

# **Decolonising water access and allocation: A renewed effort to address persistent inequalities in the water sector**

Report to the  
**Water Research Commission**

by

**Hydrosoft Institute**

**WRC Report No. 2858/1/21**  
**ISBN 978-0-6392-0285-3**

**October 2021**



Obtainable from

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**Printed in the Republic of South Africa**

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# EXECUTIVE SUMMARY

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## BACKGROUND AND RATIONALE

This study situates water sector inequalities within the decolonial paradigm and locates the persistent inequalities as a sum result of coloniality. Coloniality explains the continued domination and exploitation of the 'previously colonised' by an invisible power structure, allowing the normalisation of colonialist practices in 'independent states'. As such, more than two decades of water sector 'transformation' have seen this sector remain riddled with racial inequalities.

The National Water Act (NWA), which earned a reputation as progressive legislation for providing water access rights to both nature and people, is characterised in this study as one of the main enabling tools for continued high levels of coloniality in the water sector. Very important transformation institutions, which were set to be implemented within six months of the passing of the NWA in October of 1998, still remain in their planning stages. The many clauses in the water legislation, which were dedicated to protecting water access benefits gained by white people during the colonial and apartheid eras, present the greatest obstacle to the transformation of the water sector.

While the NWA enabled a legislative environment that would protect water resources and build sustainability through its use, the benefits of this legislation are still unequally applied, generating a system continues to benefit a few white people. This has given rise to a state where at least 98% of water available to individuals for economic use would remain exclusive 'property' for white people under the water right called Existing Lawful Use (ELU). Like other forms of private property, the legislation also defines the colonial water access privileges which are maintained through the ELU provisions in terms of 'property' that is protected under Clause 25 of the South African Constitution. ELUs are to this day still actively being confirmed and recognised – worsening this predicament.

With numbers of ELUs exceeding that of new licences, inequalities will remain unless the ELU registrations are phased out or new legislation is put in place to repeal the provisions and address the legislative gaps that allow ELUs to exist in perpetuity.

In South Africa, addressing coloniality and remnants of apartheid faces unwavering challenges from a multitude of stakeholders who wish to preserve individual gains as well as other perceived benefits of the colonial and apartheid machinery. Understanding the controls used in the transition from apartheid to majority democracy provides the context for the compromised positions taken by the present-day government in efforts to reverse inequalities. The government has continued to run on western values and depend on colonial knowledge systems that are embedded in present day policies, legislation and established institutions. Similar governance and institutional circumstances have ensured that the same types of inequalities continue to dominate access to other resources – such as land. While land reform is currently receiving government attention, land and water reforms ought to be integrated, as access to land provides solid ground for a focus not just on domestic water for the historically disadvantaged but also water for economic empowerment.

This study proposes that the solution lies in addressing the problem through a decolonial process. Decoloniality unmasks coloniality that masquerades as well-intentioned programmes that are progressive. To address coloniality in the water sector, the application of decolonial theory focused on the issues of the inequalities resulting from colonisation and how they affect nations with a history of colonisation.

## **OBJECTIVES**

The study addresses the following objectives:

- I. Applying decolonial theory to investigate and understand the constraints in transformation of the water sector and the implications of the proposed changes to Section 25 of the Constitution.
- II. Developing a methodology for mapping out the progress made in decolonising the water sector – and more specifically – in addressing inequalities. In the methodology, decolonial theory will be applied to build the measures, weights and indices for measuring progress.
- III. Mapping out the progress made in decolonising the water sector, and building understanding of the factors leading to unsatisfactory progress in water sector reform.
- IV. Consolidating the understanding gained in earlier aims, including the linkages between the constraints and expected outcomes of water sector reform.
- V. Producing a final report that will inform the changes to water sector legislation and policies while accounting for the proposed constitutional changes affecting water.

## **STUDY APPROACH**

Unlike most water research studies, this research was not driven by the positivist paradigm, but rather pursued a decolonial approach. Decolonial theory is used in the study as a basis for victims of colonisation to reclaim their humanity while rejecting lived colonial legacies characterising the country's past, present and future. It was the intention of the researchers to seek new solutions to persistent water sector inequalities that motivated the use of a method that would seek to reveal the underlying problems as consequences of coloniality before seeking decolonial solutions. The study approach focused on introspection and investigations of the circumstances surrounding specific observed indicators of racial inequalities.

The investigations were initiated through desktop studies and literature investigations, and they revealed more insights into the nature of the problems surrounding water sector inequalities. Armed with this knowledge and information, the researchers went into the field to engage with water sector stakeholders. The engagements involved discussions and questionnaires being administered to various communities in Gauteng, Mpumalanga and Limpopo. Community members attempting to make a living out of water use were predominantly targeted, but other respondents were also approached and questioned during the process.

Further investigations targeted water sector stakeholders, experts and decision makers – with a preference for those who were involved in water for economic use. The stakeholder consultations included seeking and securing any available data and information which could be used towards addressing the project's aims, with the collected data and information then being analysed to understand the nature and state of coloniality.

Findings were mapped out using geographical maps and other graphics to present the information visually. An analysis of possible cause/effect as well as recommended solution scenarios was then drafted into this report.

## **SUMMARY OF KEY FINDINGS AND CONCLUSIONS**

Mapping inequalities as well as measures of redress tends to mask shortcomings in water sector transformation. This study observed that water sector institutions provide information highlighting progress in certain aspects of redress without interrogating the state of water access provision as a whole. Reform in access to water for economic uses is one case in point where the Department of Water and Sanitation (DWS) usually presents annual records of new water licences without discussing the extent of new ELUs which were confirmed in the same periods.

Investigation performed within the study revealed that ELU rights have maintained a greater share of dominance in defining racially defined water access patterns, in ways that make water sector reform or transformation very difficult to implement. Furthermore, the investigations revealed that the confirmation and recording of ELUs was still taking place while the authorities were grappling with transformation. The ELU database showed that in 2018, there were about 57 000 confirmed ELU records and by the end of 2020 this record set numbered well beyond 94 000. In comparison, only 21 600 water use licenses had been issued by the end of 2019 – the majority of which were issued to companies.

Considering that at least 98% of ELUs belong to white water users and that most of the companies securing licences are white owned, very little progress has been made in transforming the water sector. Confirmation of ELUs in the NWA allows for water access provisions which were adopted as early as 1912. These antiquated water rights definitions, in conjunction with the dynamics of white land ownership, are observed to be an important element in the continuation of coloniality in water access. It was observed in this study that only white people had a true claim to ELUs, given that they owned land in the past and continued to own land in the present. It was also noted that confirming ELUs this late after NWA was promulgated – in 1998 – can only worsen the inequalities of water access. The situation is further worsened by the fact that some of these recently captured ELUs involve providing access to large volumes of water, in some cases exceeding two million cubic metres for a single user.

While discriminatory legislation from past epochs has been replaced by new laws, inequality remains and the previously advantaged continue to be privileged. The study observed that the NWA made provisions for financial compensation in case of loss of ELU rights. In the NWA, the process of compensating those who are said to have lost an ELU privilege (partial or complete loss) is linked to the property clause – Clause 25(3) – in the Constitution. The NWA does not make similar provisions for any loss in the case of water use licences (WULs).

It was also observed in this study that the patterns of water access and the understanding of levels of water sector inequality are compromised by the limitations in the comprehension associated with groundwater in terms of its legislation, development and access. A comparison of groundwater provisions showed that the NWA hardly dealt with groundwater when compared to the Water Act 54 of 1956 (hereafter Water Act of 1956)

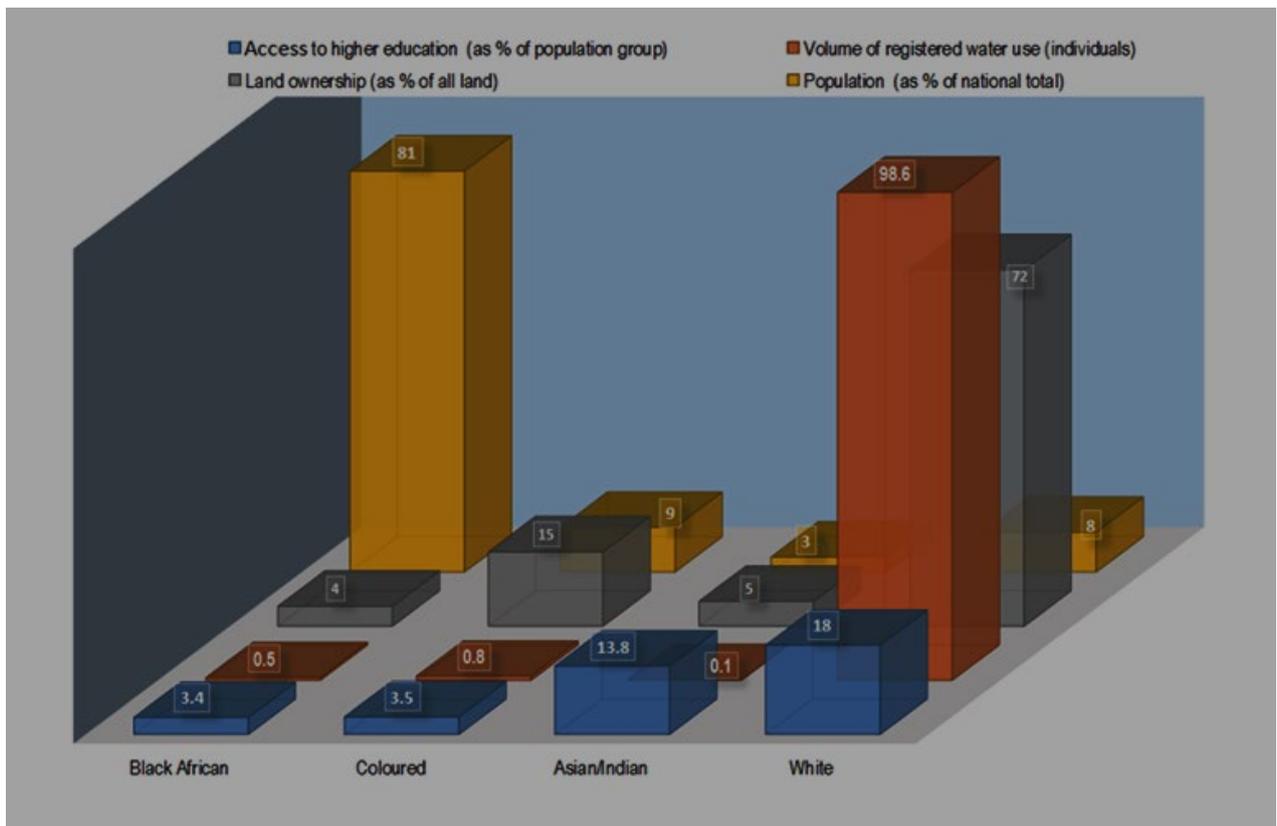
before it, which was more explicit. It was noted that while the Water Act of 1956 refers to groundwater in 24 instances – covering several clauses for numerous provisions – the NWA only refers to groundwater once, in Clause 139, where the need to develop a groundwater information system is recorded. This study therefore observed that there were additional areas of water access, such as groundwater, requiring deeper scrutiny to extend the understanding beyond the focus on surface water.

Coloniality in the water sector is, however, not only restricted to characteristics that are directly linked to the water sector, such as the quantity of accessible water, but is also manifested through a broader mix of variables, some of which may seem unconnected to the water sector (Figure i). This study found that the extremely high levels of inequality are rooted deeply in aspects of the social, economic, cultural, religious and other dimensions of our national fabric. It was also made apparent that the understanding of water access inequalities along gender lines is an important area that also requires a decolonial lens in its analysis. As such, this study recommends further exploration of the gender dimensions of coloniality in water access inequalities.

Coloniality of knowledge was also observed to play a major role in maintaining, as well as entrenching, water sector inequalities. While the DWS is the face of water provision in the country, it was revealed that there are several institutions playing a part in the development and provision of the knowledge employed in putting together the data and information as well as technical infrastructure required in water provision and access. A look at a key institution that is involved in water sector knowledge – the Water Research Commission (WRC) – showed that the patterns of research leadership, which translated into the map of water sector research publications, remains skewed in favour of white researchers. This study found that out of 2 503 total unique research publications made in the period of 1982 to 2019, the lead researchers were:

- white for 2 217 publications;
- black for 197 publications;
- Indian for 52 publications; and
- classified as 'other' for 37 publications.

This study proposes that the prospect of increasing the contribution of black researchers to water sector knowledge could be fading, given that the overall number of publications across all racial groups has consistently decreased in recent years: 2013/2014 saw 151 publications recorded, and this total has decreased annually to reach a low of 51 publications recorded in 2017/18.



**Figure i: Statistical representation of inequalities in access to land, water and higher education**

Informed by decolonial theory, this study concedes that South Africa's water inequalities are historical products of formal and informal racist and discriminatory systems that were created to serve a predominantly white segment of the population during the colonial and apartheid eras. Using the decolonial theory, the relationships between land ownership, water access and racialism are linked to the colonial project so that holistic solutions for dismantling its legacy can be found and implemented. This study then concludes that the development of water legislation in the form of the NWA, which protects apartheid privileges, did not take place by accident but rather as a result of skewed power dynamics in the negotiations to address racism and other apartheid ills.

The sentiments and writings of authors who followed the negotiation for the new South Africa and concluded that the newly 'freed' black people had to settle for political victory, while economic resources remained in the hands of white people, are what guide this study. This investigation also takes place at a time when questions are being asked about how those with economic power are influencing politics and governance. In other words, the assertion that the black government emerged with political power is also being questioned, since the political campaigns of those who end up with political power are financed by those who have economic power.

While the legislation seemed to promise equality and equal rights for all, this study points to contradictions within the legal tools, which made it difficult to address inequalities in water access without violating other sections of the NWA or the Constitution. The reality is that decades after the promulgation of the NWA, the racial inequalities in access to economic resources – including water – have hardly changed.

# ACKNOWLEDGEMENTS

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This project owes its completion to the various institutions and individuals who contributed generously to the study process, with provision of funding, data, information and guidance. The study team is especially grateful for the funding from the Water Research Commission (WRC), water use data obtained from the Department of Water and Sanitation (DWS), water use information from the Council for Scientific and Industrial Research (CSIR), research facilities from Nxt2u Pty Ltd, and literature on decoloniality from the University of South Africa (UNISA). The following individuals, who contributed to the project through their inputs and participation at different stages of the research, are acknowledged:

- i) The research team: Dr B Dube (Project Leader), Mr F Tasara, Mr A Malan, Mrs P Mukuyu and Dr RA Dube.
- ii) The members of the reference group: Mr L Loate, Ms Y Ramkissoon, Dr B Ncube, Prof. E Phaswana, Ms A Gcanga, Dr AV Munnik, Mr T Rasikhanya, Mr S Motlounge, Ms VI Molose, Mr S Skosana and Mr J Dini (Chairperson).
- iii) The various stakeholders, including several community members, who participated in the research field surveys in the case study areas.
- iv) The students and other research assistants who worked in the case study areas – especially Ms M Tsolo, Ms L Mdaka, Ms S Nyangiwe and Mr M Ntuli, who all also participated in the data analysis.

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# ACRONYMS

ACLA	Advisory Commission on Land Allocation
ADERN	Africa Decolonial Research Network
AFASA	African Farmers Association of South Africa
AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
Cf.	Confer/Compare
CIDA	Canadian International Development Agency
CMA	Catchment Management Agencies
CoGTA	Cooperative Governance and Traditional Affairs
COSATU	Confederation of South African Trade Unions
CSIR	Council for Scientific and Industrial Research
DBSA	Development Bank of Southern Africa
DFID	Department for International Development
DRC	Dutch Reformed Church
DWA	Department of Water Affairs
DWAF	Department of Water Affairs and Forestry
DWS	Department of Water and Sanitation
ELUs	Existing Lawful Users
EWN	Eyewitness News
FBW	Free Basic Water
GEAR	Growth, Employment and Redistribution
HDIs	Historically Disadvantaged Individuals
HIV	Human Immunodeficiency Virus
IBs	Irrigation Boards
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
MDG	Millennium Development Goals
NEF	National Empowerment Fund
NGK	Nederduitse Gereformeerde Kerk
NGOs	Non-Governmental Organisations
NGP	New Growth Path
NP	National Party
NPC	National Parliamentary Committee
NWA	National Water Act
NWPR	National Water Policy Review
NWRS2	National Water Resource Strategy
NWSMP	National Water and Sanitation Master Plan
PMG	Parliamentary Monitoring Group
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa

SACP	South African Communist Party
SAHO	South Africa History Online
SAHRC	South African Human Rights Commission
SALGA	South African Local Government Association
SANBI	South African National Biodiversity Institute
SAP	Structural Adjustment Programmes
STATSSA	Statistics South Africa
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VOC	Vereenigde Oost Indische Compagnie (Dutch East India Company)
WAR	Water Allocation Reform
WAS	Water Administration System
WRC	Water Research Commission
WSA	Water Services Act
WUAs	Water User Associations
WWF	World Wildlife Fund

# CHAPTER 1.: INTRODUCTION AND BACKGROUND

---

## 1.1 Introduction

African countries, especially the countries south of the Sahara Desert, are usually depicted as having no known history before the arrival of Europeans. Indeed, all discoveries listed for different objects and places of historical importance tend to be associated with early European settlers. However, prior to colonisation, humankind lived in Africa for thousands of years and during that time, many groups migrated to different locations around the world. This migration story, which is widely debated, has since received further confirmation using evolutionary bioinformatics. López, van Dorp and Hellenthal (2016) used molecular, genetic, genomic, and proteomic data to track the path of human evolution in time and space using the indelible marks left in the genome. It is the descendants of those who migrated that would later return to colonise Africa to sustain the resource needs of European countries (see Ocheni and Nwankwo, 2012; Johnston, 1899).

Prior to colonialism, African societies were designed according to objectives and orientations that did not include race. With colonialism, race was infused into the societal matrix as a major basis for colonisation. Wolfe (2006, p.387) explains how colonisation *“employed the organising grammar of race”*. The primary motive behind colonisation was to conquer in order to replace. Morris (1900, p.12) suggests that *“no nation has ever entered upon a colonial policy without the hope of strengthening its power, to add to its riches, to assure its stability, to increase its influence, and to augment the prosperity and welfare of its inhabitants”*. Colonialism was not a social, cultural or economic exchange but a brutal and violent exercise of what Marx (in Pepper, 1984) called *“primitive accumulation”*. Harvey (2003) agrees but refers to it as *“accumulation by dispossession”*.

In South Africa, as in most other African countries, coloniality is evidenced by the dominance of European ideologies and culture in its political, social and economic systems. While there are often sentiments of being an independent country, Turok (2018) states without compromise that *“South Africa remains a colonial country despite appearances of modernity and advancement”*, adding that *“South Africa does not fall into the conventional model of a colony established by an imperial power... But South Africa is colonial nonetheless”*.

Coloniality therefore challenges the approach to colonialism as a historical event that ended with the elimination of obvious political colonisation structures. Rather, coloniality posits that the systems and structures of colonisation have persisted in new forms that include modernity (Maldonado-Torres, 2007; Quijano, 2007). The modern global system, therefore, should not be mistaken for a ‘fellowship’ of formerly colonised nations but an indication of an ongoing colonial process (Adams, Estrada-Villalta and Ordóñez, 2018). Understanding the state of coloniality (in both local and international settings) helps to interpret the paradox of ‘independence’ in the former colonised states; that even after becoming democratic nations, they still live by the same ideologies, cultures and political systems of their former colonisers.

While there is little mention of the occupation of water or its colonisation, the occupation of land came with its resources (cf. Franco, Kishimoto, Kay, Feodoroff, and Pracucci, 2014), given that the settlers were mostly involved in farming and went about converting much of the natural grasslands and forests into agricultural plots and livestock farms. The white settlers, who had established a racially segregated system of governance that excluded African people, devised all sorts of creative initiatives to dispossess and drive them off their land – which was then distributed to white settler communities. The same logic was applied to water, culminating in legislative orders that defined access and allocation rights that were mired in racial inequalities.

## 1.2 Background

South Africa's water inequalities are historical products of formal and informal racist and discriminatory systems that were created to predominantly serve white populations during colonial and apartheid eras (Beck, Rodina, Luker, and Harris, 2016). The Reconstruction and Development Programme (RDP), an integrated and coherent socio-economic policy framework seeking to mobilise resources toward the final eradication of apartheid, notes the roles of colonialism, racism, apartheid, sexism and repressive labour policies in creating poverty and degradation (Republic of South Africa, 1994). Other scholars (cf. Madigele, 2017; Mhlauli, Salani, and Mokotedi, 2015) have corroborated this. Racial segregation and its ensuing inequalities resulted in economic, social, political, moral, cultural and environmental problems (Republic of South Africa, 1994). In the post-1994 era, measures have been taken to reform racially discriminatory or segregational water allocation and access (Beck, Rodina, Luker, and Harris, 2016).

However, glaring inequalities remain in the water sector 25 years after the emergence of democracy, significantly impacting economic growth and the wellbeing of the majority of South Africans (DWS, 2018a). Adamu and Yahaya (2016) observe that political independence without economic independence and social transformation causes socio-economic and political unrest over resources. Economic independence remains elusive in South Africa due to a 'controlled' transition from apartheid to democracy (Weideman, 2004; Kasrils, 2012) and neo-liberal policies (Morris, 2012) that used market rules and principles – including water privatisation – to the detriment of public welfare. Water reform reviews by the National Water Policy Review (NWPR) and subsequent reviews undertaken as part of various water reform strategies (DWA, 2014) attest to a struggle for the realisation of statutory and constitutional imperatives as well as other strategies for redressing inequalities.

Marcatelli (2017) regards persistent water inequalities to be a product of the normalisation and naturalisation of water inequality and post-apartheid neoliberal policies that promote accumulation in both the private and public spheres. This normalisation leans on various institutions that seek to retain the evils of colonialism and includes forcing the post-colonial state to bow to the yoke of colonialism through constitutionalism (Heydenrych, 2016). Ndlovu-Gatsheni (2012) considers post-colonial African states to be under the yoke of coloniality, an "*invisible power structure*" that can exist in former colonies to reinforce – through its custodians of coloniality – the manifestations of colonialism such as domination and exploitation (cf. Maldonado-Torres, 2007; Quijano, 2007; Mignolo, 1995). Ojo (2015), while making spirited attacks on the liability for the continent's under-development being on Africa's neo-colonial leadership, is not oblivious to the effects of slavery and colonialism in confining Africa to its present state. These views may appear theoretical in the absence of an

outline of the historical narrative showing either the strategic or coincidental intent, or linkages between slavery, colonisation and imperialism that bring colonised states to their modern conditions of servitude to former colonial masters (Dwayne, 1996).

The colonisation period was characterised by settler appropriation and expropriation of natural resources and labour (Adamu and Yahaya, 2016). Bainville (2017) views settler resource appropriation as the misunderstanding of indigenous land tenure systems or self-interest. Adamu and Yahaya (2016) concur that – in much of Africa – land was not held under title but as a communal resource to which all members had access. However, colonialism did not just end with natural resource expropriation. It also involved economic subjugation, destroyed African industry and made Africa rely on Europe for goods, thus severing the propensity for African industry to grow (Dwayne, 1996; Acemoglu and Robinson, 2010). And it went even further, destroying the identity, language, culture and spirituality, commercialising the lands of the colonised and thereafter inflating its price out of their reach – leaving them landless (Martin, 2006, in Adamu and Yahaya, 2016). South Africa has a documented history of resource appropriation and expropriation dating back to 1652 with the arrival of Dutch settlers at the Cape of Good Hope. As in other African countries, land (and water) was communally owned under the guidance or regulation of a traditional authority (Nkosi, 1998, in Adamu and Yahaya, 2016).

The governments devised various schemes to attract more Europeans to bolster the new white colonial nation of South Africa. McIndoe and Sophister (2005) report that, from 1820, various schemes were implemented to entice Europeans into migrating to South Africa, where they were assisted with establishment and the opportunity to earn better incomes than they could attract in Europe. In the twentieth century, the governments of South Africa, the Britain, and later on the apartheid government, intensified their effort to assist more European migrants through collaborations with companies, airlines, employment agencies, European governments and many other institutions (Brownell, 1977; Lekogo, 2008). In the later twentieth century, the colonialists in the country developed stronger ties with other countries with a similar history, to gain support in resisting internal and external pressure to relinquish power and allow democratic processes to decide on the country's future.

To cement colonial domination and be able to recycle the process after granting political autonomy to the colonised, the colonists used the disempowering colonial matrix of power (Ndlovu-Gatsheni, 2012). This involved control of the economy through dispossessions and appropriations of natural resources; and control of authority by displacing or supplanting local authority structures, imposing their external military superiority, and monopolising violence for acquiescence. They also controlled gender and sexuality by bringing western-centric values and education that destroyed indigenous knowledge and controlled subjectivity and knowledge by making Africans accept a status of inferiority and deficiency. A colonial matrix of power was used during colonialism and continued being applied long after the historical end of colonialism.

The coloniality referred to by Ndlovu-Gatsheni (2012) can be inferred from post-apartheid developments that scuttle redress of water inequalities. With the inevitable demise of apartheid, the main adversaries constituted under the then National Party (NP) government of De Klerk and the African National Congress (ANC) went into negotiations to reach agreements on a transitional post-apartheid state (Van Wyk, 2005). This, to Kelsall

(2018), was an *“agreement among powerful social groups that ends a conflict and sustains a set of institutions and a distribution of power that delivers an acceptable distribution of benefits”*. In Kelsall's (2018) understanding, this involves agreeing to end of conflict, sustainable agreements for a given time, an understanding of institutions that have to be protected, and an exclusion of irrelevant institutions. There is some reality to this conjecture, in that despite the post-colonial state's intention to reform water access and control, historically advantaged persons and institutions still have control. In South Africa, what made transitional post-apartheid state agreements enforceable were pre-arrangements with international financial institutions, capacity building, ideological influence and a constitution that is part of modernity (Heydenrych, 2016).

Some writers contend that democratic ideals for a multiracial society in addressing the effects of apartheid were compromised during these negotiations (Maharaj, 2008; Weideman, 2004; Kasrils, 2013; Seekings, 2014; Bond, 2014a), which resulted in neo-liberal policies that apply to the water sector as to other governance sectors. Bond (2016) and Kasrils (2013) observe that the apartheid government had an upper hand in the negotiations, which led to the skewed nature of negotiation outcomes that are now being accused of falling short of the people's expectations and even failing to meet the key provisions of the ANC's Freedom Charter. The international community, which was very active by providing support to the processes leading to the attainment of democracy, also influenced the negotiation outcomes. Ncube, Kanbur, Hirsch and Bhorat (2014) point out that the economic and social order that prevailed during the apartheid era of 1948 to 1994 has largely remained untransformed. The same system used in the past to exclude African people from building their own livelihoods by using land is still presently applied so that Africans can either avail themselves as workers or face starvation.

A major concern has revolved around the way the colonial government and strong corporates influenced decisions on economic, social, institutional, legal and other arrangements that would perpetuate the gains of whites while keeping Africans in circumstances that were similar to what they had endured during the colonial period. Wolpe (1995) expressed his worry about the lack of foundation in the reconstruction of the social and economic order. International financial institutions, as well as bilateral donor and world development agencies such as the European Investment Bank (EIB), the Development Bank of Southern Africa (DBSA), the United States Agency for International Development (USAID), the Canadian International Development Agency (CIDA), Britain's Department for International Development (DFID), the United Nations Development Programme (UNDP), and the World Water Council (WWC) influenced acceptance of the commercialisation of water in South Africa.

Many African households that did not have access to clean water prior to 1994 benefitted from basic water but have suffered from water disconnections since 2000 after failing to sustain payments for 'excess' water above the inadequate free basic water supplied to poor households (Miraftab, 2004). Inequalities are reinforced when African communities, including beneficiaries of free basic water, live in areas with poor infrastructure and pay more for service delivery, while predominantly white, affluent suburbs pay less. This includes the high-cost water from pre-paid meters in rural KwaZulu-Natal – as compared to the low-cost water in suburban Richard's Bay (Flynn and Chirwa, 2005).

This research study is thus informed by decolonial theory, an approach that unmask coloniality in water supply and access, making the colonised a questioner of the status quo and an agent for change. In the water sector, decoloniality unpacks and repackages mainstream colonial agendas commonly referred to as reformed legislation or policy. The choice of a decolonial epistemic perspective arises from a realisation that for several years now, there have been talks and efforts to address water sector reforms and transformation that have not amounted to anything significant except the placement of African bodies in positions of power, the rewording of legislations, and the reconstruction of the sector on a system with structural inequalities that have not been dismantled. The NWA and several other policies were put in place, but little change has materialised. This has especially been the case for the African majority who continue to experience limited access to water and consistently highlight their plight through service delivery protests.

Several other theories have been applied to understand the persistent inequalities, but these have not managed to shed adequate light on the problems. The Sustainable Livelihoods Framework and the Capabilities Approach, for example, are popular with the issue of resource access but tend to be limited in that they focus mostly on individuals' livelihood assets and capabilities without looking at structural inequalities embedded in societies emerging from colonial or apartheid experiences. The decolonial theory offers a lens through which water resources and legislations governing them can be viewed afresh. It also opens an understanding of the myths of a post-colonial or post-apartheid state (cf. Grosfoguel, 2009).

### **1.2.1 Study motivation**

Water laws and policies on water allocation and access in South Africa have undergone many changes. The country's politics, environmental and socio-economic contexts have predominantly influenced these changes. Tewari (2009) illustrates the changes in water policies and legislation in his portrayal of water rights against the backdrop of historical changes to politics, societal dynamics and environmental issues. Over the past four hundred years, South African water legislation and control changed from being under the influence of African Customary Law, to that of the Dutch, followed by the British, then the Afrikaner and more recently – democratic South Africa.

Of significance in the South African history of water is how water access has been used as an element for supporting both positive and negative causes through the maintenance of livelihoods, economic development, discrimination and even segregation during and after apartheid. The inequalities, as instituted through different government policies over several hundred years, have resulted in skewed water access that benefitted a few at the expense of the majority of stakeholders. Of particular interest to the current dispensation is the Water Act of 1956, which was implemented on the back of discriminative land legislations such as the 1913 Native Land Act (Act Number 27 of 1913). The Water Act of 1956, which gave water rights to those who were riparian to the water source, meant that the majority of the population, mostly black African people, could not have water rights as they did not own land. This scenario has prevailed even after a new water act, in the form of the NWA, was passed in 1998 democratic South Africa (RSA, 1998). The continued state of water access inequities is one of the motivations behind the water allocation reform (WAR) strategy (DWAf, 2008). The strategy states that equitable allocation, as provided for in the NWA, was stagnant – resulting in the perpetuation of the status quo.

Having replaced colonial governance, South Africa – like many other countries – is struggling to get rid of the structures and systems that perpetuate coloniality. Coloniality is the imperial design that continues to reign in various forms well after the once colonised country has proclaimed liberation or a majoritarian democracy. Such is the prevailing situation that different sectors fail to reach their targets for social justice for all, decades after the colonial government was removed from political power. In the water sector, the situation has not been very different. A bleak picture is presented by the Department of Water and Sanitation (DWS) in its policy position through the Water Policy Review (DWA, 2014). This policy review discussed the nature of the failures that have affected initiatives for improving water access and achievement of social justice.

In the 2014 Water Policy Review and the 2016 DWS Annual Report, the DWS stated that the transformation programmes were failing dismally and the status quo remained unchanged regarding who controls resources and how they are allocated at a local level (DWA, 2014). The DWS pointed to several statistics for processes that demonstrate limited success, including the process to transform irrigation boards to water user associations (WUAs). It was reported that only 21% of the irrigation boards had been transformed in the period of 1998 to 2014. Unlike the irrigation boards, the WUAs are designed to be inclusive, accommodating the participation and needs of all stakeholders in the catchment. According to the NWA, irrigation boards were mandated to submit proposals for transformation to WUAs within six months of commencement of the Act. In most of the country, said transformation of irrigation boards – envisaged to take place within the prescribed six months – has still not happened twenty years later. Having identified these shortcomings, the DWS tabled a Water Policy Review in 2014 (DWA, 2014) and a National Water and Sanitation Bill in 2015 (DWS, 2015a) to seek a revived effort to address the slow pace of transformation in the water sector. In the recent past, there have been several initiatives to address the inequitable distribution of water resources.

Several provisions and legal tools have been made available to address the inequalities. These provisions have been advanced through the Constitution, the NWA, the Water Allocation Reform (WAR) policy of 2008 (DWA, 2008) and the Second National Water Resource Strategy (NWRS2) (DWA, 2013). These legal and policy tools made provision for addressing past inequalities through emphasis on sustainability, justice and equity as central guiding principles for the protection, use, development, conservation, management and control of water resources. It is now common knowledge that the majority of South African parliamentarians view the Constitution as an obstacle in reforming historically unbalanced access to property, including water.

The National Assembly recently passed a motion to revise the property clause in the Constitution. On Tuesday 27 February 2018, the National Assembly debated and approved the motion to change Section 25 of the Constitution to address identified hurdles in property reform. These changes, apart from addressing land rights, have direct implications on reforming the water sector. In Section 25(8) of the Constitution, water is mentioned alongside land as another of the aspects to be reformed in addressing justice and equity issues that came about due to past discriminative legislations.

Though set in legislation, reform processes are having very limited success and are viewed by others as not being in the best interests of the country's economy and environmental sustainability. Movik (2009; 2012) argues that an equitable redistribution of water has been viewed as a threat to both the environment and the

country's economy and hence there is a need to tread carefully. In a Department of Water Affairs and Forestry (DWAF) water reform position paper (DWAF, 2005), the then minister of Water Affairs and Forestry indicated the need to minimise impacts on existing users while cautioning against allocating water to those without the capacity to use water productively. The reform process is meant to benefit historically disadvantaged individuals (HDIs) who, in many cases, have no capacity to use water productively due to historical circumstances that positioned them as such, as well as the limitations in the interpretations of 'productive' water use.

Legislation, which includes the Constitution (RSA, 1996), the WAR strategy (DWAF, 2006; 2008) and the second National Water Resources Strategy (NWRS2) (DWA, 2013), have clauses that protect the interests of existing users in ways that constrain the redistribution process. This can be attributed to the fact that decision making on natural resources such as water is a process that takes place in a wider power context where some groups have greater access to sources of power and entitlements (Lukasiewicz and Baldwin, 2014) and thus have stakes informing legislature. The proposed changes to Section 25 of the Constitution are set to improve the prospects of reforming the water sector if a sound understanding of what must be addressed is accounted for. It is within this prevailing state, which has not yielded the expected results, that transformation processes are motivated to apply decolonial theory to drive a transformation process that is informed by the understanding that the same knowledge and institutional strategies that informed colonialism cannot be used to transform a post-colonial state and build social justice for all.

### **1.2.2 Study objectives**

The study objectives were set up as follows:

- I. Apply the decolonial theory to investigate and understand constraints in transformation of the water sector and implications of proposed changes to Section 25 of the Constitution.
- II. Develop a methodology for mapping out the progress made in decolonising the water sector and more specifically in addressing inequalities. In the methodology, decolonial theory will be applied to build the measures, weights and indices for measuring progress made.
- III. Map out the progress made in decolonising the water sector, building understanding of the factors leading to unsatisfactory progress in water sector reform.
- IV. Consolidate the understanding gained in earlier aims – including the linkages between constraints and expected outcomes of water sector reform.
- V. Produce a final report that will advise changes to water sector legislation and policies while accounting for proposed constitutional changes affecting water.

### **1.2.3 Study approach**

The investigations and consultations for the study are informed by a critical paradigm. Research paradigms describe the philosophical assumptions that inform researchers' worldview about the nature of social reality (ontology), their way of knowing (epistemology) and the ethical value systems (axiology) they uphold (Patton, 2002). There are three basic research paradigms that were identified: positivist, interpretivist and critical theory.

Proposed by French philosopher Auguste Comte, the positivist paradigm is understood as defining a worldview that is grounded in scientific methods of investigation (Kivunja and Kuyini, 2017). The interpretivist paradigm is focused on understanding social life and constructions of meaning in given social contexts (Neuman, 2014). And the critical theory paradigm is one in which social activities are understood within their social context and the lifeworld of the participants (Ngwenyama and Lee, 1997, p.157). In other words, the critical theory paradigm recognises societal structures and power relations, as well as their contribution to oppression and how that contribution can be alleviated (Kivunja and Kuyini, 2017).

Water research in the country is understood to have been mostly driven by the positivist paradigm, which Meissner (2017, p.14) reported as having been in use since the establishment of the WRC in 1971. The positivist paradigm is mostly used in the natural sciences and has been criticised by the critical paradigm for *"being narrow, antidemocratic, and non-humanist in its use of reason"* (Neuman, 2014, p.110). Smith (1999, p.42) also added that with positivism, understanding is reduced to issues of measurements where the focus is on procedural problems. The critical paradigm, on the other hand, *"situates its research in social justice issues and seeks to address the political, social and economic issues, which lead to social oppression, conflict, struggle, and power structures at whatever levels these might occur"* (Kivunja and Kuyini, 2017, p.35).

Very often, previous study approaches inform the approaches adopted for new studies. The decolonial perspective had, however, not been applied to water and the critical analysis of its allocation and access. As such, the combination of the critical and decolonial approaches may not sit well with those accustomed to the positivist paradigm of the natural sciences. The decolonial approach is critical of the *"hegemony of Eurocentric principles in academia and contests concepts of universal reason and scientific rationality"* (Ramos, 2015). This does not, however, mean that the study completely rejects methodological structures of identifying case study area(s) and sampling participants, or using well-defined data collection techniques, etc. The decolonial approach requires that the research process be a reciprocal learning process where communities and researchers engage on the issues rather than making the process a data extraction exercise (cf. Arsenault, Diver, McGregor, Witham and Bourassa, 2018).

An understanding of the difference in approaches is required to avoid methodology becoming a 'straitjacket' one needs to wear to discover knowledge (Ndlovu-Gatsheni, 2017). Discovering and generating new knowledge should be viewed as being more important than adherence to methods (cf. Ndlovu-Gatsheni, 2017, p.188), which may be inappropriate or irrelevant for application in some contexts (Laher, Fynn and Kramer, 2019, p5). Ramos (2015) argues that western academia has put forth an idea of the knowledge they produce and disseminate as *"neutral, authoritative and scientific"*. This kind of thinking is upheld today, by not only westerners but also those that through the western teachings have branded themselves as natural scientists who view social scientists and their way of knowing as 'other'. Decolonial thinking acknowledges multiple ways of knowing. Coloniality of power thus manifests itself through the rejection by westerners of other ways of knowing that should otherwise be within their geography of reasoning.

The approach pursued in this study relied on introspection and investigations of other perceptions to appreciate the circumstances surrounding specific observed indicators of inequalities. This approach is described by one of the project steering committee members – whose interpretation of the study approach could be found in his

written review submissions – when he said, *"now this study is a departure, a necessary one, from the culture of positivist research that dominates the WRC. This departure reveals opportunities presented by critical and interpretivist research in seeking solutions to challenges in water resource management"* (Motloun, 2019). By taking a decolonial epistemic approach, the researchers further sought to reject the reproduction of 'dominant' research methodologies in a work that seeks to privilege alternative ways of reporting research. As noted by yet another steering committee member, *"who the inquirer is, is important to the type of output that is generated and put in the public space"* (Phaswana, 2019).

The research process involved the following stages:

### **Stage 1:**

Literature investigations, desktop studies and consultations with stakeholders to expand the project understanding as part of the project's inception. This stage also entailed the investigation of available literature to interpret the understanding of the colonial nature and coloniality in the water sector. Information sources on the progress made towards addressing coloniality were established. This stage also involved initial investigations of the limitations identified in Section 25 of the Constitution.

### **Stage 2:**

Methods for measurement and mapping the progress made in addressing inequalities were investigated and developed based on knowledge gained from literature investigations and consultations. Methods used in transformation programmes were relied on for the measurement of progress made in inequality redress in the water sector. The investigations were based on the appreciation that transformation as discussed in literature has not always been a process that dealt with decolonisation. The methods used in mapping progress relied on past and new knowledge while appreciating the project intentions of determining progress made in decolonisation rather than just transformation. The development of mapping methods was influenced by understanding that decolonial theory has never been previously applied in the water sector. As such, measurements of transformation progress used so far have not always been concerned with removing the results of many years of colonisation in the water sector.

### **Stage 3:**

The mapping process was a result of the application of a decolonial lens to analyse how the state of the water sector changed to where it is now. This was done with an appreciation of an ideal state in which social justice is fully achieved for all in the sector. This activity also investigated and interpreted the meaning of an ideal, just and equitable state of water access using the decolonial theory and considering the proposed changes to Section 25 of the Constitution. The investigations in this stage involved measuring, mapping and/or interrogating several variables in the water sector which showed inequalities.

The variables covered included the following:

- Water use registrations including ELUs.

- Water use licensing statistics.
- Volume of water use according to racial groups.
- High volume water usage statistics and geographical information of users.
- Potable household water access statistics.
- National water access backlogs.
- Lawful water use compared with water access backlogs.
- Distribution of water services disruption protests.
- Water services interruption statistics.
- Distribution of households with water inside their dwelling, by population group.
- Statistics of the distance that household members have to travel to reach the nearest water source.
- Statistics of individual land ownership by race.
- Demographics of WRC lead researchers since 1982.
- Statistics of water research projects initiated and finalised.
- Statistics of annual totals of lead researchers from 1994 to 2017.
- General water research publication statistics.
- Percentage distributions of students attaining degree qualifications.
- Consolidated statistical analysis of inequalities in access to land, water and higher education.
- Progress made in addressing the colonial nature of water access through legislation.
- State of customary law in water access and provision.
- Roles of misinformation, miseducation and propaganda in water access.

#### **Stage 4:**

The understanding gained in the literature investigations and desktop studies, the mapping methods and the results of the maps were consolidated and interpreted into a project final report.

#### **1.2.4 Ethical considerations**

Ethics play a vital role in the practice of social research (Babbie, 2011). There are issues that researchers must consider when carrying out studies with human subjects. Holloway and Wheeler (1995) mention informed consent, protection of the dignity and privacy of research subjects, voluntary participation and protection from harm. Research is often intrusive (Babbie 2011, p.67), therefore researchers and research assistants in this study had to take care to obtain participation consent in writing from identified participants. Anybody below the age of 18 was not considered for potential participation, as their consent might not be very well informed due to their age. All participants were informed that their participation was voluntary. They could therefore choose to participate or not, and if in the middle of the interview they felt they did not want to continue, they were free to stop the interview. Participants were also informed that besides contribution to knowledge, their participation would have no benefits to them as individuals. They were also briefed about the absence of risk in taking part in the study, that any personal information they divulge would be kept private, and that no names would be used in the reporting of study findings.

### **1.3 Report structure**

The report is laid out into eight chapters:

Chapter 1 covers the background, motivation, methodology and report structure.

Chapter 2 describes the concept of coloniality as well as decolonial theory in general and in the context of the water sector. It discusses decolonial theory and its manifestations in the water sector – especially where water is accessed and utilised for economic use.

Chapter 3 discusses the establishment of a water sector that is riddled with racial inequalities. This chapter also discusses the link between the local water sector and a Eurocentric governance system that did not acknowledge African people as worthy of recognition in legislation addressing national and individual economic interests.

Chapter 4 explores the approaches in measurement and mapping of inequalities. Measurements of transformation are discussed as the closest one could come to mapping redress of inequalities to address coloniality. The chapter acknowledges an absence of approaches that acknowledge and are directly linked to decoloniality. Limitations of this study are also discussed in this chapter.

Chapters 5, 6 and 7 present findings on the mapping of physical and non-physical characteristics of coloniality in the water sector. The findings are informed by feedback from investigations in the case study areas, consultations with water sector stakeholders, and institutional inputs.

Chapter 8 concludes the report and offers recommendations on how water sector inequalities can be addressed in the context of decolonial theory. Suggestions for further research are also included in this chapter.

# CHAPTER 2.: COLONIALITY AND DECOLONIAL THEORY

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## 2.1 Coloniality as a precursor of inequalities

Decolonial theorists (Adams, Estrada-Villalta and Ordóñez, 2018; Oyedemi, 2018; Maldonado-Torres, 2007; Quijano, 2007; Perez, 1999; Mignolo, 1995) summed up the term 'coloniality' in general as characterised by an *"invisible power structure"* that exists in previously colonised spaces to reinforce the traditional ills of colonialism (domination and exploitation) within all spheres (political, social and economic) of interaction. Coloniality allows for the normalisation of the very concepts and practices of colonialism in these *"supposedly independent"* countries. According to Adams et al. (2018), coloniality manifests in political systems that normalise dispossession of the indigenous people and establishment of colonial institutions managed by *"post-colonial custodians"*.

The decolonisation of Africa took a long time and was fought for in different ways, resulting in colonisers in some former colonies being pushed out of the colonies while in others, colonisers stayed as part of various forms of negotiated reconciliation. Decolonisation did not, however, herald freedom in its absolute sense for the ex-colonised. Ndlovu-Gatsheni (2013a, p.66) argues that the decolonisation *"process was never completed"* and the disempowering colonial matrix of power is obscure and hidden, preventing Africa from reaching/achieving its true potential. Rather than viewing decolonisation as an end in itself, decolonisation should instead be viewed as a *"terrain of illusions of liberation and myths of freedom"* (Ndlovu-Gatsheni, 2013a, p. 66). Bulhan (2015) goes further and pronounces that colonialism did not end. He calls the latest/current stage of colonialism 'metacolonialism' (similar to coloniality, with an emphasis on colonial exploitation and oppression masquerading under the guise of globalisation). According to Bulhan, metacolonial forms of colonialism show themselves through thoughts and behaviours of the colonised, thereby affecting their socio-political, economic, cultural and psychological systems (Bulhan, 2015).

### 2.1.1 The characteristics of coloniality

#### 2.1.1.1 Power dynamics in coloniality

To characterise the state of coloniality in different settings (within former colonised states), the seminal theory of power as defined by Quijano (2000; 2007) is very relevant. According to Quijano (2000; 2007), coloniality manifests as a model of power on three main axes – ideology creation, exceptionalism of culture and the establishment of an economic power structure through labour and resource control on the basis of the global market system. Based on this premise, the state of coloniality in Africa and beyond manifests as both an 'experience' and a 'legacy'.

As an experience, coloniality can be said to be totalising (Oyedemi, 2018), as it manifests in all spheres (political, cultural and economic). Racialisation (invention of race), for example, was a core trait of colonialism (Quijano, 2000; 2007), that saw the colonised being forced into the position of subordination – and their natural human traits being regarded as inferior to those of the 'white man' (Oyedemi, 2018).

Coloniality has also been described by Maldonado-Torres (2007, p.243) along the matrix of power dynamics. Maldonado-Torres points out that coloniality is the "*long standing patterns of power that emerged as a result of colonialism, but rather define culture, labour, intersubjective relations, and knowledge production well beyond the strict limits of colonial administrations*". While the removal of colonial rule is to be understood as a decolonisation process, coloniality, on the other hand, is that which survives the withdrawal of colonial rule, and survives in the form of culture, self-image, aspirations and ideas about modernity, etc. (Ndlovu-Gatsheni, 2013b; Reyes, 2015, p.3).

#### 2.1.1.1 Colonial mentality

David and Okazaki (2006; in Decena, 2014: 9) also describe the haunting of the mind using the term 'colonial mentality'. This, they say, is a state where people's minds have been "*conditioned to attach more importance to the values of dominant culture over one's own*" (David and Okazaki, 2006). It also manifests itself in what Speight (2007; in Decena, 2014) calls "*internalised racial oppression*" whereby the "*dominant group's attitudes, beliefs and values*" replace those of the oppressed (formerly colonised people) who feel cultural and ethnic inferiority, cultural shame and a form of colonial debt (Decena, 2014, p.10). The idea that the colonised should be grateful to the colonisers for saving them was also expressed in a number of tweets by former leader of the Democratic Alliance, Helen Zille, resulting in the statement being regarded as incorrect and offensive by other politicians, including those in her own party (Al Jazeera, 2017).

#### 2.1.1.2 Racial matrix of coloniality

Race is at the centre of coloniality, as it is used as an organising principle, with one race viewing itself as superior to the other(s) and all else falls into order as prescribed. Internalised racial oppression has also been expressed as the coloniality of being (Ndlovu-Gatsheni, 2013b). In this concept of the coloniality of being, whiteness is viewed as 'it' while blackness is 'thingified' and commodified, with its value being disregarded (Ndlovu-Gatsheni, 2013b). Wolfe (2006), however, argues that 'race' is not the primary focus (of elimination) of the coloniser, access to territory (land and water) (cf. Bulhan, 2015). Coloniality thus allows for the characterising of Africans as 'black' and as people without skills and unsuitable for a share of available resources – of which water is one. Decoloniality recognises this while other social theories that claim universality fail to recognise that African people in South Africa had no privilege to access water and use it for economic gain for more than 300 years.

#### 2.1.1.3 Coloniality of knowledge

Colonisation brought with it the misleading concept that white European men were the custodians of knowledge (Grosfoguel, 2010). The pursuit to control knowledge came from the European interpretation of their role as Christians, with the control of knowledge in western Christendom belonging to western Christian men, who shared the belief that they were the only beings who were the direct guardians of God's knowledge

on Earth. Grosfoguel (2010) goes further to point out that the Europeans also identified other whites who did not share the alphabet as inferior and a people without a history, which they used as justification for their discrimination.

It is important to understand how knowledge is used as an imperialist tool and who is allowed to generate knowledge and for what purpose. Those who have access and opportunities to make their ideas and ideologies available for public consumption put certain ideas and ideologies into public spaces through, *inter alia*, the media and published work. An example would be information that explains the so-called under-development of Africa. Dependency theorist David Fieldhouse, for instance, argues that commodity exports from sub-Saharan Africa after independence had no impact on the region's economic (under-) development but instead blames it on policies adopted by the "*new rulers of Africa*" (Collins, 2017 p.34). Decolonial theory, however, seeks to unravel coloniality due to knowledge among other characteristics that influence the understanding that can be achieved by the colonised. Ndlovu-Gatsheni (2013, p.72) notes that the coloniality in knowledge was also responsible for denying "*African leaders the policy space to chart any autonomous economic or political trajectory*".

Knowledge can be used to sustain vested interests. It has been argued that governments are viable due to their dependency on the "*control and monopoly of knowledge in a specific area*" (Nelkin, 1975). How governments manage to cheat their own people is through, for example, working with the so-called experts, usually those from the colonial past or their students who manoeuvre their way into the system of power. An example would be the bankers of the Development Bank of Southern Africa (DBSA). In the words of Bond (2014a, p.85), the DBSA, "*which allegedly 'transformed' itself during the late 1980s from designer of Bantustans to self-styled World Bank junior partner and vanguard – managed to place its leading policy expert on the RDS (Rural Development Strategy) drafting team (as final editor), along with a staff person of the Land and Agriculture Policy Centre (itself an institution of neoliberal ideological orientation)*".

Colonialism and coloniality have also dealt a heavy blow to African realities and identities by allowing the dominance of the coloniser's reality to overshadow the worldview of the colonised. This is the case with the value of land and water to the indigenous African. Mmatshilo Motsei has put forward that the relationship between Africans and their land transcends beyond the physical, as from birth, land is a spiritual asset and represents economic livelihood (Motsei, 2018). Oestigaard (2009) has also put forward the thought that "*water is not only a physical substance, biological necessity or scarce resource, but also an intrinsic part of people's identities, cultures, worldviews and religious perceptions of themselves and the Otherworld or the life thereafter*". Speculative, undated and unsubstantiated narratives that therefore seek to paint Africans as environmentally unconscious are colonial onslaughts meant to further alienate them from nature and themselves.

The uprooting of African ways of knowing and African ways of being to replace them with the coloniser's ways of knowing constitutes a strongly entrenched form of coloniality of knowledge that is difficult to escape for the colonised. Once uprooted, African ways were immediately replaced with colonial ways, as explained by Jan Smuts (cited in Mamdani, 1996, p.5):

*The political system of the natives was ruthlessly destroyed in order to incorporate them as equals into the white system. The African was good as a potential European: his social and political culture was bad, barbarous and only deserving to be stamped out root and branch [...] his native institutions were ruthlessly proscribed and destroyed. The principle of equal rights was applied in its crudest form, and while it gave the native a semblance of equality with white people, it destroyed the basis of his African system which was his highest good (Jan Smuts, as cited in Mamdani, 1996, p. 5).*

In the past, political, socio-economic and environmental development issues have privileged western thoughts placing them on a universal pedestal. However, thinking has now shifted to the local rather than the global, so that African problems and development efforts are viewed from within rather than outside – hence the decolonial turn.

### **2.1.2 Decolonial theory**

Decolonial theory is an anticolonial theoretical framework that challenges imperialist and colonising practices of the past and the present. It is not a singular theoretical school of thought, *“but a family of diverse positions that share a view of coloniality as the fundamental problem of the modern age”* (Maldonado-Torres, 2011, p.2, and Ndlovu-Gatsheni, 2013a, p. 15). The theory is also transdisciplinary in nature and draws from theorists emerging from multiple disciplines (Reyes, 2015, p.166). Decolonial thinking has a long history that dates back many decades with its contemporary thinking being led by Latin American and Caribbean scholars who have also promoted scholarship on modernity. In South Africa, the subject began to develop its roots just after 2010.

The theory has been championed by scholars at various South African universities, with the University of South Africa (UNISA) taking a leading role in promoting it. The establishment of the Africa Decolonial Research Network (ADERN) at UNISA has placed it in a central position when it comes to directing the developments in decolonial theory in the country. The Modernity/Coloniality group reinterprets the relationship between capitalism and race, arguing that *“race was central to capitalism and that capitalist accumulation could not be understood without attention to the production of racial hierarchies”* (Mendoza, 2016). Mignolo adds, *“modernity, capitalism and coloniality are aspects of the same package of control of economy and authority”* (Mignolo, 2007, p.162).

Decolonial theory identifies alternative narratives from the perspective of the colonised and their experience of slavery, imperialism, colonialism, apartheid and neo-colonialism (Mignolo, 2000). The theory challenges the now seemingly universal western or Eurocentric traditions and historical narratives (Bhabha, 2014) of modernisation, globalisation and the notion of ‘universal’ that reduces history and existence to exclusively western perspectives. Challenging this conventional universal thought involves the pursuit of *“separatist trajectories or parallel interpretations”* of reality (Bhabha, 1994) that enable the colonised to identify and say who they are, rather than to be told who they are. The assumed superiority of the west through advances in technology and knowledge development is questionable when using alternative historical sites and different explanatory models (Bhabha, 1994).

There have been other theories such as Marxism that have been applied as self-emancipating methods for the oppressed. Mignolo (2007) however, differentiates between Marxism and decolonial thinking. He points

out that while Marxism is a critical and liberating project, its focus was on Europe, and it is based on the domination of people perceived to be of a lower class within a *“fairly homogenous European community”*. Decoloniality, on the other hand, recognises a hierarchical perspective to humanity that justified political subordination of other groups of people based on gender, race and other differences. Marxism can therefore be incorporated into the decolonial ideology and not the other way around, since the colonial matrix of power organises humanity on a broader range of axes than just class. The colonial matrixes identified by Quijano (cited in Ndlovu-Gatsheni, 2013a, p.37) are the *“control of economy; control of authority, gender and sexuality and control of subjectivity and knowledge”*. Mignolo argues for decoloniality as a means of *“working towards a vision of human life that is not dependent upon or structured by the forced imposition of one ideal society over those that differ, which is what modernity/coloniality does and, hence, where decolonisation of the mind should begin. The struggle is for changing the terms in addition to the content of the conversation”* (Mignolo 2007, p.459).

Eze (2015, p.408) contends that *“African intellectual history has its provenance in apologetics”* and perhaps rightly so. Africa has had to defend itself and its position using the knowledge systems, theories, ideologies and principles of the oppressor that masqueraded as universal and this has only made Africa look apologetic. The use of European theories such as Marxism to seek solutions to the colonial problems of Africa is arguably one of the worst shortcomings of the African intellectual. Decoloniality unmasks coloniality and calls for its resistance and destruction (Ndlovu-Gatsheni, 2013b). It takes apart taken-for-granted notions of culture, linguistics, knowledge, modernity, development – including civilisation – through a deconstruction process that seeks to redefine the destiny of the survivors of colonisation.

Cornwall (1997, p.10) defines deconstruction as *“the principle of taking apart taken-for-granted assumptions to explore the contradictions on which they are based”*. In decolonial thinking, this makes the formerly colonised individual a questioner or agent (Maldonado-Torres, 2016, p.8), as they unpack and then repackage colonial agendas commonly packaged as mainstream thought, science or facts. An African study that employs decolonial thinking thus studies Africa as a product of its colonial past. It seeks to deconstruct the interpretation of events by shifting the *“geography of reason from the West [...] to the ex-colonised”* (Ndlovu-Gatsheni, 2013b).

In Wai's work on the *Ideology and the ethos of reform in China*, he discusses deconstruction as a concept pertaining to the clearing and complete destruction of past models (social, political or economic ideologies) in order to make way for reconstruction, which is the ushering in of new models (Wai, 1994, p.33). He further argues that that *“constructing a new model out of the debris, despite the unpredictable challenges and possible setbacks, is a logical and constructive way to create something new”* (Wai, 1994, p. 33). Cabral suggests the same by stating: *“We are not interested in the preservation of any of the structures of the colonial state. It is our opinion that it is necessary to totally destroy, to break, to reduce to ash all aspects of the colonial state in our country in order to make everything possible for our people. The masses realise that this is true, in order to convince everyone, we are really finished with colonial domination in our country”* (Cabral, 1973, p.83). This understanding provides room for the analysis of processes in the present that may be built on ideologies of the past (reform rather than reconstruction), thereby enabling a seamless transition into the future.

## **2.2 Manifestation of coloniality in the water sector**

### **2.2.1 The early control and colonisation of water**

The decolonisation discourse shows a wide range of the signs that reveal that not only “*polities, economies and cultures, but also lands, waters, bodies, identities, emotions and minds are colonised*” (Runyan, 2018, p.8). The focus of this study is on the colonised water (and land) of South Africa. The control of water and ultimately its colonisation stems from the very reasons the Dutch settlers set foot in South Africa. It was the need for water to replenish the ships belonging to the Dutch East India Company (VOC) on their route to trading ports in the Far East that brought the early settler ships to dock on the South African coast. It is reported that what started as a refreshment station at the Cape grew into a VOC company garden run by released VOC servants (the Free Burghers) in 1657.

Later, VOC servants, including a contingent of slaves of various ethnicities as well as free (unenslaved) local people, would also be permanently settled there. By 1795, when the British took over control of the territory for the first time, the establishment covered an area of almost 285 000km<sup>2</sup> with a population of around 50 000 (Fourie, 2012). In the late 1650s, the Dutch began to control the streams in Table Bay Valley in Cape Town through a series of rules called *placcaets* (Tewari, 2009). This was the start of the use of legislation to control and dispossess the local people of water resources. Over time, the Dutch and other Europeans would spread to take over the lands covering most of what is present-day South Africa and, in the process, take control of the rivers on these lands.

### **2.2.2 Coloniality manifested in the attributes of water**

Coloniality in the water sector is related to water as a resource and as a physical body that exists on the earth in relation to people and other forms of nature as part of a lively ecosystem. In South Africa, the chains of colonialism took hold of several characteristics of water, some of which can be grouped into the following:

- Water as the source of livelihoods: African people who benefitted from certain water sources lost those sources to colonial settlers. As a result, some communities have to use and re-use water to grow vegetables, as is the case with women in Strydkraal. Studies on communities such as this, however, do not encourage fair distribution of water resources but applaud the women for resorting to water re-use and harvesting run-off and roof water with no state assistance (van Koppen, Tapela and Mapedza, 2015).
- Water as a driver of natural ecosystems: Water bodies such as rivers were diverted, and dams built to store water elsewhere, while other water bodies were dried out due to overuse. These activities distorted the ecosystem and even caused extinction of other forms of nature that were dependent on certain environments that were no longer supported by the distortions.
- Water as part of culture and belief systems: Communities that used specific water bodies for their culture and belief systems found themselves unable to access these.

- Water as part of identity and pride: Communities who were identified with a water body in a certain area lost their right to be located in the corresponding locations. Early settlements were defined by proximity to a water body and the people's identity was interwoven with that of the water bodies.

### 2.2.3 Control of resources

Coloniality in the water sector manifests itself in the control of natural resources by a few people who are mostly descendants of the colonialists who originally took the land and associated resources through force or dishonesty. The dominance of whites in water use, often dubbed the 'white water economy', necessitated water access and use by only those said to be economically viable (van Koppen, 2007). Although van Koppen (2007) further argued that the economically viable population had ceased to be exclusively white, a DWS (2018a) report noted the statistics of water use in irrigation as 95% white and 5% black. Besides, the whole notion of hierarchical access on any basis produces power relations that decoloniality seeks to dismantle.

Discriminatory policies and legislations have been used to separate blacks and whites into different zones with alignment to resource access and allocation based on 'deserving' and 'non-deserving', a distinction that repeated established racial divisions. This relegated African people to the status of non-beings, in that they could not be considered worthy in allocation of the country's resources. These divisions and disparities in resource access were also built into the institutional structures and governance systems. As such, under apartheid, African people were administered by a parallel government structure to ensure that they were separated from the country's resources.

Coloniality's presence in the water sector is also visible through the continued skewed ownership of land. Land in South Africa was appropriated over time based on different motivations that in the early history of South Africa were usually agricultural-related and after that, motivations based on separate development (apartheid) under which Africans were restricted to separate villages and homelands. Several pieces of land legislation were then used to ensure that the dispossession of land from the local people of the time was formalised and permanent.

In the post-apartheid era, clauses were included in the Constitution that tend to extend the benefits accrued from ownership of resources which were acquired during the colonial time. Of significance is the property clause of the Constitution – Section 25 – a section viewed as having been a revolutionary legal move that clarified what was previously understood as 'ownership' to 'rights in property' (Pienaar and van der Schyff, 2007, p.188). Pienaar and van der Schyff (2007) further suggest that rights in property would likely be interpreted as referring to "*all rights and objects that have been recognised as such during the pre-constitutional era*", which in the context of their discussion alludes to water rights from the apartheid era. However, in 2018, the national government embarked on a process of engaging communities as a precursor to the implementation of a change in this clause, as the clause was found to be obstructing the reallocation of the country's resources – land and water included.

Some scholars have also pointed out that the problem with the issue of transfer of economic resources originated in the negotiations that brought about democratic rule in South Africa. It is reported that the World

Bank helped the South African Agricultural Union, a predominantly white association, to secure ownership of land through a commitment to no land expropriation or nationalisation and that 'small-farmer' projects would only be established in the former homelands (Bond, 2014a, p.134). This meant that white-owned land and water as private property would remain untouched and protected by laws including the Constitution, water acts and expropriation acts. By adopting neoliberalism, and negotiating its way to an agreement, the new government placed itself in a position where it had to maintain the previous economic system, including respect for private property rights (Carmody, 2002, p.260, in Movik, 2012, p.24). While colonial lawmakers are said to have used the law to capture water and support the interests of the politically and economically dominant groups of the time (DWAF, 1997), post-colonial lawmakers have also been trapped in the same pattern of continuing to privilege interests of the dominant class from the past and current epoch.

The World Bank Group (2018) points out that "*race-based exclusion is a defining feature of South Africa's history*". Discussions on resource-based inequalities thus need to be very clear and specific about race-based exclusion as a way of allowing it to be dealt with head on. South Africa is often portrayed as a post-conflict country, yet the continued race-based water allocation and access inequalities state otherwise. Reference to apartheid or colonialism is often dismissed as residing in the past (cf. Maldonado-Torres, 2019) and thus issues are dealt with as if there is no group that is more privileged than the rest. As such, knowledge production needs to specify subjects of privilege and those of discrimination. For instance, a presentation by Mike Muller at a Loskop Dam Workshop in 2000 on "*Integrated water management in water-stressed river basins in developing countries: Strategies for poverty alleviation and agricultural growth*", talks about oppression, exploitation, deprivation and division without mentioning the perpetrators or victims (see Muller, 2000). The speech identifies a problem and affirms its existence but seemingly opts to not define it in a way that reveals the oppressor, exploiter, depriver and divider so that targeted solutions can be sought. This illustrates what Lewis Gordon meant when he noted, "*there are ways of not talking about something through seemingly talking about it. Speech and writing could be used to cover over reality instead of revealing it*", (Gordon, 2017, p.1). Going with the notion that 'one who has the pen has the power', leaving out facts and details is a form of power that can only help maintain the status quo.

#### **2.2.4 Privileging colonial water allocation**

The NWA, like the national Constitution, was promoted as progressive and world class. Many people rallied behind this articulation and indeed many still agree with it. Of late, however, the legislation is being questioned. In his quest to investigate if the Constitution is an obstacle to reforms, Davis (2018) concluded that while the Constitution sought to eradicate apartheid, it maintains a narrow conception of social and economic rights in a way that maintains a situation where the distribution of resources is determined by race and class. The NWA is based on this Constitution and the protection of past water access rights flowing from the Constitution is an evident character of this Act. Section 27 of the NWA, which deals with the considerations for issuing of general authorisations and licences, does not prioritise equity, which is just one among eleven other competing objectives. Van Koppen and Schreiner (2014, p.7) note that the DWS was not sufficiently empowered to demand equity and even lost a case in the Water Tribunal as racial equity was not viewed as a high priority. The lack of legal resolve in addressing African discrimination is echoed by Maldonado-Torres (2016), who points out that "*Blackness must not have anything substantially, neither land or much time to live, nor goods*

*and resources, and not even the possibility to generate self-esteem. Value, for black people, is supposed to be elsewhere and forever postponed*", (Maldonado-Torres, 2016, p.14).

Water use licensing, as provided for in the NWA, did not make the situation much better but stifled the equity processes through a variety of avenues, including what has been labelled as 'administrative bottlenecks'. The administrative process involved is demanding in process and resource requirements. Further, those who had access from the epoch before democratic rule have continued with their access under the ELU practice. This ultimately indicates that they have continued to have privileged access despite a new Act that seeks redress of past discriminatory practices. The Act thus established a platform to protect inequalities rather than dismantle them. This signals that white power has not waned. Gumede (2016, p.58) suggests that *"it might very well be that the post-apartheid government could not be allowed to tamper with whites"*.

An additional concern with this specific licensing system is that it is included in the NWA, where it appears as if it is being applied in the country for the first time. However, it is similar to the application of allocations to users other than urban and irrigation users as provided for in the Water Act of 1956 where it is indicated that other users are "secondary" claimants to water and are only to be considered when there is an excess of water that can be apportioned (Uys, 1996, p.475). Compulsory licensing works in a way that new water users, such as HDIs, may only get allocations from already stressed catchments after Existing Lawful Users have declared what they have. Administrative bottlenecks are blamed for creating impossibilities in reallocations of water (Parliamentary Monitoring Group, 2015, p.18) yet the system has built-in measures that make implementation impossible.

South Africa is sometimes discussed as having undergone an elite transition that left out the rest of its citizens at the crunch time of the transition leading to the 1994 elections. Bond (2016) explains that the political transition of the 1990s came with economic compromises that are now overdue for consideration. He discusses the extension of white privilege to a few blacks while leaving the poverty of the black majority undiminished. An elite transition in South Africa has meant that those who put themselves in a position to solve the country's problems used an approach whereby an identification of what threatens their own survival informs what happens to everyone else (Mthembu, 2010, p.12). This has been the case in the water sector, where the interests of those who were benefitting from previous regimes had to be protected while very little opportunity was left for a tiny number of Africans to gain access using commercial routes rather than government interventions.

Commercial language is used in the water sector in a way that suggests that extending water benefits to Africans is detrimental to development and likely to be unviable. In the position paper for water allocation reform of 2005 (DWAF, 2005), the then minister of the DWAF, pronounced that water will not be allocated to HDIs *"without ensuring that all users have the capacity to use this water productively as this will limit benefits"*. She further clarified that the water allocation to HDIs *"should not limit water provisions to existing water users who are already contributing to our development"*. The sentiments expressed fail to appreciate the fact that the current agricultural practices are using 62% of all water used in the country and losing up to 50% (for flood irrigation) of this water due to inefficient agricultural methods. The focus could have been on adding many more water users and accelerating efficiency in use to free more water for all. Johnson (2000, in Bond, 2013,

p.400) argues that the elevation of ideas about personal culpability to support racialised differences in market allocations based on “*differential individual investments*” entrenches the realities of systemic racism. The way the ANC and other leading role players negotiated political power in the early 1990s has been blamed for the manner in which water for economic productivity was left in the hands of white people (Movik, 2012, p.8). Carmody (2002, p.260, in Movik, 2012, p.24) puts forth that:

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

The early 1990s transition negotiations, where South Africa's poor and marginalised sectors were not involved (Weideman, 2004) became the precursor for the current state where land continues to be racialised and white farmers continue as the main beneficiaries of water access privileges (Marcatelli, 2017). The outcome of the negotiations was the retention of white privileges in all things to do with the economy – such as land and water – while resource scarcity and exclusion from the formal economy continued to characterise the livelihoods of black people, defined as Africans, coloureds and Asians in accordance with the Broad-Based Black Economic Empowerment Act 53 of 2003. This became the order of the day despite water legislation that was praised as transformative and sometimes equalled to being “*the best in the world*”.

The transitional path taken was also such that large-scale land redistribution to the black citizen majority would not be forthcoming (Mthembu, 2010), in spite of legislative repeals and reforms, resulting in a neoliberal paradigm being embraced, as reflected through a free-market economy where state interventions were minimal and a system of checks and balances would inhibit the new majority government from taking any unilateral actions in their quest to redress historical injustices (Van Wyk, 2005). The post-election period provides indications that only token democracy was achieved, while white economic power remained entrenched and immune to various transformation measures undertaken to redress the racial imbalances of the past. The World Bank Group (2018) studies conclude that transition is incomplete and that inequalities remain, resulting in serious contestation over resources – which increases policy uncertainty and deters investment. The Julius Malema-led Economic Freedom Fighters (EFF) is credited with recent efforts towards radical transformation, including resource expropriation without compensation.

### **2.3 Understanding resource access in post-colonial states from a decolonial perspective**

Resource ownership and use is shaped by history, knowledge and practice (Wily, 2012). Woodhouse (2012), among other writers, contends that modern resource challenges affecting ex-colonies are not just a product of contemporary global challenges and opportunities, but also of a longer historical process in the competition for control of resources such as land by different actors. White settlement in Africa derived from a need to economically exploit the continent, as opposed to bringing civilisation, Christianity and development (Ndlovu-Gatsheni, 2012). This ultimately led to the underdevelopment in post-colonial states.

Although colonialism officially ended, many post-colonial states have not attained autonomy. Over centuries, colonialists accumulated resources in colonies through systematic alienation of indigenous people from their resources based on race, gender and class – while using language, legislation and physical power to enforce their needs. Their asset accumulation through using various forms of power created a post-colonial wealth imbalance. Continued power held over post-colonial states by former colonial powers enables dispossession of their natural resources as well as military and judicial control, alienation from their families and indigenous knowledge systems, and subjection to western-centric knowledge that makes the African seem inferior (Ndlovu-Gatsheni, 2013b). Consequently, economies of former colonies remain largely in the hands of former colonialists while the indigenous populations struggle to access their own resources, as is the case in South Africa (Ndlovu-Gatsheni, 2012). Contemporary incremental resource challenges in resource-rich post-colonial states affect indigenous people more than former colonisers or imperial agents.

This has been aggravated by an international, foreign-driven land and resource rush involving sales or leases of millions of hectares to foreign governments and multinationals (Anseeuw, Alden Wily, Cotula and Taylor, 2011) for the production of food for export, generation of biofuels, development of tourism and extraction of minerals (Zoomers, 2010; Wily, 2012). Globalisation, market liberalisation and Foreign Direct Investment (FDI) serve as both contributing factors (Zoomers, 2010) to competition for resources as well as explanatory models of the cause of resource challenges and their redress measures. Some of those foreign-derived measures, including Structural Adjustment Programmes (SAP) and title-based land ownership arrangements, have not been useful in addressing resource challenges in some post-colonies. As a result, the resource access issue in post-colonial states abounds and is difficult to challenge in multi-racial countries such as South Africa (Mamdani, 2001).

A historical description shows that resource access in South Africa was entirely based on racial discrimination and segregation (Arvin, Tuck & Morrill, 2013, p.10). This generated conflict, which was suppressed by violent responses (Wolfe, 2006), legislation (Wily, 2012) and explanatory narratives that were developed to ‘prove’ that the colonised did not own or need those resources (Wily, 2012). The Land Act of 1913 set aside as little as 7.5% of the country’s land to indigenous peoples (Gumede, 2017), forcing them to become wage labourers or landless people living in reserves (Wily, 2012). Water rights have been systematically denied to blacks as far back as the 1650s in the Cape area, which expanded to cover the whole country such that when the Irrigation and Conservation Act of 1912 (RSA, 1912) was implemented, colonisation of water resources extended to the whole country, which was now under colonial control. Water rights were tied in perpetuity to land ownership for whites, alienating Africans from the land-related water resources. What the narratives neglect to factor in are the settlement patterns, which had no ‘country’ boundaries prior to the penetration of the settlers. The narrative also fails to explain why the Glen Grey Act of 1884 rearranged communities to stop communal ownership of land and create a labour tax for Xhosa men.

Redress of social, political and economic challenges brought by colonialism has consequently been complex and difficult to address, due to a colonial history and the vulnerabilities of African communities to post-colonial institutions. Such redress is affected by challenges relating to eradication of colonial laws that perpetuate coloniality, enactment of legislation that enables decolonisation, and institutional reform that effectively challenges the colonial legacy. The continued material domination of former colonies is not dealt with; rather,

it is justified (Said, 1995, in Bhambra, 2014) – to sustain imperial orders (Ndlovu-Gatsheni, 2013b). In the post-colonial order, the material domination of ex-colonies by imperial powers is justified using the western narrative of history and contemporary events (Said, 1995, in Bhambra, 2014). Using this narrative and through the application of subtle and almost indiscernible measures of power (Ndlovu-Gatsheni, 2013b), the Global North retains its superiority over the Global South.

External intervention applied for “developing” Africa is done for the continued economic exploitation and dispossession of Africans of more of their resources and transforms them into wage labourers (Ndlovu-Gatsheni, 2012). Subtle and almost indiscernible measures of power are used to retain the superiority of the Global North and ensure the inferiority of the Global South. Power is also applied directly and overtly through sanctions when former colonies attempt to redress historical land imbalances through agrarian reforms in Africa, as was done in the case of Zimbabwe after the 2000 land expropriations, when the USA and European countries extended sanctions against the country (Mararike, 2019).

Apart from the direct impacts of local legislation to transformation initiatives, there are international norms that work against local transformation. Deininger and Binswanger (1999) and Cox, Munro-Faure, Mathieu, Herrera, et al. (2003) note that international law, standards and guidelines that are Eurocentric, are better applied by users who have intellectual and financial advantages. The influence of ‘international’ law or ‘best practice’ that has been developed and refined by global capitalists influenced reformation of legislation and practice to address past resource access imbalances. The World Bank’s technical advisory role during South Africa’s land reform process was criticised for being strategically manipulative and intellectual (Bond, 2014a; Weideman, 2004, p.203), with disregard for the country’s history. The World Bank assured the South African Agricultural Union that land belonging to its members was immune to expropriation (Bond, 2014a, p.134).

The imperial order has given former colonists a great advantage on resources in former colonies and world trade. Consequently, half a billion Africans are vulnerable to loss of land, other resources and livelihoods – from development and investment drives that are led by their own governments, as well as facilitated and justified by international capital (Wily, 2012) and development institutions. The World Bank estimates that in 2000, 10 million people were displaced in China, India, Thailand and Cambodia for purposes of economic growth (Cernea & McDowell, 2000). Inter-generational resource entities for indigenous people that could have remained theirs to use in perpetuity are incrementally being transferred to the ownership of big capital. World trade and transactions, fair or unfair, are not a tragedy in themselves. Instead, we can point towards abstract and invisible power structures that influence the retention and continued transformation of the effects of colonialism in former colonies. Global world trade, however, is managed with policies and practices that retain the dominant-subordinate relations of the North and the South. This is symptomatic of coloniality, which normalises the effects of colonialism in post-colonial states through imposed or even acceptable social systems (Lugones, 2007).

Decolonisation, incorporating decolonisation of knowledge, seeks to undo the damage caused by colonisation, through alternative interpretation of knowledge from different geo-political sources, as well as affirming the relevance and significance of non-dominant geo-political knowledges that have been manipulated into insignificance (Mignolo, 2000). When applied without a historical analysis and a decolonial perspective,

genuine socio-economic and political transformation for resource access based on equity may not benefit from measures for addressing resource access challenges imposed by colonialism. A serious challenge is faced when addressing resource access in ex-colonies where poor communities, in the face of resource commoditisation and globalisation, have limited capacity to compete on a global stage with predatory competitors.

# CHAPTER 3.: MAINTENANCE OF WATER SECTOR INEQUALITIES

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## 3.1 The enablement of coloniality in the water sector

There was no common vision or inclusiveness in formulating the South African democracy. Contestations during negotiations were rife, between mainly the ANC and the NP, who separately sought to realise a political and economic dispensation sympathetic to their cause (De Wee, 2016; Robert and Rubinfeld, 2012). Due to transitional influences, the democracy that emerged became an impediment to itself and to social and economic transformation in South Africa. Some reviews of transitional arrangements for the realisation of democracy from apartheid suggests deliberate intent in ensuring that apartheid could continue to exist (Bond, 2014c). Various writers validate the view of a 'controlled' transition from apartheid to democracy, some even asserting that an incomplete transformation was the target of negotiations and there was acquiescence by the ANC (Bond, 2014b; Kasrils, 2013).

The ANC carried the aspirations of the majority of South Africans and, as their pre- and post-1994 deliberations would show, were intent on redressing historical economic injustices. At the Convention for a Democratic South Africa (CODESA), inequalities in water and other economic resources were not issues of concern. While land was dominant in the discussions, the concerns did not dwell on the economic inequalities but rather the need to address apartheid settlement patterns (Dube 2020a, p.204). Nationalisation and redistribution of unused or derelict farms and those owned by monopoly businesses were mooted (Lodge, 1990, in Weideman, 2004) along with asset seizure (Dolny, 2001, in Weideman, 2004). Its allies, such as the Confederation of South African Trade Unions (COSATU) and the South African Communist Party (SACP), as well as intellectuals such as Joe Slovo (Slovo, 1986) articulated ANC radical state interventionist socialist policies, including state control, nationalisation and economic re-distribution. The quest to redistribute resources was clear but most of the ANC's expressed intentions during the transitional period were not realised.

The NP under former President FW De Klerk dismantled apartheid in exchange for white economic power, a position South African conglomerates also adopted (Van Wyk, 2005; Bakken, 2014). As part of efforts to secure a desirable outcome for historically advantaged individuals, the NP, between 1990 and 1994, worked towards investing in generating goodwill and a semblance of change by purporting to reverse racist water legislation and introducing new legislation (Weideman, 2004, p.220). It also invested in being recognised as the party that would end apartheid, allowing the black majority to govern. Behind the scenes, however, it strove to retain the status quo in land ownership after the end of apartheid through, for instance, the White Paper on Land Reform in 1991. During transitional negotiations, the ANC succumbed to machinations of its adversaries bent on retaining the status quo. As a formal and informal party to transitional negotiations, the business sector sought a political arrangement where capital accumulation would be safeguarded (Bakken, 2014). The business sector adopted the NP position and consented to a change from apartheid to a free market economy under conditions where there would be no forced redistribution of wealth (Van Wyk, 2005). There were machinations to secure a democracy more favourable to the interests of historically privileged persons and the converging

interests of the National Party and South African corporates, and international capital (Weideman, 2004; Van Wyk, 2005; Bakken, 2014) made this more convenient.

During transitional negotiations, the ANC succumbed to machinations of its adversaries determined to maintain the status quo. The ANC's neo-liberal approach under President Nelson Mandela was adopted in a bid to safeguard the country's economy rather than the needs of the struggling masses – giving way to the furthering of structural inequalities. In the redistribution and allocation of resources such as water, neo-liberalism focuses on policy prescripts that economise water use through, for instance, use of cheap technology or pre-paid meters (Bond and Mafereka ka Ndlovu, 2010) or the use of market processes (Le Quesne, Pegram and Von Der Heyden, 2007). Various writers, including Van Wyk (2005) and Bakken (2014), try to balance arguments on whether the ANC was simply a victim of manipulation or whether it consciously acquiesced to having a post-apartheid neo-liberal agenda. President Mandela was accused of acceding to a transitional process and structure where apartheid could continue to exist and the democracy to be achieved would be more acceptable to the former oppressors. Alan Hirsch, an economic historian and advisor to the ANC, in May 1990 disclosed that the ANC had accepted that much of what was in private hands should remain privately owned (Van Wyk, 2005). Former President Mandela is also quoted as having promised investors in Pittsburgh in the US that,

the private sector must and will play the central and decisive role in the struggle to achieve many of [the transformation] objectives [...] let me assure you that the ANC is not an enemy of private enterprise [...] we are aware that the investor will not invest unless he or she is assured of the security of their investment [...] The rates of economic growth we seek cannot be achieved without important inflows of foreign capital. We are determined to create the necessary climate which the foreign investor will find attractive (Marais, 2011, p.98).

Bond (2014b) finds the transitional “deal making” and concessions by former President Mandela to have been avoidable and excessive. Bond (2014b) sums up the purpose of the ANC/NP negotiations as a situation wherein “*black nationalists won state power, while white people and corporations would remove their capital from the country, but also remain welcome for domicile and the enjoyment of yet more privileges through economic liberalisation*”. ANC struggle stalwart Ronnie Kasrils concurs and maintains that excessive concessions made by the ANC in transitional negotiations culminated in a post-apartheid political and economic power balance that did not redress inequalities (Kasrils, 2013).

Kasrils and Bond's arguments are plausible. Also plausible are the external factors that influenced ANC decisions. A delicate balance had to be maintained between the ANC's obligation to address historical inequalities and simultaneously handle the transition with sensitivity to build enough confidence to retain white capital and skills (De Wee, 2016). The ANC lobbying strategy also sought to meet stakeholder expectations. Stakeholders included foreign countries and international multilateral organisations that were party to campaigns to boycott South African goods, release Nelson Mandela, quarantine South Africa in culture and sports, and raise the anti-apartheid campaign. These stakeholders believed in a multi-racial and democratic society and would reward Nelson Mandela with a peace award for his reconciliation policy. Furthermore, during negotiations, ANC reform advocates reported being manipulated and intellectually arm-twisted, particularly by World Bank technocrats (Weideman, 2004).

The NP lobby strategy should not be underrated. The NP was successful at making power-sharing arrangements as well as obtaining guarantees of the protection of minority rights and a neo-liberal economic trajectory from the ANC (Van Wyk, 2005, p.133-4). By roping in South African corporates, critical concessions were extracted from the ANC while influencing future government policy to preserve white privileges (cf. Ansari, 2016). Significant groundwork was laid for subsequent land reform policy through the Advisory Commission on Land Allocation (ACLA); a commitment to upgrade land tenure rights; a commitment to free-market policies, liberalisation for agricultural markets; provision for land acquisition grants (Weideman, 2004, p.220); and legislation for land redistribution that relies on a suspiciously named Act called "*Provision of Certain Land for Settlement Act 126 of 1993*", as well as another similarly worded legislation called "*Distribution and Transfer of Certain Land Act 119 of 1993*" that would be used by the ANC government in its attempts to redistribute land. The two pieces of land legislation and associated amendments limited the Minister to using existing state land or purchased state land but not privately owned land for settlement and resettlement. The land covered as "*certain land*" was defined as the following:

- a) State land that is controlled by him or her and made available by him or her for those purposes.
- b) Land that is purchased or acquired by him or her for those purposes and which is made available by him or her for those purposes.
- c) Any land that has been made available for those purposes by the owner thereof (Republic of South Africa, 1993).

The implication of the nature of legislation provided for land matters is that it has hardly achieved transformation, as evidenced by the current discourse where various parties are seeking to implement changes to land ownership and expropriation provisions, starting with the Constitution.

Transitional negotiations, therefore, became a deal-making exercise with trade-offs between the contesting parties. The role of the NP, domestic and international business, and financial institutions tells the story of sophisticated planning that went into manipulating preparations for the hand-over of power to the majority without compromising white economic privileges and superiority. Entreaties by the NP, South African business leaders and the international community contributed to the ANC's acceptance of an economic balance of power and neo-liberalism (Van Wyk, 2005) that went against its initial intentions to nationalise and have other radical transformation processes prior to negotiations. The ANC, whose main mission was to dismantle apartheid, was overwhelmed by multiple contestants and opposing stakeholders who were smart, aggressive and had technical know-how for influencing decision making (Bakken, 2014). Even in the democratic era, progressively credible attempts by the ANC government to redress inequalities of the past continue to be defeated by pre-meditated counter-efforts to legitimise inequalities (Marcatelli, 2017).

South Africa's Interim Constitution, effective from 27 April 1994 until superseded by the 1996 Constitution on 4 February 1997, replaced the First-Past-the-Post electoral system with a party-list Proportional Representation. The effect was side-stepping revolutionary change for a compromise between the leading political parties, the NP and the ANC (Weideman, 2004). Not only did the inclusive government incorporating various political parties between 1994 and 1996 fail to assertively define a genuine transformative agenda, it

also had a carry-over of deceptive legislation enacted by the previous government purporting to have the agenda of social transformation. The democratic government went further to create ineffective policies and legislation that would delay water sector transformation.

### **3.1.1 The case of ‘small water’ for black people and ‘big water’ for white people**

Provision of water is an important component of social service delivery, contributing to alleviating poverty and addressing social inequalities entrenched by centuries of colonisation and apartheid. Historically, water service delivery for non-white communities was not a priority for colonial and apartheid governments (Beck et al., 2016). White populations under colonisation and apartheid, on the other hand, consistently enjoyed exclusive urban, industrial and irrigation water use from government financial and infrastructural support for bulk water (Beck et al., 2016).

Water services and resources in present-day South Africa are clearly demarcated as “small water” or free basic water for domestic consumption that is available to the majority African population, and ‘big water’ or bulk water for economic use that is available to a predominantly white population. Small water was prioritised and implemented to address unequal socio-economic conditions based on the historical racial divide in access to water and as part of the provision of universal access to basic services (Republic of South Africa, 1994) by the post-apartheid government, through the RDP and the WSA. Small water is provided as 25 litres of free water per capita per day, within 200 metres of a household for indigent households. Although this still falls short of what the World Health Organization (WHO) considers sufficient (UN, 2010), it can to an extent be considered progressive. By 1994, four in every 10 African people had no access to water and experienced inadequate sanitation (Eales, 2011). Nevertheless, the difference in access to ‘big water’ on a racial divide is enormous.

Big water is not unwanted by Africans. It is recorded that *“black farmers and entrepreneurs ... have expressed their concerns about lack of access to water, and the challenges in getting water allocated for farming and enterprise development. The pressure to reallocate water to achieve more equitable water use thus remains high”*, (DWS, 2018a, p. 12). Allocation of small and big water on a racial basis is regarded as a strategic intent rather than a coincidence and provision of small water has come to be interpreted as a benefit that blinds the majority of South Africans to their continued isolation from big water. In a sense, it represents the political economy of water as espoused by Swatuk (2008, p.25) in the expression *“water security for the few; water scarcity for the many”*. The focus on small water may be a distraction from the more compelling lack of progress on water sector transformation in South Africa. Twenty-five years after the advent of democratic rule, there is continued water discrimination through riparian water rights carried over from previous water legislation and existing water user provisions in the NWA (1998) that retain white water privilege.

The background to all this is historical water inequalities and continuing power politics in the water sector as well as the role of the state. The apartheid government, for instance, put in place 80 legal acts for the support of large-scale white commercial farmers and funding to the amount of R4 billion to assist 27 000 white farmers before and during 1980 (Greenberg, 2004; Wegeriff, 2004, in Lepheane, 2007). In 1986, the DWA restricted African participation in agriculture through prohibitive eligibility criteria based on capacity for efficient use of

water – an efficiency that was adversely affected by a history of exclusion in education, finance and technical knowledge (van Koppen, Schreiner and Fakir, 2011). The post-apartheid government, on the other hand, failed to realise the significance of big water during the negotiations for democracy. Besides the discussion of basic water, the only other water that is discussed in the RDP document is water for emergency drought crisis intervention amounting to 50 to 60 litres per capita per day. The policy objective that could have had an impact on big water had no targets or programmes planned, constituting a passive revolution, which Hart (2013, in Bond, 2014b) explains as involving the “*overthrow of some older social forms and the institution of new ones, combined with a deliberate and structural pacification of subaltern classes*”.

The pace of change in compliance with the NWA (1998) is painfully slow and HDIs are still to participate significantly in productive water use. To date, black farmers and entrepreneurs are not beneficiaries of state investments in irrigation in a way similar to what was done by colonial and apartheid governments. These inequalities continue in the large-scale agricultural economy decades after the NWA (1998) came into effect. Black farmers use a meagre 5% of South Africa’s 61% of agricultural water, and in the Olifants Water Management Area, a minute 0.5% of whites (in terms of the population) control 95% of the water resources (Cullis and van Koppen, 2007, in van Koppen et al., 2011).

Structural weaknesses exist in the current water legislation – principally the Constitution, the WSA and the NWA. The Constitution has committed to improving the quality of life of all citizens; water sector transformation should enhance a more socially just, economically efficient and environmentally sound water management and allocation regime (van Koppen et al., 2011). Heydenrych (2016, p.128) finds the Constitution compromised by having been a negotiated process best “*described as a pact [...] between the forces of apartheid and liberation in order to usher in the new dispensation*”. Although it recognises injustices of the past and commits to healing divisions, the Constitution, which provides for property rights, equality before the law and everyone’s entitlement to all fundamental freedoms, cannot take from those who have to give to those without. Consequently, water claims by Africans cannot compete with technical arguments from white technocrats (van Koppen et al., 2011). The Constitution therefore “*represents a colonial heritage*” with “*tendencies towards regressing into legality above substantiveness*” (Heydenrych, 2016, p.117 and 127).

Access to water for economic use remains a key issue in the transformation of the water sector. The promotion of equality in access to water for economic use by the previously marginalised population groups is not adequately spelt out in the NWA (1998), while much attention is given to provisions around a basic allocation. Numerous obstacles, one of these being the deliberate focus on basic water, have delayed water sector transformation. Attempts at providing for big water are present but suffer delays. The initial mapping in the National Water and Sanitation Master Plan (NWSMP) to identify areas where small dams for groundwater development can provide water for small-scale black farmers has been on the table and will only commence in 2019. While serious repercussions are expected if the process does not take place, it is also thought of as having very limited benefit as an investment (DWS, 2018a). There are currently no updates on the initiative, and with the setbacks of the 2020 coronavirus pandemic, the water balance through water transfers intended for the 2023 deliverable date is most likely out of reach. Implementation of the Water Administration System (WAS) on all government irrigation schemes and the reallocation of savings to black applicants will also only commence in 2023. The WSA, on the other hand, caters for water services delivery and addresses inequalities

in domestic water provision through small water. The WSA tasks municipalities with providing water services to their residents, but some of them are incapacitated technically and financially. Failure by municipalities to provide basic water distracts HDI water users from the bigger picture – of big water – because they have to fight for basic needs first before regarding themselves as worthy of big water.

### **3.1.2 Use of colonial and apartheid tools in dispossession and segregation along racial divisions**

Apartheid was institutionalised in 1948 in South Africa as “*a legalised system of racial discrimination*” to promote Afrikaner supremacy and pride (Worden, 1994, in Mhlauli et al., 2015). Dispossession of resources, including water and land, from the indigenous African communities dated back to the arrival of Dutch immigrants at the Cape in 1652 (Marx, 1998, in Mhlauli et al., 2015). Colonialism under British and Dutch administrations prior to 1948 affected education, socialisation, religion and legislation. Race was a factor in how one could access resources in South Africa, where resource appropriation and expropriation, as in any other African colony, had taken root.

The groundwork done by centuries of colonialism to develop forms of racial segregation created an enabling environment for the declared policy of separate development under apartheid to have appeal and acceptance among its beneficiaries. Box 3.1 lists some of the legislation that was passed to advance racial segregation. Principally, apartheid used legislation, education, culture, selective use of financial and material resources to create wealth differences, and military enforcement to entrench territorial and institutional segregation. Language was the main tool used by Afrikaners to unite behind state conquest and domination of the majority of South Africans. Religion was also used to derive legitimacy for the domination of one race over another and justify a racial hierarchy.

Discriminatory and segregative legislation and practices were prevalent before 1948. To dispossess Africans of natural resources such as water, there was pre-apartheid discriminatory water legislation in the form of the Irrigation and Conservation Act of 1912, which facilitated dispossession of Africans while legalising the takeover of these resources by whites (van Koppen, 2008). Corroborative legislation that empowered whites while excluding blacks was the Black Land Act No. 27 of 1913 that prohibited blacks from land ownership or rental outside designated reserves that constituted approximately only 7% of the total land area (Pepeteka, 2006, in Gumede, 2017); the Native Affairs Act of 1920 that created separate, communally-based political representation for Africans; the Native Service Contracts Act of 1932 that authorised white farmers to exploit and dehumanise their African farm labourers or farm tenants (SAHO, 2018a); and the Native Trust and Land Acts of 1936 that separated white and black rural areas and violated what is now regarded as the right to work under international human rights law, by providing cheap African labour to whites.

**Box 3.1: A selection of legislation that was meant to deny black people access to land and resources on the land such as water and minerals**

The Natives Land Act 27 of 1913  
The Natives (Urban Areas) Act of 1923  
The Group Areas Act 41 of 1950  
The Bantu Authorities Act 68 of 1951  
The Natives Resettlement Act 19 of 1954  
The Group Areas Development Act 69 of 1955  
The Natives (Prohibition of Interdicts) Act 64 of 1956  
The Coloured Persons Communal Reserves Act 3 of 1961  
The Preservation of Coloured Areas Act 31 of 1961  
The Bantu Homelands Citizens Act of 1970

In harmony with such legislation were pre-apartheid segregative institutional measures that included strategic state investments meant to economically empower whites to provide them with technical competence in land and water management and to accrue economic benefits from these. This involved the role of the Irrigation Department; two Government Water Schemes in 1929 and 1934; subsidies for private white farmers (Pepeteka, 2006 in Gumede, 2017); and the provision of technical support, soft loans and grants to the whites-only irrigation boards between 1917 and 1994 (van Koppen, 2008). Apartheid emerged in 1948 to institutionalise separate development between blacks and whites by taking over the “*economy, the political and educational systems*” to “*elevate white people over other racial groupings through economic and political deprivation*” (Zungu, 1977, in Mhlauli et al., 2015).

Apartheid made efforts to ensure that class, race, gender, physical appearance, institutional and spatial discrimination and inequalities shaped the ideological, economic and social functions of apartheid beneficiaries and victims. Beneficiaries and victims acquired conditioned capabilities and capacities that determined their potential for resource possession then and for generations to come. Apartheid also normalised colonial discriminatory laws and practices, taking them to their logical conclusions (Ntsebenza, in Hall and Ntsebeza, 2007). Various legislative pieces were enacted under apartheid to effectively institutionalise segregation and discrimination. These would have lasting effects and become an impediment to the legislative and institutional reforms of post-apartheid South Africa. The Water Act of 1956; the Indemnity Act No 61 of 1961 and the Natives (Prohibition of Interdicts) Act No 64 of 1956 restricted resource access and access to administrative justice for blacks. And the Bantu Education Act No 47 of 1953 restricted intellectual development and independence of thought for black people.

The enduring effects of apartheid are attested to by continuing water access inequalities between blacks and whites, even in the face of legislative changes under a new political dispensation. Madigele (2017) suggests that “*the institutional dynamics, policies, and legislation that were prevalent during the apartheid era have left imprints that are difficult to ignore as they still dictate the interaction between different elements in the water sector to date*”. With riparian rights, historically-enabled water-user capacities from apartheid government investments in irrigation, and a water-knowledge monopoly facilitated by separate education and employment practices, white professionals and existing water users remain ahead of blacks in competing for water – even in the face of enabled legislation that targets black beneficiaries.

The exclusion deprives Africans of initiative and agency to be actors in their destinies (Quijano, 2007, in Bhambra, 2014). The apartheid state produced only white engineers and scientists (Muller, 2018) and the entry of new black engineers remained under the control of a white old guard. White water professionals formed water consultancy firms before and after 1994 that monopolised water management skills and expertise (van Koppen, 2008). The enduring legacy of apartheid legislation and practices is presently evident through the capacity criteria used to technically isolate HDIs from bulk water allocations. In order to accommodate issues of regulatory compliance, cost aspects of water, and environmental management issues relating to water, the poor remain ineligible for water access (van Koppen, 2008).

The Reservation of Separate Amenities Act 49 of 1953 was spatially discriminatory and inhibited innovations in entrepreneurship; while the Self-Governing Territories Act of 1971, the Rural Areas Act of 1987 and the Prevention of Illegal Squatting Act (though amended by the Less Formal Township Establishment Act 113 of 1991) established territorial segregation. Ndlovu-Gatsheni (2012) contends that coloniality of power provides the narrative that the deplorable conditions that Africans find themselves in are a product of 'lacks' and 'deficits' that derive from not having an oral instead of written culture, poor history, no civilisation, and no democracy or human rights. During its tenure, apartheid refused to recognise competent African smallholder irrigation schemes in the Olifants Basin (Houghton, 1956; Denison and Manona, 2007, in van Koppen, 2008) and impeded their fair competition with white farmers.

The creation of Bantustans and townships burdened with separate development and overtly repressive policies under apartheid was a deliberate design to alienate black people, not only from enjoying water rights but also from knowledge about water use and allocation. Justification for such practices was institutionalised through regulatory authorities and implementation bodies such as the DWA, which documented the alleged failure of users to pay for water as justification for poor water service delivery in townships (van Koppen, 2008). The DWA even described townships and rural areas as having Third World economic conditions that justified the status quo of mediocre service delivery (DWA, 1986). The effects of such segregation would be reflected after the abolition of apartheid in 1994, when water reform to address past injustices faced serious legislative and institutional impediments.

## **3.2 Maintenance of water sector coloniality**

### **3.2.1 The role of legislation in enabling and hindering possible water sector transformation**

South Africa's transition to a democracy opened the way to the repealing of the apartheid-era water laws. A process of developing new water legislation ensued, culminating in two water laws, the Water Services Act of 1997 (hereafter WSA) and the NWA (1998). The Water Act of 1956 and associated bills had defined water entitlements on the riparian principles of water access and ownership in the colonial and apartheid eras, giving water rights to the white minority who had established themselves on these riparian areas while the African majority in the Bantustans had no access or entitlements (Méndez-Barrientos, Kemerink, Wester and Molle, 2018).

Movik (2012, p.30) asserts that ideas that become instituted in law, and versions and visions that are perpetuated, accepted and institutionalised, are all dependent on power relations and the political context. For instance, the World Bank influenced the path taken in policy regarding water services. Even though the ANC had its water plans in the Reconstruction and Development Programme (RDP), these original policy plans on water services were reversed to be in line with the World Bank's financial orthodoxy, which sees water as an economic good. According to Bond (2014a, p.144), an infrastructure team led by the World Bank's deputy resident representative in 1994-95 made proposals that consequently influenced the water access of the urban poor and low-paid workers to pit latrines and water taps within 200 metres instead of the household water promised in the RDP. The Water Supply and Sanitation Policy White Paper of November 1994 (RSA, 1994) thus defined the maximum distance that a person should have to cart water to their dwelling as 200 metres. The DWAF also departed from the constitutional prescripts of water entitlements to water as a paid/economic good. According to Cheru (2009, p.277), policy making is an important aspect of a country's sovereignty and the fact that policy was and is still influenced by international role players constitutes recolonisation.

#### **i The Water Act of 1956**

An appreciation of coloniality and how it is still promoted by legislation is incomplete without an assessment of the colonial water legislation as well as other legislation that promoted colonisation and apartheid. The water legislation in the recent past was the Water Act of 1956, which replaced the Irrigation and Conservation Act 8 of 1912 that was in place when the institution governing water was called the Department of Irrigation (Tewari, 2009). It is important to note that the Water Act of 1956 borrowed several clauses, methods and other content from the Water Act of 1912, through the recognition of existing rights from previous legislation. The Water Act of 1956 thus became the main water-governing legislation in the period of 1956 to 1998. Its mandate was to: consolidate and amend the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes; and to make provision for the control, in certain respects, of the use of sea water for certain purposes; of certain activities on or in water in certain areas; of activities that may alter the natural occurrence of certain types of atmospheric precipitation; and, in certain respects, of the establishment or the extension of townships in some areas and for incidental matters (Water Act of 1956).

As the country was evolving from an agrarian-based economy to include industrialisation and urbanisation, it became necessary to amend the agro-centred Irrigation Act of 1912. However, existing rights under the Irrigation and Conservation Act of 1912 were recognised under the Water Act of 1956. The Irrigation Act of 1912 strongly recognised riparian rights that were inherently tied to land ownership. One could argue that due to the influence of the white commercial farmers who supported the ruling NP, these clauses had to remain to ensure that their access to water was not impacted.

The Water Act of 1956 was enacted during the rule of the NP – the party that introduced the apartheid policy of segregation. It is therefore regarded that this act followed the same racial separation attributes. Most white commercial farmers belonged to the NP and they played a large part in the development of water legislation due to their political muscle (Tempelhoff, 2017). This law upheld the rights of the owners of riparian land and put loose controls in place for the protection of downstream users while cautioning riparian owners not to be

“wasteful”, or “unreasonable” in their use of the resource (RSA, 1956). In this regard, riparian owners were entitled to “surplus water” and were not obliged to limit their usage for the benefit of downstream users, unless such an agreement had been reached. Private water was also recognised, promoting the development of water transfer schemes.

According to Section 6(2) of the Water Act of 1956, “*whenever an owner of land obtained, by artificial means on his own land, a supply of water which is not derived from a public stream, such water shall be deemed to be private water*”. Access to water was also linked to land ownership and marginalised the African majority who were not allowed by law to purchase land and were also banished to occupy less than 10% of South Africa’s land in designated areas as provided for by several pieces of legislation including the Natives Land Act of 1913, the Development Trust and Land Act of 1936, the Group Areas Act of 1950 and the Bantu Homelands Citizenship Act of 1970. The available institutions that facilitated land purchases and transfers between citizens, such as the Land Bank, only served the white population, thus placing land ownership further away from the African community (Tewari, 2009).

## **ii Amendments to the Water Act of 1956 before the post-colonial water legislation**

The Water Act of 1956 was not developed for the whole country and for all the citizens according to the boundaries that are there today. It was developed for white South Africans, excluding all areas that were designated as African areas or homelands. In 1993, the General Law Second Amendment Act 108 of 1993 was promulgated to extend the coverage of the Water Act of 1956 to include the rest of the country. The explanatory note for the amendment act reads: “*This Act amends the Water Act, 1956, so as to substitute or delete obsolete designations and expressions; and to apply the provisions of the said Act to scheduled Black areas and released areas*” (RSA, 1993).

The limited focus of the Water Act of 1956 in terms of land coverage as well as not covering black South Africans is one weakness that was not fully resolved when the current legislation – the NWA of 1998 – which was put in place as well as during the reforms to the institutions that were operating under this Act. The water legislation of 1997 and 1998 refers to the Water Act of 1956 as if it was an act put in place for the whole country. The implications of this are that the present legislation missed the opportunity to deal with specific issues that characterised the parallel systems of legislation that existed during colonial times, especially in the period of 1948 to 1998. The absence of legislation that directly tackles the needs of African people in the economic use of water is one of the results of this legal legacy.

## **iii The Water Services Act of 1997 and the National Water Act 36 of 1998**

In the democratic dispensation, the Water Act of 1956 was replaced by the NWA and the WSA. Prior to 1998, when the NWA was enacted, water was governed through a mix of “... *riparian rights, private rights to groundwater, forestry permits, scheduled rights in irrigation systems, state control of Government Water Control Areas, and living customary rights in former homelands where riparian rights did not apply to land users as ownership of the land was vested in the state*” (Schreiner, Sithole, and van Koppen, 2017). With the promulgation of the NWA and the WSA, all water came under government control. The separation of these

two acts has presented an opportunity to continue a form of coloniality where different methods are applied. The WSA deals with potable water provision while the NWA deals with water for productive uses. Through these two legal provisions, potable water was distinguished from water resources in a legal framework where the NWA promoted continued private ownership and access by those who were entitled to own the resource before the country gained democratic rule. On the other hand, the WSA ensured water service delivery to all including the provision of FBW.

In the WSA, the focus of water provision for black people is FBW. On the other hand, the NWA focuses on water resources and the extension of ELU. In the NWA, white people could continue to receive large volumes of water rather than the 25 litres provided under the WSA. According to the FBW Policy, each household is entitled to at least six kilolitres – amounting to 25 litres per day – of free basic water per month. This amount was contested in a submission to the Parliamentary Portfolio Committee for Water, as it falls short of the 50 litres per capita per day that is deemed sufficient for daily needs, including sanitation.

What the policy failed to consider was the number of people living in a household (including tenants), the need for water where there are ill members of the household (e.g., with HIV and Aids), and other cultural activities requiring water (Lindiwe Mazibuko and Others v City of Johannesburg, 2009). Counter arguments have included statements implying that the Constitution had been misinterpreted as stating water rights to all and as demanded. Couzens (2015, p.1164), for instance, argues that the Constitution does not state immediate provision of sufficient water but provides for the state to "*take reasonable legislative and other measures, progressively and within the state's available resources, to realise the achievement of the right of access to sufficient water*". The consequence has been a number of service delivery protests related to the insufficiency of FBW in indigent households who find themselves largely cut off from the water supply and have no other means of accessing potable water. Access to water also remains skewed while the commitment to equal access and water being a basic human right stated in legislation now reads like an empty promise.

While the NWA sought to redress past water access disparities, certain aspects of the discriminative Water Act of 1956 were upheld in the NWA and have led to the white minority continuing to enjoy the benefits of entitlements awarded to them under apartheid. The intricacies of implementing water and land reforms have also taken longer than anticipated and have led to, in most instances, a perpetuation of the status quo (Méndez-Barrientos et al., 2018). Past water laws in the country were developed without black people in mind and had thus been meant to uphold the needs and interests of the colonisers. At the time of their development, black South Africans had been placed in zones outside of the country then called South Africa (still South Africa), with the homelands outside of that demarcation, meaning water laws only applied to the zones defined as 'white South Africa'. It has been noted that during the framing of the water legislation for the new dispensation, a prominent water law expert, Robyn Stein, had argued for the retention of the 1956 legislation and the riparian doctrine as it was (Movik, 2012, p.33).

The water allocation reform that ensued after the NWA of 1998 has encountered many challenges – most notably the reluctance to transfer water from white commercial farmers to black farmers who were mostly classified as small-scale farmers. The poor progress in reallocating water is based on the incorrect perception that commercial white farmers had "*superior farming capabilities than the black farmers*", a view which arguably

was widely shared, thereby slowing down the necessary reforms (Schreiner, 2013). It is reported by Schreiner et al. (2017) that as of 2017, only 1.6% of water authorisations were awarded to black commercial users, out of the approximately 5 000 WULs issued to date. In addition, there are several thousands of water users using water commercially who are yet to apply for water licences but are currently benefitting from the ELU provisions in the NWA.

Prevailing 'knowledge' that is distributed by consultants as well as the media has tended to portray African farmers as unproductive and a potential danger to the economy that need to be stopped to avert an economic and food production disaster. Shadows have continued to be cast over the ability of the previously disadvantaged black farmers, who are usually characterised as incompetent when compared to white farmers. Dube (2020a, p.218) considered this to be a manipulation of reform processes after noting how "*white people use the food security issue as...a leverage*" and insist water should not be transferred to black people who have no knowledge of farming. A reluctance to offer black people access to resources therefore persists. Agricultural spaces are racialised or placed in a hierarchy that pits one group against another, an approach used in the production of uneven capitalist development (McClintock, 2018, p.2).

The NWA made several provisions to accommodate entitlements from the Water Act of 1956. Clause 163 (3 and 4) of the NWA maintains validity of anything done or provided for under the Water Act of 1956 as follows:

- 3(a) To the extent that it is not inconsistent with this Act; and
- (b) until anything done under this Act overrides it.

4 Any regulation made under a law repealed by this Act remains in force and is considered to have been made under this Act;

- (a) to the extent that it is not inconsistent with this Act; and
- (b) until it is repealed by the Minister under this Act.

#### **iv Water use authorisations and the licensing regulations**

Realising the need to rationalise the previous legal instruments and harmonise the playing field according to the Constitution and new democracy in South Africa, the wording in the NWA excluded the concepts of riparian rights and public-private water, which were in the Water Act of 1956 and made the government the sole custodian of water resources. Under the NWA, licensing of water is meant to, among other provisions, serve as a tool for advancing equitable water allocation. However, the NWA was not entirely divorced from preceding legislation, in that it allowed for an elaborate process to confirm and extend the rights of all existing water privileges irrespective of their background as racially biased rights as well as being riparian – a system that introduced geographical inequalities. Clause 22(1) of the NWA defines permissible water use to include a continuation of an ELU. Through the provisions in Section 33 of the NWA, water access that is registered as ELU is extended to include unrecorded water use that took place during the apartheid era as well as water access that was never exercised if its use could have been legal under the Water Act of 1956. DWS records (DWS, 2018a) show that the registration of ELUs is still ongoing, meaning that colonial and apartheid rights are still being formalised into legal present-day water use. This further confirms and entrenches inequalities,

almost three decades after the majority democracy was attained – a democracy that promised equality in water access for all.

The water uses, which were exercised during colonial times and confirmed as ELUs, are awarded superior status to licensed water use in clause 22(a)(ii) and are further protected in clause 22(6) of the NWA with a provision for financial compensation in cases where the ELU benefits are curtailed or lost. Clause 22(6) of the NWA states, "*anyone who is deprived of his existing lawful water use may claim financial compensation for loss suffered*". The wording of the clause also serves to protect against rejection of licence applications for ELUs, in fear of litigation. The NWA, clause 22(7)(a), further states that the amount of any compensation payable must be determined in accordance with Section 25(3) of the Constitution. Those uses that existed in colonial/apartheid times are thus attached to the property clauses which were mostly linked to fixed assets such as land in the Constitution. The link provided by the NWA to connect ELUs to property compensation clauses in the Constitution creates property out of ELUs for the purpose of ensuring that beneficiaries of historical water privileges do not suffer financial losses, in spite of how they gained the colonial water rights. The same provisions for financial compensation as provided for in the case of ELUs are not extended to WULs. Pienaar and van der Schyff (2007, p.189) have argued that those now known as ELUs "*acquired those rights at a price from predecessors in title*" and thus the move from water belonging to the "*private sphere*" cost them dearly.

The NWA is silent about compensation in cases where a WUL is curtailed or lost before its date of expiry. This could easily translate to mean that once an ELU is converted into a licensed water right, as provided for in the NWA, it loses the compensation provision in Section 22(6) of the NWA. In other words, a farmer is better off keeping their water as an ELU rather than getting it licensed under the NWA. Licensing takes away the additional layer of protection under the property clauses in the constitution. However, there are other provisions in the Constitution and other legislation such as the Expropriation Act of 1975 that can be used to claim compensation for lost privileges and rights. In the case of ELUs, these additional provisions act as additional layers of protection.

The coloniality of water access is very evident in how water access is registered as ELUs in the DWS. The reasons for registering ELUs as captured against registered ELUs in the DWS (DWS, 2018b) includes:

- (a) existing lawful water use under Section 32 of the NWA (Act no 36 of 1998);
- (b) existing lawful water use under Section 33 of the NWA (Act 36 of 1998);
- (c) existing lawful water use under Section 34 of the NWA (Act 36 of 1998);
- (d) existing lawful water use under Section 35 of the NWA (Act 36 of 1998); and
- (e) existing lawful water use in terms of Act 8 of 1912.

Not only is the water access gained in the Water Act of 1956 legalised under the NWA, but the water access privileges from as far back as the time of the Irrigation and Conservation Act of 1912 are also part of what are lawfully recorded as ELUs. The NWA and the Constitution were meticulously worded to protect apartheid privileges by ensuring that ELUs would be treated like any other asset as defined in the Constitution's Bill of

Rights. The Constitution also ensures that water entitlements cannot be taken away or reduced without compensation, just like land (RSA, 1996). As such, any transformation of access to water held through ELU would be faced with the hurdles associated with property protection as enshrined in the Bill of Rights (RSA, 1996) and other legislation around expropriation.

The NWA is accompanied by several regulations, some of which are instrumental in perpetuating coloniality. Its regulations regarding the procedural requirements for WUL applications and appeals is one legal tool that has been developed in a way that ensures that coloniality in water access is very difficult to address. The regulations include a strict regime of processes that are elaborately stretched over a period of 300 days, and that are required to be fulfilled before an application for a licence can be approved (Table 3.1).

**Table 3.1: Steps in the application for a WUL (RSA, 2017)**

Regulation	Steps in processing water use licensing application	Maximum days allocated	Cumulative days	Responsible party
0	Pre-application inquiry	0	0	Applicant/responsible authority
1	Application submitted	1	1	Applicant
2	Responsible authority acknowledges receipt of application	10	11	Responsible authority
3	Applicant confirms arrangement of site inspection with an allocated case officer	5	16	Applicant
4	Site inspection to confirm water uses as well as determine information requirements and the need for public participation	20	36	Applicant/responsible authority
5	Confirm requirement for WUL application; technical report based on site visit and meeting	5	41	Responsible authority
6	Compilation, consultation and submission of WUL application technical report by applicant	105	146	Applicant
7	Reject/accept WUL application technical report	10	156	Responsible authority
8	Assessment	139	295	Applicant/responsible authority
9	Decision and communication to applicant	5	300	Responsible authority

In addition to what is listed in Table 3.1, the application involves the following steps that should run parallel to the above:

- Completing several other forms.
- Advertising the intention to use water.
- Consulting with other parties in the area and municipalities.
- Accommodating other water users.
- Proving the ownership of land to be irrigated or where water will be used.
- Accommodating and responding to inputs by external experts on other issues such as geology.
- Hosting inspections by the water authorities.
- Submitting a detailed report that is completed by specialists and must be paid for by the applicant.

The processes that are required in water use licensing have meant that very few African applicants have managed to secure licences. In addition, more than 90% of all ELUs have not applied or been allocated licences under the NWA but instead use provisions of the Water Act of 1956 to access water (DWS, 2018b).

#### **v Irrigation boards and water user associations**

Irrigation boards (IBs) were formed according to the provisions set out in an insert of clause 79 of the Water Act of 1956, as illustrated in Box 3.2 below. The IBs were part of government, as were most of the board members; the Minister of Water Affairs elected two thirds while members of the irrigation district nominated the rest. The IBs and individual members received state support through loans that were guaranteed by the government. Land could not be sold in the Irrigation District without the approval of the Minister of Water Affairs.

Irrigation boards originate from the Irrigation and Conservation of Water Act of 1912, which was repealed with the passing of the Water Act of 1956. Their mandate within the prescripts of the Water Act of 1956 was to manage the allocation of water and collect water charges from white commercial farmers (Schreiner, Mohapi and van Koppen, 2004, p.175). All members of the irrigation boards were white landowners of the irrigation district with the same name as the irrigation board. With the repeal of the Water Act of 1956 through the promulgation of the NWA in 1998, the irrigation boards were supposed to be transformed into water user associations (WUAs) within six months of the coming into effect of the NWA. That transformation has not taken place and scholars such as Meissner, Funke and Nortje (2016) have suggested that inequalities among stakeholders in some water management areas are making the establishment of catchment management agencies (CMAs) difficult. One is inclined to see the same inequalities impeding the transformation of IBs into WUAs as well as any other transformation efforts.

**Box 3.2: Establishment of Irrigation Boards (RSA, 1956)**

STATUTES OF THE REPUBLIC OF SOUTH AFRICA—WATER <i>Water Act, No. 54 of 1956</i>	
ss. 79 – 80	ss. 79 – 80
<p><b>79. Establishment of irrigation boards.</b>—(1) For every irrigation district there shall be an irrigation board which shall be known by the same name as the name given to the irrigation district concerned in the relevant notice under section 72 (3) (a) or 73, except that “board” be substituted for “district” in the relevant name: Provided that whenever the area comprising an irrigation district is changed and another name is given thereto, the name of the board of such district shall change accordingly.</p> <p>[Sub-s. (1) substituted by s. 29 of Act No. 96 of 1984 and by s. 17 (a) of Act No. 97 of 1986.]</p> <p>(2) An irrigation board shall be a body corporate, capable of suing and being sued in its corporate name and of performing all such acts as are necessary for or incidental to the carrying out of its duties or the performance of its functions: Provided that an irrigation board shall not buy, hold or sell land without the approval of the Minister and that no land belonging to it shall be sold, except with the approval of the Minister and subject to such conditions as he may consider necessary, otherwise than by public auction.</p> <p>[Sub-s. (2) substituted by s. 13 of Act No. 73 of 1978.]</p> <p>(3) Any land owned by an irrigation board which is situated outside the boundaries of its irrigation district, shall be deemed to form part of the said district and shall be included in such district by the Minister by notice in the <i>Gazette</i>.</p> <p>[Sub-s. (3) substituted by s. 17 (b) of Act No. 97 of 1986.]</p>	

The NWA stipulates that the transformation of IBs was supposed to be accomplished within six months of its publication in 1998. However, the NWA also states that an IB would continue to exist until it is declared a WUA, thereby allowing the IB to continue existing if a WUA is not established. In 1998, 278 irrigation boards were in existence and in 2017 – almost 20 years later – 180 irrigation boards remain untransformed (DWS, 2017).

Through the WUAs, the NWA makes provision for the participation of all stakeholders in a catchment. This platform should ideally involve all players, including the HDI members of the population. In as much as completely new WUAs have been formed, some of them have resulted from the direct transformation of former IBs. This transformation has enabled the IBs' norms and standards to remain within the structure of the WUAs and remain, to a great extent, exclusionary (Kemerink, Méndez, Ahlers, Wester and van der Zaag, 2013). The NWA allows for those in office of the IBs to continue with their tenure into the new WUA until they can be removed. This enabled the board members of the IBs to remain as the main decision makers in a catchment area – meaning that the 'transformation' was merely a name change rather than an operational change.

Kemerink et al. (2013) challenge the effectiveness of WUAs as a transformation method in the water sector and cite examples in rural South Africa. The study puts across the belief that WUAs are used as a platform to contest water rights and since they are legally recognised institutions, may serve to legitimise water access claims. What this essentially means is that exclusion from the WUAs denies would-be participants from effectively contesting and making their voices heard regarding water access within a catchment. Focused on the Thukela River catchment, the study found that WUAs were still largely composed of commercial white farmers who formed part of the previous four irrigation boards in the catchments. Exclusion of HDI participants came largely in the form of a language barrier, with the language used in the meetings only being common to the white commercial farmers – therefore excluding the new African participants. Similar experiences were noted in the Limpopo basin with the bulk of the water in the water management area having been granted to white commercial farmers (Movik and de Jong, 2011).

#### **vi Water user associations**

With the promulgation of the NWA in 1998, WUAs were intended to replace the IBs as well as incorporate all other water users' new responsibilities as provided for in the NWA. The objective of the WUAs was to see that all water users in the catchment could participate, including the HDIs, water utility entities, mines, industry and many other water users in the area. The areas included in the WUA provisions were now based on the catchment boundaries rather than the irrigation district as provided for in the Water Act of 1956. The failure of the irrigation boards to transform into WUAs as discussed above constrains the water allocation reform process as the decentralisation of processes through the transformation of IBs to WUAs not only obstructs but postpones change.

#### **vii Groundwater and the NWA**

As opposed to the Water Act of 1956, the NWA does not detail the intricacies of groundwater availability and management, save for a single mention in Clause 139 where the NWA suggests the development of a groundwater information system. It will be noted that the Water Act of 1956, which clearly discussed groundwater as one of the water resources, defined it as private water to which water rights were not applied (RSA, 1956). The Water Act of 1956 mentioned groundwater 24 times and has a lengthy section (Clause 12) which dealt with groundwater from mines. It also made provisions for issuing of permits for groundwater. These permits were based on the land where it is found as well as mine ownership. Such permits also provided for landowners and miners to sell the groundwater to other parties. The Water Act of 1956 also dealt with a range

of other variables, including groundwater pollution, groundwater disposal, collection of information on groundwater and boreholes on all private property, offences associated with groundwater abstraction, ministerial powers in the abstraction of groundwater, servitudes associated with groundwater, limitations of groundwater use, borehole water quality and guidance on drilling new boreholes.

The failure to explicitly account for groundwater in the NWA meant that the available resources are usually not accounted for or maybe underestimated in the considerations associated with the NWA. This omission means that the government and the public cannot easily access information on widespread groundwater use on private property. As a result, water access reform efforts are restricted to surface water. The DWAF (2000: iii) recognised that the *"hidden nature of groundwater makes it prone to a lot of misunderstandings and mismanagement"*, hence the need for the NWA to have been deliberate and more precise in how it made provisions for groundwater and access to groundwater. The failure to separate between green (ground) and blue (surface) water resources feeds into the water scarcity discourses (Swatuk, 2017), perpetuating misinformation on the patterns of scarcity of water resources.

Newson (1992, p.252) posits that the *"separation of legal attitudes to surface waters and groundwater.... has had unwelcome effects on all aspects of comprehensive water management"* in the United Kingdom. In South Africa, groundwater management has fallen behind, with a weak management structure due to this apparent silence in the NWA. Several groundwater policies have had to be developed by the DWS to augment the NWA (DWAF, 2000; DWA, 2010). The rights to groundwater granted under the Water Act of 1956 have thus remained in place. Groundwater management in the DWS adopts more of a supportive role next to surface water management, which is more in the spotlight. Lack of expertise in groundwater monitoring and management leads to the continuation of practices adopted in the colonial era, where groundwater was a private commodity and whoever owned the land above it could abstract at will (Knappe, 2011). The deficit in groundwater experts and analysts in the DWS lends itself to poor record keeping and as such there is insufficient data on groundwater availability and supply capacity, with a state of water scarcity prevailing that has limited access to water for new users – particularly HDIs. The future dynamics of groundwater availability require a targeted approach, which the DWS is currently not focused on.

### **3.2.2 Role of religion, culture and other value systems in coloniality of water**

#### **i. Religion and coloniality in the water sector**

In South Africa, as in most colonised countries, foreign religions targeted the way of life of Africans. This especially occurred with mind control programmes in which the colonised were assimilated into Asian or European value systems. Gomez (2013, p84) posits that *"catechising Africans was.... seen as a means of facilitating political control, which in the end was all about promoting European economic interests"*. The religious leaders were instrumental in colonising the minds of Africans in a way that would make it easier for their governments or sponsors to establish the African countries as part of their colonies or extensions of the countries where they would have originated. The first casualties of colonial religions were the African ways of being, their cultures and their self-worth (Gomez, 2013, p.86), as Africans were made to believe that their way of life was unholy and inhumane. This included the traditional, spiritual and customary systems that were used to govern the way of life, including the relationships between people, water and natural resources. According

to Kwashirai (2003), "*ownership, allocation and control of land, forests and water resources all fell within the spiritual realm*". An imposition of religious universality through colonialism thus denied Africans their value systems. While in the past, rainmaking rituals could be made during times of drought as well as other rituals involving mediums, Christianity – which dominated South Africa and many other parts of Southern Africa – was quick to classify these African traditions as unholy and uncivilised. These were replaced by liturgies that were purported to be holy yet were foreign to African ways of being.

Different Christian denominations allocated themselves different districts to work on their catechism mission. The Dutch Reformed Church had the biggest piece of the pie and was the most popular denomination during apartheid (cf. Ritner, 1967). According to Lephakga (2012a), the Dutch Reformed Church's traditions cannot be separated from South Africa's painful history of "*suppression, oppression and dispossession*". Its doctrines and value systems were deeply embedded in the apartheid separationist ideology. As Africans converted to Christianity, they were yet again faced with segregation – this time in the church. Lephakga (2012b) suggests that the humiliation from the oppression and suppression "*resulted in black people internalising oppression and thus fleeing from being black*". The Dutch Reformed Church, although it later retracted its position, supported apartheid based on 'biblical' theology. According to Boisen (2017; cf. Bulhan, 2015; Morris, 1900), Christian beliefs were very instrumental in the quest for colonies. She suggested that "*what gave the right of early modern Europeans to appropriate lands overseas was based on a duty imposed by God upon humanity of self-preservation which requires making the earth productive and bountiful*" (Boisen, 2017). Modise and Mtshiselwa (2013, p.6) concluded that "*the majority of the South African churches subscribed to and executed the Natives Land Act of 1913*" which deprived black people of their land (see also Weideman, 2006, pp.489-493).

The preceding section is worth noting as the Christian churches' participation in segregation helped to maintain a racially divided nation (Mashau, 2018; Kgatla and Magwira, 2015). Christianity's psychological stronghold is also evidenced by the acceptance of the idea that there is a white Jesus who will save them from sins. Several authors (Ghanbari, 2008; Glicksberg, 1948; Tshaka, 2015) agree on the fact that Christianity maintains a grip on people's minds in which they feel they can postpone dealing with their pain while rejoicing in the belief that someone will come and save them. Wiredu (1998, p.20) views Christianity as an intellectual package with metaphysical and ethical propositions, and a failure by Africans to interrogate Christianity's "*truth or falsity of its propositions, or the validity of their supporting arguments, where there are any*" earns them "*the label of being an intellectually colonised African*".

In his novel, *Things Fall Apart*, Chinua Achebe (1958) bemoans how Christianity divided African people. Those who had joined the white man's religion became instrumental in suppressing those who still followed their traditional customs. In practice, the religious values upheld by white people were supported at the expense of indigenous customs and became the basis for the legislation and formal practices in colonised nations. In Christianity, black is associated with evil, and for black people to be comfortable in adopting Christianity they must be possessed by the holy spirit, which is white. They must deny their blackness and exist in whiteness, in a world where God, (also portrayed as white) has given them everything. Wilson (2011) also explains that it is empowering for white people to believe in a white God and destructive to the psyche of black people to see a white god as their last hope for emancipation from their troubles.

Religious denominations have been involved in spreading colonisation and extending segregation throughout the history of South Africa. The Dutch Reformed Church (DRC) was the incubator for some of the most racist members of the National Party, including the formally acknowledged founder of apartheid, Hendrik Verwoerd, whose father who was an evangelist in the DRC. Verwoerd is known to have used the Bible to devise one of the worst government systems of racial segregation, namely apartheid. He is also famously known for having developed an education system for black people that restricted them to the roles of what he described as "*hewers of wood and drawers of water*", a statement he drew out of Joshua chapter 9 verse 23 in the Bible (SAHO, 2018b).

Ritner (1967) explained that no religious group had ever used the Christian message of brotherhood and love to develop a harsh system of hate and segregation as did the DRC – also called the Nederduitse Gereformeerde Kerk (NGK) – and also pointed out that the DRC was fixated on the theory of the superiority of white people over black people and was instrumental in developing and extending apartheid to all the governments that came into power in South Africa. She said that the DRC had the most powerful formative influence in shaping the values, norms and institutions of the Afrikaner community (Ritner, 1967, p.17). Rev. James Oglethorpe (nd), a minister in the DRC, also pointed out his worries about the role of the DRC when he explained that it was favouring a policy of "*separate development*". He observed that the DRC was at the centre of the apartheid doctrine.

## ii Culture and role in coloniality of water

African culture regarded water as a communal resource with the traditional head presiding over issues to do with allocation and use. With the coming of the colonial era, this system was replaced with a new foreign system that promoted private ownership on a first-come, first-served basis (Tewari, 2009). Interestingly, the cultural uses of water in the African context have been thrown into obscurity, as reflected by inadequate provision for it under the NWA. Zenani and Mistri (2005) explain that the cultural use of water has not been well understood and it is therefore not catered for in the water management process. This has resulted in traditional water management practices being left out in terms of documentation and recognition in the mainstream legislation. Taking into consideration the current gaps in effectively implementing water allocation reforms, embracing the cultural belief systems with regard to water access and allocation would further the cause of water equity, unlike the approach of the colonial system which was largely capitalist in nature and involved the use of incentives, loans, laws and Eurocentric institutions where there was no room to accommodate the cultures of local people. These structures favoured the large commercial farmers and allowed them access to infrastructure, financial and natural resources, leaving the African majority in the designated homelands and black townships (Perret, 2002).

The subject of water and knowledge about water has also been given a new meaning that sees no place for local/indigenous ways of knowing. Linton (2006, p.40) describes this as "*modern water*", which he unpacks as being the "*dominant way of knowing or relating to water originating from Europe and America*". He suggests that the new interpretation of water in mathematical formulae leaves no place for local knowledge and that the hydraulics of irrigation channels and the mechanics of dam construction were even standardised throughout

the world. In South Africa, water management has also made a huge departure from the local ways of knowing and even though some customary ways are practised in rural areas, only the statutory legal system that is mostly alien to local conditions is recognised (Kapfudzaruwa and Sowman, 2009).

### **iii Economics and role in coloniality of water**

The drive for economic development has ensured that access to water beyond basic human requirements is determined by expected productivity – based on the intended use of the water. Water has ceased to be revered for its spiritual, religious and social value and is only viewed for its economic value. The premise for the allocation of water in the new dispensation relies on the principles of equity, sustainability and economic efficiency. It has, however, been noted that economic efficiency has higher priority, as evidenced by cautions not to curtail existing lawful users as that would affect the country's economy (DWS, 2017). Segregation policies of the past excluded African people from productive water use and a strict policy of allocation for efficient users entrenches those inequalities in access to productive water use.

### **iv Sustainability and water sector coloniality**

Water use by African people is defined as unsustainable and not worth pursuing. The general view is that African people do not require a lot of water (as discussed concerning the WSA in previous sections). Their access to land and water is therefore hindered by these prejudices, which have been inherited from the colonial era. Most of the African population is located in dense settlements where there is not enough water or land, and the degradation that results from the overcrowding is portrayed as their inability to sustain healthy environments, leading to them being barred from access to more resources. Most black farmers were classified as subsistence farmers who did not require much land or water. The average land allocated to a black farmer was 1.5 hectares compared to an average of between eight and 20 hectares for a white farmer (Averbeke, Denison and Mnkeni, 2011). Given no access to opportunities and resources to expand their farming activities, their farming practices have largely been regarded as unsustainable.

### **3.2.3 Governance and institutional structure in the continued state of water sector coloniality**

During the dawn of 'democracy' in South Africa, the handover of governance assured continuity from apartheid to a democratic South Africa. The early days started with political leaders who were handpicked from the apartheid government and a few other leaders who represented the incoming ANC and other parties that had been marginalised during apartheid. The large contingent of white people who manned the government offices, parastatals and other past relics of apartheid continued to run these institutions. This could explain most of the reasons for the continued lack of transformation even after the country was declared democratic as a result of the first democratic elections. Some of the results of this early transition are that the national sovereignty and the capacity to enact transformative legislation by the post-colonial government remained poor in a way, allowing for the continued inequality in the use of resources. This furthered ownership privilege patterns that continue to favour white people. Weideman (2004) explains that the former NP government used the transitional period before handing over power to the ANC government to avert radical law changes by what appeared to be token amendment of apartheid discriminatory legislation. The resistance to change of land

ownership by those previously privileged adversely affected land reforms (Movik, 2009) as well as legislative changes. Transitional legislative amendments introduced complications, thus making it difficult to implement transformation.

Movik and de Jong (2011) point to the institutional weakness inherent in the water sector, from its inception in the early 1990s to the enactment of the NWA, which is now being criticised for being a doorway to inefficiency and corruption – leading to the licensing process failing to make significant inroads in dismantling inequalities. The stagnation of the WUL process experienced by the DWS in recent years is also suggested to be the cause of some of the prevailing 'illegal' water access affecting most catchments in the country. Institutional incapacity, especially in the DWS, has thus played a significant part in slowing down water reform, thereby allowing colonial structures to remain functional. According to a study by Méndez-Barrientos et al. (2018), in the Thukela basin, water registration based on the WAR began in 2000, two years after the passing of the NWA. Notably, the IB leaders offered to assist the government officials in the registration process as they had both knowledge of the basin and vested interests in the region. This registration process was largely a paper process, without verification and validation, due to the limited technical and human capacity of the DWAF. The white commercial farmers were therefore at liberty to report whatever figures they saw fit to the officials in terms of abstraction volumes and thus riparian rights were carried over as ELUs through the NWA (Méndez-Barrientos et al., 2018).

According to Schreiner (2013), after 1994, some white officials vacated their government positions and formed consultancy firms, which left the DWAF with a knowledge gap. As a result, it became heavily reliant on the services of these consultants. The licensing process in the DWS is almost completely reliant on consultants. It can be deduced that it is the same consultants who left the DWAF that are now facilitating the licensing process for white commercial farmers, thus entrenching the power and privilege from the previous dispensation. White commercial farmers have managed to circumvent the barriers that would ensure that they shared some of their infrastructure and the water therein, thus the NWA alone cannot achieve the WAR – as evidenced by the situation on the ground (Méndez-Barrientos et al., 2018).

# CHAPTER 4.: MEASUREMENT AND MAPPING OF INEQUALITIES AND OTHER FACTORS OF COLONIALITY IN THE WATER SECTOR

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## 4.1 Measurement of inequalities as part of the decolonial method

The processes and programmes for addressing coloniality are difficult to measure, especially because there are no relevant commonly used international standards that have been applied and improved over time. However, former colonies (cf. Arsenault et al., 2018; Wrightson, 2016) and other interested parties – for example the United Nations Declaration on the Rights of Indigenous Peoples of 2008 (UNDRIP) – have devised a number of techniques that could be discussed as methods of measurement in evaluating how decolonisation initiatives are achieving their objectives. The determination of success in the decolonial programmes has often been done internally, usually by the government departments that were responsible for implementation.

There has been a lack of robust external auditing or accounting systems to ensure that the progress in addressing coloniality is adequate for the challenge. In many instances, the results were such that there is a realisation after many years that there has been little progress, if any, being made – especially in relation to international comparisons (PMG, 2015). This has been the case in many areas of South Africa, where the impacts of colonisation were targeted for redress. Some vivid examples include the cases of access to suitable education for all, provision of land for those who were deprived of it, provision of housing, domestic services including water and sanitation, functional transport systems for communities, access to sporting, health, recreation, and even economic empowerment for the previously disadvantaged communities.

One of the major problems affecting the programmes for colonial redress has been the widespread poor understanding of the various aspects of coloniality, especially of the colonised. It has taken a long time for South Africans to realise that coloniality exists in a holistic system which spares no sector in society. This is because colonialism was built into the spiritual, social and economic systems for the hundreds of years that South Africa was under colonial rule (Heleta, 2016). Heleta (2016) also points out that while policies could seem to be seeking to dismantle the remnants of the apartheid system, the institutions and the human element in the institutions are still stuck in the pursuit of preserving what was gained from apartheid. The way in which the colonisers attempted to apply colonisation at all levels of society and in all disciplines also meant that most Africans were unable to comprehend the nature of their coloniality. This is what Bulhan (2015) explains as the transition of colonisation from the occupation of land to the occupation of being. He stressed that even if the resources are taken back by the colonised, nothing will come out of it if the psychological colonisation is not conquered.

## 4.2 Who is measuring the redress of inequalities in the water sector?

### 4.2.1 Institutions involved in measuring transformation as redress

The history of measuring transformation in the water sector is found in the data and information generated by all responsible and interested entities. These entities, with the exception of those with a national mandate, tend to focus on specific areas and are likely to be intermittently involved, leading to them not being able to offer a full picture, covering time and space, of the whole demographic distribution. This study will focus on those measurements that tend to be more holistic, covering the whole country and aligned to national interests.

The entities involved in measuring or evaluating coloniality or elements of it may seem to be focused on some other subject that ultimately seeks to resolve factors of coloniality while they carry out their mandate according to organisational objectives. These institutions or entities can be grouped into the following categories:

- Non-Governmental Organisations (NGOs).
- National social justice organisations, such as the South African Human Rights Commission (SAHRC).
- Local government units, such as municipalities and the South African Local Government Association (SALGA).
- Government departments, such as the Department of Water and Sanitation (DWS), National Planning Commission (NPC), Department of Human Settlements (DHS), Cooperative Governance and Traditional Affairs (CoGTA), and Department of Environmental Affairs (DEA).
- Parastatals, such as the water boards and South African National Biodiversity Institute (SANBI).
- Research organisations, such as the Water Research Commission (WRC) and Council for Scientific and Industrial Research (CSIR).
- Private organisations, such as companies with a social responsibility to address water access.
- International interested parties, such as foreign governments, the United Nations (UN), World Health Organization (WHO), foreign agencies, and World Wildlife Fund (WWF).
- Social upliftment organisations, such as the South African Human Rights Commission (SAHRC), which is the national institution established to support constitutional democracy. The SAHRC *"is committed to promote respect for, observance of and protection of human rights for everyone without fear or favour"* (SAHRC, 2016). The role of the SAHRC links to the water sector due to water access being a human right according to the UN provisions as well as the NWA of South Africa. Since water access is a human right, this entity has an interest in ensuring that everyone in the country has access to it, and if that is not the case, treat the situation as a violation of the rights of those concerned.

The UN has always been an active role player in seeking solutions for colonisation and coloniality. The UN has several units that deal with areas aligned to how former colonies address coloniality. An early tool to address decolonisation processes was the United Nations General Assembly Resolution 1514 (UN, 1960), which made declarations allowing for progress toward decolonisation to be measured. The resolution notably declared its commitment to:

- stop the subjection of peoples to alien subjugation, domination and exploitation;
- allow every citizen the right to self-determination;

- provide equal participation and independence to every citizen independent of his/her inadequacies in political, economic, social or educational preparedness;
- not use repressive measures against citizens who wish to exercise peacefully and freely their right to complete independence;
- transfer all powers to the peoples of the territories, without any conditions or reservations, and without any distinction as to race;
- stop any partial or total disruption of the national unity and the territorial integrity of a country; and to
- observe faithfully and strictly the provisions of the Charter of the United Nations, the Universal Declaration of Human Rights and the present Declaration on the basis of equality.

These declarations are used to evaluate progress in decolonisation in the different states, and have been important in how South Africa was assessed on its path to secure freedom for its entire people. In addition to the declarations towards decolonisation, the UN has signed and agreed on several other provisions in various areas that are related to coloniality. These include provisions in the United Nations General Assembly of 2010 (Resolution 64/292) where water and sanitation were declared to be human rights (UN, 2010) and the more recent Sustainable Development Goals (SDGs). The United Nations Development Programme (UNDP) Goal 6 makes provision for clean water and sanitation (UN, 2018) thereby giving effect in part to the UN's Resolution 64/292. The goal is set to guide nations in ensuring availability and sustainable management of water and sanitation for all by 2030. This objective is aligned with solutions that seek to address the effects of colonialism in the disparities experienced in water access by various communities that were designed to follow racial lines as well as regional boundaries.

#### **4.2.2 Measurement of inequality redress at national level**

The government is the main role player in the measurement of water resources provided for economic use. An example is the requirement to report on the progress on water use licensing to the Parliamentary Portfolio Committee on Water and Sanitation (PPCWS) by the DWS. The DWS is not only tasked with ensuring equitable distribution of water but also to measure its own performance. In some instances, this may become a limitation when there is conflict of interest. Water sector transformation relies on the issuing of WULs to water users, and the positive results are gained when more HDIs secure licences, given that they constitute the group that was previously discriminated against. In a presentation to the PPCWS on water in August 2015, the Deputy Director-General for Regulations and Compliance in the DWS reported to members of parliament that "*the Department has made good progress in Water Use Licensing*" (PMG, 2015). However, he also gave statistical assessments that showed that there was very little progress made in transforming how water licences were being issued (PMG, 2015).

Parliamentarians found the DWS submissions unrealistic and demanded changes to the processes of licensing. Deputy Director-General also reported that most applications were submitted to the DWS without supporting documents or were incomplete. This problem was due to the very demanding complexity of the WUL application process that the parliamentarians were querying. The participants pointed out that the NWA, which the representatives from DWS were saying was progressive, was depriving HDIs of water and had to

be reviewed. In the meeting, several examples of cases that had been assisted by government departments to acquire land but were failing to secure water were presented. The statistics provided regarding progress on issuing WULs and the examples of progress or lack thereof gave an assessment or measure of progress towards addressing a situation where water access was limited to a few users.

### **4.3 Mapping methods and tools in water sector coloniality**

#### **4.3.1 Inequality redress mapping methods in general**

Although South Africa went through a successful democratic election process to end a governance system that was discriminatory, the bonds with colonisation did not evaporate overnight. Several programmes were developed and implemented to address the effects of colonisation and apartheid, starting with the RDP. Ncube et al. (2014) observe that behind the various programmes implemented over the years – such as the RDP, GEAR, and NGP – lie unresolved differences on an appropriate strategy for South Africa, given its past that is rooted in the inequalities and poverty that continue to dominate the lives of the majority. Earlier investigations in this study, as demonstrated in both the study literature and feedback from consultations and observations, have shown that there are many negative characteristics from the past that still dominate the state of the water sector. The investigations in this study section seek to measure and understand the progress that has been made in addressing coloniality and associated inequalities in the water sector. In this section, progress measurement and mapping will seek to bring to light a picture of the state of coloniality for various water sector characteristics as they are in the present day and compare these with the situation in the past – with the ‘past’ defined as the period before the start of South Africa’s democratic rule in 1994.

A study that entails the mapping of inequalities requires that one defines what inequality is and provides some dimensions to it. In his definition of inequality, McKay (2002) stresses the difference between inequality and poverty, positing that the focus of poverty is the standard of living that is measurable by agreed/standardised poverty lines. Inequality, on the other hand, relates to the variations in living standards across a whole population (McKay, 2002). In attempting to measure and then map the water sector inequalities, the study looks at the structure and racial dynamics of water access and allocation inherited from the apartheid era, to determine the amount and quality of progress made to date. Transformation in the sector has indeed taken place in some quarters. Coloniality, however, is detectable when the said transformation is investigated using decolonial lenses. In this study, inequality has a focus on the varying standards resulting in different opportunities and outcomes because of underlying structures that are themselves legacies of a colonial and apartheid past.

Mapping tools are said to be determined by the focus of researchers’ mapping efforts (Crane and Mooney, 2005) and there are different mapping methods that can be used when applying quantitative or qualitative data and information. For instance, social mapping is used to graphically represent indicator performances for households according to spatial household locations (World Bank, n.d.). Social mapping is also used to identify different social groups, show the layout of the community, the available infrastructure and the social institutions that support them (World Bank, n.d.).

In terms of water provision, censuses have been the most widely used mapping method to assess progress or development in South Africa's services. Censuses, according to a Statistics South Africa (Stats SA) and the Human Science Research Council (HSRC) report (2007, p.8), "*provide highly disaggregated data that delineate the characteristics of the population within small geographic areas within small communities*", and information that is easily mapped as enumeration areas have identifiable boundaries. These boundaries are easily identified using geographic information systems (Stats SA and the HSRC, 2007). Successful censuses provide some of the best water sector variables.

#### **4.3.2 Methods applied in this study to measure inequalities and progress of transformation**

This study is largely based on the exploration of available data, literature and content analysis of the literature as well as field-based engagements. In the field, this study made use of a combination of individual interviews and questionnaires. Other methods such as storytelling would have been used but the nature of the study as a short-term consultancy project with limited scope did not afford enough time and resources to indulge these. The study benefitted from engaging with the historically disadvantaged farmers, community members who were carrying out gardening or agricultural activities in their villages (but in many cases did not describe themselves necessarily as farmers), commercial farmers, and farm managers as well as randomly selected members of the community. Other parties consulted included professionals and other interested role players working in directorates with a direct link to the elements that characterise the state of coloniality – such as personnel in the areas of WAR, WUL programmes and academia.

The community members who were involved in agricultural activities in the villages were engaged based on their role as people who were interested in using water for productive activities, while the farmers were categorised as those already using water productively. Ordinary, randomly selected, community members provided a historical view on water access and use. All these stakeholders had their experiences that are linked to coloniality and the decolonisation process captured through the use of questionnaires and open discussions, while those considered as experts were engaged through interviews. The researchers had hoped for participatory, interactive and emancipatory methods, as opposed to the mechanical natural sciences approach. The intention expressed in the project brief was to carry out an initial short-term, limited budget consultancy project to establish the need and potential of a much larger project that would stretch over at least two years and cover the subject more exhaustively.

##### **i. Identification of locations and sampling of respondents**

Locations in Gauteng, Limpopo and Mpumalanga were visited during weekends when the adult members of households were expected to be at home. The study was undertaken in rural and semi-urban areas, with the focus being on the areas that included former homelands, such as in the Gauteng, Limpopo and Mpumalanga provinces. Case study areas in the Olifants Water Management area were especially chosen because of the high number of former homelands there. While households were randomly selected, the researchers were given a briefing regarding the selection of actual respondents at the households. For this exercise, the respondents had to be 16 years or older in 1994, which means that they were at least 40 years old at the time of administering the questionnaire. The responses to the questions were to address current as well as past circumstances (before 1994) in terms of access to resources, especially water. While the year 1994 was used,

the questions for experiences were looking for input regarding the period leading to 1994. Communities who used water for domestic purposes as well as those who used it for commercial purposes were interviewed.

Questionnaires were administered with randomly selected community members and when time and circumstances permitted, the respondents were engaged in a general discussion around the subject. Random sampling involved the consideration of all subsets of the population as potential respondents as discussed by Bhattacharjee (2012). This method did not consider how representative a chosen participant is to the population under study, which is an approach based on Neuman (2014). To get a sample that is closer to the required population parameters, random sampling was considered the best option for the identification of questionnaire respondents. Research assistants who were specifically trained to carry out the task administered the questionnaires.

Randomly selected community members were approached and briefed about the study, after which their consent to participate was sought. The research assistants would then take the participants through the questions and assist them with the filling in of the questionnaires. As such, questionnaires were filled in and completed on site and then the research assistants would move to the next places to identify other participants.

## **ii. Questionnaires**

The nature of water sector inequalities is such that different data collection techniques had to be employed to gather the relevant data for their assessment and mapping. Students employed on the project, as well as other members of the research team, administered the questionnaires. The use of questionnaires was applied to obtain data and information on the state of inequalities at local levels in various communities. Through the same method, perceptions of coloniality were also determined based on historical accounts that were compared with the respondent's interpretation of the present state of his/her interaction with water and associated resources.

Variables to be assessed were determined and documented in questionnaires, with the questionnaires being both open-ended and closed-ended. The questions were prepared for administration in communities, with the intention of establishing changes in the state of inequalities from before 1994 till now. Piloting of the questionnaires was done with colleagues and randomly selected community members to test the pattern of responses the questions would elicit and to find out if the questions were well phrased and comprehensible. After the pilot study, trained field workers went out to case study areas to administer the questionnaires. A total of 117 questionnaires were administered in the three case study areas. The questionnaires were administered in the preferred languages as indicated by the respondents. An initial round of administering questionnaires resulted in modifications to the questions as well as the targeted respondents. It was noted that communities who were using water for domestic purposes only had little interest in answering questions regarding water for economic use and had not interrogated the issues surrounding commercial water use. In the second round of administering questionnaires, the researchers were advised to focus on community members who had at least one other use for water, to improve the content of the questionnaire regarding water for economic uses, licensing and the quest for improved water provision outside of domestic supplies.

### **iii. Key Informant Interviews**

Key information interviews (KII) were held telephonically and face-to-face with respondents selected purposively – based on their knowledge or expertise on issues in the water sector. Caution was exercised in the selection of the 'experts', considering the nature of qualitative research in a decolonial context, which has left many uneasy. Eight key informant interviews were held with farmers, different government department workers as well as representatives of different associations such as the African Farmers Association of South Africa and WUAs. The interviews with government department employees led the researchers to archived data that was accessed after application for access through the Promotion of Access to Information Act process.

### **iv. Datasets used**

The analysis of water uses and water allocation utilised the water access datasets in which information regarding racial groups of individuals with water rights were captured. The main records used were DWS 2018a, consisting of ELUs for the period ending in October 2018, and DWS 2018b, a record of processed licensing data up to October 2018. Minor updates were made to the analysis using the raw data from DWS 2020b, submitted to the WRC by the DWS representatives in 2020. This data clarified the extent of water use licensing in the early years of the NWA. The DWS 2020b data was characterised by poor information with many gaps and therefore its use was restricted to the period ending in 2005, as other datasets had much more comprehensive information after this period. Another dataset used was DWS 2020a which consisted of processed data of water use licenses.

#### **4.3.3 Conducting qualitative research in a politicised realm**

Lancaster (2017) points out that there is potential for many challenges in interviewing powerful people or experts, especially when policy processes being studied are playing out in real time. This proved to be the case with the attempts at engaging with some experts within the water sector who remained unavailable throughout the course of the research project. At the time of this study, mass meetings were being held nationwide to get public opinion on the issue of land expropriation without compensation in line with the recently passed motion to revise the property clause in the Constitution. Since the main objective of this study was to map progress in transformation of the water sector, it steered clear of the ongoing political debates. It is, however, important to note that despite the nationwide legal debates, the relationship between land ownership and control of water could not be drawn by many to whom questionnaires were administered. The public discussions also focused solely on land with no mention of water, even though the NWA directly places ELU rights as property through NWA Clause 22(6). It is also interesting to note that the research participants also wanted to know more about the water that mattered to them in the present, such as domestic water, while showing more interest on land.

The absence of information regarding water access and its association with land was evident in the debates on land expropriation. It was clear that the momentum on land expropriation is not sufficiently informed to appreciate all the variables concerned in the reallocation or expropriation of land. This same paradigm plays itself out in real life when new landowners suddenly realise that they need water and suffer immense losses if

they fail to secure water resources for their piece of land. Water sector knowledge institutions, as well as other relevant government departments, were mostly absent from the land expropriation debates – which left mostly politicians dealing with a national issue that will ultimately require these technical institutions to participate and improve the prospects for successful redress of the persistent inequalities.

Studies such as this can also be impacted by the reluctance of community members who may be key role players, especially if the subject is viewed as being political. The WRC research processes involve selected participants who act as reviewers while also guiding the research team to steer the project in a direction that allows objectives to be met. While some of the invited members for the steering committee (reference group members) for this project did respond to the invitation and attended the meetings, it is important to note that some key members involved in the water allocation reform process remained out of reach until after the project extension stage. This delayed the project process, as information that could not be obtained during the first phase of the project was only obtained in 2020 – for a project that was initially set to be completed in 2019.

#### **4.4 Sources of errors and study limitations**

Sources of errors and limitations in this study included the following:

- Some of the data used, especially in water access, is still under development, with ongoing programmes to update the data. At the current rate of progress, it will take several years to have a complete record.
- The data used in assessing water knowledge and water access on water knowledge showed repetition and possible gaps. Effort was made to address these issues, but the researchers will not take any responsibility for any omissions and shortcomings in this data.
- The data on water use registrations by companies was not broken down according to race. Doing so could allow for a full assessment of racial inequalities across all groups rather than focusing on statistics for individual people.
- The data received from the DWS for new water use applications did not include the coordinates for locating these users. Such coordinates could have improved information on where the new water users are located according to the racial groups.
- Some officers who were consulted with were very defensive. Rather than providing simple answers or data, they tended to postpone and delay the process. Other officers have found ways to show progress in addressing inequalities, which they are comfortable with even when they know that the problem is not being addressed.
- The subject focuses on racial inequalities arising from the past apartheid and colonial systems, as well as the ongoing state of inequalities along racial lines. The subject of race is always contested to the extent that even the use of the terms 'black' and 'white' are also contested. In the study, 'black' in most instances refers to anyone who is not called 'white', but there are instances where data was collected which only referred to black people as black Africans rather than including people of other origins such as Indian, Chinese, and coloured. It should be noted that there are other instances when black refers to black Africans and coloured people. These differences did not take much from the statistics due to the very high rates of inequalities observed. In this study, white women were not considered as black people – as is done in a few other South African references.

- Dealing with the subjects of coloniality and decoloniality in English created limitations in that some of the terms associated with this subject are not recognised in the commonly used English language. The term coloniality is not in standard English dictionaries and hence it is frequently not included in literature – even that which deals with coloniality. Use of terms such as *discrimination* or *segregation* narrows the understanding of the state of coloniality and exposes the researcher to other vast amounts of literature that does not deal with the subject of coloniality.
- The terms used in addressing aspects of coloniality are misleading or tend to cover up high levels of inequality. The quest to measure the progress in addressing inequalities and in eradicating coloniality in the water sector faced the challenge of the measurements made being for what is commonly referred to as ‘transformation’. Transformation is usually about only factoring the numbers involved – which does not address deep-rooted inequalities. As an example, the commonly applied schemes where farm workers are given shares in farm ownership and management do not result in the eradication of inequalities. Many of these schemes end up being investigated by the SAHRC for being fronting schemes. Worse still, the government will have paid for some of the funding of such schemes (SAHRC, 2018).
- Responses from the case study areas took place in an environment where most black water users had many issues to complain about – especially the poor water service delivery. A number of possible respondents refused to participate in the study if we did not discuss how we could assist them in dealing with immediate water access challenges.
- The funding of the project was very limiting. Less than one-third of the original budget was made available after the project was accepted as a short-term consultancy. In addition, there were some changes in which the issues of expropriation had to be added to the study after a motion for expropriation was highlighted through the nationwide debates.
- Water sector inequalities in the country are hardly dealt with from a decolonial perspective, meaning that international sources with a focus on other sectors rather than water ended up being used.
- The water sector knowledge area has high levels of coloniality and exhibits some of the highest racial inequalities. Due to this coloniality, it was difficult to establish constructive engagements with established researchers and other experts in the water sector about coloniality.
- Inequalities in the water sector are still ongoing as evidenced by the never-ending process to reaffirm apartheid privileges such as water access rights through the unending ELU registration process (Schreiner, Sithole and van Koppen, 2017). As such, this is a study of an active phenomenon that includes not just coloniality but also elements of active colonisation. It is synonymous with investigating an active crime scene, and the challenges are that the evidence is protected, tempered with, and hidden while witnesses escape from the scene in fear, while officers suffer threats from perpetrators and sympathisers.
- Time was very limited. The original proposal had three times the period provided for the shortened consultancy study that resulted in this report. As a result, envisaged new forms of researching that embrace local ways of knowing – such as story-telling – could not be included. Borrows (in Arsenault et al., 2018, p.2) stated that *"an important source of indigenous legal traditions flows from stories, teachings and experiences"*. Such methods require that more time be allocated for data collection.
- The reduced project scope in the consultancy limited the scope to exclude concerns for gender and coloniality in water access, which were not focused on but could add another dimension to the nature

of inequalities. Due to the nature of gender issues, which extends beyond just men's and women's issues, and stretches beyond a coloniality context, a targeted study on gender – which acknowledges all the nuances – would be best suited to deal with the issues, with a scope that is bigger than the consultancy project. It is expected that water sector institutions will support the originally envisaged full project, which will be more exhaustive.

- Implications of water access data and information shortcomings: Poor quality and inadequate water sector data has been a major obstacle in this research and indeed other water sector research. In this study, obtaining reliable data on water access was a mammoth task – especially given the limited timelines and the poor communication channels that were exacerbated by the COVID-19 pandemic. In the water access analysis, the data used consisted of individual records totalling just above 70 000 for both ELUs and WULs for the period ending in October 2018. However, it was later established that the total number of ELUs alone could be as much as 94 000 as of September of 2020 (Skosana, 2020).

Attempts to obtain the latest data were not successful. It was pointed out that some of the data were in other datasets being kept in the regional offices and could not be easily retrieved. In the same analysis, further investigations of WULs issued immediately after the NWA was passed showed that there were early records of WULs captured before year 2000 that were not included in processed data obtained in 2018. This raw data, which was supplied to the research team in 2020, showed that there were several WULs issued in the period of 1998 to 2000. The raw data had many gaps, and it was in a much poorer quality than the records received in October of 2018. It also pointed to the presence of more records in an unprocessed form for the rest of the period evaluated (2000 to 2018). As such, the study provides a limited picture of inequalities, which is restricted to what can be deduced from databases with the limitations in quality and completeness as encountered during this study.

# CHAPTER 5.: RESULTS FROM MEASUREMENTS AND MAPPING OF COLONIALITY IN THE WATER SECTOR

## 5.1 Physical measures and results in water access

### 5.1.1 Licensing of water for economic use in all user groups

The promulgation of the NWA created an expectation of water being fully legislated and accessible to all possible users before the end of 1999 (Republic of South Africa, 1998). However, the available information shows that the implementation steps taken for this process have been very slow. The registration of existing water users, which was required as one of the first steps to account for available water before allocating water to new users from the marginalised groups, started rather slowly. Equally slow was the licensing process in which the water rights were being granted in accordance with the NWA. Available records show that in 1998 (the year of the NWA), 50 WULs were approved, with that number increasing over the first few years, as shown in Figure 5.1 (DWS, 2020). The pace of progress in licensing was never adequate for the task, considering that the ELU database had a total which was just above 57 000 in 2018 (DWS, 2018a). This figure (total of ELUs recorded) has been estimated to be as much as 94 000 in 2020 (Skosana, 2020). In addition to the large number of ELUs, there is a possibly much larger number of new potential water users who also wish to be licensed and secure water access rights for the first time.

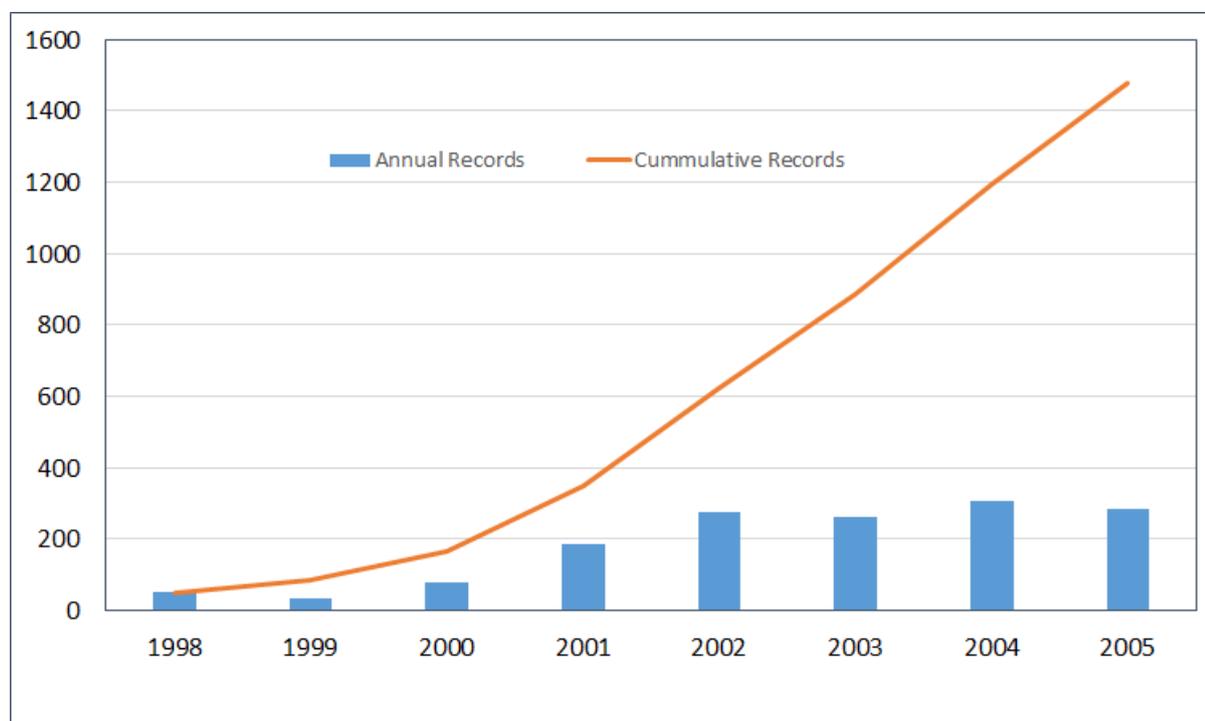
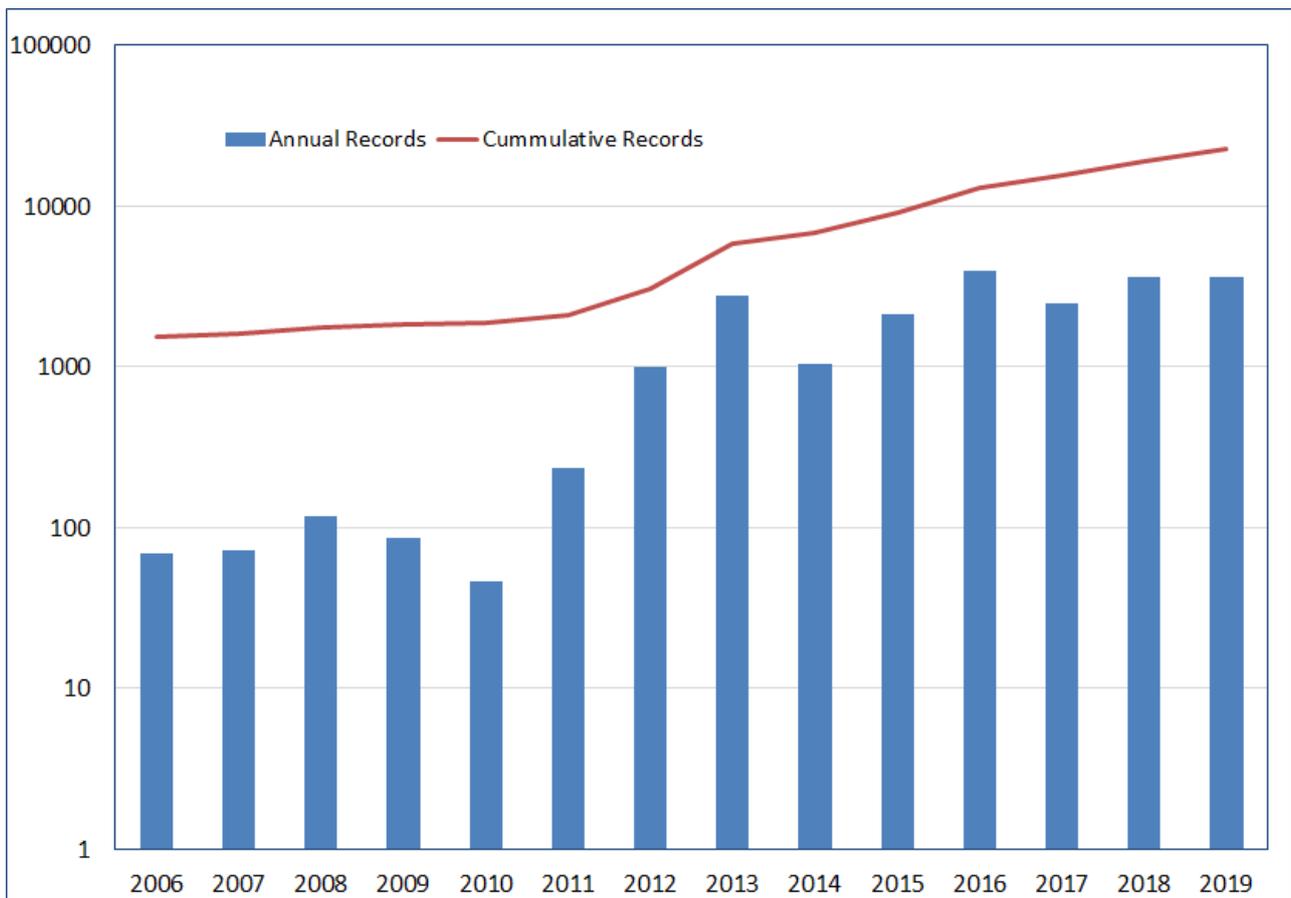


Figure 5.1: Water use licensing records from 1998 to 2005 (DWS, 2020b)

Further developments in water use licensing over the years show an increased pace in the issuing of licenses, especially after 2012, when annual licenses approved were more than 1 000 each year (Figure 5.2). The improvements in the rate of licensing have taken very long and they are still no match to the task at hand, considering that the recorded existing uses are still being captured at a pace that is generally greater than the licensing effort. Figure 5.3 shows that in the period of 2012 to 2018, the record set of ELUs increased from about 1 000 to just above 57 000 (DWS, 2018a). The record set of approved licences for water use expanded from about 3 000 to approximately 21 600 in the period of 2012 to 2019 (DWS, 2020a). These dynamics must be understood within the provisions where WULs are also expiring in the same period while ELUs are not expiring (RSA, 1998). The NWA does not provide provisions for ELUs to expire but WULs are issued with an expiry date. (The datasets used in this section are described in Box 5.1 below.)



**Figure 5.2: Water use licensing records from 2006 to 2019 (DWS, 2020a)**

### Box 5.1: Description of datasets used in Figures 5.1 and 5.2

In the 2020 database of WULs (DWS, 2020a), there were 22 068 WUL records for the period from 1995 to 2019 (Figure 5.2). This record contained mostly approved licences, amounting to 21 648 (other statistics showed that there were 21 901 lawful uses in the same record set. It should be noted that there were a few cases where uses were classified as lawful while they had not been approved). A late assessment in March 2021 showed that just more than 1 200 approved licences used in the analysis have expired but that does not mean that water use stopped when the licence expired.

The 2020 dataset (DWS, 2020a) had no licensing records captured before 2006. Another WUL record set, in DWS 2020b which was supplied as raw data towards the end of 2020 was used to analyse licensing for the period of 1998 to 2005 (Figure 5.1). This record set was used to improve the understanding of earlier licensing records before 2006. These are licensing records that were not captured in the earlier assessments done in this project for an earlier version of this report in 2018. Later assessments of WUL statistics in this report used the records starting from 2006, which are processed records.

In recent years, many hurdles have seemingly been removed in the process of water use licensing, such that there is generally better progress in the approval of licences. However, at the current rate of progress, as evidenced in the records (DWS, 2020a and 2020b), it may take decades to issue licences to the water users who are already in the register of recorded water users. Even more time will be required to license new water users who are not yet in any register. These include beneficiaries of land resettlement programmes, new small-holder farmers, and many other beneficiaries of land reform programmes – who are mostly black. Figure 5.3 shows the ELUs according to the year (the year in the finding date) when they were first recorded or known about and introduced into the current water use database.

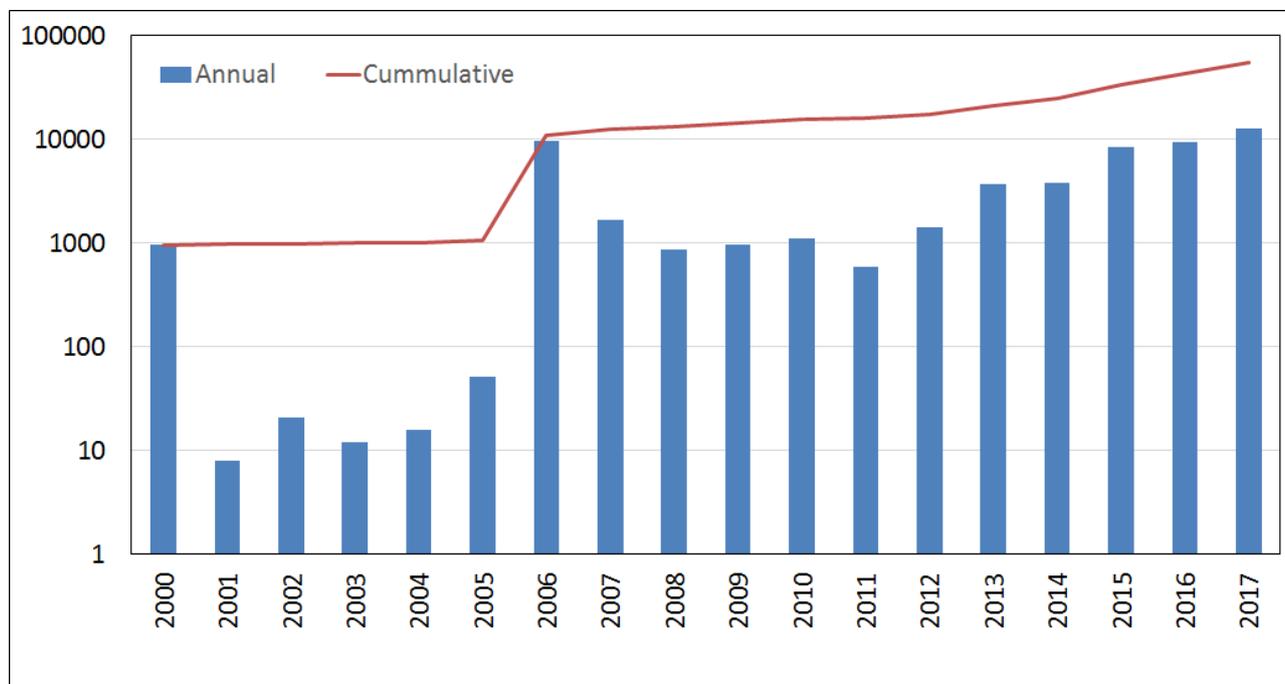


Figure 5.3: Annual records of ELUs recorded according to the finding date for the period of 2000 to 2017 (DWS, 2018a)

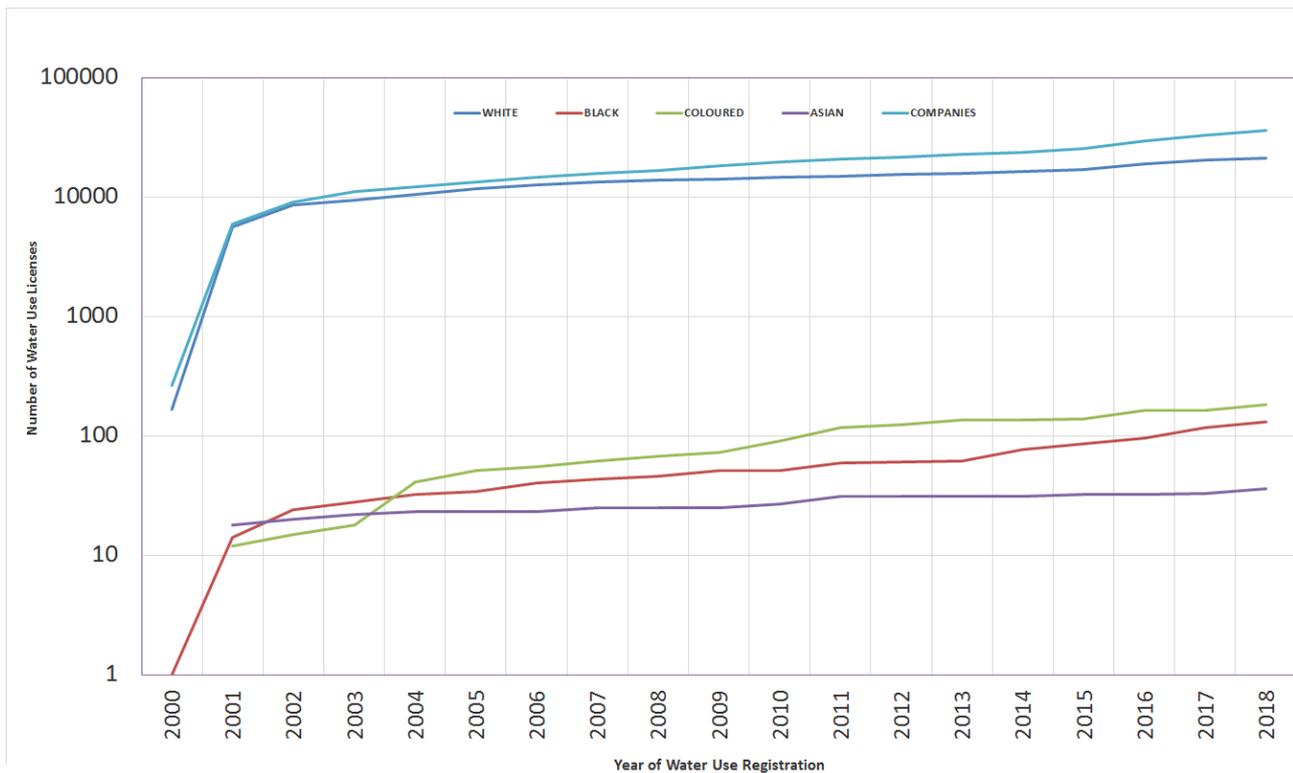
The water users illustrated in Figure 5.3 are composed of 57 637 entities who were recorded as ELUs in 2018 according to the NWA provisions (DWS, 2018a). This is broken down as 34 252 companies, 21 697 individuals, 1 692 that are classified as other users (government institutions and water service providers) and four unclassified users. Of the individual users (21 697), 36 are Asian, 130 are African, 181 are coloured and 21 346 are white, while the remaining four individual users are not classified by race. The racial groups are provided in the database. The NWA in its current form has left room for the extension in perpetuity of the total of ELUs in the same skewed proportions. The water rights issued because of the expanding ELUs will continue to dominate racial patterns of water allocation for a very long time – if not forever – as there are no clauses in the NWA to stop ELUs and ensure that all water rights are converted to licences. In the long run, WULs have all the instruments to allow for redistribution of water. They expire and they are issued after consideration of the water balance, water needs and water use patterns. While on the other hand, the ongoing confirmation and recording of ELUs is not informed by the water balance, sustainable water use or recently issued licences.

### **5.1.2 Coloniality in the dynamics of existing lawful water use in different water user groups**

#### **Existing lawful water use**

In Section 32 of the NWA, an ELU is defined as any use that was practiced at any time during a period of two years immediately before the date of commencement of the NWA, or a use that had been declared an existing lawful water use by a responsible authority (RSA, 1998). Existing lawful water use includes use that did not take place in the defined two-year period but is deemed to have been legal had it taken place. The nature of inequalities carried by the provisions of existing lawful water use can be appreciated further when evaluated against several other provisions, especially those that defined the state of access to other resources before South Africa attained its democratic dispensation. Of interest in water access are what are also called established organisations and companies. The analysis of ELUs show that most of the ELUs and indeed most water rights today belong to companies and organisations. Before 1994, black people were not privileged to have such legally recognised companies which could have water access rights, such that the bulk of these companies with historical water access rights are white owned.

From the assessment of the ELU dataset (DWS, 2018a) it was observed that 94% of individual water uses that are recorded as ELUs are for white water users (Table 5.1; Figures 5.4, 5.5 and 5.7). A large proportion of water access is available to companies that have not been broken down into the different racial groups. These companies are predominantly white owned due to their racial historical origins. There were a few exceptions, with about 0.5% of ELU holders being black individuals registered as ELUs, as shown in Table 5.1 where the total of 21 346 individual white existing lawful users is captured alongside 347 non-white registered ELUs for the same period.



**Figure 5.4: Existing Lawful Use records according to group descriptions for individual users (DWS, 2018a)**

An important element of the records of existing lawful water use is that it has been growing and it picked up a faster pace of growth in 2015 (Table 5.1). White individuals and companies dominate the process involving registration of water users, accounting for the majority of new records. The use of the concept of existing lawful use extends the benefits acquired during South Africa’s apartheid and colonial period. The advantage gained by white people by legalising existing water use has been overwhelming to any initiatives that target water access reform and seek to redress water access inequalities. Through this process, privileges gained during the apartheid era are bestowed on white communities, including even those who previously were not accessing water as provided for in Clause 33 and Clause 34 of the NWA. The provisions in Clause 33 entail legalising water access based on past legislation – including legalising water access rights for beneficiaries who may not have used the water before 1998. The qualification being that, if they had used the water at least two years before October 1998, the use could have been legal. Clause 33 is followed by provisions to extend the privileging of the ELU to new beneficiaries through Clause 34, which states that it provides for continuation of a water access right by someone else who is “that person’s successor-in-title”.

From 2015 to 2016, there was a noticeable increase in the rate of ELUs that were being recorded for companies and white individuals, as shown in the peaks in Figure 5.4 and 5.5. The same increase as experienced with registration of water access for white communities is not noticeable in the registrations for individuals in the black, Asian and coloured communities. In terms of the objectives of achieving redress in water access and eradicating inequalities, the accelerated confirmation of white privileges in water access in the period 2015 to 2016 extended the inequalities by large margins (Table 5.1 and Figure 5.5), especially considering that most of the companies that register for water are white owned, or rather those with access to

land. The land statistics in Figure 5.18 show that white people own 72% of land. The statistics of company ownership are not readily available, but there are survey figures that can point to reliable estimates. The 2014 Department of Trade and Industry (DTI) survey, which showed that 3.9% of the economy was owned by black people (DTI, 2014), is one survey result that directly relates to overall ownership in the country across all forms of business. Similar company ownership statistics are discussed in the State of the Nation Address (SONA) by the then president of the country in 2015. In the responses to questions based on the 2015 SONA, President Jacob Zuma explained that company ownership based on shareholding on the Johannesburg Stock Exchange showed that black people owned 3% of the companies (Politicsweb, 2015). These statistics in the SONA have been criticised for being calculations that are based on share equity provided to black empowerment partners through BEE packages rather than actual company ownership. In other words, the actual percentage of black ownership of companies could be even lower than 3%. Cross-referencing land ownership against company ownership statistics points to at least 70% of the companies' water use access rights being owned by white people. Table 5.2 and Figure 5.5 below show all the water use registrations (new and old), including the registrations for companies for the period ending in October of 2018.

**Table 5.1: Existing lawful water use data according to group descriptions (DWS, 2018a)**

WU Register Date	White	Black	Coloured	Asian	Companies
2000	166	1	0	0	265
2001	5 581	14	12	18	5 978
2002	8 587	24	15	20	9 102
2003	9 398	28	18	22	11 131
2004	10 573	32	41	23	12 272
2005	11 695	34	51	23	13 355
2006	12 599	40	55	23	14 677
2007	13 410	43	62	25	15 819
2008	13 784	46	67	25	16 687
2009	14 130	51	72	25	18 249
2010	14 507	51	91	27	19 564
2011	14 858	59	117	31	20 603
2012	15 393	60	123	31	21 483
2013	15 822	61	137	31	22 773
2014	16 270	77	137	31	23 837
2015	16 828	86	138	32	25 319
2016	19 063	96	163	32	29 692
2017	20 290	118	164	33	32 737
2018	21 346	130	181	36	35 944

**Combined data of ELUs and WULs (DWS, 2018a and DWS, 2018b)**

Water use licensing has been progressing slowly, especially when compared to the increases in new records of confirmed ELUs. As a result, the statistics of skewed racial group trends established when ELUs are

considered alone are maintained even when the WULs are considered. In Table 5.2, and Figures 5.5, 5.6 and 5.8 below show that the majority of individual water access rights are for white people in the combined assessment of licensed water access and ELUs. In each case, the year of the record is the year when the water right was confirmed and captured in the database.

**Table 5.2: Cumulative records of ELUs and WULs since 2000 according to the group description**

WU register date	White	Black	Coloured	Asian	Companies
2000	174	1	0	0	267
2001	5 623	23	13	18	6 060
2002	8 651	47	17	20	9 356
2003	9 509	60	20	22	11 586
2004	10 770	73	45	23	13 045
2005	12 009	100	56	23	14 515
2006	13 007	155	75	25	16 332
2007	13 903	188	82	29	17 984
2008	14 316	209	87	29	19 183
2009	14 689	247	95	29	20 938
2010	15 081	455	114	31	22 645
2011	15 454	561	141	35	25 392
2012	16 055	602	154	35	28 140
2013	16 512	635	168	35	30 464
2014	17 012	695	170	35	32 693
2015	17 647	854	177	36	35 454
2016	19 958	970	207	37	43 007
2017	21 226	1025	208	38	48 445
2018	22 317	1064	260	41	54 111

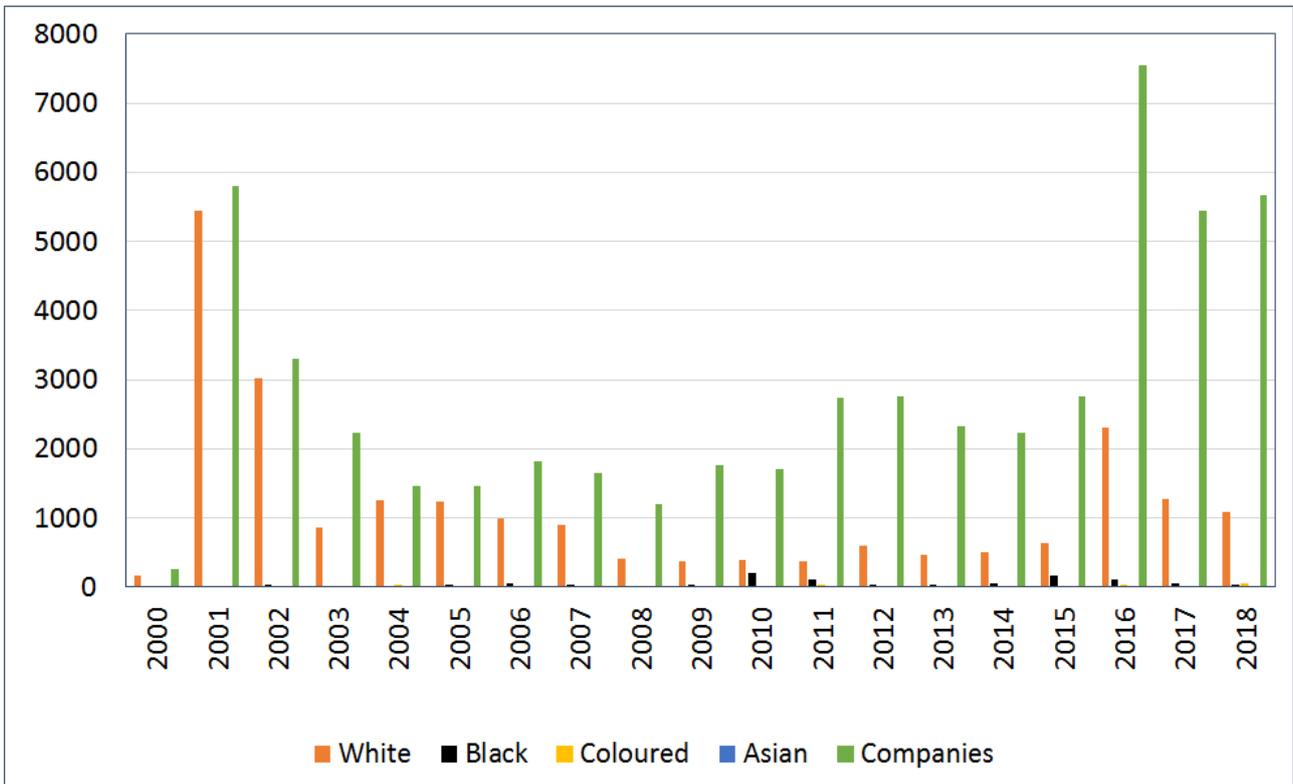


Figure 5.5: Annual records of existing lawful water records and WULs combined

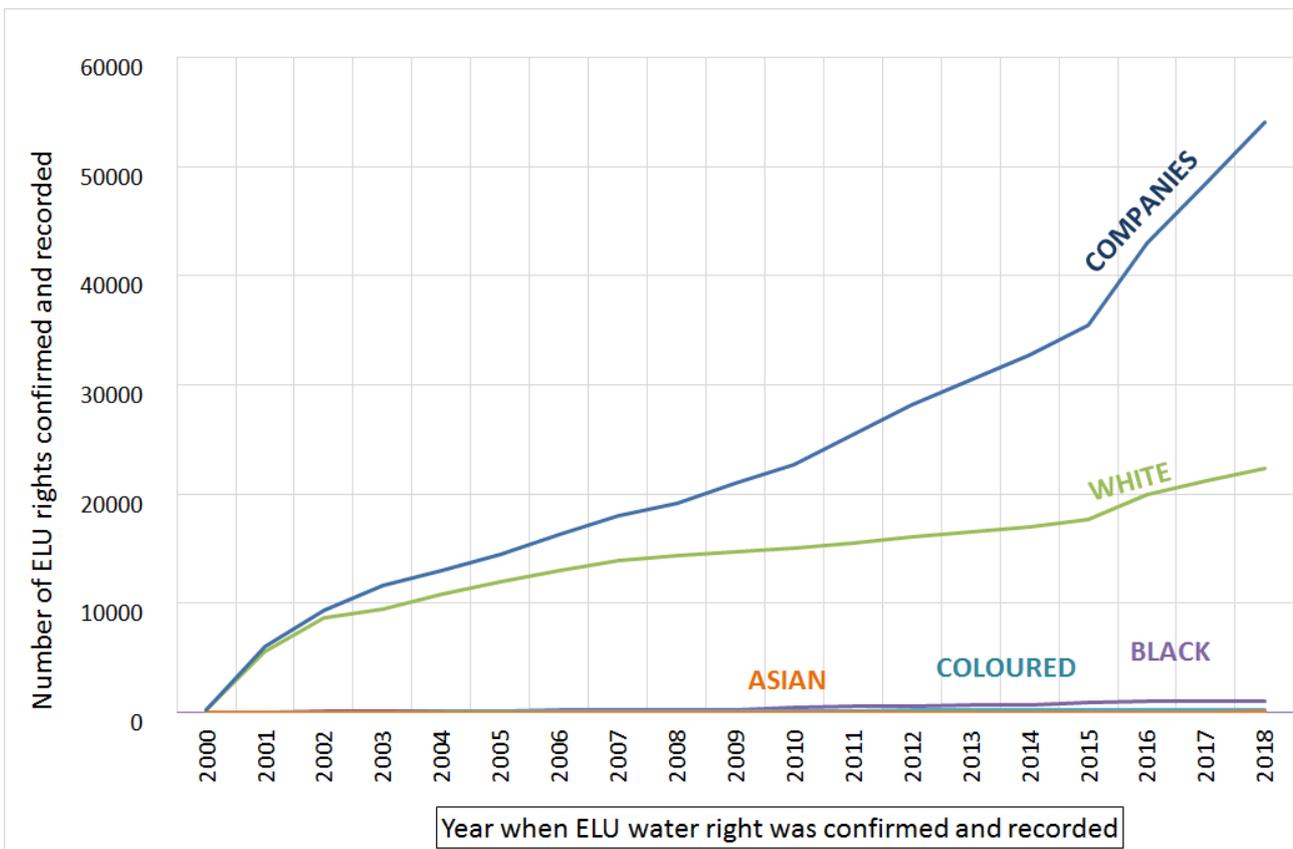
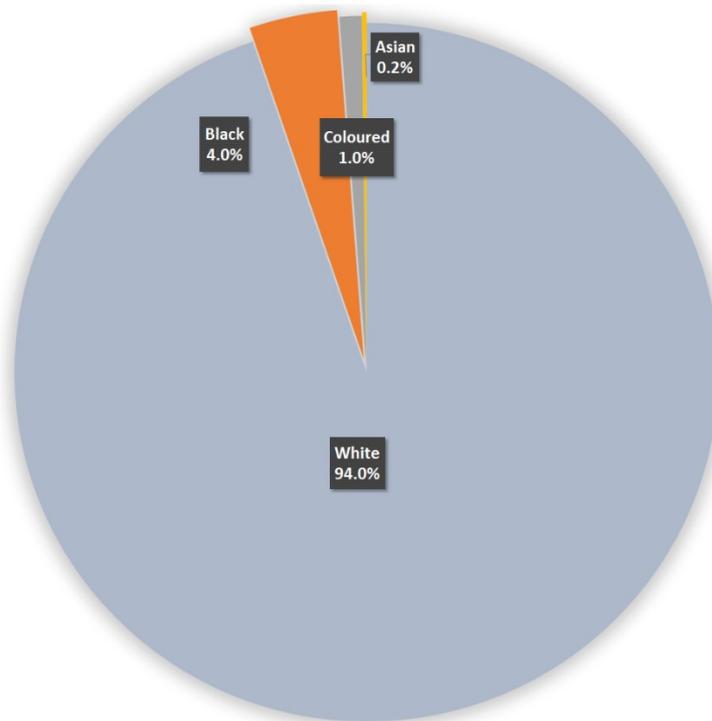


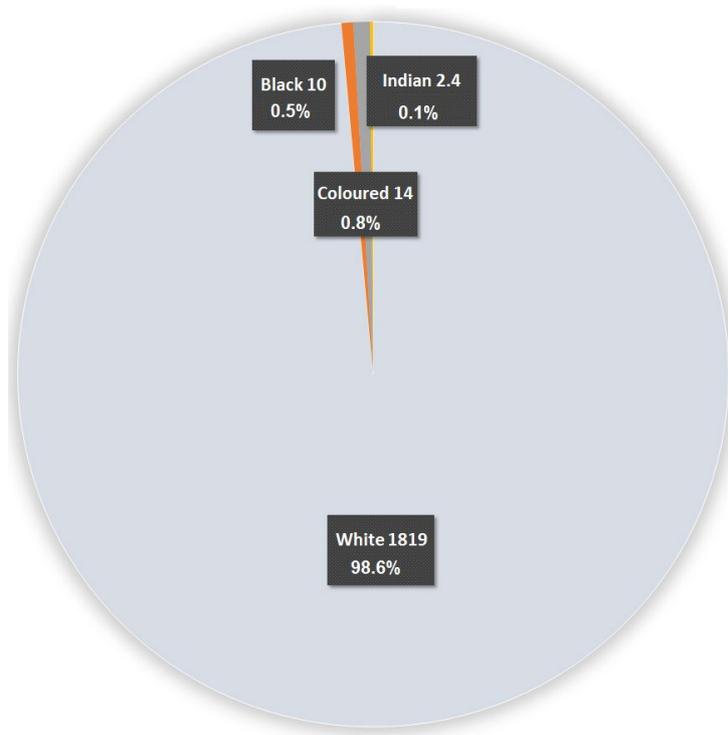
Figure 5.6: Cumulative existing records of numbers of lawful water use and issued WULs combined

There has been a sharp increase in the rate at which access rights for companies and white water users were confirmed since 2000, with an abnormally high increase since 2015, as illustrated in the increased curve of the graphs shown in Figure 5.6. On the other hand, the increase in non-white water users whose water access rights were confirmed has been relatively slow (Figure 5.6) as these racial groups rely on water licences to access water access privileges. The results have been that the combined total for non-white individual water access rights (ELUS and WULs) is at 1.7% of all records (including companies) considered in the assessment for the period ending in 2018. This is a total of 1 365 out of 77 793 records (Table 5.2). Not all water access records are strictly for abstractions or consumption but rather for use as defined in the NWA. This use includes pollution, storage, borehole use, diverting flow, streamflow reduction activities (SFRAs), etc.

Apart from a comparison of number of water users a volumetric comparison was carried out. The comparison of volumetric water access is based on all uses where a volume was specified in the water access right (Figure 5.9). When volume is considered (Figure 5.8) rather than the number of individual users, (Figure 5.6) the inequalities as shown in the corresponding percentage values increase, as evidenced by the smaller percentage volume attributed to non-white water users. This could be because the very large water access volumes (above one million cubic metres) are exclusively for white users (Figure 5.8).



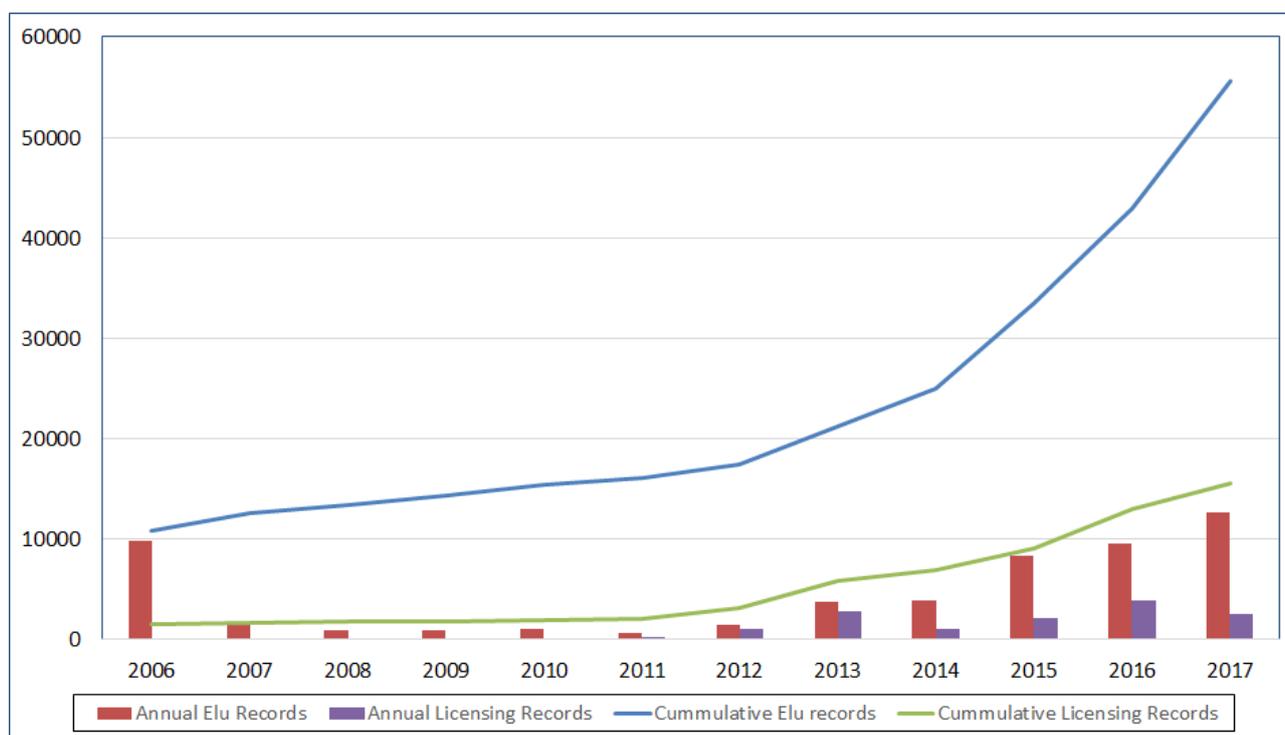
**Figure 5.7: Percentage distribution of numbers of ELUs and WULs for individuals according to racial groups for the period ending in October 2018 (excluding companies)**



**Figure 5.8: Distribution of water quantities in million cubic metres for ELU and WULs for individuals according to racial groups for the period ending in October 2018 (excluding companies)**

### 5.1.3 Comparison of rate of increase between ELUs and WULs

The progress in water use licensing can be described as a drop in the sea when it is compared to the objectives that were set in the NWA, in which all water use for economic use should be licensed. Figure 5.9 below shows the levels of achievement that have been attained in WULs in the period of 2006 to 2017. What is evident is that at the end of 2017 the total ELUs were close to 60 000, while cumulative WULs were approximately 15 500. The annual records made for WULs in 2017 totalled 2 498 while the total of ELUs recorded in the same period was 12 670 – about six times the WULs issued. To attain improved redistribution of water access, it is important to progress to a situation where WULs become the main water access right issued in the country. If the same rates of increase in WULs and ELUs as shown in Figure 5.9 below are maintained, water access inequalities will continue to increase.



**Figure 5.9: Annual and cumulative records of ELUs and WULs (DWS, 2018a and 2018b)**

#### 5.1.4 Inequalities in quantities of water associated with registered users in different racial groups

The distribution of recorded water users with ELUs and those with WULs showed that on average, black Africans had rights to much less water than previously estimated. The earlier calculations in this project, which were based on licensing information from literature and the application of land use statistics as discussed in the earlier report of this project (Nxt2u, 2018), suggested that up to 4% of water is available to black African water users (Figure 5.8). In this assessment, where the recorded data of actual water volumes associated with the licences was used without the need to refer to the land use data, the calculations showed that the volume of water available to black people is approximately 0.5%, while for white people it is 98.6% of the recorded individual water use rights as captured for each ELU or WUL. The water users who are classified as coloured have a generally higher level of representation at 0.8% and a higher accompanying volume of use when compared to black Africans (0.5%) and Indians (0.1%), combined. To obtain overall statistics, the values below and above 0.1 million cubic metres were used in the calculations applied to results in Tables 5.3 and 5.4.

**Table 5.3: Statistical distribution by race for recorded individual water use based on numbers of lawful water users in 2018 (DWS, 2018a and DWS, 2018b)**

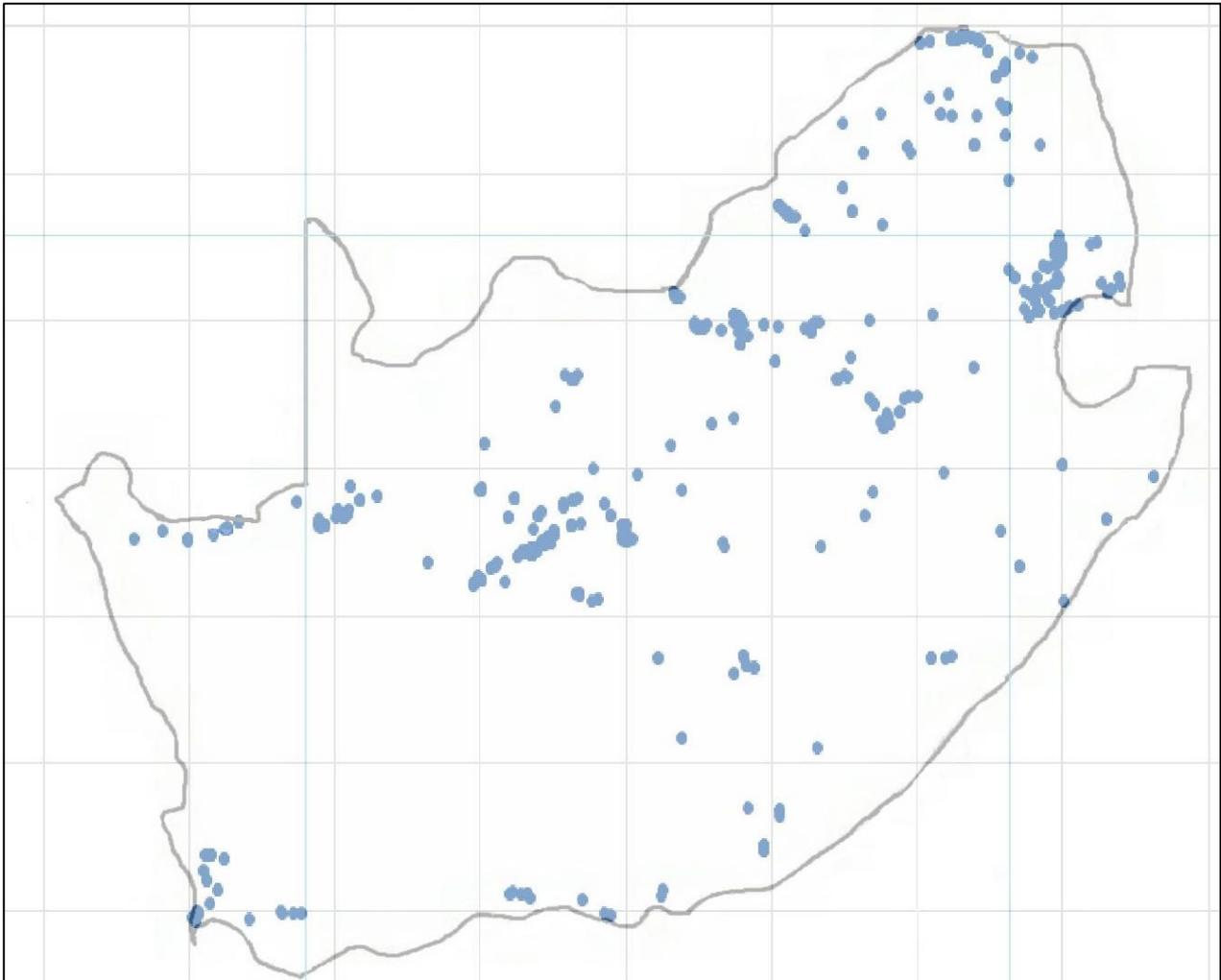
Population group/stats	Total number of recorded existing lawful water users for cases where the registered volume is below or exceeds the following volume thresholds						
	Below 10 000 m <sup>3</sup>	Below 0.1 million m <sup>3</sup>	Above 0.1 million m <sup>3</sup>	Above 0.5 million m <sup>3</sup>	Above 1 million m <sup>3</sup>	Above 2 million m <sup>3</sup>	Above 5 million m <sup>3</sup>
Asian	7	28	8	0	0	0	0
Black	41	101	29	2	0	0	0

Coloured	45	139	42	2	0	0	0
White	7 381	16 171	5 136	565	110	19	2
Total	7 474	16 439	5 215	569	110	19	2
Percentage of water volume available for individual water user groups based on figures above (%)							
Black/Total	0.5	0.6	0.6	0.4	0.0	0.0	0.0
White/Total	98.8	98.4	98.5	99.3	100.0	100.0	100.0

**Table 5.4: Statistical distribution by race for recorded individual water use volumes derived from 2018 water use statistics per user group (DWS, 2018a; DWS, 2018b)**

Population group/ stats	Combined volume for recorded water users for cases where recorded volume is below or exceeds the following volume thresholds						
	Below 10 000 m <sup>3</sup>	Below 0.1 million m <sup>3</sup>	Above 0.1 million m <sup>3</sup>	Above 0.5 million m <sup>3</sup>	Above 1 million m <sup>3</sup>	Above 2 million m <sup>3</sup>	Above 5 million m <sup>3</sup>
Units for values below	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>	x1 000m <sup>3</sup>
Asian	8.9	1 253.1	1 145.8	0	0	0	0
Black	95.0	2 497.9	7 507.1	1 322.1	0.0	0.0	0.0
Coloured	83.7	4297.2	9 701.1	1 605.0	0.0	0.0	0.0
White	13996.4	41 1876.8	14 03175.8	48 0568.7	17 9318.8	54 425.6	11 707.9
Total	14175.0	41 8671.9	14 20384.0	48 3495.8	17 9318.8	54 425.6	11 707.9
Percentage of water volume available for individual water user groups based on figures above (%)							
Black total	0.7	0.6	0.5	0.3	0.0	0.0	0.0
White total	98.7	98.4	98.8	99.4	100.0	100.0	100.0

The breakdown of water use for different water access licence volumes was done to determine the nature of allocations per group as the size of allocation increases. It was established from this analysis that the white users dominate all the use categories evaluated (Tables 5.3 and 5.4). It was also established that as the registered volume of water associated with a water access right increases, all other water users are lost from the statistics, leaving only whites who have very large registered lawful water use volumes (Figure 5.10). Figure 5.10 shows the distribution of white water users whose registered water use volumes exceed one million cubic metres per year. There are no black people identified in the data with volumes of water registered in their name at above one million cubic metres. The dataset used in analysing volumetric inequalities was for the period ending in October of 2018 (Box 5.2).



**Figure 5.10: Individual water users with a WUL or ELU recorded where volume of water involved is greater than one million cubic metres per year**

**Box 5.2: Data used in assessment of individual water access rights by volume**

The statistical results illustrated in Table 5.3, Table 5.4 and Figure 5.10 were obtained from analysis of the Database of Existing Lawful Water Use as captured in October of 2018 (DWS, 2018a) and the dataset of WULs (DWS, 2018b). The water resource types covered in the data used in the analysis in this section are categorised as "*borehole, dam, lake, stream, river, wetland, scheme, estuary, spring, eye and other*". The information assessed in this section was for the individual water users only. It should be noted that most of the licences in the database are for companies that are not defined according to population group in the datasets used. Recently received raw data from the DWS (DWS, 2020b) showed that the DWS is developing water use data that captures the demographics for companies with water access rights, which could become handy in future research.

**5.1.5 Coloniality in domestic water access**

The measurement of transformation in water access has dwelt on access to domestic water by black people. Development, redress and transformation are some of the terms that have been used to describe the processes involved in dealing with inequalities in the water sector as well as addressing other factors that characterised a sector where black people were previously excluded from using all governance systems. While

institutions have not used terms such as coloniality, decolonisation or liberation of water, they have been addressing legacies of colonial and apartheid administrations in the water sector. The ongoing transformation has been challenging, especially given that it was from a perception of a certain need of white people being different to that of black people. This transformation was limited in scope, in that it was seeking to allocate water for basic human needs without addressing the economic segregation that has been prevailing in water access.

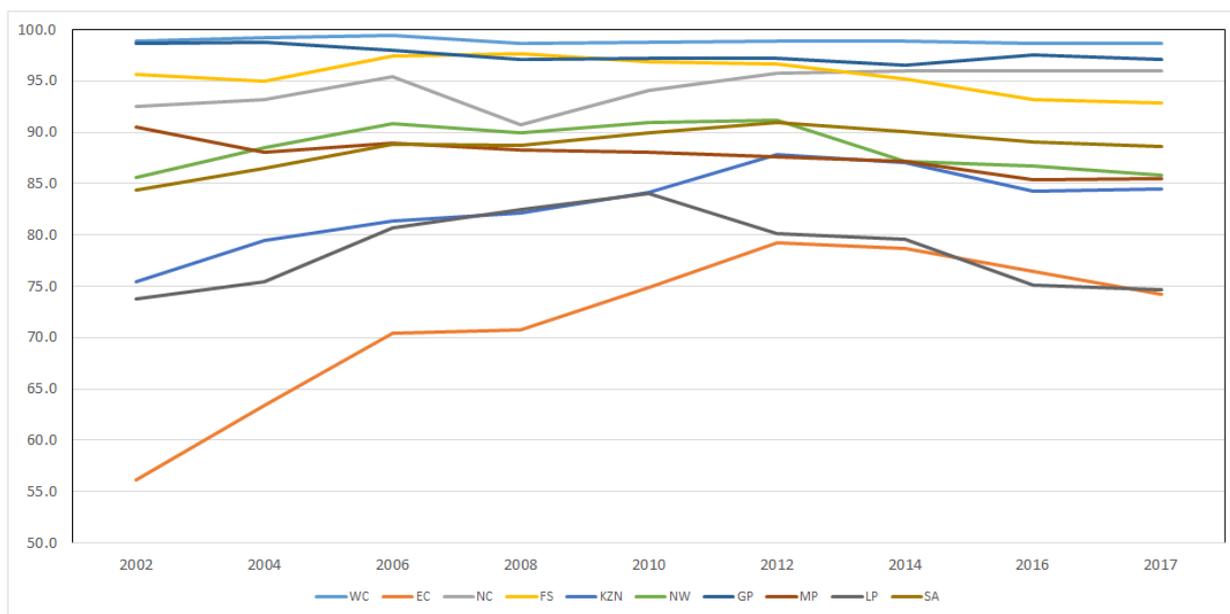
It has been difficult to extend the scope of the transformation agenda without appreciating the need for economic freedom for black people, who have been systematically excluded from the very early days of early white settlement and even under democratic rule. It was also noted that over the years, other programmes were initiated and implemented by the government and other institutions, which have further entrenched inequalities and extended coloniality in most areas, including the continued domination by white people in economic structures of the country (Heleta, 2016). In a recent assessment of South Africa, the World Bank pointed out that the country started to experience transformation stagnation around 2010 and of late, there have been economic indicators showing that some poor communities were sliding deeper into poverty (World Bank, 2018).

Government programmes to address water sector inequalities have been dominated by an approach that placed emphasis on provision of water for basic domestic use to benefit black people without directing similar effort to addressing the lack of access to water for economic use. It is easy to find several statistics on 'transformation' in the provision of basic water but there is an absence of qualification to point to how this is really addressing inequalities if the beneficiaries remain trapped in poverty.

The standards for water access ought to be understood both within local and international contexts. Langford (2005) recognises that governments have both a domestic and international obligation to realise the right to water and argues that the human rights approach to water puts people first. The Millennium Development Goals' definition of water access looks at the size of the population using an improved water source (UN, 2012). This view was seen by Mwamaso (2015, p.2) as objective-oriented, as other scholars have included affordability, quality, quantity, reliability and convenience as important variables in the assessment of water accessibility. 'Improved water source' in some instances has meant that water is provided in closed tanks such as the plastic (JoJo) tanks or truck deliveries used to provide water in some rural, semi-urban, and informal settlements in the country. As argued by Mwamaso (2015), this does not factor in quantities supplied or the reliability and convenience to those supplied, such as the availability of storage containers. In addition, the fact that water is considered an economic commodity has implications for its affordability and the choices that communities, especially poor rural communities, may make in terms of the accessibility to a water point.

Local measurements of water access in South Africa are often defined using variables used in censuses. Thus, according to Stats SA (2017), household water access can be said to be improving if a large percentage of the population can access water through acceptable means, namely piped water in dwellings, access on site, or communal taps not more than 200 metres from the dwelling. The report, however, showed that 2.4% of the population received basic water from their neighbours, while 3.7% fetched water from "*rivers, streams, stagnant pools or dams, wells and springs*" (Stats SA, 2017, p.4). In the household survey in 2017 (Stats SA,

2018), general improvements were recorded for what was termed acceptable forms of water access, which are shown for all provinces in Figure 5.11 below.

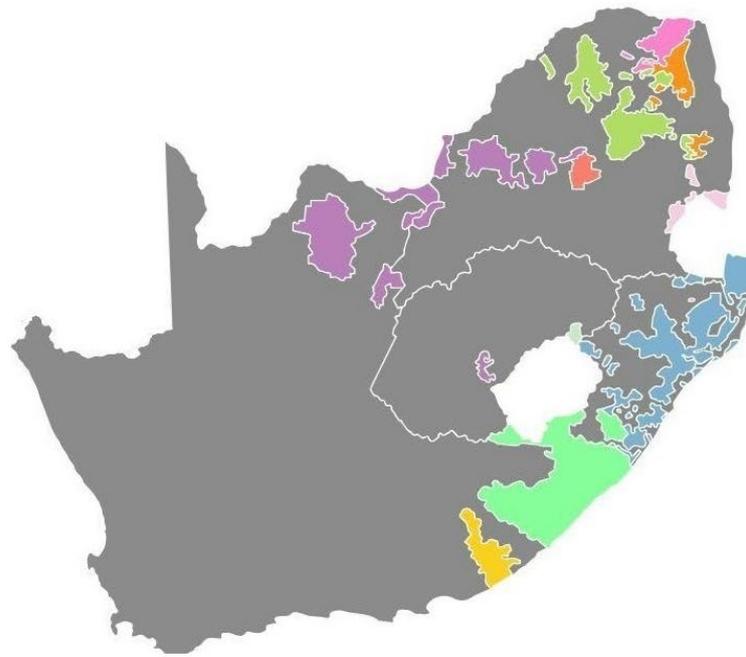


	2002	2004	2006	2008	2010	2012	2014	2016	2017
WC	98.9	99.2	99.4	98.6	98.8	98.9	98.9	98.7	98.7
EC	56.1	63.4	70.4	70.8	74.9	79.2	78.7	76.4	74.2
NC	92.5	93.2	95.4	90.7	94.1	95.7	96.0	96.0	96.0
FS	95.6	95.0	97.4	97.6	96.9	96.6	95.2	93.2	92.8
KZN	75.4	79.4	81.4	82.1	84.1	87.8	87.0	84.2	84.5
NW	85.6	88.5	90.8	90.0	91.0	91.2	87.2	86.7	85.8
GP	98.7	98.8	98.0	97.1	97.2	97.2	96.5	97.5	97.1
MP	90.5	88.1	88.9	88.3	88.1	87.6	87.2	85.4	85.5
LP	73.8	75.4	80.7	82.5	84.0	80.1	79.6	75.1	74.7
SA	84.4	86.5	88.8	88.7	90.0	90.9	90.1	89.0	88.6

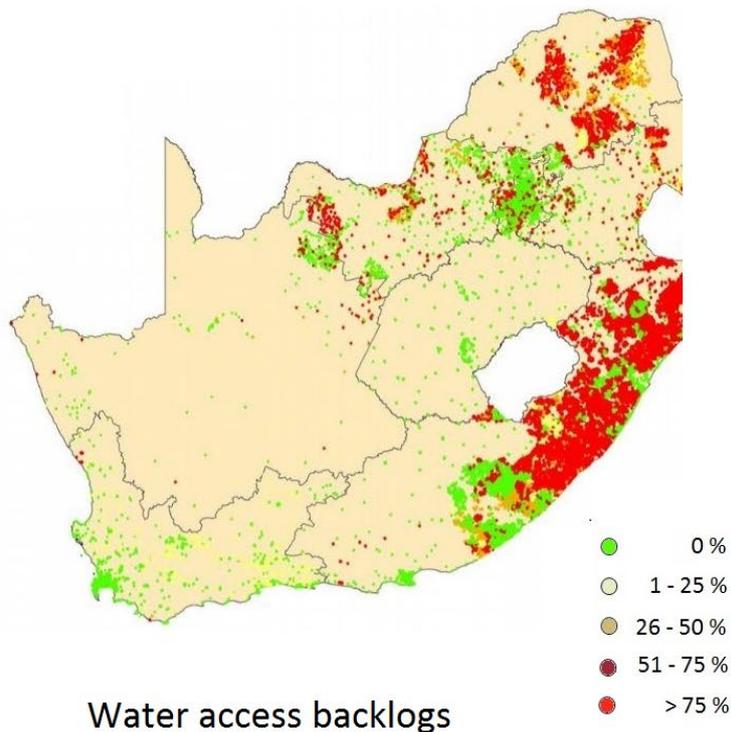
**Figure 5.11: Percentage of households with access to piped or tap water in their dwellings, off-site or on-site by province, 2002-2017 (Derived from Stats SA, 2018)**

The water access improvements reached a peak in 2012 for most provinces and gradually started to decline until the end of the available records in 2017. The decline in water access improvements could be attributed to the state of water treatment for provinces like Limpopo where the DWS (n.d.) reported that of the 67 plants in the province, only four were in the low- to medium-risk space and the rest in a high to critical state. The Parliamentary Monitoring Group (2017) also reported that 40-50% of water treatment works were dysfunctional. In the 2018 National Infrastructure Report, the DBSA blamed the poor state of infrastructure on the dearth of technical skills and leadership in the public water sector, including water departments. The DBSA reported that there is lack of technical skills and suitably qualified leadership to direct spending on the right infrastructure as well as plan and implement maintenance. The DBSA also reiterated what the Auditor General had said regarding infrastructure development, by pointing out that the government departments were suffering a skills and leadership crisis. This was coupled with projects and programmes deviations over the years, persistent duplicate payments to contractors and consultants, and paying excessive project management and professional fees.

The areas with the poorest water access are Limpopo and the Eastern Cape, which are also areas with the highest number of communities still living in former homelands. Figure 5.12 illustrates the correlation of locations of former homelands and the occurrence of water access challenges. The spatial inequalities established prior to the majority democratic rule of the country are evident in the pattern of poor service delivery, which shows that efforts to address the results of colonisation and apartheid laws are still need to generate results that will rectify the inequalities.



Former Bantustans

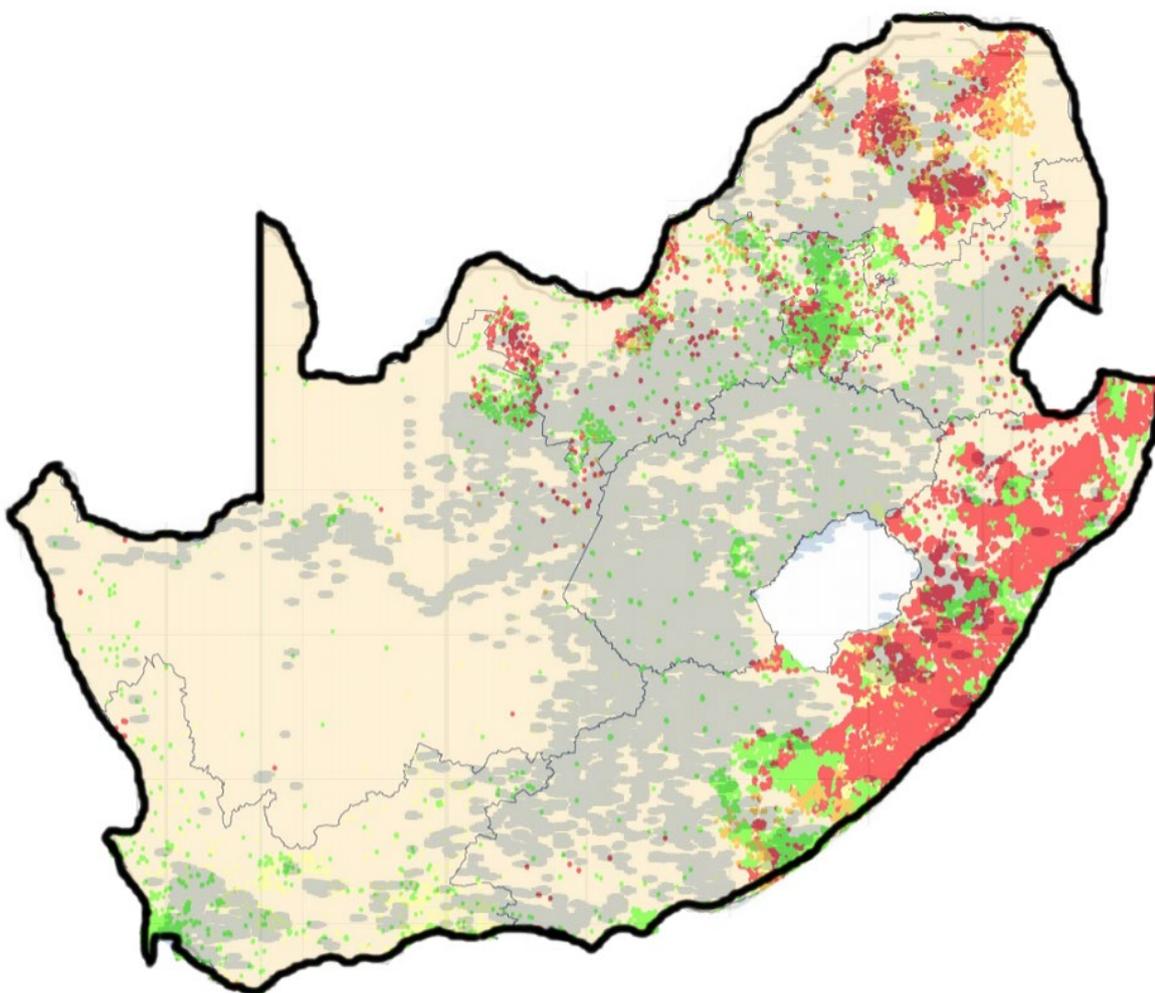


Water access backlogs

**Figure 5.12: The areas that continue to experience the worst water access problems are still located in former Bantustans (Nxt2u, 2018)**

Further assessment of the distribution of all recorded existing registered water users across the country showed that the users of water for economic purposes are concentrated in areas that are outside former homelands, predominantly sparsely populated areas with a dominant white population (Figure 5.13). The former homelands are characterised by a large population of black communities who rely on the municipalities to access a small fraction of available water. In Figure 5.13, the distribution of registered water users is

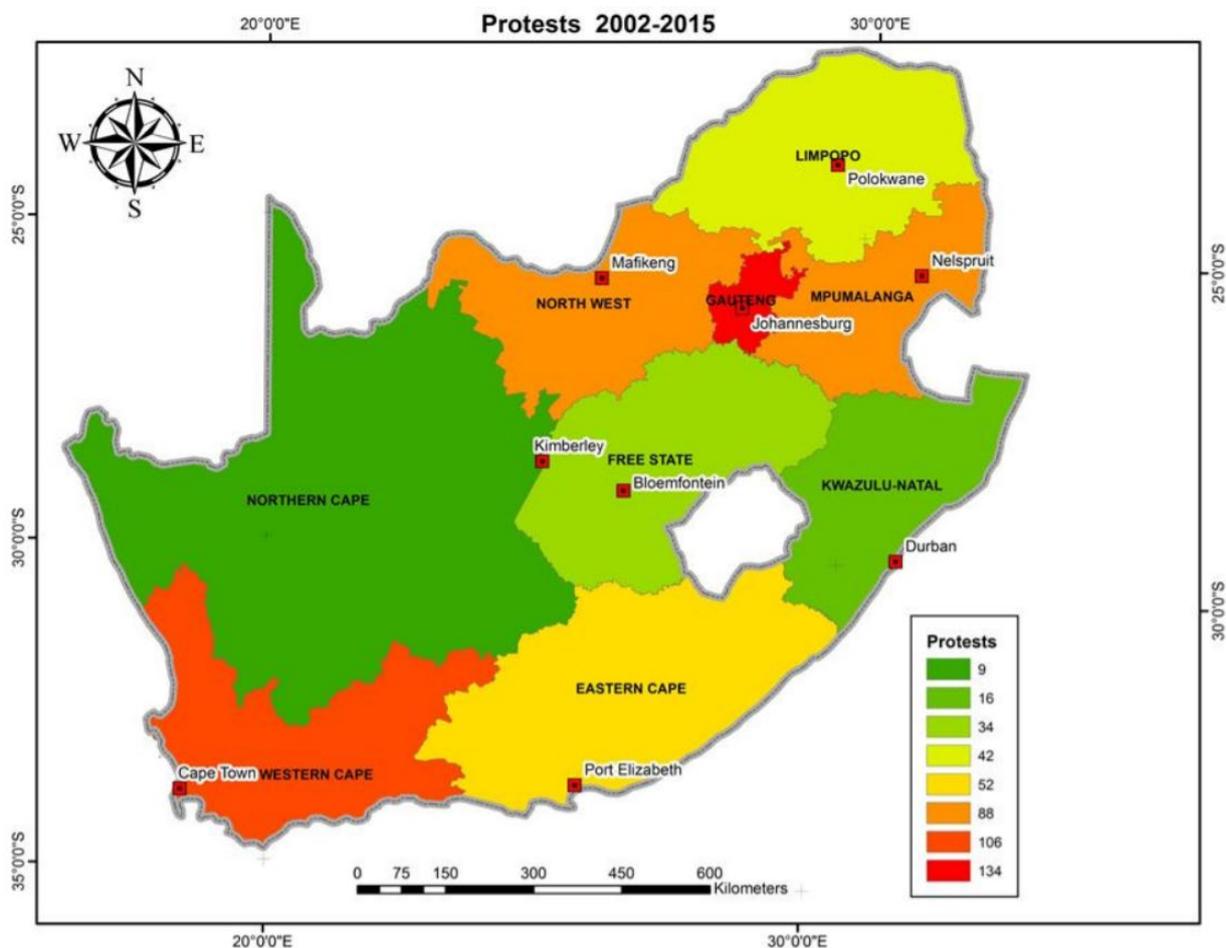
superimposed on the areas showing water access backlogs (red and reddish dots). The distribution of areas where high levels of water access backlogs are experienced correlates with areas without water that is registered for economic use. It is important to note that the records of registered water users include municipalities and government departments within a group that is predominantly composed of private companies and individuals. Equally important is to note that the drier western regions of the country have a naturally low distribution of water resources and a corresponding low distribution of numbers of water users, even in areas that were not previously homelands.



**Figure 5.13: Map showing the distribution of all lawful water users (grey patches) against water access backlogs (red dots)**

Nganyanyuka, Martinez, Wesselink, Lungo and Georgiadou (2014) have also argued that water provision is not necessarily water use. The fact that water is provided does not necessarily translate to water use by the people. There is a great deal of infrastructure for water provision that has been installed while communities are not necessarily receiving water from it (cf. Africa Check, 2013). This situation includes infrastructure that has failed to serve the purpose due to poor planning or construction, incomplete infrastructure, vandalised infrastructure and cases where the problem has to do with the institutions managing the water or communities to be served (Marais, 2011, p.6). One case in point in the Limpopo Province is access to water from the Nandoni Dam by nearby communities. Residents of Dididi Village in Thohoyandou in the Vhembe District had

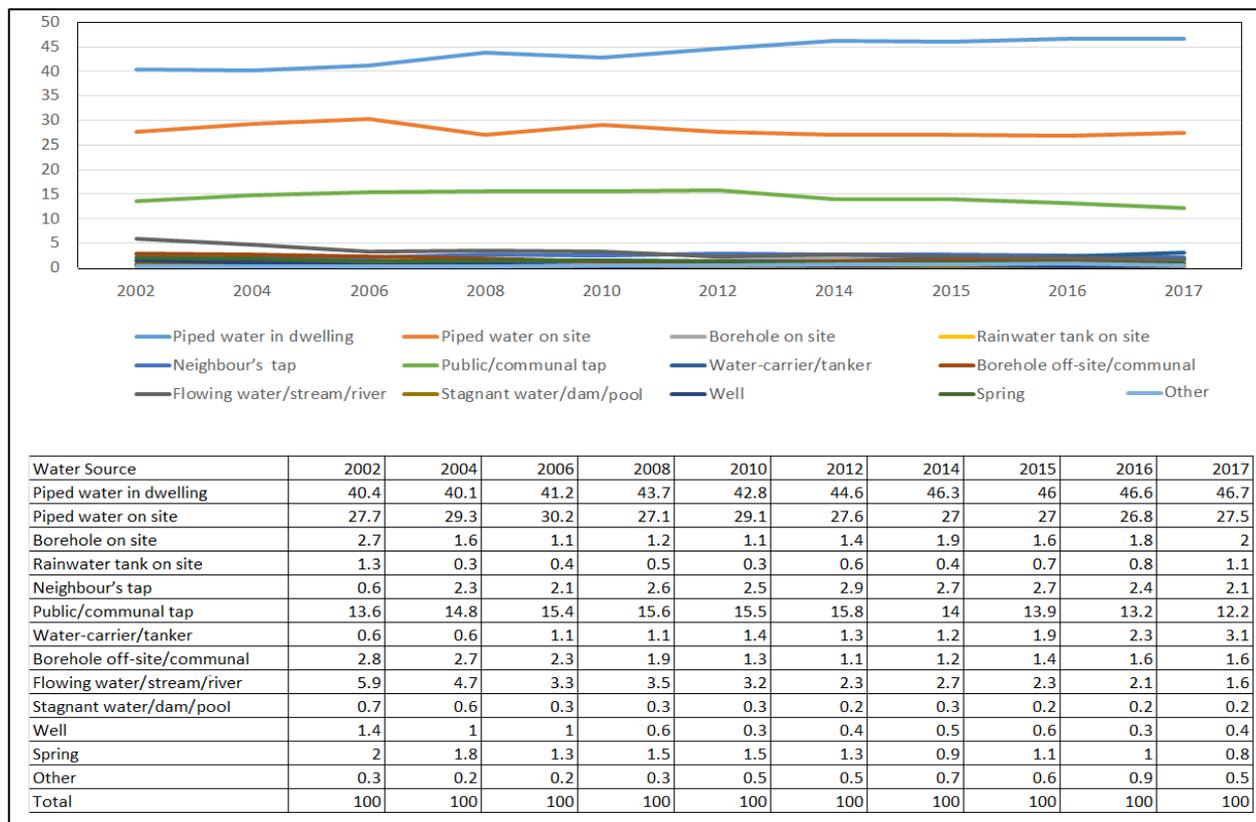
no water for months, yet the Nandoni Dam was reported as having been 104% full (EWN, 2017). In other instances, water that runs through the taps is not potable due to its bad quality, as was the case in Thulamela in Limpopo, and Temba and Hammanskraal in the northern parts of Gauteng. In all these cases, the communities protested and demonstrated in the streets until their services were restored. Tapela (2015), as illustrated in Figure 5.14 below, investigated trends in water services protests and observed that these protests were increasing in frequency. The distribution of water service protests shown in Figure 5.14 is not aligned to the distribution of areas with poor water services shown in Figure 5.13. Protests for poor services are more frequent in urban areas. These are the areas where black communities are supposed to be benefitting from FBW, but the frequent protests show that there are problems associated with the provision of water access, despite the better water service provision statistics reported.



**Figure 5.14: Map of distribution of water services protests from 2002 to 2015 (adapted from Tapela, 2015)**

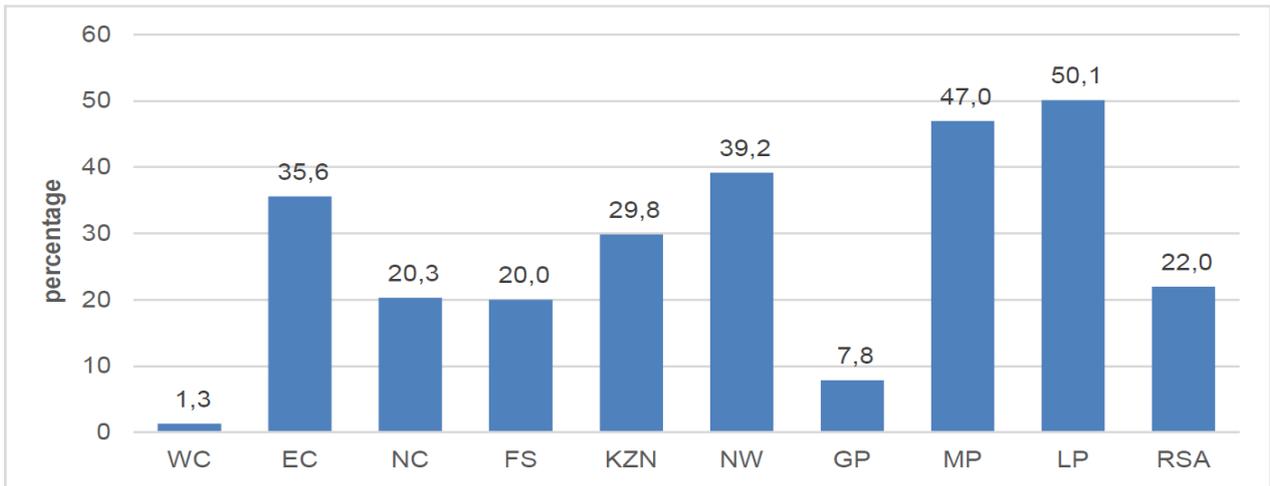
The limitations in water access coverage for African communities is also complicated by poor planning and design, where the scenario regularly used by engineers and water managers in the designs and plans is derived from material developed for instances where family sizes are smaller than four – which does not put black family sizes into the planning scheme. The same standards of water provision are used for different types of communities, a system that fails to recognise different needs for different contexts. As argued by Nganyanyuka et al. (2015), one-size-fits-all solutions for water provision schemes do not work in different contexts and conditions. FBW in a one-size-fits-all situation provides limited water for use per day and becomes

even more costly when additional quantities are required (Bond, 2014b; United Nations, 2010, p.40). In cases where water is provided in tankers – which is usually the case in poorer communities – amounts and frequency of delivery have to consider the population dynamics, because families in poorer communities are larger than those in middle-to-higher class families, and this directly influences water access as some, not all, have access to capped and limited water resources.

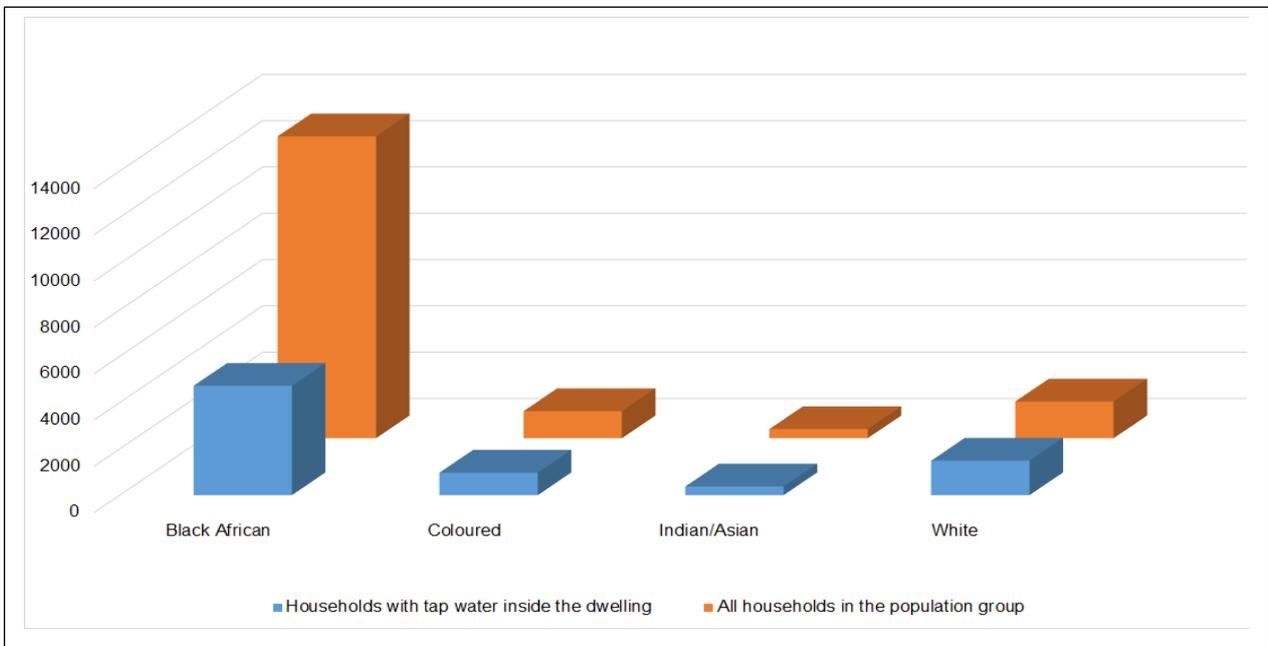


**Figure 5.15: Comparison of the main water source for drinking used by households, 2002-2017 (derived from Stats SA, 2018)**

Figure 5.15 above shows that in the period of 2002 to 2017, access to piped water in dwellings has increased from 40.4% to 46.7%. The other increase has been in the use of water-carrier tankers. It must be noted that in most instances, water-carrier tankers also supply water to communities who are classified as having 'piped water in their dwelling' but are not receiving water. The disruption in water services for the different provinces is illustrated in Figure 5.16 below for the period ending in 2017. The decrease from 5.9% to 1.6% in the number of households obtaining water from flowing streams and rivers is the second most significant improvement made in access to potable water after the development of potable piped water.



**Figure 5.16: Percentage distribution of households that received municipal water and that reported water interruptions lasting more than two days at a time, by province (Stats SA, 2018)**



**Figure 5.17: Distribution of households (values given in thousands) with water inside their dwelling by population group of the household head in 2017 compared to the population in the group (Stats SA, 2018)**

In the 2017 household survey, Stats SA recorded that 64% of households where the head of the house is black African do not have tap water inside their houses (Figure 5.17), instead obtaining water somewhere outside the premises for domestic and all other uses. The other groups have far fewer households that do not have water inside their houses or dwellings: 4% for Indian/Asian, 6% for white and 17% for coloured. The analysis of the state of water access within the different population groups shows very little positive shift over the years. In Table 5.5 below, the percentage of households where the water source was inside the house or dwelling changed from 40.7% in 2002 to 46.7% in 2017. The ideal condition is that every household has water available from a source inside the house. At the current rate of progress, the number of houses with a tap inside will

pass the 50% mark in the 2030s, if major changes are not made in the way water provision is taking place. The General Household Survey Report (Stats SA, 2016) provided statistics on improvements to water access, showing that the changes since 2002 are for black African and coloured people, since the Indian and white populations already enjoyed 100% access to potable water services in their dwellings by 2002 (when the statistical analysis in that report starts). The GHS also showed that the overall changes for all improvements in water access, not just piped water in the house, had mostly stagnated by 2012.

**Table 5.5: Changes in the number of households with piped (tap) water inside their dwelling (Stats SA, 2018)**

Year	2002	2005	2009	2017
Number of households with inside tap (x 1 000)	4 484	4 871	5 808	7 561
Total number of households in the country (x 1 000)	11 013	12 075	13 812	16 199
Percentage of households with tap inside the house	40.7	40.4	42.1	46.7

Table 5.6 also shows that 24 years after the RDP was first used to define the national water provision, the minimum provisions as planned have not been satisfied for close to two million households, which translates to 12% of the 16 million households in the country. The RDP set the maximum distance of a water source to a household at 200 metres. The household survey of 2017 (Stats SA, 2018) showed that there are several provinces where minimum water access provisions are still to be met.

**Table 5.6: Households without water in the dwelling or on site, by the distance household members must travel to reach the nearest water source, and population group of the household head, in 2017 (Stats SA, 2018)**

Distance travelled to the nearest water source	Thousands				
	Black African	Coloured	Indian/Asian	White	Total
Less than 200m	1 845	30	*	18	1 894
Between 201m-500m	898	5	*	*	906
Between 501-1km	317	4	*	4	326
More than 1km	169	*	*	4	173
Do not know	13	*	*	*	14
Unspecified	328	8	4	14	355
<b>Total</b>	<b>3 570</b>	<b>48</b>	<b>7</b>	<b>43</b>	<b>3 668</b>

\*is for values less than 1000

Total may not add up due to rounding up

## **5.2 Physical measures and results in access to strategic resources for economic water use**

### **5.2.1 Access to land, a resource that is instrumental in water access**

As with most other resources, access to land in the country was driven by racial policies that have continued without any significant change, such that land distribution across the racial groups is one of the main characteristics defining the perpetuation of coloniality in the country. The White Paper on Land Policy (Republic of South Africa, 1997) highlights the need for redress in land ownership as a means of addressing colonial and apartheid land dispossessions and the accompanying inequalities. Several land policies emerged, including the land reform programme and its sub-programmes, namely the: Restitution of Land Rights Act 22 of 1994, Land Redistribution Programme, Land Tenure Reform, and Land Redistribution for Agricultural Development. Land restitution, for instance, ought to be understood as a product of competing political views of a post-apartheid South Africa, as well as the influence of the World Bank and its neoliberal approach to a global economy (Ramutsindela, Davis and Sinthumule, 2016, p.5). As such, the resultant procedures reflect not what African revolutionaries hoped for, but the version of land reform engineered by the apartheid state (Ramutsindela et al., 2016). To date, the progress in the implementation of these policies has been slow (cf. Hall and Ntsebeza, 2007, p.3) and insignificant.

Black communities are still concentrated in the former Bantustans. In urban areas, they continue to occupy those settlements allocated for black people during periods of colonisation and segregation. The legislative provisions summarised in Annexure 1 detail the nature of discriminatory laws that were applied to define settlement patterns and deny black people and other non-white citizens access to land that could be used for commercial gain.

The strategic land audit report that was produced by the Department of Rural Development and Land Reform in October 2017 revealed that whites own 26 663 144 hectares (72% of the total 3 7031 283 hectares) of farms and agricultural holdings by individual landowners, followed by coloureds at 537 138 hectares (15%), Indians at 203 190 hectares (5%), black Africans at 1 314 873 hectares (4%), 'other' at 1 271 562 hectares (3%), and co-owners at 425 537 hectares (1%) [Department of Rural Development and Land Reform (DRDLR), 2017, p.7]. The detailed proportions of land ownership are illustrated in Table 5.7 and Figure 5.18 below.

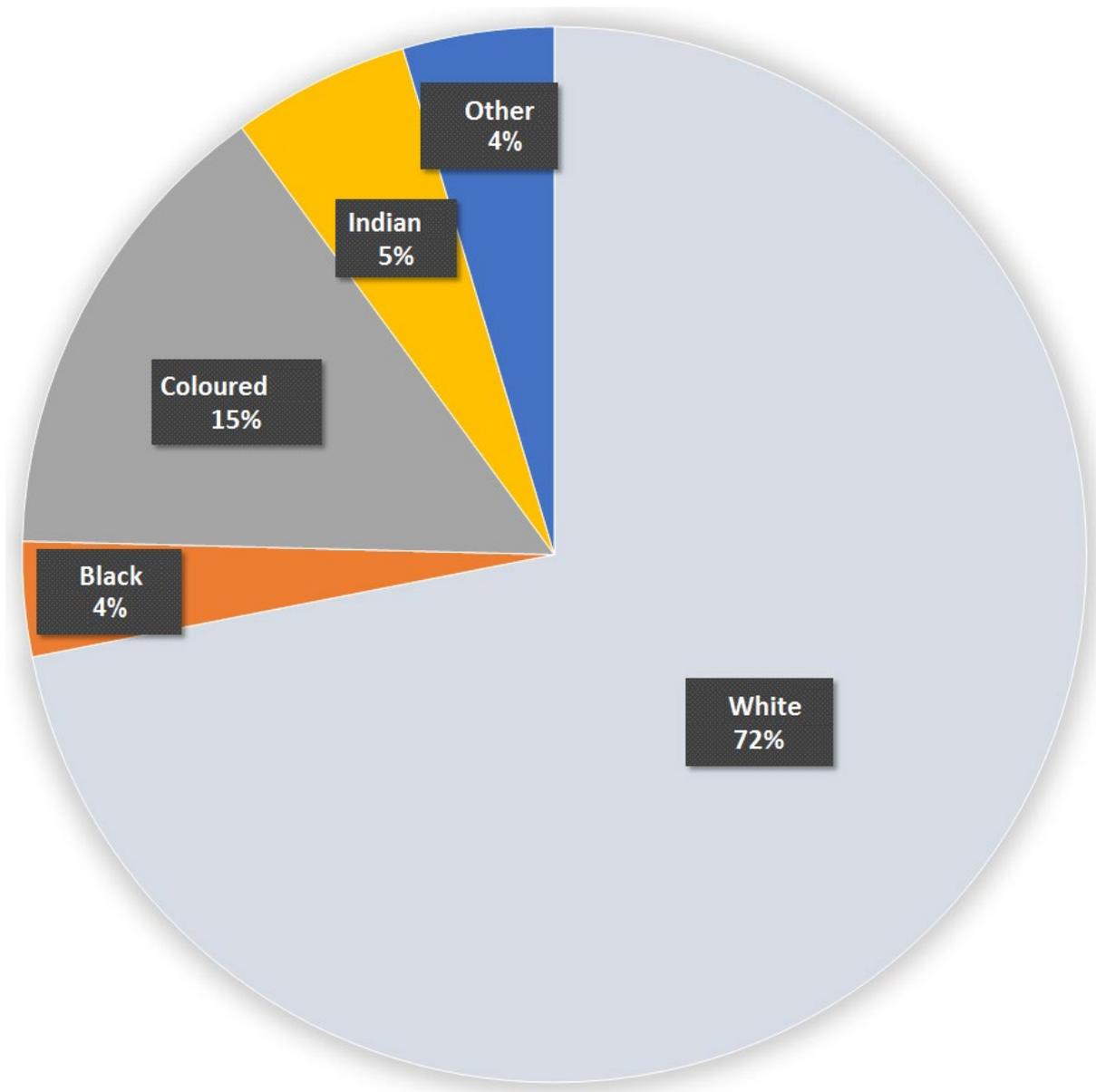
**Table 5.7: Individual land ownership in hectares for farms and agricultural holdings, by race (adapted from Rural Development and Land Reform, 2017)**

Province		EC	FS	GP	KZN	LP	MP	NW	NC	WC	Total
White	Ha	3 007 709	3 748 192	275 021	853 152	1 139 454	967 634	2 408 880	11 498 449	2 764 652	26 663 144
	%	65	75	59	53	65	67	73	77	72	72
African	Ha	250 536	153 080	30 266	270 423	180 858	108 792	198 279	69 350	53 287	1 314 873
	%	5	3	7	17	10	8	6	1	1	4
Coloured	Ha	773 026	646 872	81 597	248 286	220 738	219 792	397 552	2 222 206	561 315	5 371 383
	%	17	13	18	15	13	15	12	15	15	15
Indian	Ha	385 685	246 453	51 332	107 723	115 588	83 580	119 744	746 820	176 865	2 031 790
	%	8	5	11	7	7	6	4	5	4	5
Other	Ha	151 849	193 548	15 925	72	174	41 702	114 219	414 065	195 147	1 271 582
	%	3	4	3	4	4	3	3	3	5	3
Co-Own	Ha	42 723	21 119	8 528	65 875	20 165	19 652	72 536	60 112	114 827	425 537
	%	1	0	2	4	1	1	2	0	3	1
Total		4 611 528	5 099 264	462 669	1 617 493	1 749 977	1 441 152	3 311 210	15 011 002	3 863 994	37 078 289

Minister Nkwinti (2016), the former minister of both the Department of Rural Development and Land Reform and the DWS explained that a very high price has been attached to the land that black Africans lost through apartheid and colonisation over the years. In the quest to seek the eradication of inequalities in access to land, Minister Nkwinti blamed colonial powers that have continued to deprive black people of access to land. He pointed to a situation where government is a victim of what he described as Colonialism of a Special Type (CST), which continues to operate and maintain the inequalities in access to economic resources. He points to how CST is depriving the nation of the vision to attain a 75%/25% split in ownership, control and access to productive and other national assets and resources. This vision translates to a reversal of the 28%/72% land split shown in Figure 5.18. Nkwinti (2016) further explains that this vision can be attained if CST is broken down or destroyed. Ben Turok, the Director of the Institute for African Alternatives (IFAA), explained as such:

South Africa does not fall into the conventional model of a colony established by an imperial power, as was the case in the rest of Africa, Latin America and Asia, where political power was ultimately handed over to an independence movement. But South Africa is colonial nonetheless. Race and class are the ultimate criteria of status and lifestyle (Turok, 2018).

Turok (2018) explains that this CST has remained intact even though the government is run by “*the colonized*”. He points to the prevailing economic and political power that still resides within the white people operating behind government to perpetuate CST.



**Figure 5.18: Total individual land ownership in million hectares for farms and agricultural holdings, by race (derived from Rural Development and Land Reform, 2017)**

### **5.2.2 Implications of ongoing ELU confirmations and registrations on water access inequality**

The total number of recently recognised ELU rights, that were previously uncaptured, has been increasing over the years (Figure 5.9). In 2001, there were approximately 11 000 records of ELUs, which have rapidly increased every year to just above 57 000 in 2018 (DWS, 2018a). The data used in this study to evaluate ELU records and the progress made in licensing show that in 2016, 6 643 water uses were captured and recognised as ELUs, in the same year the highest number of licences issued in a single year was recorded as 3 942 (Figure 5.10). The water access rights records also show that most water users who have gained ELUs do not make the extra effort required to apply for WULs such that the growth in records of approved WULs is mostly independent from the growth in ELUs. Given such a scenario, it is impossible to address water access inequalities unless the process of recognising ELUs is abolished. It is also important to note that some of those

recognised and registered as ELUs over the years – including as late as 2018 – were registered as users who were gaining from access rights obtained under the Irrigation and Conservation Act of 1912 (Box 5.3). The Irrigation and Conservation Act of 1912 is one of several legislations, including the Natives Land Act 27 of 1913, that were promulgated in the period soon after the formation of the Union of South Africa – a period in which racial discrimination started to be formalised by the government in all sectors.

**Box 5.3: Background to the Irrigation and Conservation Act of 1912**

General Louis Botha, the first Prime Minister of the Union of South Africa, who took office in 1910, introduced the policy of formal racial segregation, which deprived Africans of rights to access resources while taking advantage of the chieftainships to suppress them in less than 7% of the country (Davenport, 1991). In the decades after 1910, the plight of black people only became worse as the NP government gained a stronger control of the country and solidified the segregation system in the form of the formal apartheid system that was instituted and enforced by the government. The increased segregation saw black people losing their citizenry and reduced to labour resources in an economy that was weaponised against their very existence (SAHO, 2021). As such, provisions in the NWA that seek to recognise the provisions of the Irrigation and conservation Act of 1912, as well as the Water Act of 1956, are legalising colonial rights rife with racial inequalities – and as such extending coloniality. According to the process being followed in licensing water under the NWA, it would seem that in many catchments, there are no prospects of declaring that the ELU recognition process will be complete in the near future.

While the DWS continues to grapple with water allocation reform and transformation, coloniality in the sector is getting worse through the never-ending ELU recognition and registration process. Recognising previously unrecorded ELUs this late, 23 years after the NWA was promulgated (in 1998), can only worsen the water access inequalities and continue to undermine water reform access efforts. The situation is worsened by the fact that some of these late ELU registrations involve allocations of large volumes of water – exceeding two million cubic metres for a single user in some instances (DWS, 2018a).

# CHAPTER 6.: RESULTS OF MEASUREMENTS AND MAPPING OF COLONIALITY IN AREAS LINKED TO WATER ACCESS

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## 6.1 Coloniality in water sector knowledge

### 6.1.1 Introduction to coloniality in the water-centred knowledge

Decolonisation of knowledge is an important aspect in addressing persistent inequalities in the water sector. The knowledge systems that have been formalised in the water sector have their basis in Eurocentric value systems with little to no consideration for local knowledge systems. Local knowledge has been discarded from all formal systems in the country due to a number of factors, with the most commonly discussed one being the absence of written local or indigenous knowledge.

The adoption of European knowledge systems has meant that everyone in the water sector had to be well versed in the form of systems that were accepted by government and all institutions so that they would be able to participate and possibly leave an impact in the water sector. Nkondo (2012) explains that indigenous African ways of knowing have been looked down on as non-scientific, without basis, and in many instances ignored as non-existent. Nkondo (2012) also pronounces that this approach to knowledge systems was a result of western cultural and intellectual arrogance (in Kaya and Seleti, 2013). Due to how water exists in different locations and for different communities, questions of how race and gender play a role in water sector knowledge production are crucial in the elimination of inequalities in the water sector. Zegeye and Vambe (2006) posit that knowledge production “... *is not an ideologically neutral phenomenon ... as such it was a requirement that African intellectuals generate knowledge and publish it if an African renaissance is to be realised*”.

This research study looked at some research institutions at the forefront of knowledge production for the water sector to investigate the progress of inequality redress or the lack thereof in the period stretching from the apartheid era to the present. Having looked at various institutions, the WRC was selected as one of the institutions at the forefront of water sector knowledge development and excellence – locally and internationally. A detailed investigation of areas for possible redress was carried out, with the result that a few variables were selected for analysis and reporting, as covered in the following sections.

## 6.2 Water Research Commission: A brief background

The WRC is one institution in the area of water sector knowledge with its genesis in apartheid that passed through the transition to a democratic South Africa and remains very active. As such, if there is one institution positioned to show what has been happening in water sector knowledge, it would be the WRC. The WRC was established in terms of the Water Research Act 34 of 1971. Following a major drought period, the leadership in the water sector decided to expedite the formation of an institution to take the lead in the generation of new knowledge in the water sector as well as coordinate all the water research that was taking place in the country. It is important to note that the WRC's mission is to be a global water knowledge node and South Africa's

premier water knowledge hub, which is active across several areas that include socio-economic development, development of human capital in the water sciences sector and support of the national transformation and redress project (WRC, 2019). The WRC is also a national asset in water sector knowledge development. The DWS strategy summarises the WRC's role as the country's water-centred knowledge 'hub' leading the creation, dissemination and application of water-centred knowledge (DWS, 2019). The assessment of coloniality in water sector knowledge is therefore incomplete without an assessment of how this key institution has performed in addressing coloniality over the years. The research was focused on water resources management in the early years, while later on the research would branch into several areas around the water sector.

### **6.2.1 Assessment of water sector knowledge: the WRC**

To evaluate the state of inequalities that have prevailed in the knowledge space of the water sector, an assessment of WRC research publications was done. Starting in 1982, the study evaluated lists of WRC published research. An initial assessment involved determining what type of information could show the coloniality and inequalities – especially in the generation of the water sector knowledge. Earlier investigations of coloniality showed that knowledge is one area that influences decision-making, implementation and maintenance of colonial systems and structures. In following the process of knowledge development in the water sector, it became clear that those who were defined as 'key stakeholders' – especially the leading researchers – were driving the knowledge generation programmes, including influencing decision making in the sector through the various roles they assumed at all levels of the sector. These knowledge 'champions' dominated the leadership of research projects and programmes. In the WRC, the lead researchers on research projects, whose names are captured first on any publication, were indeed the drivers of the research teams and accountable for what ends up in the publications or other project outputs. This lead researcher, or in some instances the research project leader, is the one referenced when the work is distributed, such that his/her influence stretches across generations and beyond the area of research. Following this initial assessment, it was determined to investigate the racial statistics of lead researchers as shown in the records of publications.

After much investigation and many consultations, it was noted that the best available data on publications was available from the WRC library, where all publications have been recorded since the WRC started in the 1970s. This raw data for analysis (WRC, 2018a) was derived from the list of complete and published WRC research, which is commonly shared with WRC stakeholders or any person who wishes to request it for purposes of finding available research reports and publications. This is a publicly available document, which lists all available publications and other reports as recorded in the WRC over the years. The recording of data entailed capturing the year of publication, the research number, the name of the lead researcher as well as their racial classification, and the field of the research. The lead researcher in this assessment is also referred to as the 'lead author' – the researcher whose name is captured first in the publication.

The researchers were classified according to their race. The classification into racial groups relied on listed last names and other information available about the researchers. In case of doubt in the classification, several other methods were used to identify the specific researchers against the provided names. Those listed as 'others' were mostly private and public institutions or cases where the publication has a company name instead

of the individual researchers listed. Coloured researchers were classified as black researchers as far as was practical. In many instances, contact details of some researchers were obtained and their institution was contacted to establish their race. A few individual names where race could not be established were included under 'others'. Apart from 'others', the classifications used were 'white', 'black' and 'Indian'.

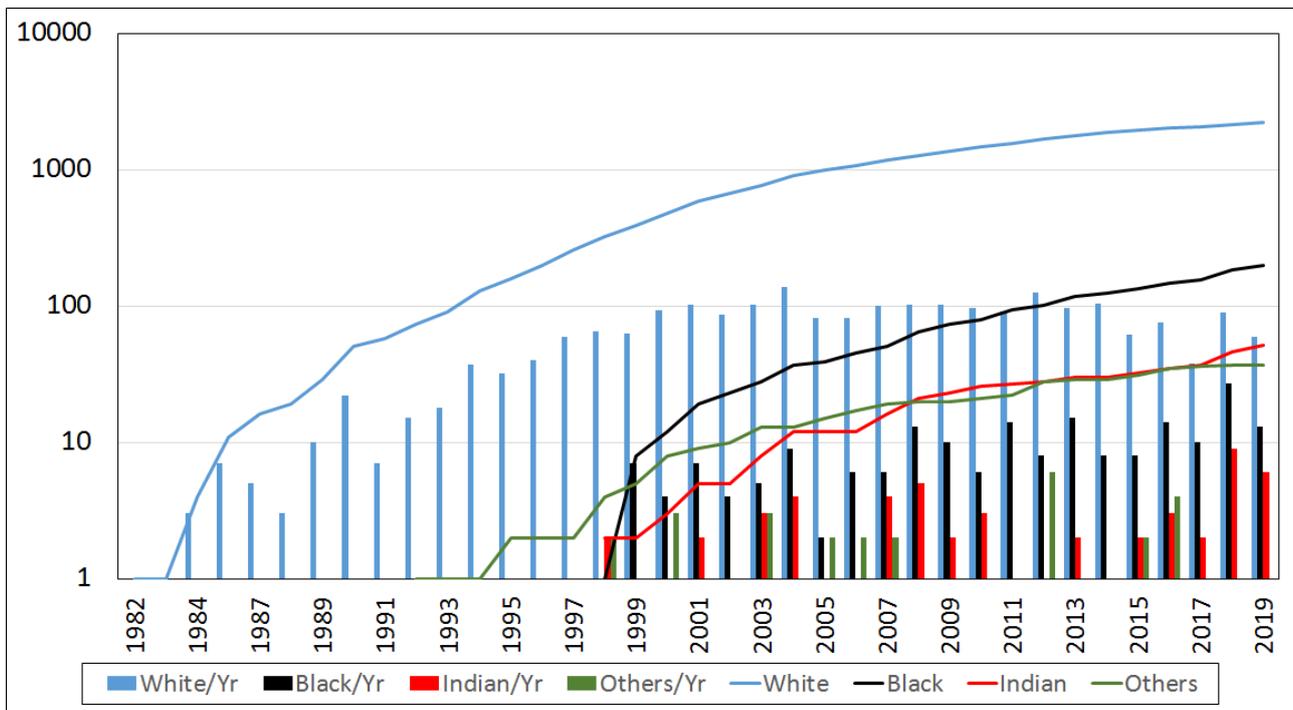
### **6.2.2 Results from assessment of publications and authorship**

On the surface, it seems there is much involvement of black researchers in WRC-funded projects, but this assumption is based on the type of variables selected and data used in determining the state of inequalities over the years. The variables that are used in WRC annual reports focus on the number of black project leaders as well as the number of students on the projects. A closer investigation showed that this approach is not linked to the actual knowledge generation, for a variety of reasons. The national impact of knowledge from research comes out of the research outputs that have been made available to all citizens through publication or other forms of dissemination.

The WRC publications records used in the study covered the updated list of publications for research projects that were completed and published in the period of 1982 to 2019 (WRC, 2018a and 2020), the total of project report entries recorded was 3 192. Of these, 689 had been repeated across the different discipline headings, leaving 2 503 unique research publications in the same period. The total number of publications after removing duplicate publications showed the following split:

- Publications with white research leaders totalled 2217.
- Publications with black research leaders totalled 197.
- Publications with Indian research leaders totalled 52.
- Publications classified as 'others' totalled 37.

The distribution of different groups in the cumulative totals of the published research over the years showed a high rate of increase in white researchers (Figure 6.1 and Table 6.1).



**Figure 6.1: Cumulative and annual numbers of WRC lead researchers according to race since 1982 (WRC, 2018a and 2020)**

While the recorded publications start to appear in 1982, research publications in which lead researchers outside of the white population were involved started in 1998 when V.L Pillay and K. Sami were the first non-white individuals recorded as lead researchers. In both instances, the two were working with established researchers who had started to be involved in knowledge generation much earlier, such that their involvement entailed some form of capacity building or transfer of responsibilities, which has its good and bad sides in terms of coloniality. Figure 6.1 and Table 6.1 below illustrate the representation of the progress in numbers of publications across all the groups considered (derived from WRC, 2018a and 2020).

**Table 6.1: List of recorded lead researchers according to publications in the WRC since 1982 (WRC, 2018a and 2020)**

Year	White	Black	Indian	Others
1982	1	0	0	0
1983	1	0	0	0
1984	4	0	0	0
1986	11	0	0	0
1987	16	0	0	0
1988	19	0	0	0
1989	29	0	0	0
1990	51	0	0	0
1991	58	0	0	0
1992	73	0	0	1
1993	91	0	0	1
1994	128	0	0	1

1995	160	0	0	2
1996	200	0	0	2
1997	259	0	0	2
1998	324	1	2	4
1999	387	8	2	5
2000	480	12	3	8
2001	583	19	5	9
2002	669	23	5	10
2003	771	28	8	13
2004	908	37	12	13
2005	989	39	12	15
2006	1 071	45	12	17
2007	1 172	51	16	19
2008	1 275	64	21	20
2009	1 378	74	23	20
2010	1 475	80	26	21
2011	1 566	94	27	22
2012	1 692	102	28	28
2013	1 789	117	30	29
2014	1 893	125	30	29
2015	1 955	133	32	31
2016	2 031	147	35	35
2017	2 069	157	37	36
2018	2 158	184	46	37
2019	2 217	197	52	37

The number of white lead researchers has been increasing at a generally higher rate than other groups (Figure 6.1). The total number of publications reached its peak in 2004 when 150 publications were recorded. Out of these, 137 had white lead researchers, nine were recorded as black-led and four as Indian-led. After 2004, there was a general decrease in total annual research culminating in only 51 publications for all groups in the 2017/18 financial year (WRC, 2018a). While it could be argued that not all the research that is initiated ends up in publication, the available information shows that the trends in numbers of publications are aligned to the projects that are initiated, with a time lag equal to the average duration of the initiated projects. The most recent WRC annual report shows the trends of projects that were started and finalised and those that ended up being published in the five years ending in 2018 (Table 6.2).

**Table 6.2: Projects initiated, completed and finalised in the five years ending in 2018**

Financial year	WRC initiated projects (WRC, 2018b)	WRC finalised projects (WRC, 2018b)	Project publications recorded in the year (WRC, 2018a)
2013/14	87	87	115
2014/15	113	77	112
2015/16	90	90	74
2016/17	106	87	97
2017/18	85	106	51

It has been suggested that the participation of black researchers in WRC research studies is generally a reflection of the number of available black scholars. The Mail and Guardian (2016) investigated the statistics of university graduates across all disciplines and reported that the number of black graduates who graduated with degrees each year was approximately 3 800 in 1982, a number that more than quadrupled in the period of 1994 to 2014. The figures of black graduates increased from about 11 339 (in 1994) to 20 513 (in 2004) and 48 686 graduates (in 2014). The distribution of WRC published research works has continued to be skewed in favour of white researchers over more than four decades (Table 6.1) even though the numbers of graduating black scholars has been increasing. Further, national statistics of university degree graduates was presented as follows (Mail and Guardian, 2016):

- Black graduates: 48 686.
- White graduates: 20 510.
- Indian graduates: 5 529.
- Coloured graduates: 5 622.

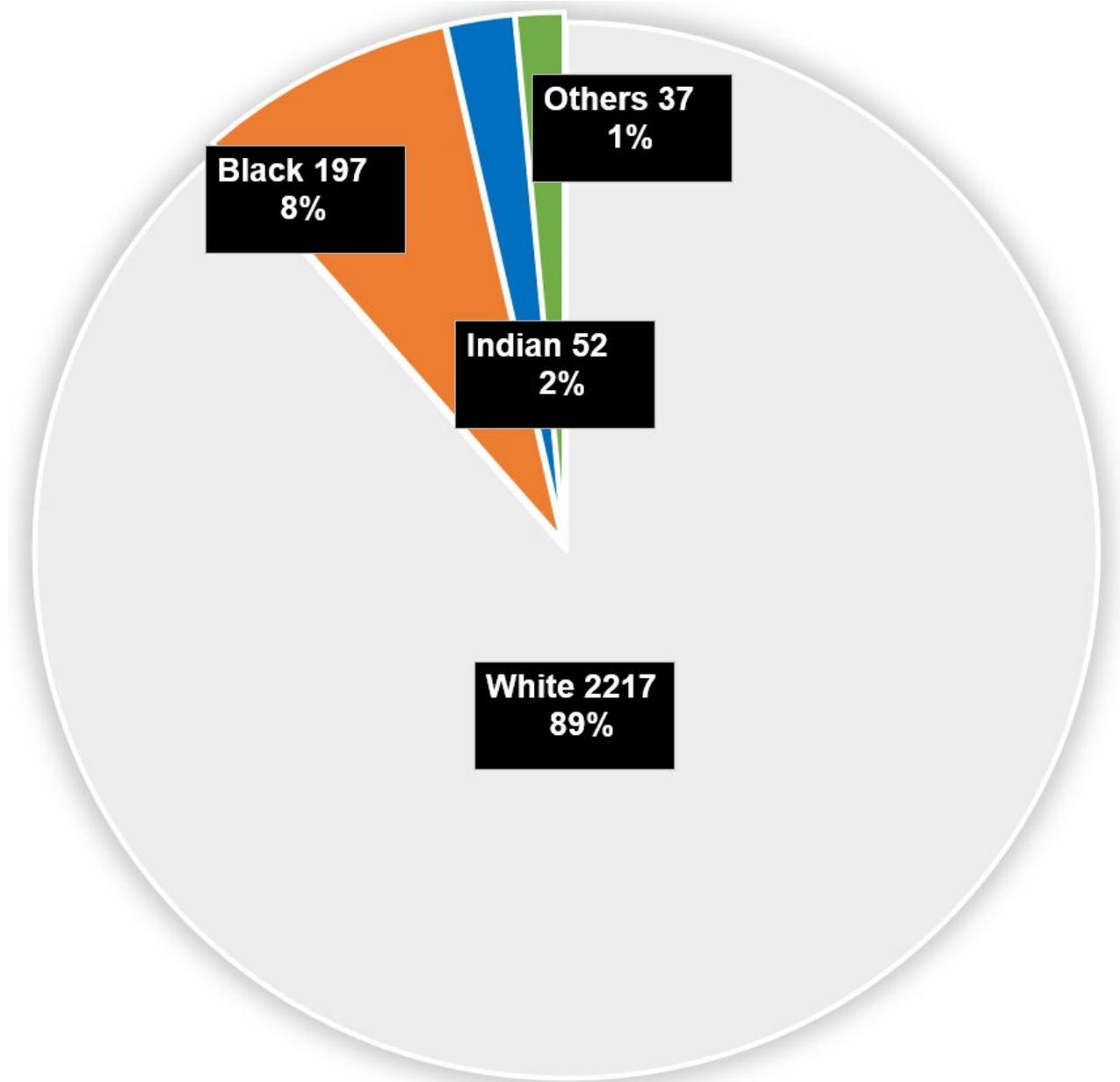
Stats SA (2017) reported that the total number of graduates from public higher universities for both degrees and certificates more than doubled from 92 874 in 2000 to 203 076 in 2016 for all racial groups. At least half of these were black graduates. While the proportion of black people who graduate with degrees is a smaller percentage of the black population group, the actual number of graduating black people has been increasing over the years in magnitudes of thousands. These demographics show that there were more than enough black researchers who could also contribute to water knowledge through WRC research in the period covered by the assessment of WRC publications (Table 6.2).

### **6.2.3 Analysis of findings on coloniality in water sector knowledge**

The numbers of publications from water research records for the WRC show a consistent trend in which those where the lead researcher is white have been increasing over the years, thus extending the levels of inequalities in water sector knowledge generation. The inequalities were at their peak before 1998, when only white researchers were recorded as individual lead researchers in publication records. While there are a few more black researchers working on WRC projects, increases in the participation of black researchers in publications – especially as lead researchers – has been mediocre. As an example, the total number of published black lead researchers reached a peak of 15 in 2013, reducing to eight in 2014, ending up with another eight again in 2015, and then peaking to 14 in 2016 but falling down to 10 in 2017. The overall outcome of the levels of participation by the different groups has shown a trend that is heavily biased towards white

researchers, as shown in Table 6.1 with the overall statics being recorded in Figure 6.2 below. In the period from 1982 to March 2018, 90% of the reports published by the WRC had a white lead researcher.

On the financial side, the WRC Research and Development (R&D) budget has been increasing over the years. In 2013, the R&D budget was R138 million and in 2017 it reached R213 million. This is an average rate of increase of R14.8 million per year (WRC, 2014 and 2018b). It is noted that the number of research projects that are started is not necessarily aligned to the total budget. However, the total funding supporting white people in research, as shown by the recorded publications, is generally increasing and continuing to take a bigger chunk of available resources, while the other groups are failing to break through the low-level ceilings reached in the past (Figure 6.1 and 6.2).



**Figure 6.2: Percentage total number of lead researchers for all recorded publications from 1982 to 2019 (WRC, 2018a and 2020)**

#### 6.2.4 Qualitative assessment of water sector knowledge

An assessment of the topics that are studied by non-white researchers – especially in the research led by black individuals – has a tendency to be on subjects that can best be described by the presence of the following terms in the project titles (Box 6.1).

##### **Box 6.1: Words and phrases that are frequently in titles of research projects with black lead researchers**

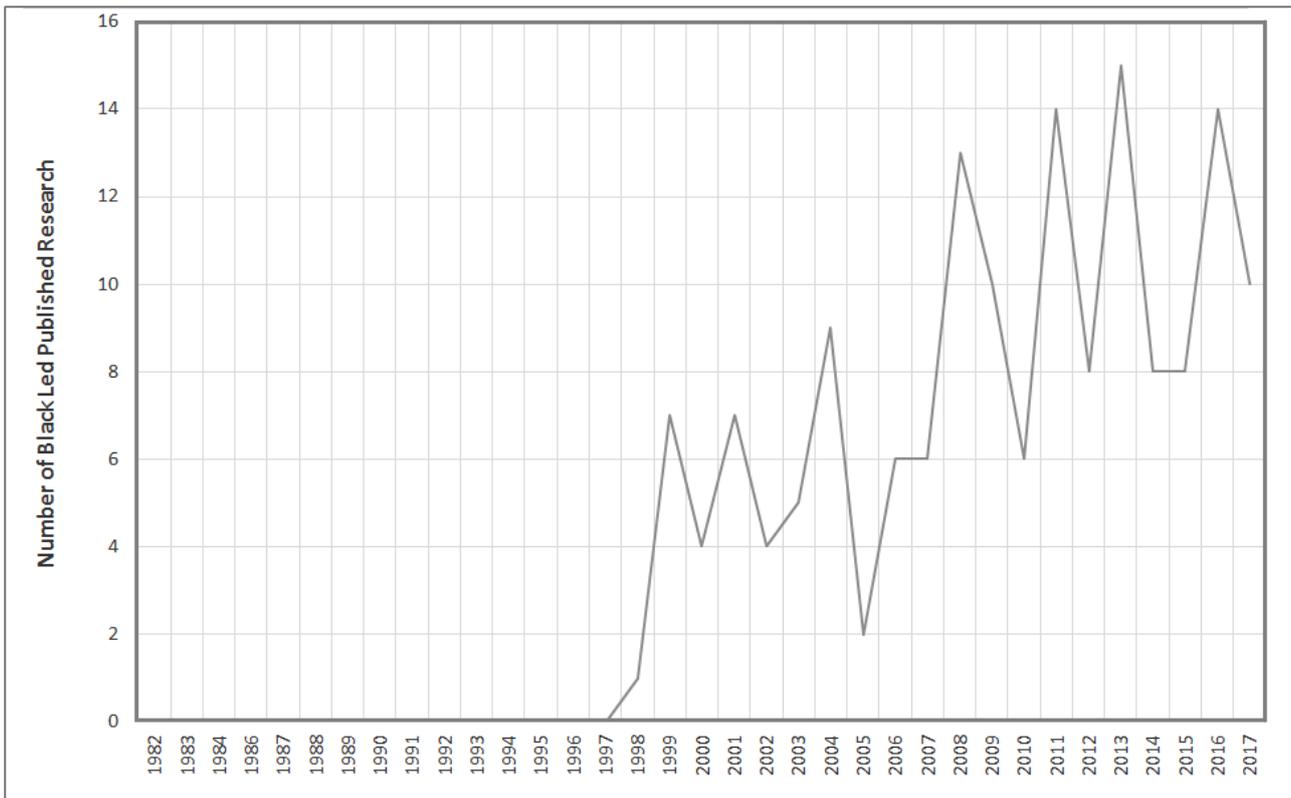
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| <ul style="list-style-type: none"><li>• black communities</li><li>• indigenous people</li><li>• communal areas</li><li>• small-scale irrigation</li><li>• gender equality</li><li>• rural consumers</li><li>• rural council</li><li>• communities in Venda</li><li>• townships</li></ul> | <ul style="list-style-type: none"><li>• service-delivery protests</li><li>• communal based</li><li>• HIV and Aids</li><li>• rural water supply</li><li>• rural villages</li><li>• women</li><li>• capacity building</li><li>• capacity development</li></ul> |
|--|--|

In the context of societal goals of water security, Muller (2018) argues that debate about by whom and how is avoided. This should however not be the case about knowledge generation, as who generates knowledge is important – especially in light of Eurocentric epistemologies that disregard all other forms of knowledge. The type of research that is frequently supported for black researchers (Box 6.1) demonstrates significant stereotyping based on racial perceptions that are rooted in perceptions of black people developed over the years as part of racism and apartheid propaganda. Other authors would describe how black researchers are portrayed by fellow researchers and WRC research leaders as what is described in the term ‘blackface’ by authors such as Dr Asa Hilliard (1978). He explains that blackface is the caricature of black people, based on mostly unfounded perceptions by white people, and in many instances other black people who have inherited the same sentiments over time. With these perceptions, white people and others in academia fail to appreciate the scholarship of black people, along with their experiences and other relevant knowledge that place them on an equal footing with white people.

The distribution of completed works by black lead researchers in specific disciplines shows a limited appreciation of the fact that the black people can cover all the disciplines, if they have the required skills and training in that area. In this study, it was evident that many black researchers with technical, engineering or other natural sciences qualifications would end up working on or leading research on issues of a social nature targeted merely at ‘black communities’ rather than all relevant issues in the country. This, despite them having made a name in other areas related to their original qualifications, training and experience. The research led by black researchers can also be described as the type of research where it is assumed that black people will have the relevant knowledge – without considering their qualifications, background and experiences. There are research subjects in the list of published research where not a single black person has been recorded as the lead researcher.

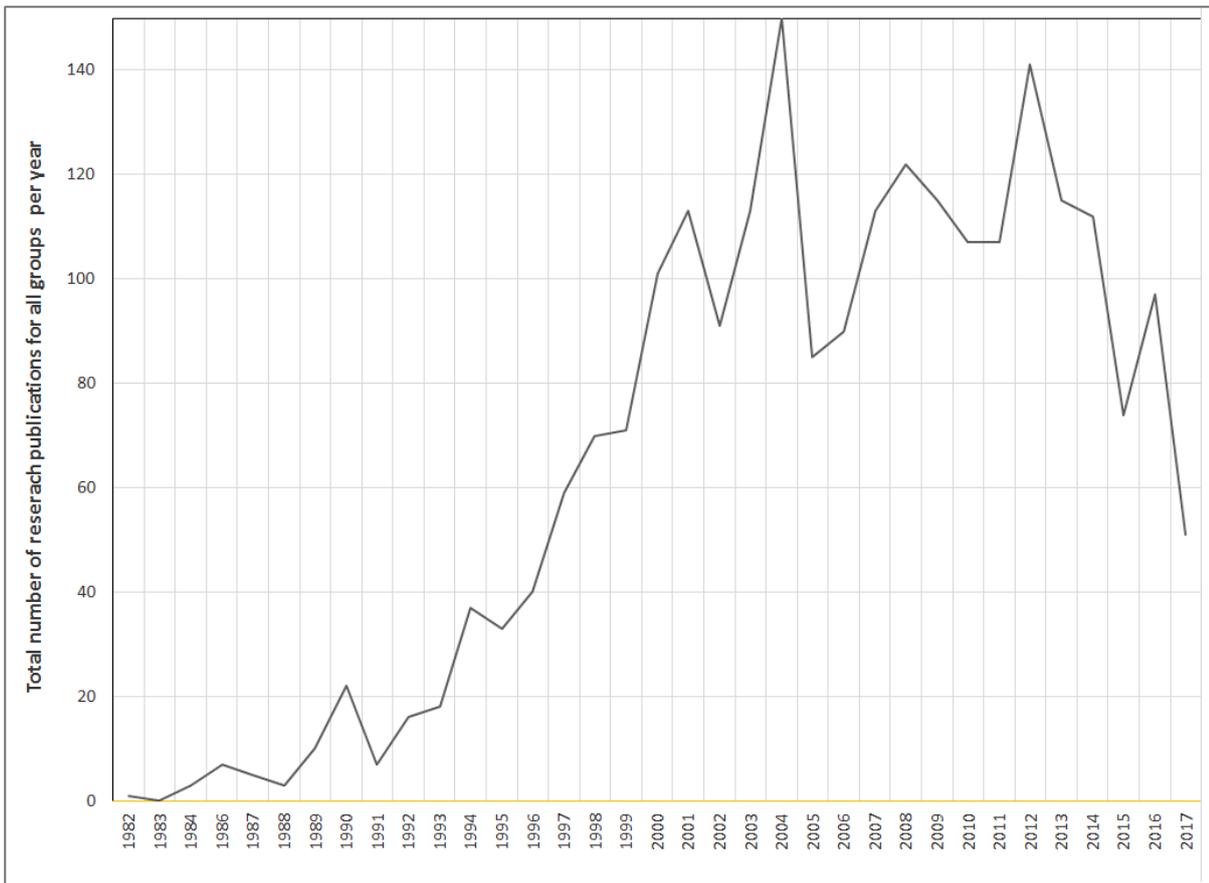
Several authors (cf. Ake, 1979; Mignolo, 2007; Mills, 1997; Ngũgĩ wa Thiong'o, 1984; Tarantino, 2012) explain that Eurocentric epistemology and racial stereotyping is not limited to white people but is also inherited by black people who occupy the places or adopt the positions that belonged to or were reserved for white people. White epistemology is not limited to white people only, but all of us – especially those who have been through the colonial education system. It is about the focus of one's thinking in a world that is shaped by coloniality. In, *Black Skin, White Mask*, Fanon (trans. 1986) calls affected black people “*black bodies possessed by a white epistemology*”. Ndlovu-Gatsheni, (2018) describes how the Global South became victims of genocides and epistemicides (killing of indigenous people's knowledges), ending up with a people who continue to think within a Eurocentric framework and extend the interests of white colonialists – even in cases where white people have left their shores. Santos (2016) explains how colonised people continue to discard personal experiences of inequalities as they pursue colonial interests through what he defines as “*abysmal thinking*”. This refers to negating a whole set of realities and experiences that lay on the other side while pursuing the Eurocentric systems. In the water sector knowledge, the continued coloniality is evidenced by the persistent racial inequalities in the racial dynamics of water sector research – especially its leadership – that grossly continue to favour white researchers.

The data analysed showed that after 25 years of a democratic government that was founded on a constitution that promotes equality for all, 7% of WRC research had black lead researchers, while 90% had white lead researchers. These high levels of inequalities are even showing new signs of increase after a stagnation of overall WRC research publications by the different groups since 2015 (Figure 6.3 and 6.4 below). The graphical illustration in Figure 6.3 shows that the total number of published research with black lead researchers is now failing to break the ceiling of 14 publications per year (WRC, 2018a). The statistics of the records show that after strong growth in the number of black lead researchers in the period of 2005 to 2008, the curve has flattened to the point where the number of publications with a black researcher has only exceeded 14 in one year (2013).



**Figure 6.3: Stagnation in the annual number of published WRC reports that have a black lead researcher**

A prospect of resurgence in the number of black lead researchers is not evident from the analysed records. The decline in overall publications is dramatic, and it is squeezing out the participation levels of black people (Figure 6.4) to only 10 as recorded in 2017. It is worthwhile to investigate the trend and causes and then apply measures to reverse the trend.



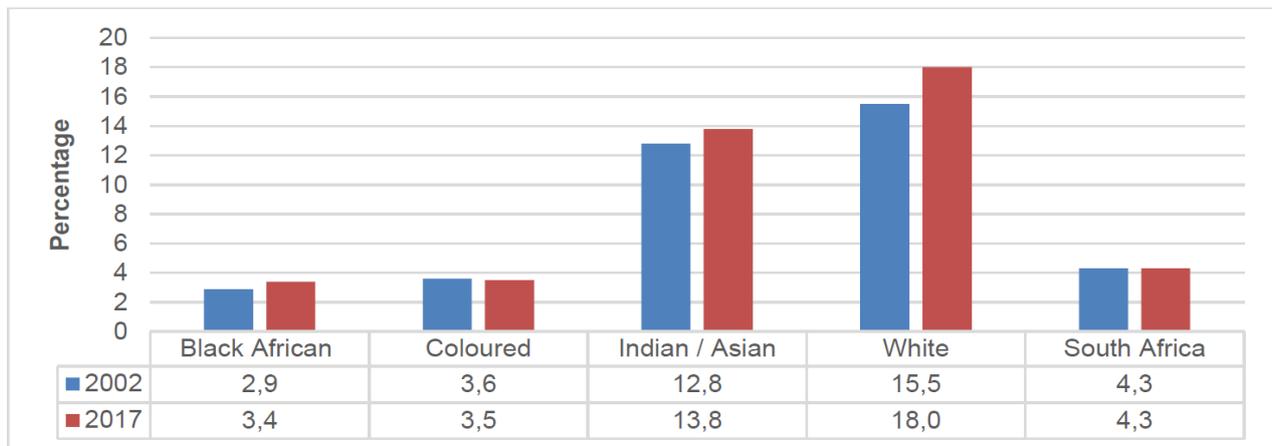
**Figure 6.4: Decrease in overall water sector research publications based on WRC research (derived from WRC, 2018a)**

### 6.3 Access to higher education

The role of education in water access is less evident when basic levels of water use in the different sectors are discussed. However, for productive water use, generating sustainable returns in commercial operations involving high levels of water use volumes, resource availability, education and experience becomes very important. The characteristics used in the evaluation of potential success of commercial agriculture farmers by the Land Bank (Mayowa, 2015) include level of education, training qualifications and potential to be trained, skills from previous employment, knowledge of farming and what is to be farmed, farming background and physical abilities. There are also areas where a certain level of education and training will enhance the potential of the water user to be operationally sustainable. Evidently, the lack of such education and training becomes a constraint in access to water.

It was clear during the field investigations that some respondents could not appreciate the concept of securing land and water for commercial agriculture. Their concern for basic water ('small water') instilled in them through past and current patterns of water access and allocation requires that the *"imposed inferiority complex"* (Ndlovu-Gatsheni 2014) be addressed, something that can be done through exposing them to relevant knowledge. In discussing trust and knowledge as obstacles to water sector reform, Goldin (2010) explains that there is a close relationship between knowledge, agency and shame, because unequal relations of power and knowledge restrict agency, jeopardise the building of trust, and may perpetuate feelings of shame. The

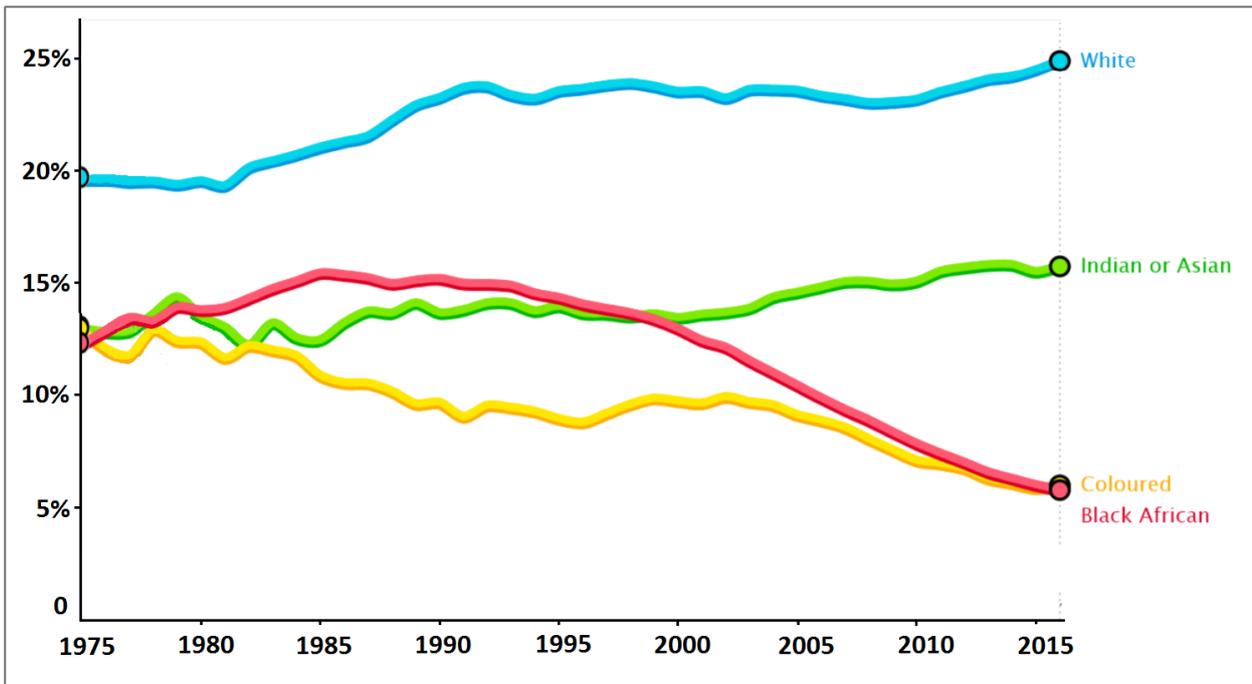
investigations in literature and the field consultations showed that there was a need to understand the state of knowledge – especially the distribution of higher education. Figure 6.5 below shows the rates of participation in higher education per population group.



**Figure 6.5: Percentage distributions of student participation rates for higher education in individuals aged 18-29 years as a percentage of their population group for the years 2002 and 2017 (Stats SA, 2018)**

Of all the variables collected in the household census for the period of 2002 to 2017, nothing shows the effects of inequalities that persisted over a long period more clearly than access to higher education per population group. The participation rate of black African students in higher education, which includes universities and higher institutions of technology, was 2.9% in 2002 and increased to 3.4% in 2017. In the same period, participation by white students – which was already much higher, at 15.5% in 2002 – increased by 2.5%, to 18%. The participation by coloured students, which was also low in 2002, decreased from 3.6% during this period to 3.5% in 2017. While many universities may show increasing numbers in the enrolment of black students, the numbers are proportionally very low when compared to the population group.

In the 2016 community survey by Stats SA (2016), the Statistician General reported that there were proportionately fewer black African and coloured graduates. This shows a new challenge, in which students go to university but do not graduate. A comparison of the increased student enrolment shown in Figure 6.5 and the decrease in proportionate graduation for black students as shown in Figure 6.6 indicates that the inequalities in the education sector are increasing for the black African community.



**Figure 6.6: Proportion of matric graduates who attain a bachelor's degree (adapted from Stats SA, 2017)**

Inequalities in education have also been blamed for the poor progress of black students at tertiary institutions. The phenomenon of dropping out in education is an early loss to attaining a key variable that will later be required for one to have the ability to articulate and develop water sector projects. A sound education is one of the pillars for developing a strong foundation to permanently eradicate inequalities, especially in

communities that have nothing to inherit or no platform from which to gain experience in economic activities without education.

Letseka and Maile (2008) investigated dropout and success rates of students in higher education and observed that there was a proportionately higher dropout rate and lack of progress in black and coloured students, with the black students' performance being well below national average success rates for all tertiary institutions. In their study, Letseka and Maile (2008) concluded that the marginalisation of black people was still entrenched in the education system.

They also pointed out that as late as 1993, the apartheid government provided educational funding and support in a skewed and unequal way. For example, R4 504 was allocated for the education of a white pupil, R3 625 for an Indian pupil, R2 855 for a coloured pupil and a paltry R1 532 for a black pupil. Chetty and Pather (2015) point out that the black African students came from disadvantaged backgrounds where they would have already experienced poor support from the basic education system, and a general lack of suitable resources to take them through early education adequately enough for a sustainable base to be formed. They also noticed that the black African students came through poorly equipped schools where teachers were unable to provide acceptable levels of tuition and student support.

# CHAPTER 7.: NON-PHYSICAL MEASURES OF COLONIALITY

## 7.1 Observations and perceptions from the field

The field observations revealed that the black Africans in townships have mostly resigned to accepting that they cannot access a certain standard of rights or they are making efforts without being heard. Community members were asked if they wished to have access to larger volumes of water, as was used in commercial farms, to participate as large-scale commercial farmers. It was observed that most black African communities did not entertain this idea but were rather keen on finding a job on a farm, possibly because this was more realistic than imagining owning a commercial farm. The white commercial farmers were quick to point out that farming required skills and experience that they had but were not available in other population groups. Several authors who tend to visualise population groups according to the skills-defined colonial and apartheid legislation, share these sentiments (Du Toit, 2007). The apartheid legislation and practices also defined the nature of skills and roles for the different racial groups (cf. Lepheane, 2007; Nokwe, n.d.). This is evident in legislation such as the legal provisions listed in Box 7.1 below and explained in more detail in Annexure 1 of this report.

### **Box 7.1: Apartheid legislation that was used to consolidate racial segregation, including extending inequalities in water and land access**

- The Industrial Conciliation Act 11 of 1924
- The Minimum Wages Act of 1925
- The Mines and Works Act (Colour Bar Act) 25 of 1926
- The Native Service Contracts Act of 1932
- Black Labour Act 67 of 1965
- Bantu Education Act 47 of 1953
- Extension of University Education Act 45 of 1959
- Bantu Homelands Citizenship Act 26 of 1970

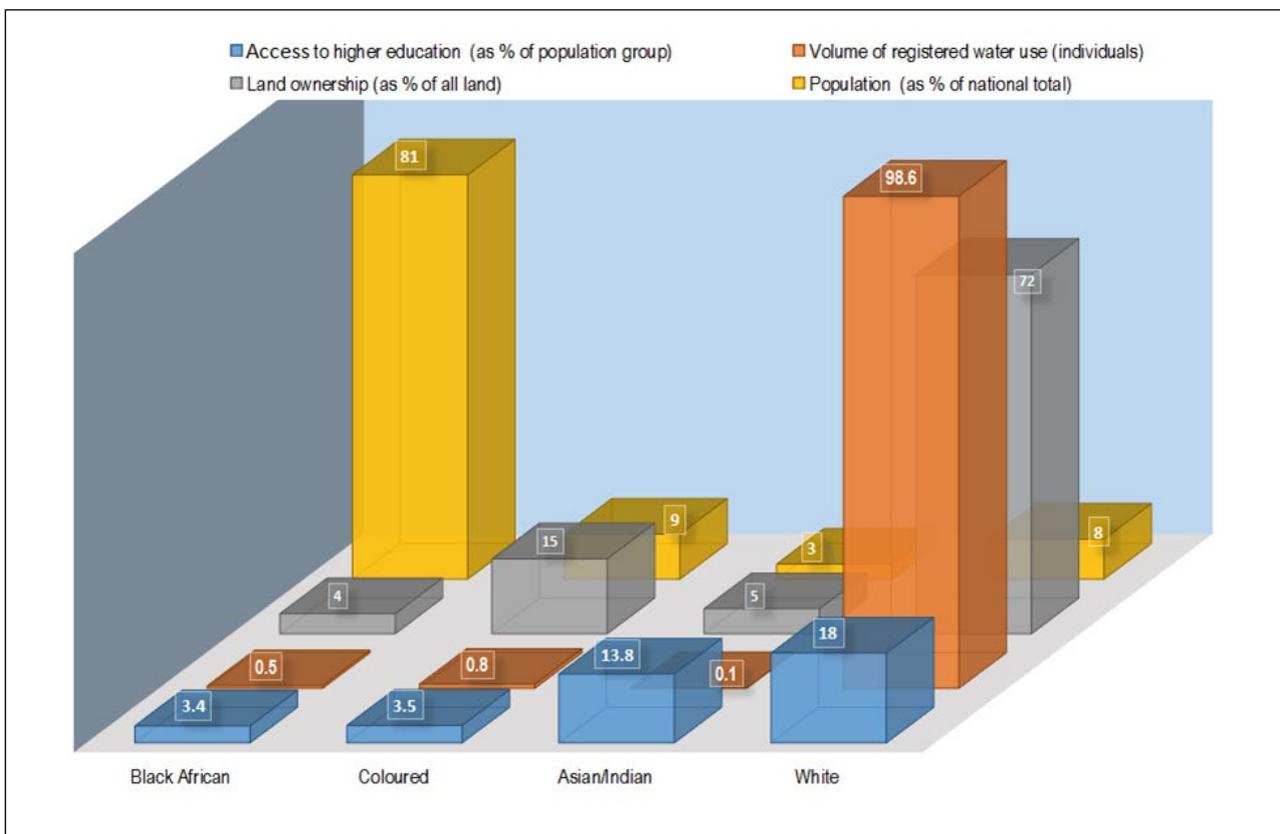
In the field surveys, there were some in the black communities who aspired to be successful in farming but indicated their constraints as being the lack of infrastructure and finance to pump water to their respective farming plots. Some of these smallholder farmers said they had farming experience obtained from working on commercial farms – an example of which was a sugarcane grower who had a small farming plot and evidently inadequate farming equipment. Without adequate farming land and the necessary tools and equipment, the experience he has might not generate positive returns. A few black farmers in small commercial plots also expressed that they had several other challenges, especially around ownership of their land. Documentation surrounding ownership of land by black farmers was a major problem, particularly in the cases where they had inherited the farms.

It was also observed that the nature of rural areas occupied by African people in most of the case study areas is such that the land is organised in much the same way as in peri-urban areas or typical urban townships,

where houses are densely packed together. As such, there is not a lot of available land for farming. The exceptions are a few homesteads – especially at settlement edges – that have larger stands, allowing for a garden to be established.

In all the rural townships visited, communities faced water shortages of varying degrees. The supply was supplemented with water provided by small-scale water vendors who sold water in containers of 20 litres or smaller. According to the respondents, the water price from the vendors was R2 per 20-litre container and R300 for a 2 500-litre tank, which translates to 12 and 15 cents per litre. The water prices are very high when compared to municipal water. In Tshwane, the household water use rates increased to 1 cent per litre for the lowest band and 3 cents per litre for the highest band. The high cost of water to rural communities drastically reduces access and restricts commercial use, especially in cases where municipal water is used.

The investigations showed that when all levels of water access are analysed using the available data of existing individual lawful users, less than 1% of the water is available to black people, while white people have more than 98% (Figure 7.1). Black people need land to access and use water economically. Any solution that seeks to reasonably improve water access by black people should not just look at the water but rather the broader set of variables, especially land, infrastructure, farming knowledge, finances and many other inputs and resources, as well as supportive characteristics. Figure 7.1 gives a set of statistics showing the nature of water access variables that continue to highlight that there is little progress made in removing inequalities – two decades after South Africa achieved majority rule.



**Figure 7.1: Statistical representation of inequalities in access to land, water and higher education**

As illustrated in Figure 7.1, coloniality in the water sector is not only restricted to characteristics that are directly linked to the water sector, such as the quantity of water available, but is rather manifested through a broader mix of variables, some of which may seem unconnected to the water sector. The extremely high levels of inequalities show that the vast disconnect observed in water sector variables has deep roots in the social, economic, cultural, religious and other dimensions of our national fabric.

### 7.1.1 Assessment of knowledge on commercial use of water in agriculture

The field visits, literature and consultations also investigated the role of knowledge in commercial use of water. The range of questions asked in the questionnaires administered in the field is captured in Box 7.2 below.

#### Box 7.2: Questions used to evaluate knowledge on commercial use of water in agriculture

- Do you need additional water? If so, for what uses? Please describe.
- Are you a member of any institution, grouping or committee involved in water?
- Have you been in touch with a water institution to address your own needs? Are you aware of the existence and roles of irrigation boards and water user associations?
- When does one apply for a WUL and do you know how to do this?
- Do you know anyone with a WUL?
- Do you know about the NWA? If you do, what is the one thing you find important in it?
- Who should maintain water quality? What is your role in maintaining water quality if you are a commercial water user?
- Do you think black people are capable of using water as much as white commercial farmers? Please provide motivation.

The following is a summary of observations made regarding water sector knowledge:

- In black communities in urban and rural areas, participants showed no knowledge of the water use licensing process – even in cases where they expressed the need for water to carry out economic activities. It was also observed that there were no ongoing initiatives to extend knowledge that could form the basis for attracting improved participation of these communities in commercial water use.
- White communities in urban and rural areas were generally knowledgeable and most knew about the water use licensing process and where to go if they needed to apply for water use. Unlike black community members, white community members consulted had already been in touch with or knew someone close to them who had a commercial WUL.

The questions regarding licensing and knowledge of other people with licences for the use of water attempted to establish water use knowledge levels in different communities, as well as possible official and unofficial sources of knowledge on regularising the commercial use of water in cases where it was informal. Looking at the statistics of individual water users who are registered as lawful water users, the data (Tables 5.1 and 5.2 of this report) shows that there is one registered individual white water user per 211 white people, and one

registered individual black water user per 351 000 black people. As such, it is incredibly rare for a randomly selected black person to know of any other black person who has a WUL. This means that the idea of water licensing and commercial water use is still very remote from the black community.

Communities in all case study areas were also asked about whether they required additional water and what they would do if they were allocated a large quantity of additional water. Responses obtained from urban and rural communities in black African townships and villages included the following:

- In Mpumalanga and Limpopo, some of the black community members pointed out that they wish to have more water so that they can sell it to their fellow community members. They thought people who sold water to them were making a lot of money.
- Some black community members wished to improve household provisions using the additional water supply if it is provided.
- Some black community members wished to start a small garden in the available space. (The available space at households in villages and townships was mostly small and 1 000m<sup>2</sup> at most for the larger plots.)
- Black community members who were consulted through questionnaires did not express any knowledge of the potential to use the additional water for commercial agriculture.
- Both white and black commercial farmers who were consulted wanted to extend their agricultural businesses with any additional water if it comes their way. In several cases, they already had the land on which to extend their farming activities.
- A few black commercial farmers near Groblersdal explained that they were being disadvantaged by their municipality that was not providing electricity. They explained that this was depriving them of the additional power required for pumping water for agricultural use from the nearby river.

## **7.2 Progress in addressing the role of religious and cultural factors in coloniality**

The NGK, which was once very active in government, is not as large as it was and possibly also less influential now. While this religious group still maintains the colonial racial structures, there are now fewer NGK members in government to influence policies. Schoeman (2010) points out that while the NGK has publicly started denouncing racism, it has not ceased practising racial segregation across the country. Kuperus (2011) also noted that the DRC is now less binary than it was during apartheid. Schoeman (2010), who carried out surveys on unification of the DRC family of churches, noted that racism and a perception of social differences were observed to be at the centre of the church's failure to unify black and white church groups. He observed that the church's discourse was highly racial, and the problem was not receiving adequate attention.

Literature-based investigations of the role of other religious groups showed that several churches existed in alliance with the apartheid government policies (South African Council of Churches, 1972) and in many instances the racial trends have continued to this day, as evidenced by the presence of different groupings of same church families, where the separation is based on race. Regarding the land issue, for example, Modise and Mtshiselwa (2013) suggest that the South African churches' financial strength and legal support from the colonial and apartheid governments allowed them to dispossess black people of land that was later acquired by white farmers. The SACC expressed dismay at the many churches that were seeking to reconcile

Christianity with apartheid (SACC, 1972). Many South African religious denominations are still pursuing racial segregation practices at various levels.

### 7.3 Measurement of progress in addressing coloniality through legislation

Hamilton (1987, p.154) cautions that apartheid should not be understood simply as an issue of racism but as a “short-hand reference to a vast body of statutory law concerning the extent and regulation of property law”. Annexure 1 to this study lists a number of these statutory laws. Hamilton (1987) further points out that “any proposed change must be measured by its effect on these laws”. She noted that discrimination based on “othering” because of race was embedded in the legislation.

The transition from apartheid to the new dispensation in the water sector involved a series of legislative reforms that saw old legislations being reviewed and new ones replacing them. Scholars such as Movik (2012) and Bond (2014a) point out how the transition to democracy was hijacked by those who wanted to maintain the status quo by either suggesting the adoption of the Water Act of 1956 as is or adopting neo-liberal tendencies. In Tables 7.1 and 7.2 below, the provisions provided in past legislation are compared with the current provisions to determine the nature and extent of change, especially to determine progress made towards addressing coloniality. The ‘past’ refers to the period leading to the attainment of freedom for all in South Africa.

**Table 7.1: Assessment of progress made in addressing the colonial nature of water access through legislation**

	Provisions in old water legislation	Provisions in current water legislation	Nature of change
1	The Water Act of 1956 did not make provisions for black Africans. It was a document meant for recognised citizens of the country. The reference to “person” in the Act is limited to white people of European origin.	The NWA addresses all citizens but also carries over some provisions from the Water Act of 1956 as well as the Irrigation Act of 1912.	The change improved potential for water access by all citizens. However, it made the reallocation of water difficult by maintaining apartheid-era provisions in which all available water in many catchments had been allocated to white people.
2	The Water Act of 1956 makes provision for water rights and ownership based on riparian laws among other factors that are used to define private water for those that are riparian to a watercourse. Most water ownership and access rights were linked to land because of the riparian provisions. A new owner could easily secure the water rights for the land during	The NWA carried over colonial and apartheid-era water use rights as ELU. In this way the NWA adopted water rights based on the riparian principles. Water licences are linked to individual persons, companies or other entities such as municipalities and WUAs.	In water for economic use, there was no change in the water-access provisions of those who had gained access to water through a legislation that did not recognise the presence of black people. There are also servitude provisions in the NWA that protect riparian water rights. The use of the term ‘servitudes’ to define issues of riparian water access did not

	purchase of land or change of land ownership.		<p>advance the objective of water access equality.</p> <p>The NWA states that water is a natural resource that belongs to all people. However, the past 23 years have not shown this to be achievable, as water access inequalities remain unchanged.</p>
3	Only whites could legally have a right to water for commercial use in the colonial and apartheid laws. There were a few water access rights for a few black people in Bantustans, but these were considered to be outside of South Africa.	All existing water users who had obtained rights under South African law were incorporated as existing lawful water users. The gains in water access achieved by whites from colonial and apartheid laws were maintained.	The new water legislation has to date failed to reverse the inequalities embedded by colonial and apartheid laws in the water sector.
4	The Water Act of 1956 retained the common law distinction between private and public water that had been recognised in the Irrigation Act of 1912.	The NWA is silent on 'private water' but allocates water access rights that privatise access. Section 26 (2) of the NWA places ELUs under the property provisions in Clause 25(2) and 25(4a and 4b) of the Constitution.	ELUs are de facto forms of property as provided for in the Constitution. Water that was privately owned is still inaccessible to potential users from black communities. Loss of an ELU must be compensated just like any private property.
6	Water rights did not have a timeline to stop access and to re-evaluate it after some time had passed.	All licences are now issued with a period of validity.	There is room to revise water allocation and provide access to previously disadvantaged individuals and companies after some years. The provision of limited duration licences as a way of bringing in new participants is still to be tested.
7	There was a distinction between public water and private water, with 'public water' being owned by the whole nation and 'private water' being related to individual ownership and used to limit the access rights of specific users.	There is no classification of water into public and private.	Water resources are all under the custodianship of the Minister of Water with no individual ownership rights but rather access rights. WULs still protect private water as they are used to legitimise ELUs.

8	Irrigation boards could approve the transfer of water use from one user to another.	According to the NWA, the transfer of water use rights can be authorised by a water management institution.	This change was a positive move that could ensure transparency in water access rights and their transfer. Given that water access rights do not have provisions to be sold, this could be one way to pass access to others without paying financial compensation for deprivation of rights.
9	Irrigation boards were responsible for collecting water charges from the commercial farmers.	A water management institution collects water use charges within its water management area as a state directive.	Collection of water use charges from all water users into national coffers is possible. These funds, even though collected by different water institutions, can be availed for other needs.
10	Water-access rights for economic use were permanent and could be inherited or sold	There are still no clear provisions through which ownership of access rights can be transferred under normal circumstances. The access rights of water for economic use can be inherited (NWA Clause 34).	Inheriting the right of access to water is currently a privilege that can be experienced by those who are related or can be linked to holders of ELUs. ELUs are mostly available to white people. As such, the access to water for economic use mostly remains a private inheritance of white people, with very little prospects of extending access in black communities.

**Table 7.2: Assessment of progress made in addressing past inequalities and other colonial characteristics in other legislation that have a bearing on water access**

	Provisions in other past legislation with a bearing on water inequalities	Provision in present-day legislation to address other factors with a bearing on water-access inequalities	Nature of change
1	Land Act: White people, through several pieces of legislation, could legally own land. Land legislation was directly meant to deprive black African people. (Some of the land acts are listed in Box 3.1 of this report.)	Present-day legislation on land seems to be bent on extending land access restriction. Provisions regarding certain land for settlement, as in the Provision of Certain Land for Settlement Act 126 of 1993, are to restrict access of new beneficiaries in government projects to that land owned by the state referred to as “certain land” in the act. The state has very little land (approximately 6%, most of which is servitudes), as shown by the DRDLR land audit (Rural Development and Land Reform, 2017).	Legislation on redistribution and restitution processes to address land dispossession is still affected by the issues pertaining to ‘willing buyer and willing seller’, among other provisions. The changes are not yielding transformation such that new measures are being contemplated. These measures include changes to the Constitution and relevant legislation.
2	Constitution: Past constitutions (1910, 1960 and 1983) were centred on discrimination and rights provided along racial lines. In the 1960 constitution, the focus extended to separate and different development paths for black people and white people.	The Constitution now seeks equal rights for all. While the Constitution talks of making right the wrongs of the past, it is not clear how the benefits of apartheid should be dealt with. It also tends to suggest that the wrongs of the past cannot be corrected if the proposed correction negatively affects those who benefitted during colonial times. The privileges gained during apartheid are further protected in the bill of rights.	The Constitution seems to be contradictory in its provisions for addressing the wrongs perpetrated on black people in the past. There is increasing public interest in addressing how the Constitution is failing to adequately provide for the expropriation of property rights attained through apartheid provisions.
3	The 1983 constitution created three separate parliaments: for Indians, coloureds and whites. Black people lost all rights in South Africa and were relegated to homelands, yet there were many black people who lived outside of homelands and had been born in the South African territory of the time. Black people	The Constitution states that <i>“everyone has the right to have access to sufficient water”</i> .	This provision was a great step towards addressing inequality and other ills of colonisation.

	were not given any rights to water under this constitution.		
4	Land and its commercial use: The Native Land Act of 1913 served effectively to segregate ownership. Under this act, peasant farmers were converted into farm labourers in large numbers. Further segregation came through the Marketing Act of 1937 and the Co-operative Societies Act of 1939, which extended exclusion of peasants and smallholder farmers.	The Native Land Act of 1913 and associated apartheid legislation were repealed.	Present legislation does not target black people for discrimination. There is a potential to build black participation in agriculture and associated water use.
5	Agriculture: Participation in commercial agriculture in the past was racially based with only whites having lawful access to agricultural land for commercial use until the 1990s. Black people had to participate in agriculture as employees, or as smallholder farmers in former homelands.	There are national provisions to assist black farmers and aspiring farmers to be meaningfully and sustainably involved in agriculture. These include the National Small Business Act 102 of 1996 and Codes of Good Practice. The Transformation Charter for Agriculture was developed as part of the Broad Based Black Economic Empowerment Act 53 of 2003.	Land reform remains contested with different schools of thought being for and against land redistribution, which offers a way towards participation by black Africans in commercial agriculture.
6	Financial support: The Land Bank was the most important vehicle for developing an agricultural industry in which white commercial farmers were sole recipients of high levels of state support. The State did not provide guarantees for any other racial groups. The Land Bank began extending loans to Indian farmers in 1965, while coloured farmers were authorised to receive loans in 1978. It was only in 1993 that the bank began to respond to credit applications from black emerging farmers.	According to legislation, all banks are accessible to all citizens.	Supports black African farmers. Through the Land and Agricultural Development Bank Act of 2002, provisions allow for the change in patterns of land ownership. Land ownership, however, remains racially skewed in favour of white people. Financial support requires guarantees that black people are not afforded, in most instances.

## 7.4 The state of customary law in water access and provision

One of the objectives of colonisation was the suppression of customary practices. In terms of water access and allocation, most instances of this suppression included customary law being marginalised or even eliminated. In his account of the water laws that governed South Africa, Tewari (2009) mentions that the practice of customary water law in pre-colonial Africa was similar to how customary law was applied to deal with access to land and its use by communities. Mamdani (1996) has discussed customary law practices in relation to land in non-settler Africa as having been characterised by communal holding, where each household had access as defined by state-appointed customary authorities. African custom in general was viewed as fundamentally fluid and evolutionary due to its oral nature and in comparison, with written law, which was seen as coded and crystallised (Shadle, 1999). Customary water laws, according to Burchi (2012), were not necessarily a single or unified body of norms but varying practices with notable differences between different regions and at times between villages in the same region. They were therefore conceptualised as context-specific, rather than universal, laws that could be copied verbatim – as was the practice in the Dutch or the British eras in colonial South Africa where Dutch and British laws were transferred into South Africa's water management practices.

Customary practices of water access, rights and allocation are difficult to discern in post-1994 South Africa. Understood by some scholars as *"less formal systems of water use [...] where communities over time evolve particular rules and ways of engaging in water management in accordance with their particular customs, practices or religious beliefs"* (Van Koppen et al., 2007 in Movik, 2012, p.2), the aftermath of colonialism and apartheid rummaged through customs, practices and religious beliefs, birthing an ahistorical African with no land or attachment to their customs and religion. Concerning the legislative position of the country, Section 211(3) of the Constitution states that *"the courts must apply customary law when that law is applicable, subject to the Constitution and any legislation that specifically deals with customary law"* (Republic of South Africa, 1996, p.128). In this study, the results of field-based assessments and questionnaires showed that there was no customary law that was being practised regarding water allocation and its access by communities in the areas visited during the community surveys. In many cases, community members indicated that the allocation role – previously the chief's role – has now been taken over by municipal departments.

## 7.5 Misinformation, miseducation and propaganda

Misinformation, miseducation and propaganda have played a role in defining what many have come to be known as 'knowledge'. As a result, communities are not exposed to the correct facts to enable them to make the right decisions and even to accommodate other communities in activities such as the ones involving water access. In the decades under colonial rule, the colonial government consistently exposed South Africans and the international community to misinformation and propaganda by the colonial government. Chetty (2012) reported that a full-scale propaganda war with the communities developed and intensified during the Second World War. The South African government wanted to attract more recruits for the war from a society fractured by racial, gendered and class divisions, and had to develop targeted propaganda material to build a unified

cause for participating in the war. This effort was complex, given that the government was busy developing a society based on segregation and separate development paths. The propaganda material used in recruiting black soldiers for white people's cause was to become more useful in the times of peace, when the same or similar material was used to build a country that was fully driven by values around the separatist policies of apartheid.

Misinformation has not stopped but the motivation seems to be changing. The media has continued to use the over-representation of successful transformation for black communities to exaggerate the progress in transformation. In 2013, the then president, Jacob Zuma, was criticised by the media for pointing out that the black people's share of the Johannesburg Stock Exchange (JSE) was approximately 3%. The JSE is reported to have agreed with this figure of 3% and added that it was for direct investments (EWN, 2017), while also pointing out that there is additional indirect investment that could raise the figure to 23%. However, this 'indirect investment' is not what is used for the transformation target of 30%. Despite the JSE agreeing to the 3% black ownership of JSE stocks, white-owned media houses such as FIN24 and Moneyweb were quick to point out that the direct investment was as high as 23% (Moneyweb, 2017).

The media report of 23% direct investment was meant to portray that the JSE was close to meeting the target of 30% HDI ownership, as recommended in the transformation codes (DTI, 2014). It is clear that the available information on the progress made in redistribution of wealth in the country tends to be inflated. The correct information regarding ownership of South African companies is important in understanding the ownership and access to water. Most of the water-use registrations are for companies, and it is usually the case that the larger the company is, the larger the registered water provision is. There is a gap in accurate information regarding the racial distribution of ownership in companies that have water access rights. This omission in information contributes to a state where proportion of water access by white people is underestimated, since individual water access rights will be the only rights clearly showing the racial distribution.

## CHAPTER 8.: CONCLUSIONS AND RECOMMENDATIONS

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### 8.1 Context in which the study is concluded

Coloniality exists because of an enabling environment and because there are victims of colonisation as well as agents of coloniality that are bent on ensuring that it remains imbedded in society in a way that continues to benefit former colonisers and elites. A societal class system also means that some 'benefits' of coloniality flow towards an elite class that has been assimilated into the former colonisers' state of being – described by Fanon as “*black skin white mask*” (Fanon, 1986).

The racially divided political background in the water sector set the basis for extreme levels of inequality. The water sector was established on an apartheid system where water-access inequalities were formalised through legislation and maintenance of colonial institutional values, which perpetuated the prevailing racial divisions. At least 99% of water access by volume that is registered to all individual water users in the country is registered to white people. In 1994, the statistics were such that white people had a claim to approximately 100% of legislated water access for economic use. The change in the past two decades has been negligible and the pace of inequality redress dismal.

There are many reasons which have been advanced in explaining the extreme levels of continued inequalities. These include obstacles associated with the water legislation and the Constitution, which together formed the basis for a water-access licensing process that is mostly aimed at formalising ELUs, with very limited prospects of allocating water to black people who have no access to ELU privileges. It has also been pointed out that the institutional structures have maintained a system that favours white people. The limited transformation in associated sectors – especially in access to land – along with the state of general deprivation in which the majority of black people exist outside of formal economic structures, and the governance systems that allow for dismal performance by government organisations and institutions with little recourse, are also partly to blame for entrenching water access inequalities.

There are hardly any meaningful formalised and documented targets for addressing coloniality in the water sector but rather, the discourse speaks to transformation targets. These transformation targets are similar to those set out in the WARS. The WARs (DWS, 2008) targets could be considered to have been mostly theoretical, and unattainable such that they have lost meaning over the years. According to the WARS, by the end of 2014, 30% of allocable water should have been allocated to black people through licensing. A reality check shows that in the period of 2006 to 2014, the ELU water-access rights expanded from approximately 29 600 to 50 605, while the water-access rights issued through licences increased from 1 550 to 7 000.

Water sector institutions have found other simple variables to measure their 'transformation', which usually show improvements such as measuring provision of basic water services while ignoring measurements that include both basic water and water for economic use. These transformation targets are also disconnected from underpinning inequality issues – such as land ownership. Provision of water for economic use is directly linked to land, yet this is discussed in another department where they also do not talk much of water. The simple

variables that have been pursued are misleading, as can be evidenced by how access to water and land for economic use has remained untransformed and is still being left out of the national plans for eradicating inequalities in the water sector. There has been a tendency to use institutional strategies, mission statements and even language to avoid bringing discomfort to white people (cf. Dube, 2020a), rather than seeking to address water access challenges as the different communities – especially those who suffer the effects of racial inequalities – feel them. The results are that the formal structures are disconnected from the realities of continued segregation and that water service institutions tend to respond only when black communities riot and destroy infrastructure through protests for improved access, which can be translated as more equitable access to resources and services.

## **8.2 Dealing with the factors and structures which perpetuate coloniality and the associated inequalities**

### **8.2.1 Local water and land legislation and the constitution**

This study revealed several variables and parameters directly and indirectly responsible for maintaining inequalities. A review of the Constitution and the two water acts – the NWA and WSA – showed that, on the whole, the legislations did not make adequate provisions to enable the redress of inequalities. This omission in redress is especially noticeable in the continued high levels of inequalities in access to water for economic use. The existence of the two acts in fact worsens the state of inequalities, since the NWA deals with bulk water, a preserve for the landed and resourced, while the WSA deals with domestic water, where the focus has been to deliver basic water supplies rather than water provision for decent livelihoods.

The development and enactment of the water legislation and the Constitution were influenced by the power dynamics of citizens, political parties and even private companies in the 1990s. This power was skewed towards white people, as they were the ones in the position where they seemed to be giving power to a black government. The NP, the World Bank, the DBSA, and large corporates along with their owners, as well as white commercial farmers – among several other established agents – are known to have played major roles in the development of the Constitution and water legislations. Decisions made during the transition of the country from apartheid to a majority democracy were also tainted by these power dynamics. The racially biased distribution of resources, including land and water, that were built into past legal provisions, were continued under various clauses of the present Constitution and water legislation (Weideman, 2004; Bond, 2014a; Nkwinti, 2016; Turok, 2018 and Kasrils, 2013).

The formalisation of land and water access rights from the apartheid era into present legal provisions has been one obstacle to transformation of inequalities. In water legislation, provisions for ELU in the NWA and accompanying constitutional provisions on rights and assets are not compatible with the transformation goals and are unsuitable for decolonising the water sector. In water access, the legislation's provisions fail to open up water access in catchments that are fully committed, because these are so many provisions included in the legislation to prioritise the protection of ELUs. Most catchments are fully committed because of colonial water-access rights that have been legalised as ELUs.

- The water legislation, the Constitution and associated legal provisions should be rewritten to create a legal environment that enables decolonisation of the water sector. The legislation and constitutional revisions should take place in an environment that allows for improved participation of all citizens. The proposed changes to the Constitution should extend beyond the changes suggested for land in Parliament. The constitutional changes should be accompanied by changes to the NWA and related acts such as Expropriation Act 63 of 1975, which have potential to create hurdles in the fight to eradicate inequalities through expropriation.

### 8.2.2 International laws

The Eurocentric legal system adopted in South Africa took very little, if any, provisions from local and indigenous African provisions. Value systems of African people, such as Ubuntu and other distributive practices, are talked about but were never made legally binding. The implications are that a capitalist system from Europe and the west is allowed to alter the ways of life for communities that still embrace unity of the human race, where the concept of plenty amid poverty is alien, and that rather pursue livelihoods that embrace Ubuntu. Universalisation of laws that are promulgated by Europeans in the name of creating "*just and essential laws for 'civilised' conduct in national and international relations*" are in themselves a manifestation of colonisation of "*individual and group behaviour, nationally and internationally*" (Bulhan, 2015, p.246).

Legislations such as the water acts and projects such as the IWRM have their roots in European – especially British and Dutch – legal systems. They would work well in societies where there is no colonisation and where equitable access is not affected by other layers of inequalities such as skewed land ownership. Legislation revisions should adopt indigenous value systems. Indigenous value systems have been lost over the many years of colonisation; this process should start by investigating and bringing these into documented knowledge systems. Apartheid privileges and rights on water access should not be carried into a new water legislation. The process should avoid integration of colonial legal provisions, which were never shared with the majority of the people, as this would be tantamount to facilitating coloniality through the back door.

### 8.2.3 Water-use licensing procedures

Very demanding and complex water licensing procedures are hindering the quest to transform the water sector. Even though the methods for securing water licences are being changed to an electronic online system, such changes are merely cosmetic and may even widen the gap in ability to access the services. The use of electronic platforms is progressive, but it improves access of those who have resources while making it difficult for black communities who do not have the resources such as computers and other suitable platforms, as well as expertise, to take advantage of this. Some of the factors in the licensing process that are constraining participation by black communities include knowledge of matters around accessing water, the costs involved in securing the licences, the need to involve external parties in assisting with required application, and of course the land issues – including where such land will be located in relation to water sources, given that riparian land is usually fully utilised by those who settled there during apartheid.

- Licensing of black communities for water use and access to suitable land should be enabled through revised legislation. The state of inequality, where 99% of volumetric water access is reserved for white

people, cannot be addressed through complex licensing processes. In terms of numbers, the water-access inequalities are such that in October of 2018 there were 22 317 white individual legal water users compared to 1 064 black individual users. Twenty-four years water-access transformation has failed to reverse the inequalities. Clearly the current methods of processing water users or building a transformed water sector are not working. New provisions must be developed and applied to accommodate bulk water reallocation rather than processing one individual black user at a time.

#### **8.2.4 Existing lawful water use**

The term 'Existing Lawful Water Use' is racially motivated, given that all existing legal uses were for white people. This term also deprives black people of being lawful when they seek to claim a part of this water, considering that in 24 years just above 1 000 such legal provisions could be provided to black people. The terminology and the associated formalisation of 'existing lawful water use' is a continuation of entrenched inequalities in water access. It reinforces a privilege that was awarded to white people by white people in the early days of a government that favoured white people while the black participants had no power to demand or secure economically useful provisions from the established white economic system and the established old government. The much-skewed power dynamics of these early negotiations, which ensured that the economy remained in the hands of white people, is well discussed by writers such as Nkwinti (2016), Turok (2018) and Kasrils (2013).

- Now that the power dynamics have improved, some of these early national decisions, agreements, terminology and privilege provisions should be revised or reversed. These systems, which protect inequalities, are part of what the ANC called Colonialism of a Special Type (CST), as explained by the Minister of Water and Sanitation (Nkwinti, 2016), whose recommendations to destroy this persistent colonial system should be followed.

#### **8.2.5 Water sector institutions**

The study showed that water sector institutions are also responsible for the poor progress in eradicating coloniality and associated water sector inequalities. The very poor level of redress in water sector inequalities over more than two decades means that these institutions are compatible with the inequalities in their current state – otherwise they would have been shaken and found a better balance. While most institutions mention that they are committed to transformation and redress in the water sector, what is evident is the absence of clear objectives and well-defined performance indicators that show the expected levels of inequality redress over time. There is also a tendency to reinterpret possible transformation so that other indicators can be misused as signs of transformation when the real inequalities are not being addressed. The focus on the provision of basic water as the only indicator of reforms in water provision has been misleading, especially given that the water involved in water services is very little compared to all the water used in the country.

- Transformation in water institutions should look at all water uses, and deal with the volumes of water accessed by the different racial groups. Given that 99% of water by volume for economic use is available to white people, clear targets for decolonisation of the sector can be defined and pursued by

the different institutions. The mission statements, goals and key performance indicators in water sector institutions need to be investigated and redressed. Provisions for early retirement, or changing the mix of officers – as is currently being pursued by government – need to be widely supported for the purposes of extending inequality redress. The process should be guided by an appreciation of the dimensions of coloniality to avoid ‘blackface’ mentality in the institutional transformation process. (Refer to Blackface discussion in section 6.2.4.)

### **8.2.6 The role of culture in maintaining an unequal society**

A distortion in culture for both the former colonisers and black African people has been instrumental in supporting an otherwise unsustainable environment where racial inequalities continue to be rampant. If understood from a decolonial epistemic perspective, these changes are noticeable but may seem normal. Scholars on the subject of colonisation have established that colonisation cannot be sustained if people remain culturally the same and if the colonisers treat them the same as their own people. It has been established that colonisers were doing everything to make the targeted people less than human, including demonising their culture and favouring theirs (Maldonado-Torres, 2019; Wilson, 1993). This is evident in what could be called the ‘pain of being black’, in which the innate characteristics of being black are made to be undesirable – such that victims ‘willingly’ alienate themselves from their culture and cultural values.

In adopting the culture of white people, black people also tend to identify themselves through the identity of the coloniser. This creates a conflict in objectives for decolonisation. On the one side, black people will seek to maintain the status quo – namely coloniality – and on the other side, aspire to eradicate it. In dealing with water-access reallocation, there is the one side, where black people see it being beneficial to avoid scuttling white people’s water access privileges in fear of possible economic losses and reprisals from international gatekeepers such as the economic rating agencies, and the other side, where they seek to redress inequalities and empower black people with access to economic resources.

- A national decolonisation programme could be established to holistically deal with coloniality. The water sector coloniality cannot be addressed in isolation from what prevails in other sectors. Most people are not aware of the dynamics of colonial damage – especially because they have accepted it as a way of life. Decolonial education should be provided from primary education onwards and it should be more comprehensive than the colonial machinery that established the prevailing coloniality and racial inequalities. This should help in demythologising the so-called supremacy of western/European culture. Following the words of Achille Mbembe (2016), there is a need for the African people not to view history as ‘whiteness’, for “*whiteness is about entrapment*”. Black African culture needs to be re-affirmed by black Africans in a process of “*becoming human again*”. Failing to address racial inequalities, in favour of short-term benefits, perpetuates the dehumanisation of black Africans.

### **8.2.7 The impact of religion especially Christianity in water sector inequalities**

African ways of life have been deeply eroded due to assimilation into foreign religions – especially Christianity. The adoption of Christianity changed the relationship of black African people with nature, including water resources. In addition, the segregation and separatist policies followed and supported by religious groups such

as the DRC entrenched the belief in black Africans that being docile under oppression is the sanctified approach, since those who wrong them will end up in hell while those who do not stand up to oppression go to heaven. This has been especially useful in maintaining the inequalities, as the black African Christians continue to embrace the teaching that they should not demand the reversal of gains acquired during apartheid because that would be sinful. Forgiveness is canonised as the only way to salvation, curtailing any demands for either equal or equitable access to water resources for productive use. The framing of Christian religious convictions enables the crippling of its black African followers and the construction of an apologetic black African that accepts a status quo where each will have a copy of the Bible but no ownership of resources such as land and water.

- Decolonial approaches ought to engage with communities at grassroots levels in ways that disentangle them from colonial ways of seeing the self and their value systems. Universities that do community engagement projects should consider engaging communities about religion to conscientise them on how colonisation was not just a 'political imposition' but also a 'cultural' one (Wiredu, 1998, p.17). This may create potential for the communities to critically engage with issues – including changes that may need to be made to legislation. Development of unbiased knowledge systems, which are not motivated wholly or in part by religion – especially Christianity – is important in eradicating biased mind control which has its basis in religious mythology.

### **8.2.8 Knowledge systems**

Water sector knowledge has remained grossly unequal, despite indications of positive progress that are measured based on simple variables focused on limited insights such as participation, without looking at meaningful participation. Other racial groups, apart from whites, are hardly represented in leadership roles in water sector knowledge development research. Heleta (2016) explains:

Since the end of the oppressive and racist apartheid system in 1994, epistemologies and knowledge systems at most South African universities have not considerably changed; they remain rooted in colonial, apartheid and Western worldviews and epistemological traditions. The curriculum remains largely Eurocentric and continues to reinforce white and Western dominance and privilege.

Universities have always provided the knowledge behind the infrastructure developed for colonisation and continued coloniality. The creator of the apartheid system in South Africa was well educated and encountered the material he used to start apartheid at the different European and American universities he attended. Jan Smuts, for instance, was a one-time chancellor of Cambridge University (Mamdani, 1996, p.4). People use their university education experiences and other forms of bias to dictate to the sector which direction to pursue in developing legislation, policies and regulations.

Formal knowledge systems exclude indigenous and endogenous ways of knowing, perpetuating a narrative of black African people as clueless on water governance or ecological matters (cf. Dube, 2020b). Participation in water sector knowledge remains dominated by white people, even though there is an increasing number of employees in water institutions. While many seemingly inclusive programmes are reported by the water sector knowledge centres, they keep the water sector knowledge in the hands of white people (Figure 6.1). The nature

of inequalities in the water sector R&D also mirrors the state of research in higher education institutions. The same white groups dominating research in universities also dominate research and development in other sectors, including the water sector. The type of content they produce remains the main – if not the only – reference point for up-and-coming as well as even some established black African researchers.

- Decolonisation of knowledge systems should include addressing the biased perceptions in which white people are the custodians, generators and distributors of knowledge. Deliberate development of black knowledge centres must be encouraged for equality in access to knowledge development and its use to be achieved.

### **8.2.9 Education systems**

The education system has often been blamed as one of the weak links in the quest to address socio-economic challenges. An assessment by Nkwinti (2016) also points to education as very important to social transformation. However, he also blames the type of education system in the country for the present predicament of black people, explaining that the education system is “*churning out armies of unemployable blacks, particularly African, lumpen proletariat class who are roaming the streets with nothing to do*”. This problem of poor education could be one of the reasons behind the poor participation of black African people in the water sector in general. The World Bank (2018) also blames poor education as one of the problems leading to the worsening of service delivery. In the World Bank’s assessment of South Africa, progress gained in addressing inequalities and poverty is described as declining. The education problem is very complex, given that the people who are seeking changes to the education system are themselves products of the colonial education system.

### **8.2.10 Addressing the matrix of coloniality**

The persistence of coloniality and inequalities is not a random process but rather a result of a well-planned design. Hilliard (2013) explained racism – which is the system behind coloniality – as being very ordered. He described it as a system of political and economic convenience, which has designers, advocates, dealers and pawns. It is very common for victims of racism to see the perpetrators as sincere, honest and supportive people. Hilliard (2013) explained that this happens because it is usually the designers who are very conscious of the design in racism, while the rest usually inherit it unconsciously and find themselves unwittingly perpetuating the nature of the racism. National objectives should seek to educate people on racism and racial inequalities. This calls for being honest with the citizens rather than attempting to hide the truth from them. The next step will be to seek a better balance between continuity of a functional system and eradication of coloniality. There is a need to deal with the prevailing sense of fear associated with removal of inequalities in which it is said that such an approach will collapse the economy.

- Another approach involves putting an end to rewarding practices that extend coloniality. The water sector knowledge area, as evidenced from the evaluation of publications, seems to have a strategy that relies on past research structures that underrate black African ways of knowing. There is less focus on removing the dominance of white or Eurocentric standpoints. A deliberate

approach that is biased towards eradication of inequalities in water sector knowledge is required.

### **8.2.11 The integration of land and water reforms**

The DWS has continued to uphold mechanisms for the continued implementation of the Water Act of 1956. In 2005, the Parliamentary Monitoring Group Chair observed that the department was not implementing the formation of institutions that were required to apply the NWA, and that it had continued to operate on the provisions of the Water Act of 1956 (Parliamentary Monitoring Group, 2016). The DWAF team, through the leadership of the Director General of the Western Cape, explained that the minister in the DWS had been hesitant to make the change and completely move away from the Water Act of 1956. The DWAF team also cited other reasons, such as the lack of national government support, lack of capacity, reluctance to transform and poor interest to participate shown by communities who had no water. The link between land and water was discussed as another constraint that had to be addressed for communities to be able to get water. The failure of DWS strategies from the early 1990s to date is consistent with approaches made without full intent to benefit intended transformation beneficiaries. As a result, the DWS' failure to implement the NWA has been maintaining the much-skewed distribution of water access rather than addressing it. The DWS' strategies did not seek to appreciate the role of land ownership in water access, as can be evidenced in the NWRS II, which does not present strategies for linking water access to land-allocation reform.

The strategy in the DWS has also focused on what could be termed 'parallel developments' in water access, in which water for black communities was to be improved through provision of basic water while the water for economic use was left in the hands of white people, by not discussing how it should be transferred to black people (cf. Movik, 2012, p.33). These parallel systems are still active today, as evidenced by the lack of progress in extending water access to black people. This problem is also associated with the state of land ownership and lack of progress in land reallocation. Looking at statistics in which 2017 government records (DRDLR, 2017) show that at least 72% of land is owned by white people, there is no doubt that water access and ownership of water rights will continue to be aligned to these skewed land-ownership statistics for the foreseeable future if major constitutional, legal and institutional changes are not made.

- Decolonising water access should be implemented in alignment with land-access redress measures. The approach should seek to fast-track bulk the redress of inequalities to allow many HDIs to secure access without obstructions – especially those put in place through compliance mechanisms involving impossible requirements.

### **8.2.12 Dealing with inequalities in access to institutions**

South African water sector institutions mostly serve white people. If 99%, by quantity, of ELU water registrations are for white people and they own 72% of the land, by area, then it follows that the offices that deal with these resources are mostly structured to serve white people. If these institutions do anything to change these inequalities, they will receive the greatest criticism from those they serve and appear to be incompetent or failing. As such, these institutions have found ways to negotiate and show progress when there is no progress.

- The structures, which are perpetuating inequalities in water sector institutions, must be dismantled. This is not a process of changing leadership or officers, that would only mask the problem by giving institutions a 'blackface' while maintaining the status quo. Solutions reside in a holistic context in which addressing inequalities becomes more valuable than seeking to maintain economic benefits for a few, while ignoring the deprivation of the majority.

### **8.2.13 Politics and water access**

Politics played a central role in defining water sector coloniality during apartheid and still does under the democratic dispensation. During apartheid, the NP, and other parties that were in leadership roles, advanced the legislation that intensified racial inequalities. During the transformation of the country in the early 1990s, the ANC negotiated for political freedom and not economic liberation of its people. They also adopted neo-liberal policies that favoured market values but not the growth of the poor masses who they had previously fought for.

- There is a need to encourage renewed negotiations if other efforts for addressing inequalities suggested in this section fail. The way forward should not be driven by politics, but rather democratically established values.

### **8.2.14 WRC knowledge review**

The overall total of all time research completed and published by black research leaders was just above 6% for the period starting in 1982 and ending in 2017. This is a very tiny fraction, considering that the black South African population was 81% at the end of 2017. While it would seem very simple to imagine the possibilities of extending the participation of black researchers, this is a major challenge – as evidenced in the assessment of publications.

The objectives in water sector knowledge seem to focus on maintaining the established research groups, even though the WRC mission statement does not directly state that it seeks to continue supporting the past researchers. Like any government institution, the intention would seem to be to keep the momentum of what was ongoing without disturbing the established processes. In the same light, it is evident that such knowledge centres are likely to support the state of affairs that maintains skewed water access dynamics, since any change would create much discomfort to those who were beneficiaries and are also participating in today's water sector knowledge. Awareness of the true state of coloniality could be the most important tool in addressing water sector inequalities, considering that the type of information available does not show coloniality or discuss coloniality. The available information is such that most stakeholders are not aware of the slow pace of inequality redress that has seen the continuity of a poor state of transformation. Racial stereotyping is evident in research carried out by black researchers, when compared to other groups.

- Getting rid of racial stereotyping in research is important to the future of inclusive and sustainable research. The current system is failing to take advantage of existing capacity – especially when there are now many more able black graduates who could be involved in water research.

### **8.2.15 Dealing with pushbacks in water access reform programmes.**

Reform programmes are optimistic by nature. Accordingly, measurement of progress in water sector reform is mostly optimistic. It tends to focus on progressive measures rather than taking a multi-variable approach to also deal with the less-highlighted areas that lag behind in the reform programmes. It was only in 2014 (DWA, 2014), that the government wrote a water policy document that was critical of the lack of progress in the dissolution of irrigation boards and formation of more inclusive WUAs. The policy highlighted that there were elements within the water sector that were bent on setting back the water sector reform and attempted to speed up the formation of WUAs as well as CMAs. Given the multiplicity of factors surrounding inequalities, the development of solutions to address segregation and the effects of dispossession of water access requires a multi-variable approach. Important variables that must be considered in addition to the progressive ones are the ongoing measures to push back the gains of access reformations. These are the measures being implemented by those who stand to lose out when water access inequalities are reversed.

The fact that there is no end to the confirmation of ELU, decades after the NWA attempted to replace existing colonial water rights with WULs, is testimony to the fact that there are factors resisting this development. These factors are not static, instead evolving to mitigate and reverse ongoing dynamic efforts made to bring about a fairer distribution of water that will not be racially oriented. Programmes to address inequalities should not assume that everyone will pull together in one direction to achieve fair access irrespective of race, as it is well known that there are also some who will seek to maintain their historical gains. There will always be pushbacks that to be anticipated and continuously dealt with – through responsive decoloniality programmes as part of water sector reform.

### **8.3 Future research recommendations**

The following is a list of possible future research that can be developed to build knowledge for understanding and addressing water sector coloniality:

- Decolonising water institutions: Water institutions from the past epoch were never dismantled to give way for majority rule. The same systems and processes, which were established during apartheid and the colonial period, cannot be used to redress inequalities. There is a need to investigate and redefine the future of water sector institutions and dismantle racial prejudice in water sector knowledge development and dissemination.
- Investigating and developing support mechanisms to re-educate the educated black stakeholders whose consciousness has been captured in a matrix of Eurocentric value systems.
- Evaluating and seeking solutions to address neoliberal tendencies that turn a blind eye to social justice for the majority in water access.
- Investigating and incorporating black African cultural and indigenous value systems in water legislation, water governance, water provisions and access, as well as documentation of their relevance.
- Investigating how to build sustainable and meaningful roles for black African researchers in the water sector.

- Investigating and seeking solutions for addressing the weaponisation of knowledge that is used to maintain inequalities in the water sector.
- Unpacking and seeking solutions for addressing coloniality and resultant tokenisms in the provision of water for economic use.
- Exploring the gender dimension of coloniality and water-access inequalities.
- Revising the NWA, to address coloniality.
- Determining how to decolonise knowledge systems in the water sector.
- Investigating vested interests in continued water sector coloniality and racial inequalities.
- Identifying the role of established water sector institutions, including knowledge centres, in efforts to reform the water sector, given growing concerns about their role in extending water sector inequalities and continued coloniality.
- Determining whether established water sector institutions can be objective when dealing with coloniality issues.
- Determining whether the government can truly reform the water sector when it does not practically own most of the infrastructure, land and other resources that control its availability.
- Determining how water-access reform can be redefined to become part of the ongoing quest for expropriation without compensation.
- Investigating how to extend water allocation reform to include groundwater available on public and private land, including mines.
- Exploring HDIs' relationship with natural resources, through a combined decolonial and cultural trauma perspective.

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# ANNEXURE

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## **Glen Grey Act of 1884**

The act assigned racial groups to different residential and business sections.

## **The Land Act 27 of 1913**

Black Africans in several parts of the 'Union' were the targets of this act, which was aimed at regulating the acquisition, leasing and occupation of land. White people wanted to control the encroachment of black people on what they deemed their land. The act forced black communities into reserves that were later to become Bantustans or be renamed as such.

## **The Industrial Conciliation Act 11 of 1924**

This act provided for job reservation, excluded black people from membership of registered trade unions and prohibited registration of black trade unions. It was repealed by Section 86 of the Industrial Conciliation Act 36 of 1937.

## **The Minimum Wages Act of 1925**

This act led to a form of job reservation and promoted white employment, with certain trades being earmarked for whites.

## **The Mines and Works Act 25 of 1926 (Colour Bar Act)**

This act must be seen against the background of the wage and job colour bars in South Africa. The Industrial Conciliation Act 11 of 1924, mentioned earlier, reserved skilled work for whites only. If black workers carried out skilled work, they would continue to be paid as unskilled workers. The legislation was based on the belief that the welfare of whites would suffer significantly if black people were not legislated out of the market.

## **The Native Service Contracts Act of 1932**

This act drew all black Africans outside of the reserves into the agricultural economy, while extending existing controls over labour tenancy – meaning that a farmer could expel the entire tenant family if any one member defaulted on their labour obligation. It had additional elements, such as allowing farmers to whip tenants as well as compel them to carry passes.

## **The Native Trust and Land Act of 1936**

This act integrated land identified by the Land Act of 1913 into black African reserves, and thereby formalised the separation of white and black rural areas. It established a South African Native Trust (SANT) that purchased all reserve land not yet owned by the state and held the responsibility for administering black African reserve areas. Under its provisions, any black African found to be residing unlawfully on white-owned land could be evicted, and areas in white South Africa where black African people owned land were declared 'black spot' and the state began to implement measures to remove the owners of this land to the reserves. Use of this act meant black people were evicted and placed in reserve areas through various programmes that

continued into the late 1980s. Through this act, Africans were not permitted to own land. The Bantu Trust, and then later the Development Trust, owned the land.

#### **The Black (Native) Laws Amendment Act 46 of 1937**

This Act prohibited acquisition of land by black people from other racial groups, except with the Governor-General's consent. It was eventually abolished through the Abolition of Racially Based Land Measures Act 108 of 1991.

#### **The Group Areas Act 41 of 1950**

Using this act, the NP regime institutionalised and consolidated existing discriminatory and segregative policies and bills. Stricter segregation measures were implemented through further evictions and tighter control of movement of non-white people.

#### **The Bantu Authorities Act 68 of 1951**

This act aimed to keep South African citizens apart on a racial and ethnic basis. The government introduced it by setting up black ethnic governments known as 'homelands', ruled under chiefs who were subordinate to their masters in Pretoria. The inhabitants of these homelands lost South African citizenship.

#### **The Natives Labour (Settlement of Disputes) Act of 1953**

This act was a government attempt to control black African labour.

#### **Bantu Education Act 47 of 1953**

This act provided for the establishment of a separate education system, run by the Department of Native Affairs. The primary aim of the education system was to provide black people with the skills to fill job placements under white bosses. Through this act, a schooling system that placed black Africans into roles that were considered unsuitable for the European society was established.

#### **The Extension of University Education Act 45 of 1959**

This act made provision for the establishment of separate tertiary institutions for black Africans, Indians, coloureds and whites. The separation of these institutions was not only along racial lines but also along ethnic lines.

#### **The Black Labour Act 67 of 1965**

This act consolidated the laws regulating the recruitment, employment, accommodation, feeding and health care of black labourers.

#### **The Bantu Homelands Citizenship Act (National States Citizenship Act) 26 of 1970**

This act required all black people to become citizens of a self-governing territorial authority. Black people were forced to reside in designated 'homeland' areas and to be citizens of said 'homelands', while being denied South African citizenship and the right to work in South Africa, among other things. Under this act, no black African could qualify for South African nationality.