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What is “public” about water in the Waterberg? A perspective on public water services from rural South Africa

Michela Marcatelli¹

PhD Researcher, International Institute of Social Studies (ISS), Erasmus University Rotterdam

Kortenaerkade 12, 2518 AX The Hague, The Netherlands
marcatelli@iss.nl

Abstract

This paper aims at broadening our understanding of “publicness” in the provision of water services, by considering access to water in rural South Africa.

The process of water commodification in post-apartheid South Africa, which underpins the adoption of market-based instruments, such as water privatization and water pricing, and its (public) alternatives have been explored especially in urban and peri-urban settings. However, albeit usually overlooked, rural settings represent a crucial area for research on public water services in South Africa for two main reasons. First, rural municipalities are among the poorest and under resourced within the country and this seriously hampers progress towards universality and equity in water access. Second, rural areas are characterized by specific dynamics, which differ from those taking place in urban contexts. For instance, access to water here is dependent upon access to land and equally highly skewed along racial lines.

This paper will explore questions of “publicness” in water services by drawing on the preliminary findings of a one-year period of fieldwork in the Waterberg plateau, which I am conducting within the framework of my PhD program.

The Waterberg is a rural area within Limpopo Province where the conversion into a top eco-tourism destination goes hand in hand with the development of nearby coalfields and the construction of the new Medupi Power Station by Eskom (the South African electricity public utility). These changes in the political economy of the region (together with the recovery of tobacco farming) however seem conducive to entrenching inequality in access to and control over water resources. Indeed, albeit water services in the town of Mabatlane/Vaalwater are public, residents (especially in the township of Leseding) suffer from severe water shortages, while land owners have usually water in abundance, which they employ for multiple purposes. In order to understand these dynamics, one has to consider the specificities of water access in the Waterberg as they were shaped by local history. Also, these developments demand to rethink the very idea of “publicness” in service provision and why it remains important in the post-apartheid era.

After introducing the water sources of the Waterberg and its history, this paper will describe the plateau from the vantage point of water access and uses for its residents. I will then critically engage with the failures in public water service provision vis-à-vis local developments in the field of agriculture, energy production and the “green economy”. Finally, I will sum up my major arguments and try reconceptualising the notion of “publicness” in water services with a view to achieving greater equality and social justice.

INTRODUCTION

The Waterberg is a rural district in the northern South African Province of Limpopo surrounding one of the most important mountain ranges in the country. This study however focuses on what is usually referred to as the Waterberg plateau or the north Waterberg, that is the region stretching from behind the mountains (when coming from Modimolle in the south) until the point where the escarpment descends into the Limpopo Plain. Although currently divided into three local municipalities (i.e. Lephalale, Modimolle and Mogalakwena), the plateau has always embodied a quite distinctive “sense of place”, as pointed out by Hofmeyr (1987) in her study of the English storytelling in the Waterberg from the first half of the 20th century.

If that literature spoke especially of “difficult journeys into a remote world” (Ibid.: p. 20) and of life on the farm as the basic unit of social hierarchy, the major narratives that give meaning to the Waterberg today revolve around wilderness and conservation (yet keeping and revisiting those colonial traits). In the words of the UNESCO-recognized Waterberg Biosphere Reserve, “With its unique history of sparse human settlement, it has been perfectly placed to reinvent itself, following the dawn of democracy in South Africa, as a stunningly beautiful and highly significant conservation area” (WBR 2009: p. 5). A mere three hour drive from Johannesburg and free from the risk of contracting malaria, the Waterberg is in fact seen and marketed as a new top eco-tourism destination in South Africa.

Still, looking at the Waterberg through the perspective of its water resources – how they are distributed, accessed and used – help us unravel the contradictions behind this narrative and more generally point out some of the failures in service delivery in post-apartheid South Africa, compelling us to revisit our notion of “publicness”.

While conservation entrepreneurs claim that the area is scarcely populated, the population of Mabatlane/Vaalwater² (i.e. the single town on the plateau) is in fact rapidly increasing and becoming mainly composed of indigents. Town(ship) residents struggle to get access to sufficient and affordable water and the efforts of Modimolle Local Municipality to improve water service delivery are hampered by the fact that in a rural area like the Waterberg water is still perceived and managed as a private asset linked to land ownership.

Within this context, the rigid divide between water for domestic and productive uses normally employed in the literature does not make much sense, as landowners are ultimately able to employ water for multiple uses. For this reason, I find it useful to see the failures in service delivery in Mabatlane/Vaalwater in relation to the competing demands for water from users as different as commercial farmers, conservation entrepreneurs and the mineral-energy complex. Notwithstanding the prevailing narrative about the region mentioned above, each of these productive activities is in fact well represented in the area.

In this paper, I present the preliminary findings of a one-year period of ethnographic fieldwork on the plateau that I am currently conducting within the framework of my PhD program. Following the insights of “multi-sited ethnography” (Falzon 2009, Gupta and Ferguson 1997), I have selected three main sites for the collection of primary data, namely Mabatlane/Vaalwater town and township; commercial farms; and game farms. Here, I am conducting structured and semi-structured interviews aimed at gathering not only factual information about conditions of access to and uses of water resources, but also people’s motivations, aspirations and values behind them. Moreover, I am carrying out focused interviews with representatives of the local and national government.

The rest of the paper is structured as follows. In the next paragraph I will describe the water sources of the Waterberg to show that there is water in the region. After that, I will briefly retrace the history of the plateau with the aim of demonstrating how settlement patterns affect the way in which local people have access to water today. I will then discuss in detail how different and unequal access to water is for the various residents of the plateau. Following that, I will put the contradictions and failures which characterize public water service provision in Mabatlane/Vaalwater in relation to the political economy of the region, by looking at the recent developments in the water demands of agriculture, energy production and the “green economy”. Finally, in the conclusion, I will sum up my major arguments and try reconceptualising the notion of “publicness” in water services with a view to enhancing equality and social justice.

WHAT IS IN A NAME? FOLLOWING WATER IN THE WATERBERG, BETWEEN SHORTAGES AND ABUNDANCE

In Afrikaans, the name “Waterberg” literally means “mountain of water” and reference to water was also a permanent feature in the process of naming farms, which occurred when the Boer settled in this area after 1850 as the result of the Great Trek. Thus, it is quite common for farms, still representing the prevailing form of land occupation on the plateau, to have their name ending in “fontein” (“fountain”), “stroom” (stream) or “rivier” (“river”). This reminds us of how important the presence of water was and still is for human settlement, but also conveys a sense of abundance with regard to water resources in the Waterberg. This may not be so true today, as water is subject to growing and competing demands. However, I would argue that there is water on the plateau, but that is unequally distributed, especially along racial and class lines. This is hardly new in the context of South Africa, but I think it important to emphasize as it allows us to evaluate progress and failure in water service provision in the rural areas of the country (largely neglected by the literature), where control of water resources is dependent upon ownership of the land. Let me then start this paper by briefly describing the major sources of water on the Waterberg plateau.

There are two major sources of water in the Waterberg, namely surface and underground water. With regards to the first, the Waterberg falls within the Limpopo River Basin and is crossed by four main Limpopo tributaries, namely (from east to west) the Matlabas River, the Mokolo River, the Lephhalala River and the Mogalakwena River. In the area under study, the most important catchment in terms of local water uses is the Mokolo River, while the Lephhalala, albeit flowing on the plateau, is mainly under conservation management by the private nature reserve

Lapalala Wilderness, which covers 36,000 ha of land including 88 km of river shoreline. The Mokolo and its numerous tributaries (mainly seasonal streams) have an estimated mean annual runoff of 272 Mm³ (DEA n.d.) and mainly provide water to the commercial farmers in the area, who in fact are spatially concentrated along the catchment. Since the establishment of the North Waterberg Farmers Association by English speaking settlers sometime after 1910, farmers have lobbied the then Transvaal Department of Agriculture to build infrastructure in this rather isolated part of the country and especially water infrastructure in order to be able to manage the Mokolo River flow and secure a reliable water supply for their activities. However, the Transvaal Government³ repeatedly turned their requests down on the basis that the area offered no good site to build a dam and that because of the local climate, the evaporation rate would have been too high. Only in the 1970s the apartheid government built the Mokolo Dam (at the time Hans Strijdom Dam) on the north-western edge of the plateau to supply water to Eskom Matimba Power Station, Exxaro Grootegeeluk coal mine and the growing town of Ellisras (now Lephalale). The full storage capacity of the dam is 145.4 Mm³, while its calculated yield has varied over the years according to the changes in the political economy of the region. For instance, the conversion of commercial farms upstream of the dam into game farms has meant a decrease in the size of land under irrigation from 13,500 ha in 1970 to approximately 8,500 ha today, thus raising the dam's yield to 39.1 Mm³/y (DWA 2010: p. 12). The allocation of water from the Mokolo Dam to different users is illustrated in Table 1.

Table 1: Water allocation from the Mokolo Dam

User	Water allocation (Mm ³ /y)
Matimba Power Station	7.3
Grootegeeluk coal mine	9.9
Lephalale Local Municipality	1
Irrigation (downstream of the dam)	10.4
Total	28.6

Source: WDM 2013

There are a few interesting things to note here. First, although farmers were not considered as the major beneficiaries of the project, they were able to secure for themselves the largest amount of water. This however produced a serious division between farmers upstream and downstream of the dam. The former in fact, who are those properly located in the area under study, were excluded from the irrigation scheme that was later built downstream and for this reason still feel neglected by the state. Second, notwithstanding the fact that also at the national level agriculture remains the biggest water user, the small amount of water allocated to domestic uses in Lephalale (whose population is now 43,867, WDM 2013) seems to suggest that the provision of water services to residents does not rank very high among the government's priorities. Third, even though the Mokolo River represents the most important source of water on the Waterberg plateau, no water from the river and the dam are allocated to the town of Mabatlane/Vaalwater, in order to meet the water needs of its growing population (16,463 according to the Census 2011, but data are highly contested on the ground, WDM 2013). If this may have made sense when the dam was built and Vaalwater was a very small town providing services to the local farming community, while Blacks were not allowed to live there as the result of racial

segregation legislation, it certainly could have become an issue of debate with the advent of democracy.

Underground water resources arguably represent the most important source for domestic water uses on the plateau, both on farms and in the town of Mabatlane/Vaalwater. Data on borehole yields however are lacking, as rarely boreholes drilled and used by local residents are registered with and tested by the Department of Water Affairs (DWA). In the course of my interviews with local farmers, it came out that a single farm may have as many as 28 boreholes, but on average the number of those in use drops to 8. Nonetheless, the feeling shared by many residents is that there are some strong boreholes on the plateau, providing a good and reliable water supply. This was supported by a recent evaluation of the water resources available in the area conducted by DWA, which recommended the use of boreholes to meet the future water needs of the town of Mabatlane/Vaalwater (DWA 2010).

Aquifers are also influenced by rainfall, which in the Waterberg is seasonal, meaning that it rains during the summer months (October – March), while it is dry during winter (April – September). Although dry cycles tend to occur and farmers are very conscious of variability in water availability as the result of how much it rains over a certain year (with some of them describing the Mokolo River itself as seasonal), the data collected by DWA show that during the period 2002 – 2012, the average annual rainfall in the Waterberg plateau has been 1.149 mm, which is more than double the national figure of 450 mm (DWA 2013).

The data presented above aimed at showing that there is water on the plateau. How is it possible then that the local population of Mabatlane/Vaalwater suffers from severe water shortages, so that people (especially black and poor residents of the township) have usually access to water only a few hours per day, while sometimes they do not receive water for more than one day? The answer, I think, lies in extremely unequal distribution of water resources, a clear legacy of the colonial and apartheid regimes, which twenty years of democratic government has been unable to redress.

In order to substantiate my argument, I will discuss in details how water is distributed, accessed and used on the plateau, ultimately applying the classical questions of agrarian political economy (namely, “who owns what? who does what? who gets what? what do they do with it?”, Bernstein 2010: pp. 22-23) to the study of water resources on the plateau. Before proceeding with that, however, let me provide a brief historical account of the Waterberg, as I think it important to see water access today as shaped by the history of the region.

THE WATERBERG IN HISTORICAL PERSPECTIVE

The town of Vaalwater was founded at the beginning of the 20th century on the farm bringing the same name and owned by William Rufus Kirkman, an English man who had come to South Africa in 1820 and then relocated to the Waterberg after the Anglo-Boer War (1899 – 1902). The farm had a mill on the Mokolo River and later a trading store and for these reasons became the centre of the activities of the local white farming community. Infrastructures such as roads and the railway followed in the first half of the 20th century, while, as already noted, the requests for water infrastructure by local farmers were never accommodated. On the other side, the

construction of a comprehensive domestic water scheme must have been seen as unpractical, given the size of the plateau (about 14,500 km²) and the distance among farms, and probably not much needed in any case, since land owners could have access to their “own” water source. Things however started to change in the 1990s, when the small white population of Vaalwater was progressively increased by influxes of black people, who settled in what is now the township of Leseding.

Within colonial contexts, history is usually written by the powerful, while subjects are marginalized and sometimes even removed from the picture. In the Waterberg, this becomes all the more clear when one considers the growing bibliography about the region that has appeared since the early 2000s (see Hunter 2010, Rodger 2010, Taylor et al. 2003, Walker and Bothma 2005). Although these texts belong to specific literary genres, such as family history and divulgative publications aimed at introducing the cultural and especially “natural” characteristics⁴ of a region (the Waterberg of today being valued notably for its biodiversity), they all tend to reinterpret history in a very partial way, by privileging certain aspects, while completely dismissing others. For instance, the accounts of the Waterberg local history to be found in such literature usually start with a discussion of the “pre-historical” inhabitants of the area, who are praised for contributing to its rich cultural heritage. From there, they “jump” to the arrival of European settlers in the 1850s, described as “hardy people who constantly lived on the edge of survival” (Walker and Bothma 2005: p. 46). Here, it is interesting to note that, notwithstanding the fact that the region was settled by European descendants as the outcome of the Boer Great Trek and Afrikaners have always constituted the majority of the local white population, the characters described as the Waterberg “pioneers” are almost exclusively English-speaking people. This is probably due to the fact that the Afrikaners of the Waterberg were mostly “poor whites”, largely uneducated and living off subsistence agriculture and therefore less equipped, economically and culturally, than their English counterpart, to bear the major role in “the” history of the region. Still, the disappearance of Afrikaners from the history of the Waterberg is a prelude to that of the local black population. Indeed, after acknowledging some initial conflicts between European settlers and native groups, the texts mentioned above conclude their review of the historical events of the Waterberg by describing the major infrastructural developments, which embedded its wilderness into the rest of “civilized” South Africa. The fact that they do not discuss those major movements in the history of 20th century such as land dispossession and racial segregation is highly problematic in that it may bring the reader to the conclusion that they did not take place in this far remote corner of the country. This, however, is false.

Commenting on the turn of the 20th century maps of the Waterberg, Hofmeyr (1987: pp. 14 – 15) says “Such maps, reflecting only de jure ownership, wished away the untidy realities of de facto occupation. The ‘fiction’ represented in this map is one shared by many other stories. They too suppress black life, removing people imaginatively beyond the borders of the farm, there to merge with the landscape and its wild life”. Instead of imagining the Waterberg as a wilderness to be discovered (and later protected) by white colonisers, it is more accurate to describe this region as a place where indigenous Southern Africans like hunter-gatherers (now referred to as San), pastoralists (Khoikhoi) and Bantu-speaking mixed farmers (Africans) have lived and interacted for a very long time before Whites arrived, as shown by the numerous evidence found on the plateau in the form of dwelling sites, rock art and other artefacts. Africans in particular were organized in small chiefdoms and during

the first half of the 19th century they suffered the consequences of the *Mfecane*, a period of internal warfare initiated by the expansion of the Zulu kingdom in south-eastern Africa. In 1821, in fact, the arrival of Chief Mzilikazi with a group of warriors (to be known as the Ndebele) caused the displacement, death and conquest of many Sotho and Tswana people living under chiefdoms in the region. According to Thompson (2001: p. 87), “The wars provided Whites with unprecedented opportunities to expand into the eastern part of southern Africa. In much of the central highveld, the population was sparse throughout the 1830s. The surviving inhabitants, fearing further disruptions, tended to conceal themselves from intruders, which gave white travelers the impression that the area was uninhabited and unclaimed”.

This may have been true also for the Waterberg and could then explain why some authors still claim that the plateau has always been “scarcely” populated (Walker and Bothma 2005). However, white settlers did enter in contact with local African groups as soon as the 1830s, by defeating Mzilikazi and then sustaining a series of conflicts (especially in the 1850s and 1860s) with the Langa Ndebele, living just below the northern-eastern escarpment (Jackson 1981). More generally, as noted by Hofmeyr (1987), the “Waterberg politics” of those years may be interpreted as a patronage system between Boer and African leaders aimed at advance personal interests, which essentially revolved around land and labour. Land, which had previously been communally held, started to be privately owned, especially by commercial companies and by Transvaal officials to whom it was granted as payment for taxes instead of cash. As for labour, Boer commandos used to raid African chiefdoms in order to obtain children to turn into servants (formally “apprentices”), while other Africans were allowed to live on white farms as labour tenants, meaning that they would provide labor in exchange for the use of cropping or grazing land, or by paying a rent in the form of cattle. Still, some Africans were able to keep control of the land and produce for themselves and the Whites, with the result that black tenants and peasants were probably the most permanent and productive farmers in the Waterberg until the 1920s (Hofmeyr 1987).

In 1913, the government of the Union of South Africa enacted the Natives Land Act, by means of which Africans were prohibited from purchasing or leasing land outside the reserves, namely areas set aside for Blacks (and by 1939 covering only 11.7% of the Union’s territory, Thompson 2001: p. 163). The apartheid government later turned the reserves into “homelands”, that is separate “nations” for what it identified as native ethnic groups. One of these homelands, Lebowa, which was constituted for North Sotho peoples, stretched (albeit not in a single block of territory) to the east of the Waterberg plateau and Blacks from Northern and Eastern Transvaal were relocated here for different reasons. First, the apartheid government intended to clear “white” South Africa of so-called “black spots”, that is land occupied and farmed by Africans outside the reserves. Second, the 1913 act had de jure abolished the sharecropping and labour-tenant systems (the reality on the ground being much more complex) and this, together with the progressive mechanization of agriculture, pushed many Blacks out of white farms and into Lebowa. Finally, not only the countryside, but also “white” towns had to be cleared of black residents and this resulted into the “coordinated removal of approximately 20.000 Blacks from the various townships at Ellisras, Vaalwater, Naboomspruit and Nylstroom” (Rogerson and Letsoalo 1985: p. 182). These peoples were resettled in the rural village of

Steilloop (now Rebone) and there they became labour migrants who spent weeks and months on white farms in the Waterberg to make an income.

However, in the early 1990s black people started to move from Lebowa and the white farms on the Waterberg to (re)settle on the outskirts of Vaalwater. They did so for various reasons, from the desire “to live on their forefathers land”, as one resident put it, to the advantage of residing close to services, such as schools, clinics and shops. With the advent of democracy in 1994, the possibility to finally own a piece of land also became a driver for settling in town. In order to accommodate the needs of the growing population of Vaalwater, the new government planned the construction of the township of Leseding and delivered the first RDP houses⁵ in 1996. Albeit following the colonial and later apartheid tradition of building separate “locations” for black residents, instead of incorporating them into white suburbs, it must be noted that Leseding surrounds, but is not physically separated from the town of Mabatlane/Vaalwater “proper”.

Initially composed of two extensions, Leseding has now six of them, three of which are classified as “informal settlements”. The township population has rapidly growing from the early 2000s and many residents question the official statistics, according to which the entire town population is composed of “only” 16,463 people (WDM 2013). The growth in the local population, which has translated into an increase in the demand for water services, can be related to four main factors. First, Leseding residents are mostly poor⁶ and every newborn materially contributes to the livelihood of his/her family by means of the child support grant this can receive (namely ZAR 300 per child per month). Second, people are relocating from farms to Leseding as the result of three main reasons: the conversion of commercial farms into game farms has brought about a serious decrease in the number of local job opportunities (in some cases farm workers and their families have been evicted from farms, while in others they have agreed to move); farm owners seem to prefer to transport workers from/to town every day instead of having them living on their land because that helps them save money (it would be more expensive to upgrade workers accommodation) and avoid future land claims (moreover, this must be seen in the context of the progressive casualization of farm labour); also, we must not overlook the agency of farm workers and their will to move to town seeking a better life for them and their families (the freedom associated with holding a stand being seen as an important aspect of it). Third, it seems that people with jobs in Modimolle and Lephalale are now relocating to Leseding because the costs of accommodation are much cheaper. Finally, there is a growing influx of foreigners (especially Mozambicans and Zimbabweans), who try to escape poverty and political turmoil in their own country and find employment as farm workers on crop and cattle farms in the Waterberg.

UNFOLDING WATER SERVICES IN THE WATERBERG

The way in which residents of the Waterberg access water (meaning how much, under what conditions and for what uses) ultimately depends on where they live. Thus, while people residing in the town of Mabatlane/Vaalwater receive water services from Modimolle Local Municipality, people staying on farms, which occupy the biggest portion of land on the plateau, have to provide water for themselves. Although the latter circumstance may appear as a serious burden for land owners (and indeed there are costs behind making water available), these are usually able

to secure a good water supply for themselves, which then employ for their multiple uses, while town(ship) residents are forced to limit their own water consumption due to continuous water shortages. The dependence on municipal water provision for those staying in town is intensified by the fact that, although natural water sources such as rivers and streams are scattered across the plateau, access to them is restricted to land owners, a constant reminder of which is the almost uninterrupted fencing of properties. This results in a very unequal situation with regards to access to water, whereby those who suffer the most are the poor residents of Leseding. Let me now unfold in details how water services work in the Waterberg.

As noted above, in Mabatlane/Vaalwater, water services are public and provided by Modimolle Local Municipality, which is both Water Services Authority and Water Services Provider. Where does the municipality supply water for domestic uses in town from? I have already said that although Mabatlane/Vaalwater is located only a few kilometres away from the Mokolo River's bank (the farm Vaalwater originally being crossed by the river), the municipality is not allowed to extract any water from it, because that is allocated to those farmers on whose land the Mokolo flows. Thus, the municipality has no choice, but to rely on boreholes. However, boreholes may also be located on private land and access to them ultimately depends on reaching an agreement with the land owner, who has the power to set the price at which the municipality can get water from him/her. Indeed, in an interview with the Manager Technical Services, the respondent stressed how coming to an agreement with farmers was a challenge, because "they would want to charge us a lot of money for us to be able to use their borehole to supply the community" (interview 30 January 2014). The monthly fee, which farmers charge the municipality with, is meant to cover the costs of extracting underground water, especially the electricity employed for operating the pumps. Currently, Modimolle Municipality is supplying water from six boreholes (out of eight at its disposal) and paying a monthly fee to private owners for three of them (namely, it has to pay ZAR 16,000 to two farmers and ZAR 5,000 to another one). In order to provide at least some water to all residents, water is pumped out of the boreholes 24 hours per day (even though this is not recommended) and the total yield is 1.2 megalitres⁷ of water per day. If we divide the total supply of water by the total population figure of 16,463, we have an average of 60.7 litres per person per day. Of course, this already small amount would represent what everyone would be able to access in conditions of perfect equality.⁸ Practices of access to water on the ground, however, are much more complex and messy.

Once the water is extracted from underground, it flows through a pipeline to the reservoir located in Leseding, which happens to sit on the highest part of town. Since the original reticulation system was built to provide water to the white town of Vaalwater, pipes from the reservoir first bring water to the centre of town and its suburbs (still mostly inhabited by white residents) profiting from the natural slope and then water has to be pumped back to the township. Here, the reticulation system only covers four out of six extensions and the level of service also varies greatly from one to the other. Because of shortages, the municipality has decided to ration water according to the following schedule: from 5am to 8am and from 5pm to 8pm water is released to every parts of town; from 8am to 9am water is available for an extra hour to the centre of town (and consequently the suburbs), where shops and offices are located. In the course of my interviews with Mabatlane/Vaalwater residents however, a much more complex and messy reality emerged than that imagined by municipal plans. Table 2 introduces the discussion of such reality by providing a summary of

two important variables related to access to water for each section of town, namely how many hours per day water is actually running through resident taps and how many litres of water per day an household is able to consume.

Table 2: Access to water services for Mabatlane/Vaalwater households

Section of town	Water availability (hrs/d)	Water consumption (l/d)
Suburbs	9	721
Ext #1	2	136
Ext #2	2	278
Ext #3	3	198
Ext #4	4	140
Ext #5	4	96
Ext #6	3	113

Source: Data from interviews with 70 residents

The first thing to note when looking at these data is the striking difference in the way people have access to water services depending on whether they live in the suburbs or in the township. The municipality is ready to admit that suburb residents receive one extra hour of water supply, which is meant to support economic activities in town, but that does not account for the nine hours that, on average, these people are able to get water from their taps. Indeed, the respondents explained to me that they usually receive water during the night. Now, faced with this situation, suburb residents (largely white and middle-class) have mostly been able to come up with an individual solution either by drilling a borehole in their yard or, more often, by buying a water tank (with a capacity of up to 15,000 litres and a cost between ZAR 5,000 and 10,000) and connecting it to the pipeline and the in-house taps. In this way, although complaining about the status of service delivery in town and stating that the amount of water they receive from the municipality is not enough to meet their needs (especially if that includes gardening), suburb residents seem nonetheless relieved from the stress of not having access to a reliable source of water and this contributes to restrain them from making pressures on the municipality for better water services for all.

If coping with water shortages may ultimately be seen as a matter of individual capacity of storing water for personal consumption, then in Leseding residents (all black and mostly poor) cannot afford the luxury of a water tank and have to rely on more mundane containers, hence the much inferior amounts of water they are able to consume on a daily basis. When looking at the daily practices through which township residents have access to water, apparently trivial questions like: how many containers does he/she own? how big are they? how far from the communal tap does he/she live? does he/she own a wheelbarrow? become extremely relevant and can make the difference in a household's water provision. If the dependence on containers is already evident in Extension 1 and 2, where RDP houses are provided with in-house and yard taps respectively and residents have to be ready to collect water whenever it comes, that becomes all the more urgent in the other four extensions of which Leseding is composed, which are provided only with communal taps. Indeed, Extension 3, which dates back to 2000 and has only recently been officially recognized as a residential settlement, has five water tanks of 10,000 litres each, which are filled up (supposedly) every day by a municipal truck.⁹ Extension 4, which was built by the municipality in 2007 with the aim of relocating residents from

Extension 3 and where houses are provided with yard taps, which however are not connected to the reticulation system, has nine communal taps connected to the reservoir. Extension 5 and 6 are still regarded as “informal settlements” (even though, especially in Extension 6, people have been living here for 12 years) and provided with three communal taps and two water tanks respectively.

In these last four extensions, having access to water actually means waking up at 4am or 5am to start queuing at the tap, hoping that water will last until your turn comes. Thus, even though the tap is only a few minutes from home, collecting water (if one is successful) may take up to a few hours. Respondents were quite unanimous in pointing out that they stay without water for a few days every month, while sometimes they do not receive any water for a whole week, the situation worsening, in their perception, during the dry months. Although they may be able to get enough water on a daily basis (every day being different in terms of how much water is actually available), residents have to learn how to prioritize among basic needs such as drinking, cooking, bathing and washing, and how to employ as little water as possible in order to have a little bit of it for each use. Sometimes they feel even compelled to save some water for the day after, in case the taps are dry the whole day. In Extension 3 and 6 people also expressed concern about the cleanliness of water tanks and trucks, reporting a few episodes of sickness. More generally, residents perceive that it may not be good for water to be stored in plastic containers for a very long time, especially under the sun. When they cannot get any water for more days, residents from Extension 3, 4, 5 and 6 may go to Extension 1 and 2 to ask for water, under the (incorrect) assumption that, since people there have their own tap, their situation is far better than their own. However, this may produce tensions, as residents from Extension 1 and 2 may not be willing to share their water because they have to pay for it.

As already noted, residents in Extension 1 and 2 have access to individual water infrastructure such as in-house and yard taps, but that does not necessarily mean that water will flow through it, confirming a pattern affecting many rural towns in South Africa and countering official statistics on access to water in the country (Kings 2014). Notwithstanding the water shortages, water consumption in Extension 1 and 2 (as well as in the suburbs) is metered and residents receive a single municipal bill for the following municipal services: water provision, sewage treatment and refuse collection (electricity being pre-paid). According to the Manager Technical Services, the municipality would be happy to run water services according to commercial principles and to apply cost-recovery when setting water tariffs, but it refrains from doing so because it recognizes that affordability is a serious issue within the community of Leseding. Thus, water tariffs are organized in two blocks: for the first 30 kilolitres they consume, residents pay ZAR 8.12 per kilolitre, while any additional kilolitre costs them ZAR 13.72. Still, these tariffs are very high compared to those adopted by municipalities across the country (see Tissington et al. 2008 for an overview of 15 municipalities) and in fact, in the course of my interviews I discovered that while the rate of payment in the suburbs is 100%, this drops to 40% in the township. The latter data however need some qualifications. Indeed, while there are residents who state they cannot afford to pay anything for water, others are able to pay from time to time when they have the money to do so and then they do not necessarily pay the whole tariff, but a portion of it. Thus, although the municipality in Modimolle says it does not tolerate non-payment and is ready to react with the cut-off of services (with the exception of registered indigents), my research has shown

that people are able to negotiate with locally-based officials¹⁰ and find an (again, individual) agreement that safeguards them from immediate sanctions. Nonetheless, the municipality keeps record of non-payment and that is reflected under the entry “outstanding account” in the municipal bill. Even though in the past the municipality has cleared the debts accumulated by residents, people are still concerned about this aspect (whereby they can own between ZAR 1,000 and 30,000), especially as they say that the total amount keeps changing from month to month and even if they pay something that does not decrease.

As I said, notwithstanding the high cost of water, the municipality seems to be aware that there is a serious affordability issue in Leseding and for this reason they have translated the national Free Basic Water policy into a local indigent policy. According to this policy, residents who are not working or have a monthly income of less than ZAR 2,400 are expected to register with the municipality in order to receive 210 litres of free water per month. Now, this amount would translate into seven litres per person per day, which would actually become one litre if we take into account the average household size for Extension 1 and 2 (i.e. 5.7 members), a figure dramatically below the lifeline of 25 litres determined by DWA. When I asked explanations about this to the Indigent Clerk of Mabatlane/Vaalwater, he did not seem concerned at all and simply replied that the amount was so little, precisely because it was given for free. The policy is intended to help the community, but it cannot substitute for the duty of people to pay the municipal bill. Still, none of the respondents I interviewed in Leseding seemed to be aware of the existence of such policy and experiences in this regard were usually linked to promises made by the municipality or forms to be filled in, but with no outcome for the applicants. The Indigent Clerk confirmed that the application process may take a very long time and he also told me that the total number of registered indigents for the financial year 2013/2014 is 823, namely 5% of the local population. Again, this is a very little number compared to the combined percentage of residents unemployed or with no income, which is 30% (WDM 2013). Furthermore, it is important to remark that the continuous water shortages make quite difficult, if not impossible, to make sure that residents receive (at least) the “basic” amount of free water.

If we leave Mabatlane/Vaalwater to enter one of the private farms on the plateau (be they commercial, game, or simply second homes in the bush), we find that the situation with regards to water changes drastically. Even on those farms, which are located only a few kilometres from the centre of town, water is always enough, if not abundant, to meet the resident needs and neither owners nor workers living on the property have to struggle to get access to it.

Earlier in the paper, I remarked that it is important to note how in rural South Africa the rigid distinction between water for domestic and productive uses is not very relevant, as land owners are able to employ the water to be found on their property for multiple uses. Indeed, trying to focus only on the domestic uses of water on the farms of the Waterberg, for the purpose of comparing them with those in town, turns out to be an almost impossible task, first because water consumption on farms is rarely metered (although some owners keep some forms of records) and second, because the same source is normally used for more activities at the same time. The data I am presenting here therefore must be interpreted as broad estimates, which actually cover very different situations.

Like town residents, farm owners usually depend on boreholes for domestic water. Most boreholes on the plateau are not recent and have not been drilled by current owners, many of whom have bought their farms (and their water sources) in the 1980s or early 2000s. This also means that the majority of boreholes are not registered with DWA, as they qualify as “existing lawful uses” according to the National Water Act, 1998. Whereas land owners do not pay any specific fee to their municipality or DWA for the water they use for domestic purposes, they have to cover the running costs of extracting it from underground, namely: installing pumps, paying the electricity through which they operate them (more rarely diesel or solar energy), and maintaining the overall infrastructure. My respondents would note that that is quite expensive (especially the electricity bill), but none of them would say that he/she could not afford it.

The average amount of water that is extracted daily from boreholes located on a single farm on the plateau is 53,400 litres. Again, this is a very rough estimate, including farms that use borehole water only for household needs and others, which employ the same water also for irrigation, cattle, game and tourism services. It is also important to recall that such water supply is directed both to the house of the owner (or manager) and to the farm workers/staff members living on the property, whose water provision is a responsibility of the land owner (and not the municipality) and whose number is, again, very variable. For instance, commercial farmers in the Waterberg are progressively moving farm workers out of their land and for this reason, even on a farm of 1,700 ha their number can be as little as four. On the other side, some private nature reserves cover an area of more than 20,000 ha, have multiple lodges and thus employ up to 400 people. While it is possible to say that the water supply on the farms of the plateau is so plentiful, to be able to satisfy the needs of land owners, workers and tourists, it must be noted that some difference persists. For instance, whereas the owner’s (or manager’s) homes and the lodges are always provided with in-house water facilities (the estimated water consumption of a tourist being 250 litres per person per day), most farm workers (especially on commercial farmers) still have to rely on communal taps.

Before I proceed with a brief analysis of the political economy of the region and the way in which that affects how the residents of the plateau have access to water, Table 3 is intended to combine the data on domestic uses that I have discussed in this paragraph and to show the differences in individual water consumption according to the typology of settlement in which a person lives.

Table 3: Water consumption in the Waterberg

Typology of settlement	Water consumption (l/d/c)
Mabatlane/Vaalwater suburbs	195
Leseding Ext #1	26
Leseding Ext #2	46
Leseding Ext #3	32
Leseding Ext #4	26
Leseding Ext #5	27
Leseding Ext #6	22
Commercial farms	596
Game farms	888 ¹¹

Source: Data from interviews with 96 residents

COMPETING DEMANDS ON WATER IN THE WATERBERG

The aim of the previous paragraph was to substantiate my argument about the high levels of inequality that characterize access to water services in the Waterberg. In this paragraph, however, I would like to move beyond the limits that the very category of “water services” imposes when considering access to water in rural South Africa and look instead at water as a resource, whose allocation can ultimately be seen as the result of unequal power relations among competing users. Indeed, one of the reasons why Modimolle Local Municipality seems unable to increase the water supply for the town of Mabatlane/Vaalwater is that water resources are already allocated to other, more powerful, actors who are able to employ a public national resource as a private asset to their own advantage. Moreover, the current changes in the political economy of the Waterberg seem conducive to entrenching inequality in access to and control over local water resources. I will now briefly outline these changes in three sectors, namely agriculture, energy production and the “green economy”.

Notwithstanding the conversion of many commercial farms into game farms and private nature reserves, agriculture remains an important economic activity on the Waterberg plateau, the one for instance that offers the majority of employment opportunities to local people and migrants. Farmers are mostly represented by the Transvaal Agricultural Union (TAU) and have recently constituted a Mabatlane/Vaalwater-based group within the Mokolo Water Users Association. Although cattle farming is widespread in the area, the most profitable activity today is tobacco farming. This was introduced already in the late 1950s, but many of the current farmers started to move to the Waterberg (also from Zimbabwe) in the 1980s, favoured by the local climate and the soil and water composition. Tobacco and other irrigation farmers are, as already said, spatially concentrated along the Mokolo River and its major tributaries (Sterkstroom, Dwars, Klein Vaalwaterspruit).

The Mokolo River is thus an essential resource for farmers, who can extract from it as much as 1.5 Mm³/y of water on a single farm. The water rights, which were allocated to white farmers during the apartheid period have been secured to current farmers on the plateau under the category of “existing lawful uses” (RSA 1998) and since there are no black emerging farmers here, commercial farmers do not feel threatened by a process of compulsory licencing aimed at redistributing water rights to redress past inequalities in access to water for productive uses. What worries them, however, and creates confusion about the need of a “water licence” are the developments in Medupi, which I will discuss later. Also, what emerged from my interviews with farmers is the idea that water is something that rightly belongs to them by virtue of their ownership of the land and the fact that they have to pay a water fee to DWA (namely, ZAR 0,2/m³) is perceived as a great injustice. Indeed, because they have to pay what has been allocated to them and not what they actually consume, and because the lack of a water scheme makes the availability of water subject to variability, they question why they have to pay what looks to them as a service fee, when in fact they do not receive anything from the state. This perception, however, is based on a very narrow understanding of “public service”, namely one whereby one contributes only if he/she is going to benefit directly. Instead of seeing water as a public resource that is fair to share among residents, commercial farmers seem to ask: “Why should I pay for something that is already mine?”.

In 2012, the Waterberg hit the headlines nationally, as the Waterberg Coalfield, on the west of Lephalale, was identified as the last source of coal for the entire country. President Zuma even mentioned the development of infrastructure in the region as one of the next strategic plans to be realized in his State of the Nation Address 2012. This translated into the beginning of works for the expansion of the Exxaro coal mine in Grootegeluk and the construction of a new Eskom power station in Medupi. Once operational, Medupi will need 15.35 Mm³/y of water. Its water demand will thus be three times higher than that of other coal power stations, because of Flue Gas Desulphurisation (FGD) technology, namely a condition imposed by the World Bank (which granted Eskom a loan of US\$3 billion for the construction of the plant) to reach certain standards of environmental sustainability.

In order to supply water to these new industrial uses, DWA commissioned a feasibility study to the unit responsible for planning in the Limpopo Basin region and this resulted in the Mokolo Crocodile (West) Water Augmentation Project (MCWAP). This project is currently composed of two phases. Phase 1, which has already started and is expected to be completed by the end of 2014, provides for the construction of a new pumping station and 60 km of pipeline from the Mokolo Dam to Lephalale. The decision to allocate further water from the Mokolo River to industrial uses has been taken following the conversion of commercial farms upstream of the dam into game farms and the consequent reduction in irrigation needs. Even though the farmers around Mabatlane/Vaalwater should not be directly influenced by this augmentation scheme, the various studies carried out by DWA in order to verify and validate the existing water uses on the plateau have created some tensions among them and few of my respondents were of the opinion that DWA wants to take their water rights away and said they were ready to fight to defend them. The water from the Mokolo River however will not be sufficient to satisfy the needs of Medupi and for this reason Phase 2, which may start in 2015, depending on the availability of funding, will imply the abstraction and transportation of water from the Crocodile River near Thabazimbi to Lephalale.

What is interesting to note here is that, notwithstanding the fact that the National Water Act, 1998 declared human basic needs a higher priority than strategic uses (i.e. Medupi), the water allocation plans for the Mokolo River catchment did not take into consideration at all the needs of the local population of Mabatlane/Vaalwater. Thus, while “existing uses” are duly protected, no step is taken to improve conditions of water access for the “historically disadvantaged”. Furthermore, it remains questionable whose “public interest” is promoted by a megaproject, which favours the economic value of water (to the benefit of the South African mineral-energy complex, see Baker 2012) over its social value for local poor residents.

When the Waterberg started to be settled by European colonizers, its wildlife was progressively decimated through hunting first and then bush clearing for cattle grazing and crop production. In the 1980s, however, wildlife production started to be seen as a viable commercial enterprise and at the same time, the first conservation activities came into place (i.e. Lapalala Wilderness in 1981, Welgevonden Private Game Reserve in 1989 and Marakele National Park in 1994). Especially after the constitution in 2001 of the Waterberg Biosphere Reserve (WBR), a UNESCO-recognized reserve devoted to both the conservation and sustainable use of the biodiversity to be found around the Waterberg mountains range, eco-tourism has

boomed, to the point that a specific “Waterberg brand” is now being developed with the purpose of better marketing the services of the region to potential consumers.

Game farms and private nature reserves (most of which are also represented by the land owner association Waterberg Nature Conservancy) praise themselves for their reduced levels of water consumption compared to traditional farming and seem to be the only local actors concerned with threats of water “scarcity” in the area (even though on their farms, as we have seen in the previous paragraph, they usually enjoy water in abundance). What may be seen as problematic with these practices of “green economy”, however, is that given the almost exclusive focus of the Water Allocation Reform (WAR) process on agricultural uses of water, game farms may be able to play with the loopholes of the water legislation and claim that they employ water only for domestic uses (notwithstanding the provision of tourism and hence commercial services), therefore avoiding any form of regulation of their own water consumption and any payment of water fees. Furthermore, the fact that in a context where local residents struggle to have access to water, tourists (coming both from South Africa, especially Gauteng, and overseas) have plenty of access to it not only to satisfy their basic needs, but also in the form of amenities (quite interestingly, a “true” wild bush experience has always to be luxurious – think of pools and personal Jacuzzis) further enhances inequality on the local level.

CONCLUSION

The Waterberg represents a very good example of the messiness, which characterizes the notion of “alternatives” to privatization (McDonald and Ruiters 2012). Indeed, water service provision is formally public (i.e. regulated and operated by a state entity like local municipalities), but at the same time largely based on individual arrangements (i.e. drilling a borehole, pumping out of a river and installing a water tank). This ultimately derives from the fact that in rural South Africa access to water is dependent upon access to land, which is highly privatized, and water resources are subject to competing demands from different users.

In the town of Mabatlane/Vaalwater, where water services are public, but nonetheless subject to failures (especially water shortages), inequalities in water access at the micro-level (i.e. between suburb and township residents) are not perceived by the municipality as a problem to solve, as long as everyone is able to get a minimum amount of water (whether sufficient is open to debate though). Rather, private solutions to a common problem based on individual economic means are justified and even praised, as illustrated in an exemplar way by the following comment made by the Manager Technical Services: “Is like, if you can afford to buy a Mercedes-Benz and I cannot, what can I do about that? Unfortunately we cannot all be equal” (interview 30 January 2014).

Similarly, the fact that farm owners on the plateau do not suffer from any water shortages and that their daily water consumption may be up to 40 times that of township residents is not seen by the municipality as a matter of inequality, because their not being served by municipal services grants them a sort of different status as residents. Indeed, the fact that they have to materially provide water for themselves seems to justify the translation of a national public resource into a private property. This could also be seen as a serious failure in the process of local government restructuring and integration of rural areas after the end of apartheid (see Hart 2002,

2013). Specifically, the fact that Modimolle Local Municipality does not receive any payment for (domestic) water from such high-end users that would help it cross-subsidize water services for the poor in Leseding and cannot claim “private” water sources to meet the basic needs of the local population seriously hampers any progress towards equality and social justice.

Within this context, what does it mean that water in the Waterberg is “public”? And, perhaps more crucially, does it really matter? I agree in fact with McDonald and Ruiters (2012), when they argue that we need to problematize the nexus public/state and to further qualify the meaning of “public” per se. I think that for the Waterberg that would entail moving beyond a narrow understanding of “public” as a synonym of inefficient and corrupt (a perception shared by many of my respondents, especially land owners, who are eager to have as little relationships as possible with their municipality and the state), something that is good “just” for the poor, and embracing the idea that there are in fact universal entitlements of citizenship, like for instance access to water.¹² This in turn would imply recognizing that water resources belong to everyone and making their allocation a matter of political debate (as opposed to technical decisions). Only in this way, the conservation of unequal power relations could be challenged and social change aimed at greater equality and social justice be produced. And yet, for this to happen, it is crucial that water services remain “public” and that it is agreed that in a society characterized by structural and growing inequalities they shall work towards achieving equity.

Now, DWA, which would have the power to influence the process of water distribution on the local level and provide Modimolle Local Municipality with the legal tools it needs to tackle the problematic link land/water, has recently recommended the latter not to look for further sources of water, but rather to better manage the ones they already have. Indeed, instead of seeking the support of DWA in order to increase its water supply, the local municipality should act on the demand side, by implementing some serious conservation strategies and water-demand management plans. However, this would represent a very conservative turn, one that, to paraphrase the Gospel, would allow those who have water to continue enjoying it without limitations, while to those who are already suffering from the lack of it, it will take away even the little they have.

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NOTES

¹ This paper is based on an on-going period of fieldwork. Please, do not cite without the author's permission.

² I acknowledge that on the ground the name of the town constitutes a serious issue of debate. For this reason, I use the double name Mabatlane/Vaalwater when referring to present times, while I retain the old name Vaalwater when talking about the pre-2002 period.

³ Recall that the Transvaal was first an independent Afrikaner Republic (roughly from 1852 to 1902), then a Province of the Union of South Africa (1910) and finally a Province of post-apartheid South Africa, changing its name to Limpopo in 2003.

⁴ The very distinction between culture and nature is of course problematic per se (see Harvey 1996 and Smith 2010[1984]).

⁵ These are part of a public housing scheme launched by the Reconstruction and Development Program (RDP) issued by ANC in 1994.

⁶ For instance, 16% of the local population has no income, 14% is unemployed and 59% earns less than ZAR 38,000 per year (WDM 2013).

⁷ Recall that 1 megalitre = 1,000,000 litres and 1 kilolitre = 1,000 litres.

⁸ Furthermore, it does not take into consideration the productive activities in town, which employ municipal water.

⁹ To clarify, in Extension 3 and 6, water is available only a few hours per day because it finishes shortly after the municipal trucks have refilled the water tanks.

¹⁰ Modimolle is located 60 km south of Mabatlane/Vaalwater and for this reason, there are a few municipal offices also in the latter.

¹¹ As noted in the text, the amount calculated for commercial and game farms also includes some productive uses.

¹² Recall that in South Africa this is actually a constitutional right, albeit contested like in the Waterberg, where many people strongly opposed the idea of entitlements and think that everyone must pay for what they receive, and far from being universally implemented.