



Water service provision and social equity in a South African rural district municipality

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Background: Equitable water governance is at the centre of sustainable development. Nevertheless, achieving this goal requires the application of social equity lenses with a focus directed to all dimensions of social equity. Social equity often places more focus on distributive equity, than other equity dimensions, which equally have a profound impact on ensuring universal water access (sustainable development goal 6).

Aim: This study aimed to explore social equity dimensions in water service provision and how they affect water provision in rural municipalities.

Setting: A rural district municipality in the Eastern Cape province, South Africa.

Methods: A constructivist exploratory qualitative case study research redesign was used. Data were obtained through in-depth interviews, participant observation and focus group discussions from a purposefully sampled participant ($n = 34$) and data were analysed using thematic analysis.

Results: Findings suggested that less attention was given to other dimensions of equity than distributive equity in the area under study, which undermines the district municipality's efforts to eradicate disparities in water governance.

Conclusion: The study concluded that achieving the Sustainable Development Agenda of 2030 in water service provision demands full attention to the procedures, quality and outcomes as they are intertwined and significantly impact overall societal goals in public service provision.

Contribution: There is still a need to address disparities in water governance and ensure social equity in rural municipal water service provision. However, to achieve this, equal attention must be paid to all dimensions of social equity, which necessitates collaboration and participation from all stakeholders.

Keywords: social equity; procedural fairness; distributive equity; district municipality; water governance.

Introduction

One of society's most pressing worldwide concerns is the availability of safe, dependable freshwater. Over 2 billion people worldwide do not have access to safe drinking water, and another 4.5 million do not have sufficient sanitation facilities (Keeler et al. 2020). However, it is not the absolute amount of freshwater that threatens biodiversity, public health, infrastructure, economic development and cultural legacy worldwide, but rather the unequal and unjust distribution of water resources (International Water Resource Association [IWRA] 2019; Keeler et al. 2020). Furthermore, global climate change, population increase and unsustainable land-use practices interact with spatialised economic inequities to amplify water hazards, putting the biggest adaptation burdens on communities with the fewest resources (Keeler et al. 2020:211). The Integrated Water Resource Management (IWRM) aimed to address some of these water challenges through the devolution of powers and the creation of water institutions to deal with water management at various levels. However, these structures often change water regimes, with consequences in the distribution and allocation of water resources among different stakeholders (Rasul & Chowdhury 2010), and in most cases, it is the poor and vulnerable who bear the consequences.

Subsequently, priority should be given to social equity as the key to unlocking effective water governance (Camkin & Neto 2016). With its origins in social justice theories, social equity provides an opportunity for meeting the developmental agenda (sustainable development goal 6 [SDG 6]), constitutional obligations, and realising the right to water and sanitation, particularly for those

groups who have been disadvantaged (Human Right 2 Water 2021). However, for social equity to bear positive results, it is critically important that, social equity lenses focus on other dimensions and not only be limited to distributive equity, as most existing and quantitative studies often do (Abebe et al. 2020; Wang & Palazzo 2021). Rather, full attention should also be paid to other dimensions of equity (procedures, quality and outcomes) as they all significantly affect the overall societal goals, such as those prescribed by the Sustainable Development Agenda of 2030. When other dimensions are integrated into water governance, social equity becomes multiscalar and multidimensional, with equal attention being paid to the interrelationships between different social equity dimensions (Abebe et al. 2020).

Such a stance continuously reminds water governance actors that water issues are place-based, with culturally grounded indicators that recognise local people's values, worldviews and knowledge systems. Furthermore, with increasing attempts to attain the triple bottom line in water governance, where success is not only measured in terms of efficiency and effectiveness but also the attainment of social equity and the broader goals of human well-being (Abebe et al. 2020), exploring all dimensions of social equity becomes critically important. Therefore, this article explores social equity in water provision in a rural district municipality, where ensuring equitable water governance is vital because of the province's geographical location, low-lying topography and high incidence of poverty. To do so, the researchers asked the question, what inequities exist in water service provision in the district municipality?

Conceptualising and theorising social equity in water governance

Social equity is founded on the principle of equal access for all citizens while upholding their inherent rights and ensuring that they receive the same treatment, experience and outcomes (Lee 2021:2). Summers and Smith (2014) term social equity as the orphaned element of sustainable development (Summers & Smith 2014), while Dooley (2019) defines it as, a commitment to reducing disparities and advocating for equality for groups who have faced substandard, discriminatory or unpleasant treatment. Dooley (2019) contends that social equity is predicated on the notion that everyone should have equal opportunities for success and protection from adversity in life. For Lee (2021) social equity is a broad notion encompassing values such as justice, equality and fairness. Lee's (2021) conceptualisation, neatly aligns with the notion of public value in public administration (water service provision), where the underlying operating mechanism is distinct from that of the private sector.

As one dimension of effective water governance, social equity is closely related to governance principles such as transparency and openness, accountability, communication, inclusivity and participation (Human Right 2 Water 2021). This relationship fundamentally aligns with the notion of developmental local government, which states that

municipalities must take reasonable steps, within available resources, to ensure that all South Africans have access to adequate water in an inclusive, fair, impartial manner, not leaving anyone behind. Similarly, the White Paper (1998) provides that local government has to be committed to 'working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives'. This calls for municipalities to prioritise all social equity dimensions and especially target those members and groups within communities that are most often marginalised or excluded.

As a seminal concept of public administration as an activity, social equity has proved beneficial in addressing justice issues, particularly in the supply of water and sanitation. In-water service provision at the grassroots (local government), equitable water governance can redress broader societal and economic inequalities. This can be performed by providing for those who are marginalised and lack access to water and sanitation. This is critically important if municipalities are to realise the sustainable agenda, as access to water and sanitation is intrinsically linked to other basic rights such as the right to education, health, safety and other freedoms (Human Right 2 Water 2021). Thus, close attention must be paid to the procedures and processes involved in providing water services, the historical issues underpinning inequities in access to water services, and the quality and impact of programmes designed to ensure access to water service, more particularly for communities living on the margins. As such, social equity must be sustainably integrated into the strategies, programmes and activities, to enhance marginalised groups and indigent communities' political influence and access opportunities. To this end, redressing equity discrepancies, may require community public value co-creation, civil society and stakeholder co-representation in water governance structures and processes (Blessett, Fudge & Gaynor 2017).

Rawls (1971): A theory of justice

Central to the concept of social equity is the issue of justice (Dooley 2019), which has roots in Rawls' (1971) work, 'A Theory of Justice'. The theory provides solid theoretical underpinnings for achieving justice in public sector resource distribution and access. It details how a polity should be formed from the outset (the veil of ignorance) (Chung 2018; Powers 2019), a distinguishing feature from the standpoint of not knowing one's place in society (Dooley 2019). Such a position is assumed to generate equal opportunities and ensure equitable outcomes. Rawls' theory represents the idea of maximum freedoms. In his schema, Rawls (1971) postulates that everyone has equal basic rights and liberties at their fair worth (Chung 2018; Powers 2019). This theory presupposes those citizens in a functioning society with ample resources (such as a healthy economy with a constitutional government) are given the same level of liberties, such as the right to vote and the right to be voted

for and freedom from starvation and neglect (water services). Section 2 of the Republic of South Africa's 1996 Constitution's Bill of Rights enshrines these fundamental rights and liberties (Republic of South Africa 1996). Rawls (1971) reiterated that these essential rights and liberties could not be traded off for other desirable goals in a just and fair society. While he believed that these liberties and rights could be limited in society to produce a cohesive scheme of liberties for all individuals, Rawls (1971) emphasised that these cannot be taken away from a social group even if it enhances economic efficiency (Nnodim 2020). This principle has lexical precedence over the second, and it promotes individual human rights over political majority demands. The second principle is divided into two components, the first of which takes precedence over the second.

The principle of fair and equal opportunity governs the activities of institutions in a just and fair society. Political office, service distribution and economic possibilities should be equitable and accessible to all. Full disclosure of information to the public in accessible languages and means of communication is necessary (Chung 2018; Nnodim 2020). On the other hand, the Difference Principle enables inequalities to exist if those who are 'worse off' become 'better-off' in society; thus, it is considered contentious (Chung 2018; Nnodim 2020). Thus, under the Difference Principle, Rawls argued for maximising the improvement of the 'least-advantaged' groups in society by providing 'fair equality of opportunity', giving his theory of social justice a liberal character. He, however, believed that both his first and second principles together were necessary for a just society.

In line with Nnodim's (2020), assertion, the researchers concur that the Difference Principle does not advocate for inequalities but acknowledges that social and economic differences exist among individuals and hence calls for restitution for marginalised groups, which lack access to water services. This argument is reinforced by Rawls' (1971) notion that society should collaborate and share the burdens and rewards from the developed relationships. In terms of this philosophy, one's birth, society and social status should be considered arbitrary contingencies, reducing negative impacts (Chung 2018). Furthermore, the theory admits that unequal distribution of resources and abilities will always exist. In the case of these natural inequities, however, social equity should allow society to rebuild itself in a way that benefits everyone, including those living on the margins of society (Nnodim 2020).

As such, the researchers contend that justice should be at the heart of institutional morality in the dynamics of water governance and social equity in municipalities. Political, economic and social institutions must therefore pursue justice in the same way other rational and scientific inquiry disciplines pursue the truth, if water service provision and social equity are to be attained in municipalities. This must be so, given that in his theory Rawls (1971) asserts that fairness is the primary virtue in social organisations, just as truth is in systems thought (Nnodim 2020). It can be argued

that the legitimacy of institutions and social standards in a just and fair society is dependent on their being freely and publicly acknowledged by all those bound by them. This notion is a consistent thread and a critical factor emphasised in contemporary water governance discourse. Rawls' (1971) work referred to the political constitution, the private and public sectors and civil society as the main institutions that should achieve social equity (Nnodim 2020). Such a view implies that if social equity is to be achieved in water governance, the responsibility not only solely lies with the state but also with the participation, cooperation and collaboration of various actors in developing accepted policies and institutional structures and processes, creating a fair and just society. Inevitably, this requires the recognition of all dimensions of social equity, to ensure that no one is left behind, in redressing social equity disparities. As such, in line with Rawls' theorisation, free persons with equal rights and liberties (not in the sense of working in the interests of others) should be able to regulate, revise and accept responsibility for their objectives and desires by acting on reasonable and rational principles.

However, critics such as Nozick (1974) and Nnodim (2020) suggested that the Difference Principle would restrict competitiveness in a free market, while Chung (2018) argued that Rawls' (1971) assumptions were self-defeating when contrasted with the utilitarian philosophy. Nonetheless, the researchers argue that Rawls' (1971) 'Theory of Justice' recognises the underprivileged, the excluded, and those who lack basic amenities as active contributors to society. The theory insightfully advocates that such groups must be viewed as 'those to whom reciprocity is owed as a matter of political justice among those who are free and equal citizens alongside everyone else' (O'Neill 2012). Thus, despite these criticisms Rawls' (1971) seminal work provides a useful theoretical lens for interrogating water service provision, social justice, social equity dimensions and water governance in the South African rural district municipality case study.

Social equity dimensions and indicators in water service provision

The evolution of social equity from a narrow focus on equal access to resources and capital, to a broader idea of 'resilience', which includes community awareness and participation in decision-making processes (Wang & Palazzo 2021:2), reflects a paradigm shift in the public sector. This section explores the various dimensions of social equity and their indicators in water service provision. The dimensions are not only limited to distributive equity (Nzewi 2013; Wang & Palazzo 2021) but also embrace procedural equity (Abebe et al. 2020; Gurney et al. 2021; Nzewi 2013; Wang & Palazzo 2021), recognition equity (Abebe et al. 2020; Wang & Palazzo 2021), outcomes equity, quality equity (Nzewi 2013; Wooldridge & Bilharz 2017) and contextual equity (Abebe et al. 2020). While literature indicates these various dimensions, this article adopts the National Academy of Public Administration (NAPA) Social Equity Panel dimensions: outcomes equity, procedural equity, quality equity and distributive equity.

Procedural equity

Pursuing procedural justice in water governance is fundamental from both a moral and an operational viewpoint. Procedural equity refers to institutional procedures such as public participation in the formation of policy and strategies, participation in municipal administration, and specific outreach initiatives to marginalised groups, often underrepresented in water governance (Wang & Palazzo 2021). In this study, procedural fairness scrutinises fairness in the processes and procedures involved in water governance (Johnson & Svava 2011). In terms of policy and government programmes, procedural fairness entails a detailed review of procedural rights issues (due process), equal protection (treatment in a procedural sense) and equal rights eligibility requirements (Johnson & Svava 2011). As such, public officials have an ethical and legal obligation to promote equity and safeguard constitutional objectives. Procedural fairness in water governance comprises stakeholder involvement, increased openness and accountability in the mechanisms involved. Furthermore, it includes platforms where municipal authorities, civil society, public and private partnerships and other interested stakeholders in water governance actively negotiate values, policies, practices and accountability decisions (Rodina et al. 2017). Previous research has documented instances where lapses in procedural fairness have impacted stakeholders' support and cooperation with management initiatives, producing conflicts that culminated in non-compliance, sabotage and demonstrations (Gurney et al. 2021). Hence, procedural fairness is central to achieving social equity, given that decision-making and resource distribution processes largely influence what is considered fair and right. Essentially, when interested stakeholders in water governance believe that procedures and processes are fair and just, they are more likely to accept the results, outputs and outcomes even if they are less than ideal (Förster, Downsborough & Chomba 2017). Finally, public officials and those participating in water governance dynamics must be alive to the reality that procedural fairness is faulty when power and politics are involved. Water and society are mutually constitutive. As socially produced nature, water is not politically neutral, it reflects and reproduces social power dynamics (Perreault 2014:235). As such, seemingly fair processes and procedures may result in asymmetrical and unfair outcomes. In their study, Förster et al. (2017) similarly established structural and agential elements of power in a Water User Association (WUA) in South Africa's North-West Province. Although the rules and protocols were followed, the study findings suggest that the establishment process was faulty because of power imbalances, which resulted in the exclusion of vulnerable and marginalised people, resulting in severely unfair outcomes (Förster et al. 2017). Accordingly, if water service provision policy objectives are to be met, power and politics must take full cognisance of social equity, justice, water rights and their relationship to water governance.

Distributive equity

Distributive equity (access equity) refers to equitable access to public services and infrastructure, natural amenities and

economic opportunities (Wang & Palazzo 2021). It all comes down to who receives services and who does not (Johnson & Svava 2011). As such, existing rules, practices and services must be evaluated against criteria to ascertain the level of access to services and benefits. In addition, factors that contribute to unequal access must be identified and analysed. Access equity can be studied empirically and any gaps revealed should be corrected. The UN-Water (2019) report emphasises the critical nature of ensuring access equity. Several suggested approaches include, removing specific impediments to water access by marginalised and vulnerable populations, resolving affordability concerns and minimising geographic inequities (UN-Water 2019). Johnson and Svava (2011), add that principles such as simple equity, differentiated equality, targeted intervention and redistribution can also be used to enhance access equity. Rawls' (1971) seminal work advocates for differentiation, letting inequality remain if those who are 'worse off' become 'better off'. This is predicated on recognising existing imbalances and facilitating service redistribution, to achieve social equity in water service provision. In South Africa, targeted intervention is used to address access equity. The free basic water policy initiated in 2001, mandates municipalities to provide an initial block of 6 m³/month of drinking water without charge per indigent household.

Outcomes equity

The outcome criteria represent a change in emphasis away from inputs, towards outputs and results. It examines whether the adopted policies and programmes have the same impact on all groups and individuals served, regardless of the other equity criteria (Johnson & Svava 2011). Outcomes equity employs a results-based approach to assist in determining why different outcomes arise. This criterion emphasises the necessity to reallocate resources until the same results are obtained. However, this criterion can be problematic because numerous variables such as poverty and individual human behaviour, other than government involvement may lead to equity disparities (Johnson & Svava 2011). In essence, this is reflective in South Africa's nine provinces, where the Free Basic Service water policy has been implemented, resulting in different outcomes. Notwithstanding, outcomes equity affords municipalities the wherewithal to provide targeted intervention, through water governance decisions, determining for example, how much inequality is acceptable and to what extent government can and should intervene to eliminate differential outcomes.

Quality equity

This criterion is related to process equity as well. It addresses consistency in the quality of services supplied to communities, regardless of the distributional criteria utilised (Johnson & Svava 2011). In this study, the researchers adopt the United Nations service requirements of sufficiency, quality and quantity of water services acceptable in the context of water governance (Camkin & Neto 2016; UN-Water 2019).

The study area

The Amathole District Municipality was demarcated after the December 2000 local government elections. It is a Category C municipality in the central part of the Eastern Cape, covering a land area of roughly 21 121.11 km² and stretching for 192 km along the coast. The re-demarcation process resulted in the district being composed of six local municipalities: Amahlathi, Great Kei, Mbhashe, Mquma, Ngqushwa and Raymond Mhlaba. The district municipality is a Water Service Authority (WSA), responsible for providing access to at least a basic supply of water and sanitation services to communities in its municipal jurisdiction. Its 5-year Water and Sanitation Development Plan (WSDP) has an integrated infrastructure plan, for developing future infrastructure. The district municipality is striving to eradicate backlogs and improve levels of service delivery, especially in rural communities, where the current policy is to provide communal standpipes within a 200 m walking distance of each household (Amathole District Municipality 2017). Figure 1 shows a map of the study area and the villages, which fall under Amathole District Municipality.

Research methods and design

The purpose of this article was to explore water service provision and social equity in a rural district municipality in the Eastern Cape Province, South Africa. This required various stakeholders' perspectives to articulate what constitutes equity in their area of jurisdiction. As such, a constructivist philosophical worldview was adopted. This worldview assumes that reality is socially constructed and

subjective (Creswell & Creswell 2018). Constructivism allows the incorporation of stakeholders' different perspectives, views and emotions. An exploratory qualitative case study research design and an inductive research approach were thus adopted for this study. For constructivists, truth and reality in the social world do not exist in the external world; rather, they are created by the subject's interactions with their social world, and realities are multiple (Creswell 2009). Consequently, meaning is constructed, not discovered (Creswell 2009). Constructivism allowed the researchers to investigate situated contexts of research participants. It enabled the researchers to interact with the participants and collect rich in-depth data (O'Sullivan et al. 2017) on participants' views and experiences on water service provision and social equity in the district municipality case study. A purposeful sample of 34 ($n = 34$) participants was selected, based on participants' knowledge and experience as end-users and stakeholders in the district municipality's water governance. Two focus group discussions were held with community members ($n = 14$), and semi-structured in-depth interviews ($n = 20$) were conducted with municipal officials involved in water service provision (councillors, top management municipal officials, local municipality representatives, district municipality satellite representatives and Water Boards representatives). Participants' observation was also utilised to further understand local realities and current conditions in the district municipality. To ensure credibility, secondary data were utilised, including official municipal public records and other published material on the area under study. A thematic analysis was used, and data were presented under four conceptual headings.



Source: Municipalities of South Africa, n.d., *Amathole District Municipality (DC12)*, viewed n.d., from <https://municipalities.co.za/map/102/amathole-district-municipality>

FIGURE 1: Amathole District Municipality, Eastern Cape Province, South Africa Study area map.

The researchers provided thick and rich descriptions, triangulated data and utilised member checking to ensure rigour in the qualitative study (Creswell & Creswell 2018).

Ethical considerations

Ethical clearance (reference number: SIB051SHUT01) was obtained from the University of Fort Hare's Inter-Faculty Research Ethics Committee (IFREC) and University Research Ethics Committee (UREC), and the gatekeeper district municipality granted the researchers permission in the form of a letter to undertake the research study.

Results and discussion

This section presents results on key themes from primary and secondary data collected from two focus group discussions of seven participants each, held with community members ($n = 14$), semi-structured in-depth interviews ($n = 20$) conducted with municipal officials involved in water service provision, and municipal public records and other published material, respectively. Verbatim quotes are selectively used to give voice to the participants and to illustrate participants' perceptions and views.

Distribution of water services (access equity)

Access equity is about the distribution of services, and it is about who gets services and who does not. In determining access equity, the study established that a significant number of residents in the district municipality still lack access to safe drinking water and proper sanitation. Secondary data highlighted the unequal distribution of water services across and within the six local municipalities under the district

municipality, as reported in the 2019–2020 Integrated Development Plan. Furthermore, the district municipality categorised its sanitation facilities into five sections, namely no toilet (21.66%), bucket system (0.75%), pit toilet (21.66%), ventilated improved pit (VIP) (43.98%) and flush toilet (22.91%) (Amathole District Municipality [IDP] 2020:84). In terms of access to safe drinking water, 17.24% of the households have piped water inside the dwelling, 13.39% have water inside the yard, a total of 30.14% has no formal piped water, while 8.89% share communal piped water within more than 200 m (below RDP) and 30.25% share communal piped water less than 200 m from the dwelling (at RDP level) (Amathole District Municipality [IDP] 2020:87).

While the given information reflects disparities in both access to water and sanitation across the six local municipalities, empirical evidence from this study further revealed that most of these inequities are concentrated in the rural areas, as compared with the urban areas; hence, the large rural–urban gap that remains prevalent in terms of water service provision in the district municipality. Results from primary data showed the following sentiments, participants pointed out:

'It isn't easy to service rural areas than urban areas, and as such, you will find out that there is always better service delivery in urban areas.' (Participant 1, Male, Engineering Services Department)

Similarly, another participant had this to say:

'There is better service delivery in urban areas than in rural areas.' (Participant 21, Female, Community member)

During the field tour, the researcher validated participants' views from focus groups by observing community members



Source: Photo taken by Clarity Hutete while collecting data on 25 March 2021 in Raymond Mhlaba (a local municipality in Amathole District Municipality). Clarity Hutete has provided permission for the photo to be published.

FIGURE 2: Rural community member poaching from one of the water treatments plants.

from a nearby village obtaining water at the fence at the water treatment plant that was visited, as shown in Figure 2. During the tour, the researchers also detected that while the village under observation was closer to the water treatment plant, its community members did not have access to a formal water source, and as such, they had to poach water directly from the water treatment plant, a move that the researchers deemed highly risky and unsafe for both the municipality and the villagers.

Focus group discussions conducted also revealed that because of lack of access to water services, rural areas highly depend on alternative sources of water, and in most cases, these are dams and rivers, and those who feel it is not safe and clean will practice water harvesting. A community member who participated in the focus group discussion had this to say regarding access to safe water in the community:

'There are only three shared communal standpipes in our community. They are not reliable and not enough to serve us all ... So, as a result, we fetch water from the rivers, and those who feel it's not safe, do water harvesting. It is a difficult situation because we share these rivers with animals.' (Participant 22, Female, Community member)

Contrary to the foregoing perceptions, an interviewed municipal official indicated that in most cases, the issue of operation and maintenance determines access equity rather than the geographical location. This participant reiterated that:

'The distribution is fair, but it is the issue of operation and maintenance that affects access to water services. For instance, you can hear people in towns complaining about water quality, while those in rural areas are satisfied by their service.' (Participant 2, Male, Engineering Services Department)

Even though contradicting views emerged from the empirical findings, the study observed that geographical disparities heavily influence social inequities in water provision, and those residing in rural areas were most prone and vulnerable to inequities in water provision. This finding is consistent with the UN-Water (2019) dimensions of access equity, which emphasised the need to address geographical disparities, affordability concerns, and the recognition of vulnerable and marginalised groups to address access equity. Consequently, this study established the geographical disparities affecting water service provision and social equity in the district municipality case study.

Although inequities in water service provision may be attributed to the huge costs associated with servicing the rural areas, as compared with urban areas, they are also linked to the demographic status of the municipality, which is associated with high poverty and extensive unemployment and that a large proportion (60%) of the district municipality's population residing in rural communities. Either way, these seem to be fuelling disparities and inequities in water service provision. Moreover, the reliance on other water sources such as natural sources, rather than municipal water in rural areas

is reflective of the unequal distribution and provision of water services and the persistent water inequities in the district municipality.

Consistency in water service provision (quality equity)

Consistency in water service provision also highly determines social inequities within a municipality and its community. Johnson and Svava (2011) refer to this as quality equity, which also relates to processing equity. Johnson and Svava (2011) assert that process or quality equity calls for a level of consistency to be upheld, regarding the quality of services provided to communities, regardless of the distributional criteria use. In determining quality equity, the researchers explored consistency in water sources and interventions employed in the district municipality. Results from focus group discussions suggest that rivers and water harvesting were main water sources in most rural areas; although drought has had devastating consequences on these water sources. A community member expressed the challenges the community faces in water provisioning and access. The participant bemoaned that:

'We fetch water from rivers, except for those who believe it is unclean, risky, or too far away. We use other methods such as water harvesting, although the majority uses rivers. However, the challenge is that there has been drought and the water levels are low, and it has become a challenge again to have access to water.' (Participant 23, Female, Community member)

Results from participants in the focus group discussions indicated that the municipality intervened by supplying communities without access to water with water carting. Participants, however, indicated that there was no consistency in that mode of water provisioning, mostly in rural areas. This sentiment was echoed by a community participant who reiterated that:

'The tanks are not filled consistently, and they can go for weeks and months without being filled.' (Participant 24, Female, Community member)

The water carting challenge was recapitulated by a ward councillor who explained that:

'In our local municipality, there are only four water carting vehicles that must serve twenty-three (23) wards. Therefore, one truck must serve approximately six wards, limiting the impact of service delivery.' (Participant 8, Female, Ward Councillor)

While water provision levels are limited in rural areas, empirical evidence from urban areas indicated otherwise. Participants from focus groups and the officials interviewed indicated consistency in quality and processes in water service provision in urban areas. Indications highlighted that water interruptions in urban areas were minimum and there was constant timely communication in case of water interruptions. Tanks were always filled because of better water service provision in towns as they were rarely used. A community member and focus group discussant had this to say concerning the availability of water in urban areas:

'There is always water in our town, and if there is going to be some interruption, they [municipality] tell us on time to prepare. We rarely utilise water from the tanks in some cases as there is always running water on the taps.' (Participant 25, Female, Community member)

Similarly, echoing satisfaction with water provision and access in urban areas, a municipal official reiterated that:

'The level of water interruption is limited in urban areas. The municipality always makes sure that there is communication when water is going to be interrupted. This is easy because of the urban setup compared to the rural areas.' (Participant 3, Male, Local Economic Development Department)

The foregoing sentiments suggest that water disparities continue to be a problem. Those living in rural areas are the most vulnerable because of various issues limiting basic water service availability, access and provision in their areas. Variations in water provisioning and inconsistencies between urban and rural areas are suggestive of persistent social inequities and the ever-present rural-urban gap in basic water service provision. These findings support Loubser, Chimbanga, and Jacobs' (2021) observations that most rural areas have an intermittent water supply (IWS) (a situation where consumers connected to a water distribution system receive water for less than 24 h in a day). Findings indicate that intermittent water supply in Amathole District Municipality is unreliable and unpredictable. Inconsistencies in the water provision interventions adversely affect municipal residents on the margins. This is worrying given, for example, that during the coronavirus disease 2019 (COVID-19) pandemic, attention was placed on personal cleanliness, particularly hand washing. For Loubser et al. (2021), intermittent water supply has negative implications for communities in that they would be forced to store water in household tanks, thus compromising water quality. Given such circumstances, Loubser et al. (2021) are of the view that vulnerable municipal residents are forced to make decisions under uncertainty, necessitating increased behavioural, emotional and physical defences for dealing with water shortages. As such, vulnerable communities' health, livelihoods and well-being are often negatively affected. Li et al. (2020), for instance, observed that rural areas experiencing intermittent access to water had lower water usage. They (Li et al. 2020) observed behavioural changes such as decreased frequency of washing, hygiene and bathing, as well as inhabitants spending more time and money on water and water storage activities.

Impacts of interventions (outcome equity)

Issues of outcome equity are closely associated with distribution or access equity as it involves implementing various programmes to ensure that all groups have access to water services. Findings from the case study suggested that various stakeholders such as the Department of Water and Sanitation and the Water Board, working within the municipality's jurisdiction and the district municipality intervened by building dams, supplying water tanks and

drilling boreholes during the drought and the recent COVID-19 pandemic. A municipal official underscored some water provision interventions in the district municipality, indicating that:

'We have embarked on several interventions including drilling boreholes, constructing dams, and refurbishing water treatment plants and water carting to communities that do not have the infrastructure.' (Participant 4, Male, Engineering Services Department)

Notwithstanding the existence of such intervention programmes that have been implemented to address water provision and access in the district, scholars such as Johnson and Svara (2011) argue that it is not the number of programmes that matter, but their impact determines outcome equity. Regardless of interviewed officials pointing out that boreholes drilled assisted communities during the persistent drought, negative sentiments emerged regarding the sustainability and reliability of such interventions. Commenting on the sustainability of the interventions, one interviewee had this to say:

'We drilled several boreholes in the district, but they have proven unsustainable during the drought, yet they cost the municipality millions. The sad thing is that those community members who relied on these boreholes were vulnerable again with no access to safe water.' (Participant 5, Female, Finance Department)

A focus group participant, with exasperation bemoaned and questioned the sustainability of the interventions, pointing out that:

'There are boreholes in our village, but they do not produce water.' (Participant 26, Female, Community Member)

Findings also suggest that the municipality had spent a significant amount of money on water systems in rural areas with disadvantaged residents, lacking access to water services. However, it appears that, while the initiatives were finished, they did not effectively solve the needs of the communities. An interviewee who was of the view that water provision inequities, persisted unabated, pointed out that:

'Several projects were completed almost four years ago, but there is no running water in the taps, and those communities still resort to rivers despite the implementation of the scheme' (Participant 4, Male, Ward Councillor)

During field observation, the researchers also observed that water tankers and water carting were part of the interventions in the district municipality, and these had a positive impact on the communities, especially during the COVID-19 pandemic. This finding confirms the observations made in The Lancet Global Health (2020) report, which recognised remarkable improvements in sanitation facilities and observed the steps taken by governments to improve water sources as part of their COVID-19 response plans. It is however argued that the impact of such programmes remains limited as they do not affect the situation of water service provision in such communities. Hence, those who are

supposed to be served by these schemes remain unserved and without access to water. Nonetheless, addressing disparities in water service provision calls for adopting more sustainable and reliable strategies in disadvantaged rural communities. As observed by Kyl Centre for Water Policy (2021), ensuring equity in water service provision requires an adequately functioning community water system, where the regulatory requirements are met and sufficient funding is provided to ensure reliability and consistency in the implemented programmes if favourable outcomes and impacts are to be yielded.

Notwithstanding, findings indicating that the adopted interventions have had a partial positive impact in disadvantaged communities, the question remains whether such strategies can guarantee reliable, sufficient and sustainable water service provision. The Lancet Global Health (2020) study, similarly, questioned whether COVID-19 marks a step-change in the urgency of the international community in addressing water provision and social equity challenges in many developing and transitional states.

Procedural fairness in water service provision

Sustainable Development Goal 6 strongly emphasises the 'principle of fairness of access' and provides a gloomy picture of the looming problem of inequality that needs to be addressed in terms of access (Bayu, Kim & Oki 2020). Interestingly, various theorists have different opinions regarding procedural equity. For instance, John Rawls (1971) claims that one's background should not unduly influence the benefits received and that distributive justice should ensure that the distributions are fair and to everyone's advantage. On the other hand, Robert Nozick (n.d.) in Maiese (2020) believes that distributive justice comes with following rules in acquiring and transferring resources and benefits; hence, distributive justice aims to ensure a fair exchange process (Maiese 2020). Even though this is the case, this study argues that both the processes and outcomes are cardinal in achieving social equity in water governance and subsequently water provision and access. Fairness, justice and equality are the core components of social equity; hence, it is pivotal to ensure that the distribution process is fair for people to feel that they have received a fair outcome. Thus, distributive justice remains intrinsically linked to the notion of procedural justice.

The researchers examined stakeholder participation and adherence to governance principles of openness and accountability, as these are key tools used to ensure procedural fairness. This is in line with Rodina et al. (2017), who observed that procedural justice calls for platforms in which municipal officials, civil society, public and private sectors actively negotiate values, policies, practices, and decisions, on water provision and governance. Stakeholder involvement requires creating various platforms for collaboration, consultation and involvement of key stakeholders. With regard to stakeholder involvement, a participant had this to say:

'We involve our stakeholders through the Integrated Development Plan (IDP) process, and we make sure that our communities and stakeholders are fully represented during the process and that their needs and inputs are considered.' (Participant 3, Male, Local Economic Development Department)

'We have signed a Memorandum of Understandings (MOUs) with the University of Fort Hare and Walter Sisulu University, and we have done some collaboration with CSIR.' (Participant 3, Male, Local Economic Development Department)

Observations by the researchers revealed that supporting bodies such as the South African Local Government Association (SALGA) and Provincial and National CoGTA were involved in the District Municipality water governance, through support and oversight. Regular reporting, council supervision, the use of annual reports and the involvement of other stakeholders were also identified. From secondary data, the researchers established that the municipality had set core values: selflessness, pro-poor, responsiveness, transformative, inclusivity, dignity and respect, good work ethics and transparency, integrity and accountability (Amathole District Municipality 2019). Similarly, primary data supported these findings. Confirming the foregoing, a municipal official explained that:

'We do annual reporting to communicate what we have managed to accomplish every year.' (Participant 5, Female, Finance Department)

These findings resonate with Brown and Heller's (2017) observations that access to information, freedom of expression and meaningful involvement are basic human rights that, in addition to ensuring justice, also exhibit tangible co-production advantages. While study findings reflect mechanisms used to establish procedural fairness in the case study, effectiveness and compliance for ensuring transparency and accountability remain in question as reflected in the following sentiments expressed by interview participants. One participant was of the view that:

'The municipality should do the Integrated Development Plan (IDP) to consider community needs, not for formality purposes.' (Participant 7, Male, Local Municipality 1 Representative)

Yet another interviewee had this to say:

'We do Integrated Development Plan (IDP) and Budget roadshows, although very few inputs are considered because of the limited budget.' (Participant 5, Female, Finance Department)

This finding concurs with Sutcliffe and Bannister's (2020) report on local government, which revealed that 'whilst all the municipalities have produced the Integrated Development Plan (IDP), municipalities do not usually implement even the programmes and projects that have been budgeted for'. As pointed out by Sutcliffe and Bannister (2020), the IDP tends to bureaucratise the democratic process rather than deepen it. They notice that it often becomes a shopping list, rather than a long-term vision for the development of the municipal area (Sutcliffe & Bannister 2020). Thus, it can be argued that, while planning in water governance requires community involvement, communities rarely debate the specific projects and medium-term processes that will

transform their neighbourhoods. As a result, social inequities persist, as the voices of those in need remain muted (Sutcliffe & Bannister 2020).

With regard to involvement of local communities, the study established the need to improve district and local municipality integration. A municipal official highlighted the need for such sectoral integration and collaboration, pointing out that:

‘Our mandate to deliver water depends on local municipality collaboration; for example, we needed to offer water in one of the rural communities in the peri-urban, but to do so, we needed an access road, which is a local municipality responsibility ... so, we had to build a makeshift access road, which was a disaster after five years, but we must still maintain the water infrastructure.’ (Participant 2, Male, Engineering Services Department)

These sentiments affirm Sutcliffe and Bannister’s (2020) observation that a two-tier system comes with challenges and those tensions between local and district governments continue to jeopardize local government operations and project delivery. Unfortunately, the same difficulties exist in the division of powers and functions between the district and local municipalities, resulting in project implementation delays, which may be traced back to coordination and consultation shortcomings. Hence, it becomes imperative that intergovernmental and cooperative governance coordination and oversight by the political-administrative leadership be strengthened.

Participants showed a lack of confidence in mechanisms established by the municipality to guarantee procedural fairness. An interview participant had this to say regarding this issue:

‘I wish that the relationship between the municipality and universities can become a reality and help the community served, rather than merely a paper relationship.’ (Participant 6, Female, Local Municipality 2 Representative)

Dissatisfaction with the level of community representation by municipal councillors was discerned from a focus group participant who dejectedly pointed out that:

‘We don’t even know the councillor in our village, maybe they go to other villages. So, for me, I cannot rely on the councillors when it comes to the issues of accountability and information sharing.’ (Participant 27, Female, Community member)

This sentiment suggests that councillors may not always have the requisite capacity to drive community representation, accountability, and information sharing and public participation. As similarly observed by Sutcliffe and Bannister (2020), such weaknesses are closely associated with limited knowledge of how to participate and access ward councillors, inaccessibility of local government officials and dysfunctional local governance structures. Resultantly, this often leads to community disillusionment, service delivery protests and civic violence. The issue of transparency was raised by a focus group participant who dejectedly pointed out that:

‘Only after we ask why projects are taking forever, they bring out the challenges involved with implementing the projects.’ (Participant 28, Female, Community member)

The foregoing sentiment was supported by another participant, who pointed out that:

‘The municipality is not forthcoming if it cannot pay for services rendered and doesn’t honour its agreements on time.’ (Participant 7, Female, Water Board Representative)

Furthermore, the failure of the municipality to implement consequence management further raised questions regarding the upholding of the principle of accountability and transparency. Shortcomings in control and accountability also emanated from the failure of the municipality to submit relevant documents for auditing. This contributed to the disclaimer audit report, in the municipality in the financial year 2018–2019, as well as the persistent qualified audit reports received by the municipality in the 2016–2017 and 2017–2018 financial years (Municipal Money 2020). These audit opinions can be attributed to weak accountability and transparency.

The researchers, therefore, argue that water provision social inequities tend to exist where there are lapses in water governance procedural fairness. Notwithstanding, the existence of governance principles, translating them into actionable outcomes remains a mammoth task in the case study district municipality. Unfortunately, the district municipality still experiences challenges in co-production and stakeholder involvement in water provision and governance. This is consistent with Solis and Bashar’s (2022) study findings, which concluded that most water officials understand that much still needs to be performed in weaving-in notions and dimensions of equity in all policies, operations and procedures. This study thus posits that tackling social inequities and strengthening water service provision and social equity in water governance requires more than just engaging communities. It essentially calls for and demands a more thorough consideration of and development of systems that promote transparent and fair negotiation of public value (Förster et al. 2017). Equity in water governance should not be understood outside a theory of justice. It has to speak to distributional issues, fairness in access to water and a critical understanding of basic rights. Justice maximises municipal residents’ human potential, achieved by provision of water as a basic need. This inalienable human right to water recognises the right of all municipal residents to water sufficient to satisfy their basic needs (Perreault 2014).

Conclusion and implications for water governance

The findings in this article reflect the existence of various forms of inequities in South African local government. Social equity dimensions exposed that local government, with the support of other spheres, has made efforts to ensure access equity, as shown by the implementation of various water projects and programmes to address the rural-urban divide in water

provision and access. Nonetheless, the study also revealed gaps in procedural fairness, emanating from limited transparency, accountability, and limited voice and involvement of stakeholders, mainly in disadvantaged and marginalised rural communities. This inevitably affects consistent access to water service provision to such communities. In some instances, this results in unfinished programme and project implementation, for addressing existing disparities in water service provision. Consequently, outcomes equity is often negatively affected. In such situations, disadvantaged and marginalised communities often remain without adequate water service provision. Thus, in terms of outcome equity, the Sustainable Development Goal Agenda of 2030, realising the human right to water, as enshrined in Chapter 2 of the Republic of South Africa Constitution (Bill of Rights) (RSA 1996) social inequities persists unabated. Consequently, these impacts and jeopardises the fulfilment of other basic rights such as basic education and health as these rights are intertwined. Given such circumstances, it is critically important that struggling municipalities be supported and capacitated to better provide water service provision access, especially to disadvantaged and indigent households. The existing situation can be ameliorated by diversifying available water sources, by boosting water harvesting, urban runoff, springs, and water recycling among others. More importantly, community involvement, and making sure the adopted interventions are sustainable can be effective strategies for guaranteeing justice. Thus, the strategies employed should take into consideration all the dimensions of equity.

This article concludes that the dimensions of social equity are intertwined, and as such, for social equity to bear the expected results, attention should not only be paid to distributive equity as the primary equity evaluation criteria. Rather, attention should also be directed to the more problematic and difficult-to-measure dimensions of equity, such as recognitional, procedural, quality and outcomes equity, which are often overlooked in water governance and research (Wang & Palazzo 2021:3). As insightfully, espoused by Susan Gooden (2010), in Dooley (2019):

... [R]elative to internal stakeholders, public sector managers historically lack a clear understanding and appreciation of diversity within organisational culture; consequently, the introduction of social equity components across the discipline would be of great benefit. (p.4)

Accordingly, this article concludes and emphasises that public water institutions and actors need to be aware of inequities and how they are perpetuated across demographic groups because this minimises incidences of discrimination, marginalisation, disparities and social inequities in provision, governance and equitable access to water (Blessett et al. 2017).

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

C.H. was responsible for conceptualisation of the study, the methodology, investigation and writing the original draft. M.M.S. assisted with funding acquisition, reviewed, edited, corrected and supervised the writing of the article.

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Data availability

The data that support the findings of this study can be made available by the corresponding author, C.H., upon reasonable request.

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