African Journal of Development Studies (AJDS)
ISSN 2634-3630 E-ISSN 2634-3649
Formerly
AFFRIKA: Journal of Politics, Economics and Society
ISSN: 1998-4936 E-ISSN: 2075-6534
Indexed by IBSS, EBSCO, COPERNICUS, ProQuest, SABINET and J-Gate
Special Issue, May 2022
pp 125-148

Complexities of Equity as a Principle for Allocating Scarce Water Resources

DOI:https://doi.org/10.31920/2634-3649/2022/sin1a6

Beatrice Dube
Senior Lecturer, Department of Development Studies,
University of South Africa,
Pretoria, South Africa.
012 429 3700
Email: maphob@unisa.ac.za
ORCID ID: 0000-0002-9340-1684

Abstract

Although the term 'equity' exudes fairness, what equity really means remains unclear. Framed within the distributive justice framework, the article explored the different meanings and principles of equity within the discourse of water allocation reform. Equity has been a central guiding principle in the allocation of resources, yet very little is known about what it is and how it can be recognised in practice. This gap in understanding is also found in water allocation reform, a process meant to address the inherited water access and allocation inequalities in post-1994 South Africa. The article is built from focus group discussions and interviews from a select group of participants of a qualitative study. Necessitated by the dismissal of the relevancy of a discussion on equity, the article deconstructed the assumptions that equity, as an option for distributing resources, is obvious and paves the way for fairness. The article revealed that the choice of equity in the allocation of water in post-1994 South Africa was not really interrogated prior to use. Findings from interviews from a select group of participants on alternative options for the allocation of water

were also discussed. The article recommended that principles for the allocation of resources be clear and measurable.

Keywords: *Equity in practice, Equity principles, Redress, Water management.*

Introduction

Equity, as a principle for allocation or distribution of resources, seems to be the route being taken in the distribution of scarce resources. However, when compared to equality, very little understanding of what an equitable situation looks like exists. This article reveals the obscurity of equity as a goal in the allocation of resources. It provides the different views on equity as provided by a few select scholars. Unlike equality, equity needs unpacking so that policies that use it as a defining principle are well understood by both policy makers or development planners and those planned for. This article focuses on equity as the guiding principle in the allocation of water under the water allocation reform strategy in South Africa.

South Africa's water allocation reform (hereafter referred to as WAR) is a government strategy put in place to address water access and allocation inequalities brought about as a result of legislation and practices that favoured the white communities in colonial and apartheid times (Dube, 2020a). The National Water Act (NWA) of 1998 (RSA, 1998) specified the need for the allocation reform and stressed equity and sustainability as the central guiding principles for the "protection, use, development, conservation, management and control of water resources" (RSA, 1998; DWA, 2013). The WAR was put in place with set timelines and phases for its implementation which some scholars (Viljoen, 2006) and even the Department of Water Affairs (DWA, 2014) view as uncomfortably slow. While some of the areas that the reform process was supposed to address can be measured as clearly unsuccessful such as the transformation of irrigation boards to water user associations[1], allocation of water to historically disadvantaged individuals are not that measurable as implementation can hide behind the use of principles such as equity. Provisions made by the NWA to allocate water equitably and seek sustainability did not bring about transformation as the Department

[1] DWS (2017) states that of the 278 irrigation boards that existed in 1998, only 99 had been transformed.

of Water and Sanitation (DWS) (2018: 11) reports that, in the agricultural sector which uses most of the country's water resources, 95% of the water remains in the control of white commercial farmers. This article thus discusses equity within the discourse of water allocation reform to illustrate its obscurity.

The article incorporates work done for my doctoral thesis on water allocation reform in South Africa (Dube, 2020a) and seeks to accord the discussion on equity space in an attempt to discard thoughts that such discussions are just semantics and therefore unproductive. Asked to clarify equity in South Africa's water allocation reform, one key respondent stated: 'You academics are worried about semantics! These things you ask me today we dealt with decades ago' (Dube, 2020a). The "decades ago" reference relates to the National Water Resources Strategy 2 (NWRS 2) (DWA, 2013), the document that also provides plans for equitable allocation of water. The definition of equity in water allocation provided in the NWRS 2, however, reads inadequate, and this justifies further unpacking of equity. While being hailed as the means for distributive justice, Cottier (2015: 32) claims:

> Equity, whilst constituting an established value of justice, is not in a position to readily clarify the approaches, goals, means and methods concerning how and to what point changes need to be brought about in more than general terms. Since its inception, the shape and content of equity have been vague and elusive, falling short of allowing for more specific conclusions that go beyond speculation.

Theoretical Underpinnings

The article is built on two theories – theory of justice and theory of deconstruction. Equity falls within the realms of justice and thus John Rawls' theory of justice was chosen as it has relevance to distribution of resources in circumstances where resources are allocated unequally and inequitably. This is the case in South Africa as the result of its apartheid history. Neal (Patrick), Greco, Connell and Conrad (2016: 257) also express the view that the theory provides a platform where 'decisions can be made based on which alternatives offer the most help for the worst off or that the worst possible outcome is made as good as it can be'. The allocation of water becomes a justice issue when 'resources are, or are perceived to be, in short supply or when access to water resources is restricted or refused' (Wenz, 1988 in Neal (Patrick) et al., 2016). Rawls'

theory of justice is also pro-poor and allows a chance for distributive principles that do not prioritise efficiency and sustainability but offer an opportunity for the worst-off to become as well off as possible.

Derrida's theory of deconstruction was also used as a tool to interpret the different conceptualisations of equity in literature and from the interview transcripts. Through deconstruction, the study has noted how equity has gained prominence through its vagueness and its capacity to stand in for what equality cannot stand for, thus creating illusions of a solution. Reform policies and legislation have seemingly challenged the colonial nature of water access and have adopted a language that seemingly includes everyone, yet underlying it are ideologies of exclusion. For instance, issues of sustainability and equity in the access and allocation discourse are premised on 'current' or 'mainstream' thoughts, which can also be interpreted as an agenda to systematically exclude those not benefiting from the system, as further allocations threaten sustainability (cf. Movik, 2009). Equity has no clear formula as a basis for allocation and can be easily side-stepped by the need for efficiency. However, equality presents a seemingly understood concept, yet its implementation may be unachievable given the existing unequal playing field. The study thus employed the deconstruction theory to reveal contradictions in water allocation literature and to also unpack the obscurity of equity as a principle for allocating water.

Methodology

The study from where the article is derived from applied a qualitative research approach within a critical social theory paradigm. The study, which was on justice in the allocation of water, required that the researcher go beyond being just an observer to become 'a critique of unjust and inequitable conditions' (Ngwenyama & Lee, 1997: 151). A number of data collection methods were used. This article is, however, limited to the data collected through key respondent interviews with officials working on or who previously worked on the water allocation reform strategy, focus group discussions with community members involved in small-scale water use activities and an online survey. Interviews and focus groups were carried out using a combination of scheduled and follow-up questions while the survey used a combination of open-ended questions and Likert scaled questions. In qualitative studies, a survey with open-ended questions can be used. As explained by Ponto (2015: 168), if responses are not numerical, use of a survey keeps a

qualitative research design qualitative. Key respondents and focus group discussion participants were identified using purposive sampling while survey participants were identified using a combination of purposive sampling, snowball sampling and homogeneous convenience sampling as some of the intended participants, black farmers, proved hard to get to commit to participating in the study compared to their white counterparts. Having identified a few black farmers willing to participate, the few were asked to refer other black farmers, resulting in only a few referrals. The researcher then decided to use homogeneous convenience sampling whereby participants that were willing to participate and were somehow involved with water issues through nature of their employment, research and were black, were thus identified to take part. As described by Jager, Putnick and Bornstein (2017), homogeneous convenience sampling is used "often to examine underrepresented sociodemographic groups". While sociodemographic characteristics often include among others minority ethnic groups or socioeconomic status, black farmers in the context of this study were an inaccessible group and therefore underrepresented. Limiting the homogeneous convenience sampling to blacks somehow involved with water use but not necessarily farmers provided an opportunity to get views on fair water distribution from the black community. All participants consented to participating and the article will refer to them anonymously.

Data were analysed using critical discourse analysis. Critical discourse analysis involved the analysis of transcribed texts from the interviews with key respondents as well as focus group discussions. More than just inferring meaning from the texts, the analysis went further to investigate the social realities that inform the thinking exhibited by the participants to come up with contextualised interpretation of the texts. As a method of analysis, critical discourse analysis recognises power relations and ideologies in written or spoken texts, discourse or process of text production, distribution and consumption as well as everyday practices (Hunter, Emerald, & Martin, 2013: 107). It also involves the researcher deconstructing text to uncover the underlying 'meanings, motivations, ideologies and power' (Rambaree, 2013) based on the understanding of the construction of social reality as unbiased and un-neutral (Heracleous, 2006: 14). Heracleous (2006: 14) adds that 'critical discourse analysis is ethically committed to unmasking the processes through which discourses promote social constructions that support and perpetuate the interests of dominant groups or classes.'

The Competing Meanings of Equity

The redress of water allocation in South Africa has been framed within the context of sustainability and equity. This context is viewed as providing central guiding principles for the 'protection, use, development, conservation, management and control of water resources', (RSA, 1996, RSA, 1998; DWA, 2013). Terms used to develop a policy framework need to be unpacked as 'influential concepts in policy making are not merely neutral or scientific' (Molle, 2008: 132). Of primary importance to this article is an understanding of equity which Jones (2009: 3) points out as having several competing meanings. What is just and/or equitable is not necessarily universal, and equity is also often confused with equality or misunderstood (Deutsch, 1975). Consequently, it will be best to start by showing the difference between equity and equality.

At face value, the terms 'equal' or 'equality' denote a wish for sameness, whereby in numerical terms all are given a similar number of items or same number of assets, for instance. The Constitution of the country, section 9(1), makes a declaration that all are equal before the law and have rights to be protected by the law (RSA, 1996). Some scholars who have written about equality have not seen equality as a simple term. As a goal for any society, equality is viewed as undefinable, unachievable and not implementable (Rockwell, 2015; Jones, Bromey, Creegan, Kinsella, Dobbie, & Ormston, 2010: 61). Scholars such as Rockwell (2015) have argued that no one is clear what the principle of equality commits them to while also finding it untenable that two things previously considered different or unequal (for example blacks and whites or women and men in apartheid South Africa) can on another day be considered equal. Although viewed as a desirable outcome (Gläser, 2005: 259), equality is viewed as the canonisation of envy (von Kuehnelt-Leddihn, 1952: 33; Rockwell, 2015), that is to say encouraging the idea of equality presents situations where some might prefer what others have (cf. Foley, 1967). In other words, permitting people to accept the possibility or idea of becoming equal precipitates envy, and making equality a goal, is viewed as the glorification of envy.

Equity, on the other hand, is associated with being just and fair, which are qualitative terms (Hoffman, 2003). According to Hoffman (2003: 5), the term 'equity' in the context of resource allocation refers to 'a state in which user's welfare is increased to the extent possible, given the limited resource, after taking proper account of disparate claims and

individual circumstances.' A graphic presentation showing the difference between equality and equity by Maguire (Interaction Institute for Social Change (IISC), 2016) shows the choice for equity versus equality being determined by the needs of the individuals involved. In the illustration, those whose limitation to view what is happening in the arena behind the wall is height are given sufficient number of stools to enable them to see what is happening in the arena (equity) instead of giving all the same number of stools to stand on, including those that can see what's beyond the wall already (equality). Maguire's equality versus equity graph (IISC, 2016) shows consideration for individual circumstances against available resources in the choice of equity or equality.

While equality is shown as failing to recognise individual differences, equity is represented as considering the welfare of the least advantaged. The illustration by Maguire has, however, been criticised for its inability to see beyond height as the inability of the least advantaged. Thus, Kuttner (2016) recommends that opportunity gaps such as the removal of the wall obstructing the view be considered instead. What this means is that, in its appreciation of differences, equity should still not reduce multidimensional issues to singular ones. In the case of water allocation, inexperience on the part of the HDIs should not detract from the opportunity to access water, as this would be looking at only one dimension. Disparities in access to land and other resources necessary for the efficient use of water also bring about inequalities, and breaking these access barriers opens up opportunities for all. Differential access to opportunities results in failed attempts at poverty reduction as the poor cannot innovate to better their lives (World Bank, 2005: xi). Equity is, therefore, born from an understanding of the existence of inequalities in opportunities to address poverty (World Bank, 2005). The World Bank (2005: 9) advocates an equity lens which recognises multidimensional levels of injustice, seeing it as a way for the poor with less voice, income and opportunities to also have a chance in the development process.

In the preface to his book, *Equity: In Theory and Practice*, Young (1994: xi) in Gouveia (2007: 482), writing from a theory rooted in mathematics, game theory and economics, expresses the thought that equity does not exist. He opines that, for several reasons, equity occupies a 'distinguished position' among non-existent subjects and argues that it "has no intrinsic meaning and therefore fails to exist…is so hopelessly subjective that it cannot be analysed scientifically…" and that equity "has no sensible theory that explains it, especially one that is compatible with modern welfare economics." Young (1994: xi) thus dismisses the existence of

equity on the basis of what he calls academic grounds, while another scholar, Koskenniemi in Cottier (2015: 20), published work "strongly inspired by the alleged imprecision and vagaries of equity and equitable principles …". Despite being convinced of its non-existence, Young wrote a book on the 'nonexistent subject' after adding that 'equity, or at least its close relative, is very much alive and occupies a prominent place in moral philosophy'. Indeed, equity is a complex matter to define and is seen by some scholars as having no clear-cut principles that can be set out and applied universally and is best understood in the context within which it is applied (Cottier, 2015; Ingram, Whiteley, & Perry, 2008; Young, 1994). Wilder and Ingram (2018: 1) observe that water equity can be recognised when it happens in specific contexts. The authors presented two case studies of Detroit (America) and Cuatro Mujeres (Mexico) in which they indicate that public participation, recognition of water access rights and the writing of rights into constitution form part of the realisation of equity (Wilder & Ingram, 2018: 14-17).

An input-output nexus has also been used to define equity. According to Adams (1963) in Neal (Patrick) et al., 2016: 255), equity is achieved when rewards or outputs are perceived to be in proportion to inputs or contributions. This is also put forward as an equity principle by Aristotle when he contends that 'goods should be divided in proportion to each claimant's contribution' (Young, 1994: 9). That notion of equity, however, assumes that those that contribute the most accomplish the most and also neglects to consider disparate opportunities individuals get that afford them the results they get. Nevertheless, other scholars argue to the contrary. Deutsch argues against a nexus basis for equity, saying, 'The most needy may not be the most able, those who work the hardest may not accomplish the most, equal opportunity may not lead to equal reward, treating everyone as equals may not maximise the common good' (Deutsch, 1975: 140).

Equity that is structured on the basis of contributions or inputs fails to recognize, in some cases, the context in which one acquires and uses inputs, the unequal playing ground during the implementation process that warrants one to be eligible for allocation. For instance, non-participation of blacks in production (output) is often embroiled in race and class politics in which black Africans are constructed as lazy (Mtose, 2008). On the basis of this construct which alludes to deficit thinking (Dube, 2020b), allocating resources to black Africans is considered to be unjustified. Some narratives portray those who are given money rather than land through land claims as only wanting money and not the land

(Nair, 2017; Xaba & Roodt, 2016). These narratives construct land claimants as unsure of their needs and not willing to work for a living, thus making any such claims seem unworthy. In a discussion of equity, the World Bank argues that 'distribution of opportunities matters more than the distribution of outcomes' (World Bank, 2005: 4). In this case, the fair distribution of opportunities is more valuable than the distribution of outcomes, in other words, fair chance for all.

Equity can also be driven by economic values. Deutsch (1975: 137) suggests that, in societies where economic values seem to pervade all aspects of social life, a focus on equity is naturally inevitable. He, however, worries that this will result in an equity principle where rewards, prestige, power and economic functions and goods are allocated to those who appear to contribute the most (Deutsch, 1975: 145). This is viewed as problematic as Marx in Pepper (1984: 164) also states that 'when labour invested in a product is regarded from the viewpoint of the product's exchange rather than use value', labour becomes objectified, 'a function of impersonal 'laws' of economics which appear universal but in reality are specific to capitalism'; an equity principle where economic value and the markets dictate who gets what defeats the idea of a common good.

Another form of equity is vertical equity, whose approach recognises opportunity differences between groups of people and thus seeks to rectify these. To understand vertical equity, one would also need to understand horizontal equity. Horizontal equity is described by McIntyre and Gilson (2000: 236) as the equal treatment of equals while vertical equity is the 'unequal but equitable treatment of unequals' (Mooney & Jan, 1997). Scholars such as Mooney (1996) and McIntyre and Gilson (2000) recommend the use of vertical equity in the health sector, arguing that it considers the worst off in the distribution of resources. A similar understanding of equity in the allocation of water is, however, noted to have been lacking by scholars such as Syme and Nancarrow (1997: 2143) who also view equity as an undefined term (Nancarrow & Syme, 2001). In the South African context where all are equal according to the Constitution, vertical equity presents itself as conflictual and also as a process with a potential to maintain unfair distribution of resources.

Equity measures may require that institutions in power take deliberate measures to see to it that resources like water are fairly distributed. Kemerink (2015: 112) gives an example of the Government of Zimbabwe which, on recognising the importance of and inequity in water infrastructure, established a national fund to stimulate the

development of water infrastructure in previously disadvantaged areas. Kemerink (2015) argues that a physical oriented measure such as the one made by the Zimbabwean government gives the government the opportunity to directly 'rearrange water flows and as such affect the distribution of water resources.' A deliberate process that embraces equity needs to be guided by the principles that define equity. The section that follows provides a non-exhaustive summary of equity principles.

Equity Principles

Equity has been discussed by some scholars as a principle in itself, a value to be considered in social justice matters. In discussions about distribution of goods, Jones (2009: vi), for instance, considers equity as a guiding principle bringing focus to specific areas of policy. Young (1984: xii) also argues that, because equity is shaped by cultural values, precedents and the types of goods being distributed, it becomes a 'complex idea that resists simple formulations.' In this section, eight principles of equity by three different authors, namely, Young (1984), the World Bank (2005) and Jones (2009), are presented. Young takes a critical approach in his presentation of what may be considered as principles of equity, by not explicitly stating them as principles of equity while also pointing out their potential weaknesses:

(i) **No envy:** Young (1984: 11) presents Tinbergen's (1953) ideas in which an equitable society is seen as one in which each person is satisfied by their situation and has no wish to change places with others. In the allocation of goods, the idea of being envy-free would mean no preference for another person's allocation (Foley, 1967 in Young, 1984: 11). Young (1984: 12), however, notes that this would only be applicable where everyone has equal claim on the goods, which is usually not the case. The principle is said to be irrelevant as variables such as disparities in merit, just deserts, contribution and need have to be taken into consideration.

(ii) **The priority principle:** This principle relates to distribution in order of the most deserving followed by the next deserving, 'given the claimants' circumstances and the good being distributed' (Young, 1984: 15). Young argues that this principle brings to question the concreteness of priority, which is a matter of judgement. The problem with this, as

Young sees it, is how a balance can be reached where there are diverse opinions.

(iii) **The consistency principle:** This principle is said to be applicable in situations where goods are indivisible and there are many claimants. The consistency principle works by reference to a standard of equity where goods can be divided between two claimants, and this standard will be applied in cases with more claimants, using the principle for two. The goods will be allocated such that every two claimants divide an 'amount allotted to them as they would if they were the only claimants' (Young, 1984: 15).

The World Bank (2005) offers two principles, namely:

(iv) **Equal opportunities principle:** The World Bank (2005: xi) explains that equity is when each person has an equal opportunity to achieve in life based on their talents and efforts and not due to 'pre-determined circumstances' such as race, gender, social or family background.

(v) **Avoidance of deprivation in outcomes:** The talents and efforts should not be constrained by health, education or consumption constraints (World Bank, 2005).

Jones (2009: 5) presents what he concedes to be three strong areas of convergence and consensus on equity principles. The three principles according to Jones and in order of priority are:

(vi) **Equal life chances:** In this principle, Jones draws from the World Bank's (2005) first principle of equal opportunities and considers this a first-order principle of equity. In his discussion of the principle, Jones argues that factors beyond a person's control should not define life chances a person should have. These, including one's race, gender and place of birth, should not predetermine a person's destiny (Jones, 2009: 6), as adopted from the World Bank's definition of equity.

(vii) **Equal concern for people's needs:** Jones (2009: 6) states that the principle is about the distribution of goods/services that people need and the level of need, and nothing else should be used as basis for distribution.

(viii) **Meritocracy:** Jones (2009: 7) argues that positions and rewards in society should be distributed to reflect differences in effort and ability. It has to be allocation that is based on fair competition.

It is interesting to note that each of the above principles makes sense, each on its own until it is contextualised, at which point it creates 'impossibility theorems'. While scholars such as Ingram, Whitely and Perry (2008) want to view equity as context specific, Young (1994) presents equity principles (although highlighting their weaknesses) in a context where there are no inequalities as a result of racial and class discrimination. For the most part, the equity principles laid out by Young, World Bank and Jones need to be contextualised for their validity to be seen. More than the context, equity is also shaped by the 'specific types of goods and burdens to be distributed' (Young, 1994: xii).

Equity in Water Distribution

South Africa presents a case where the majority of the population, previously denied water access, seek to secure water resources for economic and domestic uses. According to the Department of Water Affairs (now Department of Water and Sanitation), equity 'means that special attention must be given to the needs of those that were historically denied access to water or to the economic benefits of water' (DWA, 2013: 45). As part of water allocation reform, the principle of equity was viewed as a strategic way of transforming the skewed water allocation. The DWA (2013: 45), in its contextualisation of equitable water allocation, divides equity into three subcategories: (i) equity in access to water services, which mostly covers domestic water use for the general public; (ii) equity in access to water resources, which covers water for productive use in irrigation, business or industry; and lastly (iii) equity in access to the benefits from water resource use, which covers direct or indirect benefits from the use of water, e.g. through wage employment. However, it is also said that water allocation is still guided by five water allocation priorities where the first two speak to environmental sustainability and shared river basins while the last three pertain to water allocation for poverty eradication and economic growth. In this approach, users with a higher priority in the allocation of water, the environment (DWAF 2005a: 6; van Koppen, 2008: 235) and international treaties are given precedence over water allocation to change the economic plight of the historically disadvantaged. This is a

result of the juxtaposition of sustainability and equity, which leads to equity being sacrificed in favour of sustainability. Other scholars have also posited that equity discussions tend to focus on 'a very small part of the water resource – that needed for drinking water supply and domestic purposes' (Bird, Arriens, & von Custodio, 2008: 13), which is below 10% of water resources (Peters & Woodhouse, 2019: 2).

Levite and Sally (2002: 827) have defined equity in water allocation as 'fair access to the water needed for their activity' by all users. This definition tends to perpetuate the same state of affairs given that some of the users' activities are limited by the lack of other resources, especially land. Equity as the formula for water allocation becomes ineffective without the realisation of land rights when access to land also defines access to water. While the understanding of equity is aligned to one of the principles of equity as defined by Jones (2009), a needs-based approach fails to factor in some needs defined by a history of discrimination. Consideration of other principles such as meritocracy also widens the access gap as the more than 300 years of experience gained by one group cannot be compared with that of the historically disadvantaged who are playing catch-up. In South Africa, the bulk of the water resources are used by the minority in a way described by Turton and Meissner (2002) as resource capture. Prasad, van Koppen and Strzepek (2006) suggest that equity in water resources should mean that water is affordable and enough to be viewed as accessible. If enough and affordable for some but not for all, then there is no equity.

The issue of equity in the South African Water Allocation Reform is not adequately addressed in the policy and legislative documents. The section on equity in the NWRS2 (DWA 2013: 45) is inadequate to answer the question as to why equity would be an option of choice and how equitable access can be identified when achieved (see also Nancarrow & Syme, 2001: 442 on water reform and equitable water allocation in Australia). The Hydrosoft Institute (2018) report also notes that the 'juxtaposition of equity and efficiency' in the National Water Act (NWA) defeats the agenda of redress for the betterment of the black majority (Bourblanc, 2012). The Institute points out that section 27 of the Water Act on considerations for general authorisations does not prioritise equity as it is one among 11 other competing priorities, yet the WAR programme is built on the equity premise. Wilder and Ingram (2018) have also expressed the view that 'marrying contradictory principles flawed the … water governance paradigm' and pointed at the incompatible relationship between efficiency and equity. The

incompatibility of efficiency and equity together with the clauses identified as overshadowing the NWA fails to address colonial gains but maintains the status quo (Hydrosoft Institute, 2018).

Study Participants' Views on Equity and Equality

In some of the interviews with participants who were key informants, the question of the use of equity in the water allocation reform strategy was asked. One participant expressed the view that discussions on whether to base allocations on equality or equity gave an impression that time was getting wasted on definitions. He had this to say:

> Those discussions I remember when I was working in that field, they were really very hot, around equity and equality and which one would be more beneficial, and what does it mean. I think there were some who were of the view, if we are spinning heads around those definitions, we are being stuck in that and we are missing the point, in terms of the bigger picture of what we are trying to do. So, in other words, the bigger picture was that at least at that time the figures were 85% of the water that was used for productive use was in the hands of the whites and only about 15% in the hands of the blacks. So now, the view was that if we keep on spending a lot of time, spinning heads around those definitions, then we are losing the bigger picture of ensuring good access to water that can be used for productive use. So, I am not sure whether there was an agreement on why this and why that (Personal Communication: 15 August 2018).

Another key respondent, who had also been involved in the initial discussions on the reform strategy, spoke of equity in relation to job creation for those who had no access to water. He expressed the view that "… *equity dealt with the benefits of water use e.g. a white farmer employing 100 people*…" (Dube, 2020b). Asked further what he understood equity to mean, the respondent expressed frustration with the question. He stated that:

> Sometimes I get frustrated with academics, let's not waste time discussing English semantics, let's do work with the communities. We are not gonna go there. Those same things you ask me today came 20 years ago…you are zooming in on one little thing… (Personal Communication: 12 March 2019).

It was, however, clear from the above responses that the term 'equity' had not seriously been interrogated before its adoption as a principle for the allocation of water in the new South African dispensation. Further clarity on equity from key respondents chosen for their knowledge and participation in the strategy was, therefore, not forthcoming. Some of the information shared did not say much as some sentences were left hanging, and further probing proved impossible. The key respondent, who expressed frustration with the question on equity, added: "*The other difficulty in achieving equity in our country is also because we are a dry country…"* The relationship between equity and a dry country needs to be expanded on, given that available water, regardless of the country's climate, is still allocated in a skewed way.

While engagements with participants did not solely focus on the understanding of the term 'equity', views were also solicited from participants on how they thought water for productive use could be allocated in South Africa. One retired official from the DWS had this to say:

> There is also sharing of water between farmers and their workers. Sharing water with the workers also works as a form of allocation but then it is not a formal form of WAR. Farmers can get their licenses altered through voluntary reallocation when they give some of their water away (Personal Communication: 10 November 2016)

Another view was from an official from a Water User Association who shared the following thoughts on what he considered a fair allocation of water:

> One of the most obvious methods of addressing the inequalities of water is of course that black farmers will have to buy properties that have a water allocation; there is not any additional water that can be allocated (Personal Communication: 1 November 2018).

Survey participants' views on equity and justice in the allocation of water were gathered using a combination of open-ended questions and the Likert method. For their understanding of equity, survey participants were provided with options that were sampled from literature on equity principles as espoused by Young (1984), Jones (2009) and the World Bank (2005). Most of the respondents, 16 out of the 24, chose 'equal chance for all' as their understanding of what equity means. This was

followed by 'distribution according to most deserving' which was chosen by four; 'distribution according to need' opted for by three and lastly, 'each person is satisfied by what they have' chosen by one person. There was also an option to indicate difficulty in the understanding of equity, but none of the participants chose that option. Being a qualitative study, which dealt with a small number of participants, the absence of participants who indicated not understanding what equity is can, however, be used to discredit the assumption of the article that equity as a principle for distribution of resources is obscure. The differences in the chosen options of what equity means, however, still indicate that there is no singular understanding of equity.

Views from focus group participants were on domestic water which is discussed in the NWRS2 as equity in access to water services (DWA, 2013). Most of the participants' responses were about making payments for the service. One participant said:

> The Municipality uses the money to purify water, so that the people get clean water. Black people must be educated in order to pay the bills, and I do not think it will be a problem if the Municipality receives R5 per household in a month. We have to be educated in order to understand the bills from the Municipality (Personal Communication: 24 January 2019).

This was supported by another participant who expressed the view that:
We need to pay the service delivery from the Municipality, because they usually explain that they buy water from Lesotho and other places, of which if the government owes those places, it means we are not going to get water from the Municipality. In reality we have to pay for water as the government accesses water from faraway places (Personal Communication: 24 January 2019).

Equity and the Allocation of Scarce Water under the Water Allocation Reform Strategy

While literature offers a wide range of positions on and definitions of equity in the distribution or allocation of resources, the same cannot be said about views gathered from the empirical study on equity in the allocation of water. The application of equity in the water allocation reform strategy did not take into account the need for the allocation principle to be clear as indicated by one of the respondents that spending

time on defining it seemed counterproductive. In terms of its meaning, scholars such as Wilder (2008) have opined that equity in water management is difficult to define and measure; this begs the question of whether it can still be the path to justice in the distribution of water in post-1994 South Africa. Some scholars point out that not much emphasis had been put on the development of the theory of the meaning of equity, fairness and justice in the allocation of water (Syme & Nancarrow, 1997: 2143). At the time Syme and Nancarrow (1997) published their research article, community perceptions of what fair allocation is were still in their infancy. The 2013 South African NRWS 2 (DWA, 2013) attempts to define equity but falls short as it does not provide a measurement scale for implementers of the WAR strategy to apply and for beneficiaries of the strategy to evaluate whether the process is just. Therefore, the understanding of equity in water allocation in South Africa remains elusive. Equity's elusiveness in the South African context of water allocation reform, however, creates an illusion of inclusion for the HDIs as no law can be assumed to be obviously unjust according to Rawls (1971).

A definite measure is, however, offered in the form of benefits from water use. The idea of benefits of water use being a principle of equitable water allocation comes from the DWA (2013), whose three categories for water allocation have as their third category, equity in access to the benefits from water resource use. This is explained as either direct or indirect benefits. These have mostly been interpreted as benefits from wage employment as also explained by one key respondent who described it as '*a white farmer employing 100 people* …' This example evokes the poverty alleviation narratives that focus on social wage packages, options that are not necessarily long term and keep social wage earners at the periphery of the economy and in a cycle of poverty. It also lacks alignment with the vision for a free South Africa as envisioned by Mbeki in 1978 when he expressed the need for black producers to produce wealth for their own benefit and appropriate the wealth as producers not as workers. The construction of equity where beneficiaries of past water allocation regimes continue to benefit as employers perpetuate a structure where the means of production remain in the hands of a few as the majority are assumed to prefer 'small-scale livelihoods.'

Further to the preceding, the DWA's reform strategy does not seem to have had a water allocation focus on HDIs in general but on those that were part of recognised Water Management Institutions (DWAF, 2007) or Broad-Based Black Economic Empowerment (BBBEEs).

Benefits of water use would thus seem to have been intended for all the others who did not fit the category the DWAF thought should benefit. Similarly, land reform in the country has been suffering the same fate due to a focus on beneficiaries' class rather than seeking to uniformly benefit the deprived black population in general (James, 2010). The likelihood of having a large number of black people having opportunities to be employers is slim given the state of land ownership in the country (Dube, 2020a). A focus on a select few thus maintains inequalities and keeps the majority black people at the bottom of the production chain, as beneficiaries of water access through wage employment.

Alternative ways of allocating water or having previously disadvantaged communities accessing water are provided as either buying land which already has a water allocation or farmers that have access giving some of the water to their workers (Dube, 2020a). While the first option reads very valid provided the buyers have the money, the response also reveals that there is no additional water for allocation. Implications of this for discussions on water allocation are that equity buys time as the resource to be allocated is not even there. It thus ceases to be a question of equity, whatever meaning it carries, as the resource for allocation does not exist, a revelation which puts the water allocation reform strategy to question. The second option where farmers give some of their allocation to their workers does not seem very different from the benefits of water use conceptualisation of equity, except, in this case, farm workers do not have land on which to use large amounts of water outside of little gardens. This option has potential to only reproduce unjust outcomes, especially when 'colonial injustices' are not acknowledged as 'structural injustices' requiring structural reform (Lu, 2011 in Dube, 2020b: 10). For equity in the allocation of water for productive use, the link between land and water should not be understated as the size of the land determines the amount of water required. Equity that is constructed in a context where beneficiaries have no use for large amounts of water thus defeats the whole purpose of redress of structural inequalities.

Conclusion

The article's main objective was to unpack the diverse ways through which equity is defined. While a broad perspective of equity is provided in the available literature, there is still a gap on what equity in the allocation of water looks like. Responses from study participants did not

provide one with an understanding of equity or alternative allocation processes that are beneficial to historically disadvantaged individuals (HDIs). Findings from this study revealed a problematisation of discussions of equity, to which end equity was reduced to just 'semantics' and the researcher's interest portrayed as 'zooming in on one little thing'. In development discourse, words can, however, not be assumed to be neutral. Meaning(s) of equity are important to understand so that the implications of its understanding are clear, given the slow pace of transformation or the lack of it in the South Arica's water allocation reform. Key stakeholders and HDIs, who should contribute to the assessment of transformation of water allocation through water reform policies, are incapable of such when they are not empowered to evaluate equity.

The limited understanding of equity provides little room for addressing past injustices if equity in access to water is not integrated with access to other resources such as land. There has to be a deliberate approach where water and land reforms are integrated and debates on land reform recognise the need for water. Of the eight equity principles discussed in the article, the World Bank's equal opportunity for all can be used as a starting point if justice is at the core of the equitable allocation process. While equal opportunity does not guarantee equal outcomes, the approach necessitates a need to level the playing field if fairness is to prevail.

The different ways in which equity is described by different scholars in the article shed light on the complexity of equity as a principle for allocating scarce resources. The objectives of the reform strategy in terms of allocating water to the historically disadvantaged are presented in unmeasurable terms. Equity is, therefore, a vague term that contributes to both confusion and disempowerment of some stakeholders, particularly HDIs and policy implementers. With the study having taken a qualitative approach, it is recommended that a nationwide study be carried out to determine what options would best address the unbalanced allocation of productive water in the country. It is hoped that context-specific terms can be drawn into the discussion for achievement of measurable progress.

References

Bird, J., Arriens, W. L., & von Custodio, D. (2008). Water rights and water allocation: Issues and challenges for the Asian region. *Water for All Series 17*. Asian Development Bank.https://pdfs.semanticscholar.org/dbd1/31587a9c765b6b61173142f29147a3b5a883.pdf Accessed January 23, 2018.

Bourblanc, M. (2012). Transforming water resources management in South Africa. 'Catchment Management Agencies' and the ideal of democratic development. *Journal of International Development, 24*, 637-648.

Cottier, T. (2015). Equity revisited: An introduction. In T. Cottier. *Equitable principles of maritime boundary delimitation: The quest for distributive justice in international law* (pp. 1-42). Cambridge: Cambridge University Press. doi:10.1017/CBO9781139944588.002

Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues, 31*(3), 137-149.

Dube, B. (2020a). *Distributive justice: Water allocation reform in the Greater Tzaneen Municipality* [PhD Thesis, University of Pretoria]. https://repository.up.ac.za/handle/2263/51914

Dube, B. (2020b). Deficit thinking in South Africa's water allocation reform discourses: A cultural discourse perspective. *Journal of Multicultural Discourses*. https://doi.org/10.1080/17447143.2020.1835926 Published online October 27, 2020.

DWA (2013). *National Water Resource Strategy 2: Water for an equitable and sustainable future*. Department of Water Affairs, Republic of South Africa.

DWA (2014). *National Water Policy Review (NWPR): Approved water policy positions*. Department of Water Affairs, Republic of South Africa.

DWAF (2005). *A draft position paper for Water Allocation Reform in South Africa: Towards a framework for water allocation planning*. Department of Water Affairs and Forestry, Republic of South Africa.

DWAF (2007). A toolkit for Water Allocation Reform: A manual to help achieve race and gender equity in water allocations. *Draft 6*. Department of Water Affairs and Forestry, Republic of South Africa.

Gläser, J. (2005). Intergroup bias and inequity: Legitimising beliefs and policy attitudes. *Social Justice Research, 18*(3), 257-282.

Gouveia, M. (2007). Equity in theory and practice, by H. Peyton Young. Princeton, NJ: Princeton University Press, 1994, 238 pp. Book review. *Journal of Policy Analysis and Management*, 481-488.

Heracleous, L. (2006). A tale of three discourses: The dominant, the strategic and the marginalized. *Journal of Management Studies, 43*(5), 1059-1087

Hoffman, R. L. (2003). Equitable allocation of limited resources (EALR): Defining, measuring, and implementing equity. Metron Aviation, Inc. *EALR Final Report.*https://catsr.vse.gmu.edu/ATSE/EquityHoffmanDavison.pdf Accessed June 23, 2018.

Hunter, L., Emerald, E., & Martin, G. (2013). Participatory activist research in the globalised world: Social change through the cultural professions. *Explorations of Educational Purpose, 26*. New York, London: Springer.

Hydrosoft Institute (2018). *Decolonising water access and allocation: Renewed effort to address persistent inequalities in the water sector* [Unpublished WRC Literature Review Report K5-2858].

IISC (Interaction Institute for Social Change) (2016). *Illustration of equity vs equality*. Interaction Institute for Social Change and Artist Angus Maguire. http://interactioninstitute.org/illustrating-equality-vs-equity/ Accessed February 10, 2018.

Ingram, H., Whiteley, J. M & Perry, R (2008).The importance of equity and the limits of efficiency in water resources. In J. M. Whiteley, H. Ingram, & R. W. Perry (Eds.), *Water, place and equity*. The MIT Press, Massachusetts Institute of Technology.

Jager, J., Putnick, D. L., & Bornstein, M. H. (2017). More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the Society for Research in Child Development, 82*(2), 13-30.

James, D. (2010). 'Doing business with a development ethic': 'New look' land redistribution in South Africa. In B. Freund & H. Witt (Eds.), *Development dilemmas in post-apartheid South Africa* (pp. 220-247). KwaZulu-Natal: University of KwaZulu-Natal Press.

Jones, H. (2009). Equity in development: Why it is important and how to achieve it. *Working Paper No. 311*. Overseas Development Institute, London, United Kingdom. https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4577.pdf Accessed February 16, 2018.

Jones, N., Bromey, C., Creegan, C., Kinsella, R., Dobbie, F., & Ormston, R. (2010). Building understanding of fairness, equality and good

relations. *Equality and Human Rights Commission Research Report 53*. Equality and Human Rights Commission. https://www.equalityhumanrights.com/sites/default/files/research-report-53-building-understanding-of-fairness-equality-and-good-relations.pdf Accessed June 23, 2018.

Kemerink, J. S. (2015). *Policies lost in translation? Unravelling water reform processes in African waterscapes* [Dissertation, Master of Science in Civil Engineering, Delft University of Technology, the Netherlands]. https://repository.tudelft.nl/view/ihe/uuid:2aed0b60-50cf-40b4-a5c0-74fe33594f82 Accessed November 16, 2017.

Kuttner, P. (2016). *The problem with that equity vs. equality graphic you're using*. http://culturalorganizing.org/the-problem-with-that-equity-vs-equality-graphic/ Accessed February 10, 2018.

Levite, H., & Sally, H. (2002). Linkages between productivity and equitable allocation of water. *Physics and Chemistry of the Earth, 27*, 825-830.

McIntyre, D., & Gilson, L. (2000). Redressing dis-advantage: Promoting vertical equity within South Africa. *Health Care Analysis, 8*(3), 235-258.

Molle, F. (2008). Nirvana concepts, narratives and policy models: Insights from the water sector. *Water Alternatives, 1*(1), 131-156.

Mooney, G. (1996). And now for vertical equity? Some concerns arising from Aboriginal health in Australia. *Health Economics, 5*, 99-103.

Mooney, G., & Jan, S. (1997). Vertical equity: Weighting outcome? Or establishing procedures? *Health Policy, 39*, 69-78.

Movik, S. (2009). The dynamics and discourses of water allocation reform in South Africa. STEPS Centre, University of Sussex. Brighton.

Mtose, X. A. (2008). *An emerging Black identity in contemporary South Africa* [PhD thesis, University of KwaZulu-Natal].

Nair, N. (2017). Land claimants want the cash not the land, says KZN Land Claims Commission. *TimesLive*. https://www.timeslive.co.za/news/south-africa/2017-05-30-land-claimants-want-the-cash-not-the-land-says-kzn-land-claims-commission/ Accessed February 22, 2018.

Nancarrow, B. E., & Syme, G. J. (2001). Challenges in implementing justice research in the allocation of natural resources. *Social Justice Research, 14*(4), 441-452.

Neal (Patrick), M. J., Greco, F., Connell, D., & Conrad, J. (2016). The social-environmental justice of groundwater governance. In A. J. Jakeman, O. Barreteau, R. J. Hunt, J. D. Rinaudo, & A. Ross (Eds.),

Integrated groundwater management: Concepts, approaches and challenges (pp. 253-272). AG Switzerland: Springer International Publishing.

Ngwenyama, O. K., & Lee, A. S. (1997). Communication richness in electronic mail: Critical social theory and the contextuality of meaning. *Management Information Systems Quarterly, 21*(2), 145-167.

Pepper, D. (1984). *The roots of modern environmentalism*. Kent, UK: Croom Helm.

Peters, R., & Woodhouse, P. (2019). Reform and regression: Discourses of water reallocation in Mpumalanga, South Africa. *Water Alternatives, 12*(3), 853-868.

Prasad, K. C., van Koppen, B., & Strzepek, S. (2006). Equity and productivity assessments in the Olifants River Basin, South Africa. *Natural Resources Forum, 30*, 63-75.

Ponto, J. (2015). Understanding and evaluating survey research. *Journal of Advanced Practical Oncology, 6*(2), 168-171.

Rambaree, K. (2013). Three methods of qualitative data analysis using Atlas.ti: 'A Posse Ad Esse'. In S. Friese & T. G. Ringmayr (Eds.), *ATLAS.ti User Conference 2013: Fostering Dialog on Qualitative Methods, 1*, 1-15. Berlin: Universitätsverlag der TU Berlin.

Rawls, J. (1971). *A theory of justice*. Oxford: Oxford University Press.

Rockwell, L. H. (2015). *The egalitarian menace* [Presentation at the MISES Institute on October 3, 2015]. https://mises.org/library/egalitarian-menace Accessed July 27, 2019.

RSA (1996). Constitution of the Republic of South Africa, Act 108 of 1996. *Government Gazette of 18 December 1996*, Cape Town, Republic of South Africa.

RSA (1998). *National Water Act: Act No. 36 of 1998*. Republic of South Africa.

Syme, G. J., & Nancarrow, B. E. (1997). The determinants of perceptions of fairness in the allocation of water to multiple uses. *Water Resources Research, 33*(9), 2143-2152.

Turton, A., & Meissner, R. (2002). The hydrosocial contract and its manifestation in society: A South African case study. In A. Turton & R. Henwood (Eds.), *Hydropolitics in the developing world: A southern African perspective* (pp. 37-60). African Water Issues Research Unit (AWIRU), Pretoria, South Africa.

van Koppen, B. (2008). Redressing inequities of the past from a historical perspective: The case of the Olifants basin, South Africa. *Water SA, 34*(4), 432-438.

Viljoen, M. F. (2006). Bridging the economic divide in South African agriculture by improving access to natural resources. *Agrekon, 45*(1), 1–16.

von Kuehnelt-Leddihn, E. (1952). *Liberty or equality: The challenge of our time*. Caldwell, Idaho: The Caxton Printers Limited.

Wilder, M. (2008). Equity and water in Mexico's changing institutional landscape. In J. M. Whitely, H. Ingram, & R. W. Perry (Eds.), *Water, place & equity* (pp. 95-116). Cambridge: The MIT Press.

Wilder, M., & Ingram, H. (2018). Knowing equity when we see it: Water equity in contemporary global contexts. In K. Onca & E. Weinthal (Eds.), *The Oxford handbook of water politics and policy* (pp. 49-75). Oxford: Oxford University Press.

World Bank (2005). *Equity and development: World development report 2006*. The International Bank for Reconstruction and Development/World Bank. Washington DC. http://documents.worldbank.org/curated/en/435331468127174418/pdf/322040World0Development0Report02006.pdf Accessed May 27, 2017.

Xaba, M. B., & Roodt, M. (2016). Mbeki is wrong on land claims: There are many reasons why claimants opt for cash instead of land. *GroundUp*. https://www.groundup.org.za/article/mbeki-wrong-land-claims/ Accessed February 22, 2018.

Young, H. P. (1994). *Equity: In theory and practice*. Princeton: Princeton University Press.