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Accounting For Equitable Access and Affordable Water Services in South Africa: Case of the Lephalale Local Municipality, Limpopo Province

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Abstract

The study assessed accounting for equitable access and affordable water services in the Lephalale Local Municipality. The residents in the area have a problem with water services. According to Lephalale Local Municipality's Integrated Development Plan (2020), this was attributed to the infrastructure which had aged to provide water. The study used a mixed-method design that adopted purposive sampling. The sample size of this study was 100 participants drawn from municipal officials (20), councillors (5), and water services users who were the consumers of water within Lephalale Local Municipality (75). The study has found that in the Lephalale Local Municipality, there was no equitable access to water provision. This was because there were residents who still travelled 30 minutes to get water while others had household connections. The same was true for affordability, where others were able to afford it, and some could not afford household connections. Further, the study concluded that fees for infrastructure connections created water inequality for households as they excluded the poor from getting household water connections. Finally, the study found that it was not clear which households were paying for the water bills in the municipality. This study recommended that the provisions of the Reconstruction Development Programme should be implemented to provide equity in water services to all. The Department of Water Affairs should ensure that integrated management is in place to provide water resources to all the residents even beyond Lephalale. An Integrated Development Plan should take into consideration the challenges that rural and urban areas faced before the democratic dispensation to bring services to all residents on an equal basis.

Keywords

Equitable, Access, Affordable, Water Services, Lephalale Local Municipality

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1. Introduction to the study

The study assessed the water service provisioning within the Lephalale Local Municipality. Lephalale Local Municipality residents faced a daily problem of water scarcity. Lephalale town was established with one (1) township, forty-two villages, and six (6) informal settlements. They should receive water from the town whose current water services infrastructure was characterised by pipe bursts, brown water, and sewer overflow in most areas. According to its Integrated Development Plan (IDP) (2020), it was failing to provide the required water to its residents because its water services infrastructure had aged. Water is considered important to life, and everybody is entitled to it. According to the Reconstruction and Development Programme (RDP), clean water should be accessible to all (ANC, 1994). Its short-term goal was to make clean water accessible to all by providing 20-30 litres per capita per day within 200 meters. This would include an adequate /safe sanitation facility per site (ANC, 1994). In the medium term, the RDP committed to providing 50-60 litres of clean water to all and improved on-site sanitation. The long-term goal was to provide all citizens with accessible water and sanitation. This should be funded through appropriate tariff and local tax mechanisms (ANC, 1994). The main problem with water services in the Lephalale Local Municipality was the bursting of water pipes making it impossible for residents to get water. In light of the above discussion, this study sought to assess equitable access and affordable water services in the Lephalale Local Municipality.

2. Research Methodology

This study utilised a mixed method. It adopted and integrated two designs, namely qualitative and quantitative to strengthen the reliability and validity of the findings. According to Creswell and Clark (2011), it is a research design with philosophical assumptions and methods of inquiry. The mixed method integrates and synergises multiple data sources to study complex problems (Poth and Munce, 2020). In the same vein, Creswell and Creswell (2017) considered it as the type of research wherein the researchers combined elements of both qualitative and quantitative research approaches. The mixed method approach was chosen because the researchers sought to neutralise the weakness of qualitative and quantitative approaches by convergence. As primary data, the study used questionnaires and interviews from Key Information Informants (KII), and for secondary data, a review of the literature was done. This was done to enhance the understanding of accounting for equitable, access and affordable water service provision in the Lephalale Local Municipality. The sample size for this study comprised 100 respondents categorised as municipal officials (20), municipal councillors (5), and water services users (75). This study took place during COVID-19 when face-to-face was not permitted by COVID-19 protocols. Questionnaires were emailed to respondents and for interview calls a schedule of questions was compiled and forwarded to respondents in advance. At a later time, researchers called the respondents and asked the questions while they were taking notes. After data were collected, they were analysed by transcribing units, words, and sentences to convey similar meanings from respondents (Graneheim and Lundman, 2004). Those that conveyed similar meanings were identified and labeled with codes (Graneheim and Lundman, 2004). Data were organised and analysed using graphic representation and narrative as suggested by (Nayak and Singh, 2015). The data were then summarised and presented in the form of tables, charts, and graphs per question. The mean standard deviation and minimum and maximum percentages were computed to help analyse the findings. Lastly, data from observation and the literature review were used to support the narrative analysis.

3. Literature Review

The literature review for this study discussed the sustainable development related to levels of equity access and affordability in the Lephalale municipal area. The key legislations that give institutions powers to entities for the provisioning of water were discussed in this section. The legislations are a reminder that South Africa is a democratic state where citizens are treated with respect and as human beings. All employees of the three spheres namely local, province, and national are instructed by the legislations to provide services to the citizens. The theoretical framework underpinning this study was also presented.

3.1 Theoretical Framework for This Study

This study is underpinned by sustainable development theory. Brundtland (1987) defined sustainable development as: "... development that guarantees the satisfaction of the need of the existing generation while ensuring that the ability of the future generation to meet their needs is not compromised". The future generation should enjoy the

same benefits of available resources as the present generation. It is within the spirit of this definition that the provisioning of water in the Lephalale Local Municipality finds meaning. The consumption levels of services, in this case, water should be in such a manner that future needs are not compromised.

4. Key Legislative Frameworks

There are legislative frameworks that regulate the provisioning of water in South Africa. A few of them are discussed below.

4.1 Constitution of the Republic of South Africa 1996

The Constitution of the Republic of South Africa (1996) is the cornerstone of the provision of basic services and water is considered a human right in the constitution. Chapter two of this constitution provided for the Bill of Rights and water is one of those basic needs that local government should provide. Section 152 subsection 1 (a-e) provides for accountable local government to ensure service delivery sustainably. The provisioning of this water should be done cooperatively with the participation of communities who benefit from this water. In service delivery provision, local government is expected to be answerable to local communities in their area of jurisdiction and there is no exception with water service provision.

4.2 Water Services Act 108 of 1997

The Water Service Act (WSA) (1997) pronounces the roles of local government in terms of 'water service provision' relative to the Constitution of the Republic of South Africa of 1996.

It also provides ways in which 'water service provision' could be achieved through the development of plans, sets of quality and quantity standards, financial assistance, tariffs, institutional support, and accountability. All elements needed that promoted accountable and sustainable development were included in this act when including the three components of sustainable development. Municipalities were expected to uphold their constitutional mandate as water service providers within their area of jurisdiction.

4.3 National Water Act 36 of 1998

The National Water Act 36 of 1998 provided for the protection, use, development, conservation management, and control of natural resources. The provision of this act legislated that the Department of Water and Sanitation (DWS) be the leading department to preserve and also conserve water resources. The mandatory role of the DWS is to provide support and oversee the provision of water service within local municipalities in cases where such a municipality cannot perform its functions. The provision of this service should be regulated by the DWS in terms of quality and quantity through the set standards and regulations. The regulations as set by the department also specify the quantity that could be abstracted from the source and set the price regarding sustainable water service provision to be guaranteed.

4.4 Reconstruction and Development Programme 1994

The Reconstruction and Development Programme, 1994 provides that water should be made available in a sustainable manner for all the citizens. Clean water should be accessible to all (ANC, 1994). Its short-term goal was to make clean water accessible to all by providing 20-30 litres per capita per day within 200 meters. This would include an adequate /safe sanitation facility per site (ANC, 1994). In the medium term, the RDP committed to providing 50-60 litres of clean water to all and improved on-site sanitation. The long-term was to provide all citizens with accessible water and sanitation. Section 2.6.11.1 directed that the Department of Water Affairs would be required to take responsibility for the integrated management of the nation's water resources to benefit all. They should also build competent local and provincial agencies capable of delivering water. Sec 2.6.11.3 provided that at the local level, the third sphere should be responsible for water distribution, adequate sanitation facilities, and waste removal. This should be funded through appropriate tariff and local tax mechanisms (ANC, 1994). As for the rural communities, a tariff that covers operating and maintenance costs of services should be implemented through cross-subsidy from urban areas in case rural residents cannot afford it. But most importantly, a lifeline tariff that ensures all affordable water services should be taken care of by the national tariff structure.

5. Accounting for equitable access and affordability of water Service

According to Signori and Bodino (2013), water was considered a public good that involved a public interest thus requiring a public responsibility for its usage, management, and protection. Provisioning water is a human right that entitles everyone, without discrimination, to have access to sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic use, and also the human right to sanitation (UN World Health Organisation, 2019, p.11). Water should be provided in a manner that promotes equitable access and affordability to the residents so that it can also promote health matters. Signori and Bodino (2013) concluded that to achieve equitable access and affordability, there was a need for transparent, high-quality, credible, and comparable water disclosure. The provisioning of equity access is viewed by Hunt et al. (2013) as crucial for residents. The study by Jollands and Quinn (2017) revealed that the challenge with the provisioning of equitable access and affordable water was caused by the association of concepts with political ends in the Republic of Ireland instead of achieving a sustainable water supply. Addressing the correlation between political ends and sustainable water supply would require policy development for water pricing (Hunt et al., 2013). Carrard et al., (2019) concluded in their study that connection fees were the primary barrier to poor households accessing available piped services. However, governance could be realised when a multiplicity of role-players was involved from grassroots, national governments, and NGOs (Signori and Bodino 2013). The involvement of a multiplicity of role-players could give residents significant social and economic power (Swyngedouw, 1997). Once they have social and economic power over water access and control, chances are high that they could pull themselves out of poverty (Goff and Crow 2014, p.159). In their research, Whiteley et al., (2008) concluded that the inclusion of equity was a necessary consideration in all water resource management.

The challenge of accessing water service is influenced by a lack of distinctive definitions. Each country defines it according to distance, time, and quantity (Aiga and Umenai, 2003). Ezbakhe et al., (2019, p. 9) posit that: the "Equitable Access Scorecard" can be used to analyse the equity of access to safe drinking water and sanitation in these three cities namely Castello, Lima, and Barcelona.

The use of a scorecard would provide data concerning the standard of service that is being provided by local government to communities and provide a clear indication as to where the need for improvement might be required. The issue of exclusion has been a matter of concern to residents, particularly the poor. Social and economic inequality concerning poor households and affordability has been singled out as a contributor to poor or lack of access to water service delivery. Carrard et al., (2019) in their study have concluded that where poor households were subsidised, they could enjoy similar services as others who lived in richer or urban households.

To assess the level of access to water service provision within communities, there should be indicators used by municipalities. In addition, Rheingans and Moe (2006) postulated that indicators should include factors such as the percentage of treated waste water as compared to supply within the municipality, the percentage of households using safely managed water sources, the measure of protecting supply in ensuring that water is safe to drink, times of supply within a week, basic drinking water sources, types of supply (household taps, public taps, tinkering and tube well boreholes). Further, this should include the percentage of households using a basic water source with a total collection time of 30 minutes or less for a round trip, and the percentage of households using basic safe water, public policies must try to address water stress and manage water resources sustainably, and the percentage of the total renewable water source used (Rheingans and Moe, 2006). World Health Organisation, (WHO) (2022) has recorded that access to safe drinking water was measured by the percentage of the households having used improved water sources, which was the case in Lephalale Local Municipality.

6. Discussion of Findings

This section presents the results (responses to the questions the respondents were asked)

The summary of the responses for the descriptive verbal items presented in Figure 1 below were: SA =strongly; A= Agree; DA=Disagree, SDA =strongly disagree and DNK= I do not know. To calculate the score, "strongly agree and agree" were grouped and the same was done for "strongly disagree and disagree". "Do not know" was treated and was given no value. Figure 1 below discusses the level of equitable access and affordable water service.

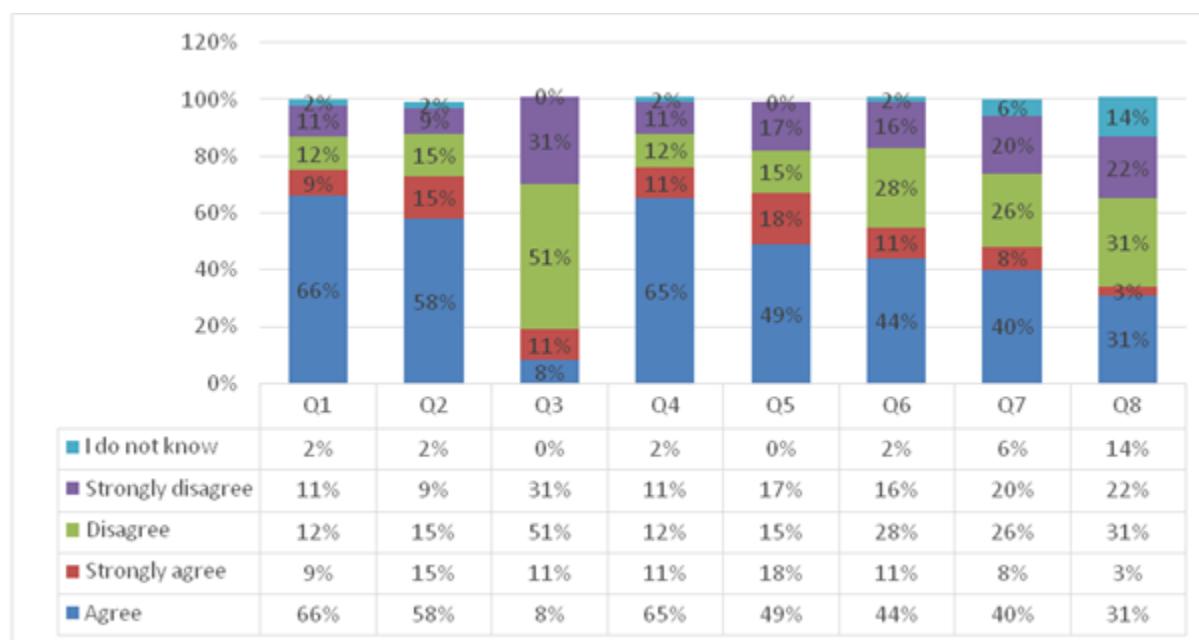


Figure 1: Level of equitable access and affordable water service

Source: Authors 'design

Figure 1 above shows the responses from respondents to the questions they were asked to respond to. Respondents were asked if *"residents were using an improved water service"*. The majority 75, 0% of the respondents agreed while the minority 23, 0% disagreed and 2.0% did not know. The perceptions of the respondents were consistent with the findings by the World Health Organisation (WHO) (2022) which recorded that access to safe drinking water was measured by the percentage of the households having used improved water service. When asked if *"residents were using an improved sanitation facility"*, the majority 73, 0% agreed while the minority 24, 0% disagreed and 2.0% did not know. The perceptions of the respondents were not unanimous which was in contrast with the commitment by the ANC's policy framework, RDP (1994) that promised 50-60 litres per capita per day including an adequate safe sanitation facility.

Respondents were asked if *"residents travelled more than 30 minutes to get water"*, and the majority 82.0% of respondents agreed while the minority 18.0% disagreed. The perceptions of the respondents corroborated the finding by Rheingansr and Moe (2006) who in their study found that travelling less than 30 minutes to fetch water was an indication of improved access to water service provision. This was contrary to the commitment of the ANC in its RDP policy framework that committed that water should be accessible within 200 meters as its short-term goal. There was a question on household water connection.

Respondents were asked if *"they had household water connections"*. In response to this question, the majority 67.0% agreed while the minority 33.0% disagreed with the fact that residents had household water connections. The perceptions of those who disagreed were consistent with the findings of the study by Carrard, et al., (2019) which found that: "... fees for infrastructure connection excluded poor households to have household water connections irrespective of who was providing the service".

Respondents were asked about the *"reliability of water source provisioning"*, and a marginal 55.0% of the respondents agreed with the statement while the minority 43.0% disagreed and 2.0% did not know. According to a study by Goff and Crow (2014), the lack of reliable sources of water disempowered the residents from addressing poverty by having social and economic power over water access and control. Accordingly, the study by Signori and Bodino (2013) found that this could be addressed by governance which included a multiplicity of role-players from grassroots, national governments, and NGOs.

Payment of water bills has been a problem all over the country. Researchers inquired if *"residents paid water services bills provided by the municipality"*, the perceptions were very close to call as a minority 48.0% of respondents agreed with 46.0% disagreeing, and 6.0% did not know. The perceptions of the respondents were in sync with the findings

by Amit and Sasidharan (2019) that policy development was necessary to regulate the payment of water services to avoid uncertainties among the residents. Affordability has been an issue that separated residents between the haves and have-nots. This also applies everywhere and not only in South Africa. In this case, respondents were asked about the “*affordability for water services bills provided by the municipality*”. In response to this, a marginal majority 53.0% agreed with the statement while a minority 33.0% disagreed and 14.0% did not know. The perceptions could suggest that political motives were at play hence balancing acts between political ends and sustainable water supply through policy development for water pricing was necessary (Hunt et al., 2013).

7. Conclusions and Recommendations

The study assessed the levels of equitable access and affordability to water services provisioning in the Lephalale Local Municipality. It found that in the Lephalale Local Municipality, there was no equity in the accessibility of water. Some residents still travelled for 30 minutes to get water while others have household connections.

The same was true with affordability, where others could afford it and some could not afford household connections. Further, the study concluded that fees for infrastructure connection brought water inequality to households as they excluded the poor from getting household water connections. Finally, the study found that there was uncertainty about the households that were paying for the water bills. This study recommended that the provisions of the RDP (1994) should be implemented to provide equity in water services to all. The Department of Water Affairs should ensure that integrated management is in place to provide water resources to all the residents even beyond Lephalale. An Integrated Development Plan should take into consideration the challenges that rural and urban areas faced before the democratic dispensation to bring services to all residents on an equal basis.

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Authors Contribution:

Author 1 conceptualised the study and formulated a draft.

Author 2 edited the draft to completion and sent it to Author 2 for verification of the data.

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Informed Consent Statement: The participants were all informed about the study and its objectives. They consented to participate voluntarily.

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