users (in this case black users) falling under a General Authorisation.

Certain service providers also perceive General Authorisations as second-class entitlements. The Land Bank, for example, obliges its future clients to have a formal licence as a condition for loans, and does not accept a General Authorisation. From the Land Bank's perspective, a licence supposes at least some consideration of the water resource situation of the loan taker (even though the National Water Act does not guarantee that licensed water will be available to its full amount every year). This saves the Land Bank the effort of assessing the viability of the enterprise from the perspective of water availability. In the current situation small-scale users have no other choice than wanting a 'paper for each group member that enables each of us to access loans and markets', as found by DoA officials engaged in prolonged procedures to obtain water use licences for smallholder schemes in Limpopo province (personal communication, 2013). How can the second-class status of exempted uses be overcome?

5.2. Vesting the third priority in General Authorisations

Exempted water uses by black people align with the third priority for water for poverty eradication and redress stipulated in the NWRS-2. A combined reading of the NWRS-2 and the National Water Act not only stipulates a legally binding priority over strategic and licensed uses, but also entails the right to compensation if other uses cause severe prejudice to the activity undertaken. It addresses the current omission in the Reserve to prioritise small-scale productive water uses in the sense that the implications of meeting the ecological reserve and international obligations are to be borne by strategic and licensed uses, and not by exempted users.

However, this legally binding position risks being ignored in the ongoing revision process of the General Authorisation of 2004. Once included, it should also be communicated clearly among the small-scale users concerned, government departments, the Land Bank, and other institutions. This priority removes any ground for banks and other service providers to demand a licence, as strong water entitlements already exist. If banks need other information to judge the viability of an enterprise, they can employ their own staff, or ask explicitly for such information from government officials.

The most significant change of the priority General Authorisation compared to the current General Authorisation is its nationwide implementation, *especially* in water-stressed basins. That is the zero-sum game in which micro- and small-scale water uses by poor black users need to be protected and negotiated most urgently. It is here that the widely acclaimed aims and legal tools for redistributive WAR are most needed. Current water uses under a priority General Authorisation or new small-scale uptake of water (which supposes investments in expensive infrastructure) might require large-scale users to share their earlier entitlements. If the latter face severe economic prejudice, they are protected and can lodge a claim under section 22(6) of the National Water Act, which prescribes compensation for licence holders under certain conditions.

A priority General Authorisation would empower small-scale black users in a bottom-up manner to enter any locally specific arena of competition with an entitlement to at least minimum current uses but

also the option of future uptake as an alternative fallback option. This can increase the bargaining power vis-à-vis competing larger-scale water users, to be at least noticed, but also respected, protected, and enabled to negotiate a range of locally specific pathways out of poverty. The legal option of taking up water for self-employment may enable stronger bargaining power for better job creation in enterprises of large-scale water users, for example as farm workers. Time will tell whether South Africa's black small-scale users will finally be able to negotiate at least some benefit from the nation's water resources.

6. Conclusion

The potential to use a priority General Authorisation tool in South Africa, or a similar tool elsewhere, maintains the regulatory role of licence systems for justice in the sense of state power to regulate high-impact users in the public interest, starting with those who need to be regulated most urgently. At the same time, it overcomes the three generic Sub-Saharan African forms of injustices for the numerous small-scale water users. First, it restores pre-colonial priority entitlements for small-scale water users under local and customary living laws, but now equally for women and men. Second, it removes the administrative discrimination against small-scale users that is the result of states' limited capacity to implement water laws that were designed by, and for a minority of settlers. Realistic thresholds not only avoid such discrimination, but also allow the state to better focus on actual regulation instead of administration. Third, this tool ends the demotion of the majority of black water users to second-class entitlements, but, instead, ensures equal access to minimum quantities of water for basic livelihoods according to the right to water, food, and adequate standard of living, before the remaining water resources are distributed to larger water users. Other Sub-Saharan African governments can adjust their licence systems along the same lines.

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