

# Between Principles & Power: Water Law Principles & the Governance of Water in Post-Apartheid South Africa

*Heinz Klug*

*Debates over the management and allocation of water in the postcolonial era, and in post-apartheid South Africa in particular, reveal that struggles over water resources in Southern Africa occur within three broad frames: the institutional, the hydrological, and the ideological. Each of these realms reflects tensions in the relationship between power and principle that continue to mark the governance of water. Each perspective offers a way to understand the use and the limits of law in the management of a country's water resources. The existence of explicit principles, whether as policy guidelines, constitutional rights, or in the language of regional and international agreements, provides two important resources for those who struggle for access to water. First, a vision of a more just allocation of this fundamental resource and, second, an articulation of common benchmarks to which states and governments might be held to account.*

Southern Africa is a drought zone in which there is a regular oscillation between decades of wet and dry climates. This ecological pattern is exacerbated by a settler-colonial history in which the discovery of rich mineral deposits on the high plateau at the center of South Africa produced an industrial heartland at some distance from all the major rivers or other sources of water. Apartheid and the destabilization of the region by the defenders of White supremacy further exacerbated the uneven development that has left an infrastructural legacy of extreme racial and regional inequality. At the same time, the promise of a democratic South Africa, as envisioned by local and international interlocutors in the early 1990s, led many to assume that an opportunity to address the legacies of colonialism and armed conflict in the region was at hand.<sup>1</sup> One sign of this optimism was an embrace of the idea of principles, whether framed in the language of human rights or as the premise of negotiations or constitutional solutions. By the end of the 1980s, this adoption of principles became a feature of the democratic transitions in Namibia and South Africa. A significant legacy of this embrace was the application of principles to the reordering of South Africa's water laws.

This essay explores both the power of principles to reformulate existing legal distributions of water in South Africa as well as the limits of this practice in the transnational context of Southern Africa's water resources. On the one hand, principles served to justify domestic legal reform, while on the other hand, the idea of principles is central to international legal regimes addressing crossboundary waters, environmental sustainability, and climate change.<sup>2</sup> Legal principles in these contexts do not carry the force of law but rather shape the development and interpretation of legal formulations, agreements, and instruments, including constitutions, statutes, and regulatory processes. At the international level, two principles – equitable utilization and no significant harm – provide a broad framework for interstate cooperation and conflict resolution. But principles do not remain static, and the rise of neoliberalism and its seeming dominance in the post-Cold War era introduced countervailing principles of commodification.<sup>3</sup> Thus, the embrace of principles was not confined to human rights, and the “triumph” of neoliberalism saw market-based principles enter debates over access to water, whether through notions of private efficiency over bureaucratic government services or in the costing of essential services justified by the principle of cost recovery.

If access to water in South Africa was historically based on statutory law, premised on the colonial dispossession of land and imported European rules of water law, the existing regional agreements were the product of both intercolonial relations and the apartheid regime's attempts to protect White rule through the establishment of uneven economic and security relations with the independent states in the region.<sup>4</sup> By contrast, the emergence of a democratic South Africa, which coincided with the “triumph” of human rights principles at the end of the Cold War, promised, according to the statement of principles in the Harare Declaration adopted by the Organization of African Unity, that the country “shall respect the rights and sovereignty and territorial integrity of all countries and pursue a policy of peace, friendship and mutually beneficial co-operation with all peoples.”<sup>5</sup> If appeal to principle, whether human rights or constitutional principles, served to enable the democratic transition, the new democratic government's resort to the elaboration of principles to justify legal reform, including in the regulation of water, allowed the drafters to give prominence to principles of need and equitable access. Yet at the same time, countervailing principles of beneficial use, efficiency, and cost recovery remained part of the debate.<sup>6</sup> However, in the last decade, the crumbling of existing infrastructure and the impact of climate change – intensifying existing patterns of climate variability, with prolonged droughts and more intense cyclones – have exacerbated fears over the supply of water in South Africa and the region. On the one hand, there was the doomsday fear of “Day Zero,” which gripped the Cape Town metropolitan area in late 2017 when drought left area dams at dangerously low levels and, on the other hand, there is the increasing

intensity of cyclones out of the Indian Ocean – Idai and Kenneth in 2019 and Eloise in 2021 – producing severe flooding from Mozambique to the interior of the region.

Both national and international rules of law, based on principles of human rights and equitable distribution, formally govern the allocation of water in post-apartheid South Africa and the region. However, this essay will demonstrate that access to water in this drought-prone region remains in continuing tension between principle and power. This tension exists both in the formal agreements governing access to water between the member states of Southern Africa and in the practices of power that control how these agreements are implemented. This, however, is not simply a reflection of uneven national power since the same tension exists between the principles adopted to frame South Africa's post-apartheid water laws and the practices of governance over water that continue to determine access to water among communities and economic interests in South Africa.<sup>7</sup> This essay will reflect on the potential for communities and even nations to deploy the principles of water law once adopted by Nelson Mandela's cabinet to argue for a more just distribution of this essential resource.

The allocation of water in Southern Africa is rooted in the region's history of settler-colonialism.<sup>8</sup> This is a legacy that was founded on the dispossession of land and the adoption of rules of European law that benefited the settler regime. While initially based on individual decrees or *placaaten*, the early colonial government soon asserted the doctrine of *dominus fluminis*, giving the Dutch East India Company, as the governing authority, the power to control the allocation and use of water resources in the colony.<sup>9</sup> However, within this legal regime, the hydrological distinction between perennial and intermittent streams inscribed a significant distinction between public and private waters, providing the first linkage between rights to land and access to water. The 1906 Cape Irrigation Act abolished this distinction, but by then, the introduction of the English law of riparian rights had established a more direct link between ownership of land and access to water.<sup>10</sup>

After two centuries of dispossession through war, occupation, and economic imperatives – primarily through the reliance on land for credit – the 1913 Land Act prohibited the African majority from holding property rights in all but 13 percent of the country's land mass. Thus, in the British-controlled settler-colonies of Southern Africa, the land rights of White settlers on riparian land became the common law basis for gaining priority rights to water. However, the belief that groundwater was independent of surface water and that a landowner's rights extended, within the bounds of the land, from the center of the earth to the heavens above meant that groundwater became the private property of the landowner. Given that access to water, especially in the dry interior of the country, relied pri-

marily on access to groundwater, a significant source of water was legally considered to be private property.<sup>11</sup> For example, as late as 1990, the Winterveld “squatter” area north of Pretoria, with a population of over 100,000 people, “had no public water supply,” so people had to purchase water, which could “be more than thirty times as expensive as urban water.”<sup>12</sup>

The adoption of the 1956 Water Act by the apartheid regime restricted the legal regime of water.<sup>13</sup> This new statutory regime, which was devised to address the needs of an industrializing economy and the mining industry as well as expanding urban centers, empowered the state to override riparian rights by declaring “control areas” in which the allocation of water resources would be determined by the state. While the statute enabled the state to dictate the allocation of water, it also entrenched the riparian system outside of designated control areas and continued to recognize the private ownership of underground water. Significantly, the 1956 Act provided that the specific allocation of water according to the riparian rights of a property owner would be determined by the Water Court and while approximately 20 percent of riparian rights had been determined by the early 1990s, the vast bulk of water accessed by riparian owners was based on an informal recognition of their riparian rights by local water boards. In an economy dominated by mining and agriculture, approximately 60 percent of water is used by organized agriculture, 8 percent by mining and industry, and 27 percent for urban and domestic use.<sup>14</sup> One legacy of one hundred years of deep-level mining is acid mine drainage, which threatens to pollute already limited water resources.<sup>15</sup> Outside of agriculture, the bulk of water for industrial and urban users falls under the control of different state-regulated water institutions such as the Rand Water Board, which provides water to the country’s major metropolitan area with Johannesburg at its center.

**N**elson Mandela appointed Kader Asmal as Minister of Water Affairs and Forestry in South Africa’s first democratic government. Asmal, a longtime anti-apartheid activist and member of the African National Congress (ANC) Constitution Committee who had taught international law at Trinity College in Ireland during his exile and would later chair the World Commission on Dams, immediately called for a review of the Water Act.<sup>16</sup> The statute, he argued, perpetuated the connection between land rights and access to water, which privileged the White minority. The water review process, beginning in mid-1995, soon recognized that any new water law would need to incorporate a more modern understanding of the hydrology of water, especially the idea of a unified water cycle. The initial response from lawyers and administrators within the Department of Water Affairs was that the 1956 Act did not need reforming since it provided the state with adequate power to oversee the country’s water resources. This view was challenged by the new leadership, who decided that formulating and adopting a

set of principles was the best way forward. A process of information-gathering and debate within the department and with interested constituencies produced a set of water law principles by April 1996. These twenty-seven principles were included in the government's 1997 white paper and informed the drafting of the 1997 Water Services Act and the 1998 National Water Act.<sup>17</sup>

In his preface to the discussion document publicizing the principles, Asmal noted that "few aspects of our common life in South Africa can be more important than water." He argued that the "law should always be changing as we gain greater scientific understanding of our surroundings, as our economy and technology develops, and as our society changes."<sup>18</sup> Calling for comments on the draft principles, Asmal stated that he knew "that a new water law will only be effective if it reflects the wisdom and enjoys the support of the majority of South Africans and is well understood by them."<sup>19</sup> These statements reflected the ANC's electoral promises contained in its Reconstruction and Development Programme, which in its section on meeting basic needs argued that "a programme of affirmative action must address the deliberate marginalization from economic, political and social power of black people, women, and rural communities."<sup>20</sup> The document's section on water and sanitation noted that "more than 12 million people do not have access to clean drinking water and 21 million people do not have adequate sanitation."<sup>21</sup> With this background, the document stated that the "fundamental principle of our water resources policy is the right to access clean water – 'water security for all'" and defined its "long-term goal [as providing] . . . every South African with accessible water and sanitation."<sup>22</sup>

Asmal's preface, and its framing of the role the water law principles would play, reveals how principles, as the entry point to legal change, were understood in this period. The ANC had begun its constitutional campaign in 1988 by issuing a set of principles entitled "Constitutional Guidelines for a Democratic South Africa" and the democratically elected Constituent Assembly drawing up the country's final post-apartheid constitution was, by agreement of the parties, bound by thirty-four constitutional principles.<sup>23</sup> The power of principles lies in their ability to be both general enough to cover a broad field of issues, and ambiguous enough so that the contending parties could each imagine some version of their own preferences reflected in the principles. While appeal to principle has a long history in constitutional negotiations, the turn to principle in the water law review process reflected real concerns that vested interests would frustrate the needed changes being sought by Mandela's government.

While South Africa had held its first democratic election, the economically powerful White minority feared the changes that Mandela's government might embark upon to dismantle apartheid, which remained a geographic and economic reality. Thus, principles presented in the discussion document, and later adopted by Mandela's cabinet, sought to manage numerous potential points of conflict.<sup>24</sup>



First, there was the claim by landowners that any change to water rights would violate their newly enshrined constitutional rights to property. This assertion of rights was based both on the continued recognition of riparian rights in the 1956 Act as well as the more specific claim of private property rights to groundwater. Second, with the creation of nine new regions, the question of how water should be governed remained fraught, even though the interim constitution of 1993 did not assign legislative competence over water resources to the provinces. Despite the implied allocation of legislative authority over water to parliament and the national government, the grant to provinces of primary authority to legislate over agriculture, environment, regional planning and development, soil conservation, and urban and rural development complicated the governance of water resources, even after it was reformulated into a system of cooperative governance in the final 1996 constitution. Finally, since South Africa's major water ways either begin or enter the oceans on the borders or even within the territories of neighboring nations, there was a need to articulate the principles that would guide the reform of these relationships, especially agreements that had previously been formulated within the context of the apartheid regime's policies of regional aggression and dominance. While these issues presented significant concerns for the reform process, the reliance on principles would keep them within the legislative process with very little, if any, public disagreement or protest.

The first issue facing the Water Review Panel was the assumption that the 1956 statute and the recognition of property rights in the new post-apartheid constitutional order would hamper any reallocation of water. If all existing claims to water rights had been recognized, it would have posed a significant constraint on land reform and other efforts to address the vast racial inequalities bequeathed by South Africa's history of colonialism and apartheid. To respond to this concern, the panel first considered and questioned the hydrological assumptions of the 1956 Act, especially the notion that groundwater was distinct from surface water. Instead, the panel focused on the "natural laws of the world we find ourselves in," arguing that the "water cycle is indivisible" in that water is "continuously moving ... [and] changing its state between a liquid, a gas and a solid."<sup>25</sup> Recognizing that in some circumstances it might be "trapped in rocks deep below the earth's surface," the panel argued that water "is continuously moving, even though in some cases it may move very slowly over millions of years."<sup>26</sup> The panel also pointed out that apart from the fact that "different parts of the cycle influence each other," human activity, especially technological developments such as "high yielding, deep level ground water pumps" and different land uses, has significant implications for the regulation of water and concluded that "as our understanding of the water cycle increases, so the law relating to water needs to be progressively amended to reflect what we know to be the physical reality."<sup>27</sup> Following these conclusions, the panel proposed its first principle: "in a relatively arid country such as South

Africa, it is necessary to recognize the unity of the water cycle and the interdependence of its elements, where evaporation, clouds and rainfall are linked to underground water, rivers, lakes, wetlands, estuaries and the sea.”<sup>28</sup>

Acceptance of this first principle, grounded in hydrology rather than policy choices, gave the panel a basis to critique the 1956 statute and especially its recognition of “many different legal categories of water including the distinction between private and public water.”<sup>29</sup> Noting that the “different categories of water deny the physical reality that all water is inter-related” and, if these categories were to be maintained, they “would greatly hinder effective management,” the panel proposed three principles on the “legal aspects of water.”<sup>30</sup> The first of these legal principles stated that “all water, wherever it occurs in the water cycle, is a resource common to all, the use of which should be subject to national control” and thus “all water should have a consistent status in law, irrespective of where it occurs.”<sup>31</sup> The second legal principle specified that “there shall be no ownership of water but only a right to its use,” and the third principle addressed the issue of riparian rights by arguing that “the location of the water resources in relation to land should not in itself confer preferential rights to usage.”<sup>32</sup> Although the implication of these last two principles for legal reform was profound, the panel sought to limit any opposition by pointing out that while “there is a widespread public misconception that ‘private’ water is actually the property of the land owner . . . this is not true.”<sup>33</sup> Instead, the panel noted that while “people may have an exclusive right to the use of water, . . . it can never be ‘owned’ as it passes through a particular point on its continuous journey through the water cycle.”<sup>34</sup> Finally, on the question of the riparian principle, the panel stated that “there are many thousands of farmers and other people in the country who do not own riparian land and a fairer way of allocating water needs to be found.”<sup>35</sup>

Having questioned the scientific basis of the existing law and proposed basic principles for legal reform, the panel then turned to the question of governance, proposing three sets of principles to address water resource management priorities, approaches, and institutions. The five principles defining the priorities of water resource management recognized three different dimensions to the issue of priority. First, a general objective “to achieve optimum long term social and economic benefit for society.”<sup>36</sup> Second, the concept of a reserve, whether to meet basic needs or to maintain ecological functions. And third, the principle that “international water resources, specifically shared river systems, should be managed in a manner that will optimize the benefits for all parties in a spirit of mutual cooperation.”<sup>37</sup> Of these three dimensions, the idea of a “reserve” was the most innovative and contained important implications for the prioritization of access to water.

The designation of a reserve required the division of the resource into three distinct categories. First, that a proportion of the water resource, defined as the

“quantity, quality and reliability of water required to maintain the ecological functions on which humans depend,” “should be reserved so that the human use of water does not individually or cumulatively compromise the long term sustainability of aquatic and associated ecosystems.”<sup>38</sup> Second, that “water required to meet peoples’ basic domestic needs should be reserved.” While the panel argued that these first two categories, which made up the reserve, “should enjoy priority of use,” the third category, containing all the remaining water (designated as utilizable water), defined what was available for all other uses.

The second set of governance principles focused on approaches to water resource management and began with the assumption that “where resources are limited and the competition is increasing, some party has to have oversight and custodianship over water.”<sup>39</sup> While denying that this meant that the “government is the legal owner of water,” the panel maintained that the government “is the overall manager of water.”<sup>40</sup> Thus, the first principle of governance was that “the national government is the custodian of the nation’s water resources, as an indivisible national asset, and has ultimate responsibility for, and authority over, water resource management, the equitable allocation and usage of water, the transfer of water between catchments and international water matters.”<sup>41</sup> In carrying out this authority, the “development, apportionment and management of water resources should,” according to the second principle, “be carried out using the criteria of public interest, sustainability, equity and efficiency of use in a manner which reflects the value of water to society while ensuring that basic domestic needs, the requirements of the environment and international obligations are met.”<sup>42</sup>

Turning to more specific aspects of water management, the principles noted that “water quality and quantity are interdependent and should be managed in an integrated manner.”<sup>43</sup> Furthermore, while “water resource development and supply . . . should be managed in a manner . . . consistent with broader environmental management approaches,” the “quality management options should include the use of economic incentives and penalties to reduce pollution” even as “the possibility of irretrievable environmental degradation . . . should be prevented.”<sup>44</sup> This turn to economic considerations is also reflected in the remaining principles on the approach to water management, with the panel stating that “the conditions subject to which water rights are allocated should take into consideration the investment made by the user in developing infrastructure to be able to use the water” as well as a requirement that “rights to the use of water should be allocated in good time and in a manner which is clear, secure and predictable in respect of the assurance of availability, extent and duration of use.”<sup>45</sup> Finally, the panel recognized that “land uses have a significant impact upon the water cycle” and thus the “regulation of land use should, where appropriate, be used as an instrument to manage water resources.”<sup>46</sup>



The final set of governance principles proposed by the panel focused on water institutions. While the panel had clearly stated that the national government is the custodian of the nation's water, the essential institutional principle articulated by the panel asserted that the "institutional framework . . . should be self-driven, minimize the necessity for state intervention, and should provide for a right of appeal to or review by an independent tribunal in respect of any disputed decision made under the water law."<sup>47</sup> Management itself, whether in the development or apportionment of the "available water resources," the principles stated, "should, where possible, be delegated to a catchment or regional level in such a manner as to enable interested parties to participate and reach consensus."<sup>48</sup> Furthermore, the principles specified that "beneficiaries of the water management system should contribute to the cost of its establishment and maintenance."<sup>49</sup> While this inclusion of a cost-recovery principle was not challenged, the panel did signal that a proposed principle "relating to enforcement and quantification of water rights," which stated that "efficient enforcement is dependent on the speedy quantification of as yet undetermined water rights and the proper registration of all water rights, including existing rights . . . should take place systematically over as short a period as available finances will allow," had been objected to since it presumed a "specific approach to the future administration of water rights that may not in fact be chosen."<sup>50</sup>

This tension over claims to "existing rights" was addressed in a separate principle that first recognized that "lawful existing water rights should be protected, subject to the public interest requirement to provide for the Reserve . . . [and when] reduced or taken away, compensation should be paid."<sup>51</sup> However, the principle also made clear that an "existing right should not include a right which remains unquantified and unexercised at the time of the first publication of these principles."<sup>52</sup> As the panel explained, "in introducing any new system, clear principles guiding the transition from what is currently in place to new arrangements have to be in place" and that the "exclusion of rights which have not been allocated or exercised at the time of the first publication of these principles is to prevent a rash of speculative developments in order to entrench or establish new rights or to attract compensation."<sup>53</sup>

The final set of principles, while "distinct from the development and management of water resources," was a direct response to the incorporation of a right to water in South Africa's final constitution, which was being debated in the Constituent Assembly as the panel completed the draft water law principles.<sup>54</sup> South Africa's 1996 constitution makes two references to water. First, in an exception to the other provisions of the property clause, section 25(8) of the Bill of Rights provides that "no provision of [the property clause] . . . may impede the state from taking legislative and other measures to achieve land, water and related reform, in order to redress the results of past racial discrimination."<sup>55</sup> Second, section 27(1)

states explicitly that “everyone has the right to have access to,” among other social and economic benefits, “sufficient food and water.”<sup>56</sup> The panel articulated this guarantee in a principle stating that the “right of all citizens to have access to basic water services (the provision of potable water supply and the removal and disposal of human excreta and waste water) necessary to afford them a healthy environment on an equitable and economically and environmentally sustainable basis should be supported.”<sup>57</sup> While the panel qualified this principle by noting that “the question of rights to water supply is not the same as the right to the use of water,” it went on in two further principles to state that “water services should be provided in a manner consistent with the goals of water resource management” and that “where water services are provided in a monopoly situation, the interests of the individual consumer and the wider public must be protected and the broad goals of public policy promoted.”<sup>58</sup>

To promote the principles and to address the concern of existing stakeholders, the Department of Water Affairs and Forestry organized a National Consultative Conference in October 1996 at which the constitutional and policy dimensions of the principles were debated.<sup>59</sup> By this time, while those who claimed water as a property right remained unhappy, it was becoming increasingly clear that the constitutional prerogative, combined with a more scientific understanding of water as a resource, meant that the shift from riparian rights and private claims to ground and surplus water to an administrative system of water allocation was a foregone conclusion. When the Department of Water Affairs and Forestry published its white paper on National Water Policy in 1997, the principles, with small modifications, were included, adopted by Mandela’s cabinet, and retitled “Fundamental Principles and Objectives for a New Water Law in South Africa.” The most significant change was that instead of beginning with the water cycle, which had justified a fundamentally new approach to water law, the principles now led with the “legal aspects of water,” which began with an overall statement that “The water law shall be subject to and consistent with the Constitution in all matters including the determination of the public interest and the rights and obligations of all parties, public and private” and that “while taking cognisance of existing uses, the water law will actively promote the values enshrined in the Bill of Rights.”<sup>60</sup> In a major legal reform, the Mandela government then proposed, and Parliament adopted, two new water laws: the 1997 Water Services Act and the 1998 National Water Resources Act.

A significant and rather counterintuitive aspect of the history of the water law principles is that they emerged out of a domestic process focused on addressing the legacies of apartheid and were subject to no obvious external influence even as its drafters drew on international experience.<sup>61</sup> Furthermore, some may argue that when Kader Asmal was made Chair of the World Commission on Dams in 1997, these principles were already part of his own human rights approach to is-

sues of water resource management, informing his understanding of the complex issue of dams as expressed in his preface to the report.<sup>62</sup> Thus, even as ANC macro-economic policy was responding to international economic pressures and shifting from the Reconstruction and Development Programme to the more neoliberal Growth, Employment and Redistribution policy, the water law reform process continued through the legislature based on the principles.<sup>63</sup> It was the implementation of the new water laws that brought criticism and legal challenges from activists, who argued that the government was not delivering on the political and constitutional promise of access to water.<sup>64</sup>

While the principles adopted by both the water law reformers and the South African government provided a potentially enlightened and equitable vision for the allocation of precious water resources in Southern Africa, powerful interests, whether private or national, continue to drive the allocation and use of water resources a quarter-century later. On the one hand, the powerful mining industry continues to function in a separate realm, while agricultural interests allocate water in an unofficial market of local arrangements.<sup>65</sup> It is only in the rare case when government has attempted to intervene that there have been challenges to the new legal order.<sup>66</sup> This outcome may best be described as a function of two different dynamics. First, even among the reformers, as is evident from some aspects of the principles, there were tensions and contradictions in their vision of how water resources should be managed. While they could agree that rights to water were not property rights per se, the inclusion of imperatives such as cost recovery and local control introduced countervailing pressures. Presented as enhancing sustainable management of the resource, principles such as delegation to catchment or regional-level management and cost recovery also reflected an approach to management in which national authority would seek to delegate its power to local interests who were expected to resolve their conflicts and cover the costs of management despite the continued existence of vast inequities in resources and capacity at that level of governance. Second, the arid nature of the region and the structural inequalities between neighboring countries in the region mean that the imperatives of the region's most significant industrial and urban conglomeration, Gauteng province, seem to dominate regional arrangements, whether it is the need for water itself or electric power that has its own impact on the region's water resources.

Water managers in South Africa and academic critics have recognized that the ambitious policy goals of the new water laws adopted by Mandela's government are only partially reflected in the allocation and use of water today, producing a significant gap between the law on the books and the law in action.<sup>67</sup> From different perspectives, these analysts collectively identify elements they consider responsible for this gap, although they often disagree about the causes or possible

solutions needed to secure sustainable access to water. Reviewing the debates over the management and allocation of water in the postcolonial era reveals that struggles over water resources in the region occur within three broad frames: the institutional, the hydrological, and the ideological. Each of these realms reflects tensions in the relationship between power and principle that continue to mark the governance of water in South Africa. Each perspective offers a way to understand the use and the limits of law in the management of the country's water resources.

Hydrology served as the entry point for the reform of South Africa's water law in the post-apartheid era, making it possible to agree on a new set of principles that reflected a scientifically more valid understanding of the water resource. There is also wide agreement that the region, and particularly South Africa as the largest user of water in the region, is in a semiarid zone and that global climate change will impact water resources. There is, however, real debate about both the possible impact of climate change and whether the problem of access to water is an issue of scarcity or management. While most commentators emphasize scarcity, Mike Muller, the first post-apartheid Director-General of the Department of Water Affairs, argues that "South Africa's not yet confronting an absolute water shortage ... [rather] the extent of public panic suggests a disturbing level of ignorance about how water is made available and what needs to be done to ensure adequate and reliable supplies."<sup>68</sup> For Muller, "the key to ... water security is for government and citizens to understand and manage what the country has."<sup>69</sup>

While concern over future water sources may dominate the hydrological debate, there is much greater consensus over the institutional failings that are blamed for the increasing cascade of problems, whether in the form of collapsing water systems, uncontrolled pollution, or the failure to provide the constitutionally promised water to meet basic needs. Most commentators argue that while the law itself might provide a good legal framework for the management of water resources, the lack of institutional capacity, especially at the local government level and in the water catchment institutions created by the law, continues to frustrate the achievement of the law's goals. As Barbara Schreiner, a former Deputy Director-General of Policy, and environmental economist Rashid Hassan argue, "there are major challenges in implementation arising ... from lack of capacity, over-ambitious and highly technical interpretation of policy, and the desire to do too much at one time."<sup>70</sup> Despite these difficulties, it seemed in the first decade of the new democracy that the state was making real progress, when the "proportion of households having access to clean water increased from 60% in 1996 to 85% in 2001," which translated to "about 3.7 million additional households gaining access to water between 1995 and 2003."<sup>71</sup> However, as Muller noted in 2016, "the number of people whose taps no longer provide a reliable water supply grew by almost 2 million between 2011 to 2015," a failure he attributed to "state capture by a corrupt elite."<sup>72</sup>

From an ideological perspective, debates over access to water and the management of water resources reflect the late-twentieth-century tension between neoliberalism and human rights. On the one hand, a fidelity to human rights, expressed in the constitutional protection of a right to sufficient water, saw a commitment in the principles to set aside a portion of the resource for basic human needs and the publication by the Department of Water Affairs of a guideline for the implementation by local authorities of free basic water.<sup>73</sup> On the other hand, the principles also provided that “beneficiaries of the water management system should contribute to the cost of its establishment and maintenance.” Even as the principles stated that “there shall be no ownership of water,” the recognition that there is a “right to its use” and that “beneficiaries . . . should contribute to the cost” provided space for those who continued to argue that the best way to manage water is through its commodification and the establishment of water markets. In the furtherance of this neoliberal perspective, South Africa’s Free Market Foundation published an extensive analysis of the allocation of water, concluding that the National Water Act, with its emphasis on the government serving as the “public trustee of the nation’s water resources” and giving the government “the power to regulate the use, flow and control of all water in the Republic,” meant that the “efficient use of water was unlikely to occur in the future.”<sup>74</sup> They concluded that it was “unlikely that water will be allocated efficiently, since uncertainty over institutional constraints will encourage power struggles and rent-seeking behaviour.”<sup>75</sup>

Despite the existence of model policies and legislation, there is widespread agreement that there have been severe shortcomings in the implementation of the country’s post-apartheid water regime. As a result, subsequent ministers have sought to update government policies, such as the Free Basic Water policy and changes in the system of local government after 1999, to account for such developments.<sup>76</sup> However, when a new Minister of Water Affairs, Nomvula Mokonyane, suggested reforming the existing water laws, the response was that “South Africa needs good water management – not new water laws.”<sup>77</sup> Public criticism of the implementation of the existing law pointed out that “despite a great deal of talk,” the new institutions required for water management, while “provided for in existing legislation,” had “not yet been set up” and “even routine parts of the existing law had not been complied with.”<sup>78</sup> Most recently, the Department of Water Affairs has been restructured as part of a new Ministry of Human Settlements, Water and Sanitation under Minister Lindiwe Sisulu, and President Cyril Ramaphosa has announced that water infrastructure will be a significant part of the country’s new Economic Reconstruction and Recovery Plan response to the COVID-19 economic contraction.<sup>79</sup>

**T**he struggle for access to water in South Africa provides an important lens through which to view the relationship between the advocacy of principle, law, and the problem of power, whether in the context of institutions or



ideological competition. At the transnational level, a democratic post-apartheid state, following the principles it has endorsed, became a member of the Southern African Development Community (SADC), which has a regional water policy and strategy. In conformity with this new approach, South Africa ratified both the Revised SADC Protocol on Shared Watercourses and the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses.<sup>80</sup> While these regional and international agreements commit participants to the “equitable and reasonable utilization” of shared water resources, the implementation is left to specific basin-wide agreements. Much like the principles, it is the interaction between these agreements and domestic law and practice that reveals the limits of the system. As international relations scholar Reginald Tekateka points out, the “tendency of the new domestic water laws is the devolution of water management to the lowest possible levels” and if domestic law does not effectively empower “authorities to regulate the allocation of water, it would not be possible to prevent water users from using as much water as they like with the possible result being that South African users use more water than allocated . . . as its agreed share.”<sup>81</sup>

These same tensions exist in the relationship between the principled commitment to provide sufficient access to water and its constitutional enshrinement. Even as the new democratic state first prided itself on expanding access to water, civil society and social movements went to court to argue that the state was failing to meet its constitutional obligations. Critics argued that despite the principles underlying the water laws, their implementation relied on a neoliberal cost-recovery model that failed to provide the basic needs guaranteed in the constitution and law, generating a new social movement that has resisted the imposition of these policies.<sup>82</sup> While this ideological framing of the struggle over water often dominates debates, a closer examination reveals that the institutional and hydrological frames are equally significant. It has been the institutional failings, especially in the combination of devolving regulatory authority and a corresponding lack of local capacity to manage water resources, that have undermined the initial post-apartheid progress in the delivery of water services in the country.

Looking forward, the hydrological frame, which initially enabled a critique of the 1956 Act, will be central to the formulation of strategies to address climate change. While climate change is likely to exacerbate the region’s already highly variable climate patterns, extending periods of both severe drought and flood, the policy focus thus far seems to be on the possible competitive benefits of adaptation, by using the country’s natural endowments of sun and wind to accelerate a “green economy” into the future. Speaking at a meeting upon the release of a report by researchers at the South African Council for Industrial and Scientific Research, Blade Nzimande, Minister for Higher Education, Science and Technology, “said South Africa had a comparative advantage when it came to the production of renewable hydrogen and a unique competitive advantage in the production

of green powerfuels.”<sup>83</sup> The report acknowledged that the country’s “competitive advantages in the production of green hydrogen and associated powerfuels [would be] . . . based primarily on its wind and solar resources, which are superior to those in jurisdictions where demand [for powerfuels] is set to surge.”<sup>84</sup> While government and business imagine a prosperous export-oriented future based on abundant renewable electricity, it is the more immediate hydrological reality of uneven access to water that impacts the daily lives of most citizens.

The tension between principle and law inherent in the constitutional guarantee of access and the struggle for access were at the center of the most prominent water case to reach the courts in the post-apartheid era. Activists challenged the imposition of pre-paid meters used to recoup costs and called for the definition of a minimum core to the right to water. While the lower court issued an order declaring that the authorities were required to provide a minimum 50 liters of free basic water daily, the Constitutional Court upheld the local authority’s policy on the grounds that the city accepted its continuing obligation to progressively work toward achieving the rights of access to sufficient water. The court’s decision was premised on two arguments that go some way toward operationalizing the tension between principle and power that seems to pervade the governance of water, whether nationally or transnationally. First, the Constitutional Court argued that “fixing a quantified content might, in a rigid and counter-productive manner, prevent an analysis of context . . . [while] reasonableness places context at the centre of the enquiry and permits an assessment of context to determine whether a government programme is indeed reasonable.”<sup>85</sup> Second, that “ordinarily it is institutionally inappropriate for a court to determine precisely what the achievement of any particular social and economic right entails and what steps government should take to ensure the progressive realisation of the right.”<sup>86</sup> Instead, the court argued that “it is desirable as a matter of democratic accountability that [the government should first determine how to achieve these goals] . . . for it is their programmes and promises that are subjected to democratic popular choice.” Only if the government failed to act would the court be required to intervene.

In response to arguments by the litigants that the court’s failure to uphold their rights meant that it would be futile to bring socioeconomic cases to the courts, the court argued that on the contrary, the “case illustrates how litigation concerning social and economic rights can exact a detailed accounting from government and, in doing so, impact beneficially on the policy-making process” and that the city’s “continual revision of the policy [in response to the ongoing litigation] . . . improved the policy in a manner entirely consistent with an obligation of progressive realisation.”<sup>87</sup> It may be equally the case that the defining of principles of water law and management may not guarantee a more just distribution or access to water for the peoples of South or Southern Africa, however the existence of these principles, whether as policy guidelines, constitutional rights, or in the language

of regional and international agreements, provides two important resources for those who struggle for access to water. First, a vision of a more just allocation of this fundamental resource and, second, an articulation of common benchmarks to which states and governments might be held to account.

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#### ABOUT THE AUTHOR

**Heinz Klug** is the Evjue-Bascom Professor of Law and the Sheldon B. Lubar Distinguished Research Chair at the University of Wisconsin Law School and Visiting Professor at the University of the Witwatersrand School of Law, Johannesburg, South Africa. He is the author of *Comparative Constitutional Law: A Contextual Approach* (with Helen Irving and Stephen Ross, 2014), *The Constitution of South Africa: A Contextual Analysis* (2010), and *Constituting Democracy: Law, Globalism and South Africa's Political Reconstruction* (2000).

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