

RURAL COMMUNITIES AND WATER GOVERNANCE: UNDERSTANDING PARTICIPATORY PROCESSES FOR CATCHMENT MANAGEMENT IN THE UPPER UMZIMVUBU CATCHMENT

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Abstract:

Water is a crucial issue for sustainable livelihoods, and a lack of it impacts human life. Catchment areas play an essential role in water provisioning, and their management is fundamental for sustained water availability. The UN-endorsed Integrated Water Resources Management (IWRM) approach best expresses catchment management ideals that resonate with South Africa's constitutional ideals of efficient and equitable distribution of resources. South Africa has a history of inequality that led to severe neglect of rural areas in many facets, including the water sector. Despite the country's reformed laws and policies, sustainable water provision and access remain challenging, particularly in rural-based municipalities where land degradation and a weak revenue base interact to reduce access to water for most communities. This paper reports on a study that sought to understand participatory processes for catchment management in the upper Umzimvubu catchment within Matatiele Local Municipality in the Alfred Nzo District Municipality in the Eastern Cape Province. This study used a qualitative approach to data collection and document analysis. The findings show that participatory water governance strategies exist and tend to coalesce around non-governmental structures. The findings also show that there is room for improving water governance in rural communities, including the need to finalize the establishment of Catchments Management Areas (CMAs) in all nine existing Water Management Areas (WMAs) while incorporating strong community involvement and strengthening the capacity of rural municipalities.

Keywords: Communal Lands, Community Participation, Umzimvubu Catchment, Water Governance

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INTRODUCTION

A catchment area refers to a large expanse of land where surface water from rainfall or melting snow converges towards a single point, typically bound by hills or mountains. The catchment's exit connects to another water body, such as a river or reservoir. Chikozho (2008:33) explains that activities within the catchment area, whether anthropogenic or natural, reflect the river's physical, biological, and chemical characteristics. To effectively manage freshwater resources, catchment management approaches have been widely adopted in the 21st century, focusing on managing catchment areas' hydrological cycle and natural functioning. This approach falls under the water governance sector and is linked to the integrated water resource management (IWRM) global framework, which balances economic, social, political, and environmental interests.

At the regional level, Mokiwa (2015:1) notes that sub-Saharan countries have introduced comprehensive water resource management reforms, focusing on institutions over the past two decades. Southern Africa, for example, prioritized river basin management by establishing the Southern African Development Community (SADC) in 1980, which comprises 15 states, including South Africa. In South Africa, catchment management history is linked to establishment of Water Management Areas (WMAs) and Catchment Management Agencies (CMAs) in the 1990s, aimed at redressing past political inequalities. CMAs represent river basin organizations in all nine provinces of South Africa, promoting transformation and social equity (Meissner et al., 2019, p. 16). The establishment of CMAs followed the reform of water legislation in the late 1990s, including the promulgation of the National Water Act (Act 36 of 1998) in 1998 (Meissner et al., 2019, p. 16). The White Paper on the National Water Policy 1997 guided the establishment of CMAs through open and participatory processes.

The Umzimvubu catchment is located within the Umzimvubu-Tsitsikama WMA and is currently under threat due to water shortages in the Alfred Nzo District. Poor catchment management practices, caused by natural, socioeconomic, institutional, and political factors, are the main contributors to water shortages. The natural factors include the invasion of alien plants in the catchment areas, poor water quality and quantity, and soil erosion that increases sediment loads. Low stakeholder participation, funding, and policy implementation processes are among the socioeconomic, institutional, and political factors. The invasion of alien plants in the Umzimvubu catchment is mainly within the Matatiele Local Municipality boundary within the Alfred Nzo District Municipality (ANDM).

Background of the study. The Umzimvubu catchment, located at the northern boundary of Eastern Cape Province, is the country's largest and most underdeveloped river, with residents relying primarily on state welfare grants and subsistence farming. The river originates from the Lesotho escarpment's rugged Maluti-Drakensberg watershed. It meanders over 200 km across deep gorges and coastal plains before flowing into the Indian Ocean through the Port St. Johns estuary. The river is fed by four tributaries - Tina, Mzintlava, Tsitsa, and Kinira Rivers - with headwaters in the Drakensberg Mountains along the Lesotho border. The Umzimvubu WMA, which includes the catchment area, has the highest mean annual rainfall in the county, with the northern boundary forming about 15% of WMA12 and approximately 40% of the county's total river flow (Umzimvubu et al., 2011, p. 22). The study area for this research is Tertiary Catchment T31 in the upper parts of the Umzimvubu catchment, which is situated in the northern boundary. This region comprises mostly scattered rural settlements where subsistence agriculture, livestock farming, and government welfare grants are the primary sources of livelihood. The study area falls within the KwaSibi Administrative Area (A/A), a traditional leader's settlement forming part of the former Transkei homelands. The Umzimvubu Catchment Area Water Management Area (WMA) 12, also known as the Umzimvubu-Tsitsikama Water Management Area, covers this river basin's adjacent region.



Figure 1: Location of Umzimvubu catchment in South Africa Source: Umzimvubu Catchment Overview (2011)

A dual administrative system in the study area. The study area is subject to both democratic and traditional administration. It falls within the KwaSibi Administrative Area (A/A), which comprises municipal wards 4 and 7 in the Matatiele Local Municipality boundary. Under democratic administration, the study area is within the Alfred Nzo district municipality in the Eastern Cape Province. Matatiele Local Municipality is governed by democratically elected councilors who represent the people and cooperate with other councilors to ensure the community's best interests are served. Each ward is represented by a councilor who serves on the Municipal council of Matatiele local municipality.

The area was previously part of the former Transkei homeland, established by the South African government in 1959 as a designated Bantustan. Transkei became independent in 1976 under the apartheid system and racial separation. However, under the new democratic dispensation, homelands were dismantled, and nine new provinces were established. The study area now falls under both traditional and democratic administration.

In addition to democratically elected councilors, the study area is also under the traditional administration of chiefs or chieftainesses. The Constitution of the Republic of South Africa recognizes traditional leaders responsible for allocating communal land and formulating customary laws for the traditional group. The study area is culturally diverse and includes Sotho, Phuthi, Xhosa, and Hlubi cultural groups. It is one of six traditional areas in Matatiele Local Municipality and is under the leadership of chieftainess Sibi. Traditional leaders also preside over judicial work through traditional courts, providing an avenue for accessing compensation through civil law without requiring fees or lawyers.

Problem statement. The study area in the northern part of Matatiele Local Municipality is within the Umzimvubu River Basin, bounded by the rugged Maluti-Drakensberg watershed of the Lesotho escarpment. The area is mainly rural with dispersed villages, and the people here experience water shortages. This problem is further exacerbated in villages close to the Umzimvubu headwaters. Matatiele Local Municipality faces significant challenges in water provisioning and Sanitation, with a backlog of 51% (Matatiele et al., 2017). The degradation of water resources in the Umzimvubu catchment is a pressing issue, with fires, overgrazing, alien plant infestations, and reduced flow of springs and streams contributing to biodiversity loss, ground cover, and soil erosion (Alfred Nzo District Municipality EMP 2010:14). The scarcity of water resources in the area is evident, with most wards experiencing shortages, few springs protected, and boreholes regularly

breaking down. As a result, residents in certain villages must still travel long distances to draw water from springs and streams (Matatiele et al. 2017-2022:30).

METHODS

This study utilized a case-study research design to investigate the KwaSibi Administrative Area (A/A) situated within the Matatiele Local Municipality boundary, employing a qualitative research approach. Data were collected using semi-structured and loosely structured questionnaires, interviews, and focused group discussions, further supplemented by document analysis and overview. The study population consisted of individuals of both genders ranging from 19 to 70 years old, residing in the KwaSibi Administrative Area (A/A). In addition, municipal officials in charge of water management and environmental concerns were drawn from the local municipality, district municipality, provincial government, and national government. Traditional leaders and headmen in the catchment area were also included in the study. Furthermore, respondents from non-governmental organizations (NGOs) and civic structures involved in ecological conservation and general environmental management in the research area were included. Finally, data analysis involved thematic and content analyses.

RESULT AND DISCUSSION

Water resources management strategies. Water resource management strategies are plans and actions designed to ensure the sustainable use of water resources, essential for human survival and ecosystem health. These strategies aim to balance the needs of various users, including households, industries, agriculture, and the environment. In the context of communal lands, effective water resource management strategies require a comprehensive understanding of local water resources, user needs, and environmental conditions, as well as solid partnerships and collaboration among stakeholders.

The national government has implemented various water governance strategies in South Africa's communal lands to effectively protect and manage water resources. One of these strategies is the National Development Plan (NDP) 2030, which identifies different roles that various sectors must play in society and defines them accordingly. Chapter 4 of the NDP emphasizes the urgent need for water resource protection and management to ensure that all people have access to safe drinking water and that there is enough water for agriculture and industry while recognizing trade-offs in water use. The NDP also highlights the importance of effective administration and involving water users to understand constraints in water resource management. Clear and coherent legislation, policies, research and development capacity, and the right technical tools are priorities for water governance under the NDP. Furthermore, the NDP emphasizes the importance of decentralizing water resources management to be effective for users at a local level.

Another water governance strategy is the National Water and Sanitation Master Plan (NWSMP), which guides investing in the water sector to develop water resources and deliver water and sanitation services by 2030 and beyond. The NWSMP identifies critical actions in the water sector and allocates roles and responsibilities to stakeholders, including the government, private sector, and others, for implementing the plan. The state is expected to provide enabling requirements, such as institutional and legal arrangements, funding models, and monitoring and evaluation models.

The National Water Act (Act 36 of 1998) also requires the development of the National Water Resource Strategy (NWRS) to transform institutions. The NWRS1 was developed in 2004 and later replaced by NWRS2 in 2013. Chapter one of NWRS2 notes that this strategy responds to the priorities

outlined in the NDP and the National Water Act imperatives, which the South African government set to support sustainable development."

In the context of water resource management in South Africa's communal land, effective planning and administration are crucial for involving catchment management within the local government space. The National Development Plan 2030 (NDP) highlights the importance of involving users in water resource management at the local level while still maintaining national oversight of management and administration due to the interconnected nature of the nation's water resources.

The National Water Resource Strategy 2 (NWRS2) also emphasizes the decentralization of water resource management and the establishment of institutional arrangements to coordinate activities within defined geographical areas or catchment boundaries. These institutions must involve all stakeholders in defining strategies and plans for management within their areas and perform their duties within a developmental management approach.

The National Water Act (Act 36 of 1998) and the Water Services Act (Act 108 of 1997) established an institutional framework for water resource management and water services, including Catchment Management Forums (CMAs), Water User Associations (WUAs), Catchment Management Committees, and Catchment Management Forums (CMFs). WSAs regulate water services within their local jurisdiction and comply with the National Water Act (Act 36 of 1998) for water resource management.

Water resource management involves all government spheres, and the National Water Act (Act 36 of 1998) promotes public participation through Integrated Water Resources Management (IWRM). IWRM is a global paradigm that includes river basin management and stakeholders' participation and is adopted by the South African government as the best practice for decentralized water resource management. The new National Water Act (Act 36 of 1998) was adopted and translated into decentralized water resource management through NWRS.

Further, regarding water resource management in South Africa's communal land, the NWRS2 emphasizes the importance of the Water Services Authorities (WSAs) in regulating water services within their local jurisdiction. According to Section 12 of the Municipal Systems Act of 2000, WSAs are municipalities mandated by the constitution to ensure planning, access, and regulation of the provision of water services. Therefore, WSAs are responsible for complying with the National Water Act (Act 36 of 1998) for water resource management. The RSA DWS (2013:68) notes that WSAs are responsible for forming a Catchment Management Agency (CMA) where such duties have been assigned.

Moreover, water resource management cuts across all government spheres for the effective involvement of local government, as noted in the National Development Plan (NDP). The National Water Act (Act 36 of 1998) also promotes public participation by committing to Integrated Water Resources Management (IWRM) through the White Paper on National Water Policy 1997. IWRM is a global paradigm that standardized water policies around its main principles, which include river basin management and stakeholder participation. Therefore, the South African government adopted this global paradigm in its national system as the best practice for decentralized water resources management through water policy reforms and the new National Water Act (Act 36 of 1998), which translated into decentralized water resource management through NWRS.

Although IWRM is not mentioned comprehensively in the new National Water Act, the Act recognizes the significance of IWRM and the need for integrated water management that covers all aspects of water resources. Where appropriate, management functions should be delegated to a regional or catchment level to enable every stakeholder to participate. Significantly, the Act changed the tradition of water ownership by abolishing the private ownership of water and subsequently

established that the (public and private) benefits, as well as the implementation of the Act, have yielded mixed success. As Claassen (2015:328) argues, the NWRS2 speaks about the statutory systems in place that have been ordained by the National Water Act (Act 36 of 1998) to play a vital role in effective solutions of integrated water resource management. These involve statutory and non-statutory bodies for managing water resources at the catchment management scale. Good land-use practices for all rivers, such as keeping natural vegetation intact along riverbanks, can make a vital difference to their ecological integrity, such as removing alien vegetation, which aggressively depletes the natural water base.

According to the research, there are existing water governance strategies at the local level for catchment management in South Africa. These strategies involve stakeholders managing water resources within their jurisdiction. However, it is essential to note that the National Department of Water and Sanitation (DWS) regulates water resources in South Africa, despite local water governance strategies.

One of the key strategies for water governance at the catchment management scale is the National Water Resource Strategy (NWRS), which is mandated by Section 78(1) of the National Water Act (Act 36 of 1998). The NWRS provides a roadmap for implementing the National Water Act and supports the sustainable development of water resources in South Africa. Sustainable development, as described by the World Commission on Environment and Development, involves meeting the current needs without compromising future generations' ability to meet their own needs.

Participant A from the DWS in the Eastern Cape Region highlighted that the department is the custodian of water resources in South Africa and is responsible for formulating and implementing policies through the National Water Act and Water Services Act. They also noted that before local catchment management strategies, there was a national strategy for water governance, the NWRS, which focuses on water resource management from the national to the catchment scale.

The findings also revealed that the Upper Umzimvubu Catchment area has an existing non-statutory organization focusing on catchment management at the local scale. In this regard, Participant A stated:

This catchment management forum can be regarded as a local strategy. It is called the Umzimvubu Catchment Partnership Program (UCPP). Established in March 2013, it is a voluntary institution for decentralizing catchment management.

In conclusion, the research underscores the critical role of citizen support and participation in achieving good water resource management policies, particularly in communal lands with a dual administration of municipal councilors and traditional leaders. South Africa has implemented various water resource management strategies from a policy and legislative standpoint aimed at engaging all levels of government, including local government, in managing water resources. The National Water Act (Act 36 of 1998) provides a legislative framework for public participation in water resource management, focusing on Integrated Water Resources Management (IWRM) principles that emphasize river basin management and stakeholder involvement. South Africa has embraced IWRM as a global paradigm in its national system through policy reforms and adoption of the new National Water Act. Moreover, the research identifies the Umzimvubu Catchment Partnership Program (UCPP) as a non-statutory organization established locally to facilitate decentralized catchment management. Overall, the research emphasizes the importance of effective water resource management strategies at all levels of government to promote sustainable development in South Africa, with a particular emphasis on citizen participation and support in achieving this goal.

Public participation and dialogue around water resource management. The preceding discussion highlights how, through institutional reform, the South African government has developed existing water governance strategies for managing water resources from the national to local government space. Although the National Water Act (Act 36 of 1998) has mandated the establishment of Catchment Management Agencies (CMAs) as a concrete solution to decentralized water resource management institutions, this research established that there is no existing CMA within this uMzimvubu river catchment. Nonetheless, locally grown institutions have rallied together to form a pseudo-CMA with the following worth mentioning;

The South African Nation Biodiversity Institute (SANBI). The South African Nation Biodiversity Institute (SANBI) is mainly involved in upper Umzimvubu Catchment Management through its Living Catchments program.

Participant V explained the role of SANBI by stating that: The crucial role of the SANBI Living Catchment Project is to essentially support and maintain ecological infrastructure in the Umzimvubu Catchments through the collaboration of all stakeholders involved in the landscape. A single organization cannot implement this project alone but requires a collaborative and participatory approach.

SANBI acknowledges this and has invested in developing and supporting a community of existing practices that deal with land management and ecological infrastructure. This work reinforces the work that partners and stakeholders have created in the landscape to encourage more resilient catchments through collaborative work for water security, supporting livelihoods, and restoring biodiversity. SANBI selected the Umzimvubu Catchment because of its high biodiversity and status as a Strategic Water Source Area SWSA.

Findings also revealed that SANBI Living Catchment Project cooperates with the local government regarding water governance policy implementation at the local government level/ local catchment management. In this regard, Participant V also stated:

The SANBI LCP supports collaborative work that already exists in the catchment; the local government is very much involved in ecological infrastructure work through the Umzimvubu Catchment Partnership (UCP) platform.

Umzimvubu Catchment Partnership Programme (UCPP). The UCPP is a collaborative program established in 2013 in Matatiele by a consortium of organizations and institutions to protect the Mzimvubu River Catchment and the well-being of the people who depend on its water. UCPP partnership was an initiative supported by the Critical Ecosystem Partnership Fund (CEPF) and driven by the Environmental Rural Solutions (ERS) and Conservation South Africa (CSA), which are non-governmental organizations based in Matatiele town.

On this subject, Participant A reiterated: The UCPP works hand-in-hand with the Department of Water and Sanitation and brings sister departments together, such as the Department of Agriculture Forestry and Fisheries (Eastern Cape), Department of Environmental Affairs, Department of Economic Development, Environment Affairs, and Tourism (DEDEAT et al.), and the Department of Rural Development and Agrarian Reform (Eastern Cape). However, the Department of Water and Sanitation promotes integrated water resource management through the National Water Act. Therefore, UCPP plays an essential role in water resource management.

The UCP has several local and district government representatives and is a signatory to the UCP MoA. SANBI's LCP is designed to support some of this work involving local government and other stakeholders. This is to encourage local context-driven solutions to some of the issues we see in the landscape. It is, therefore, imperative to have local government unlock some of the critical concerns raised by the group of stakeholders in the communities of practice that the project supports.

CONCLUSION

The present study uncovered additional research findings on catchment management and participation. It is noteworthy that upper Umzimvubu Catchment management is a vital initiative of the Department of Environment, Forestry, and Fisheries (DEFF) to safeguard the environment and manage natural resources. To this end, the DEFF engages the services of Non-Governmental Organisations (NGOs) such as LIMA, Environmental Rural Solutions (ERS), and Conservation South Africa (CSA) to carry out catchment management activities. These NGOs operate in Matatiele, where the boundary of the upper Umzimvubu Catchment (quaternary T31) is located, focusing on rangeland management, alien vegetation removal, seep protection, and ecosystem balance. These service providers collaborate with communities in alien vegetation and rangelands management.

The study findings further revealed that water resources management faces challenges in rural areas. Participant A highlighted the need to establish models to finance the participation of people from poor rural areas, such as the KwaSibi area, in public meetings. With such financial support, achieving full representation in public participation is more accessible. The Department of Water Affairs made efforts to establish a reinvestment policy to allocate funds for public participation, but the initiative still needs to materialize. As a result, effective public participation and full implementation of Integrated Water Resources Management (IWRM) remain challenging.

The study also found that cultural differences pose challenges to public participation. Participant A noted that different cultures have varying norms and values, affecting public participation engagement. For instance, in some cultures, it is customary to pay homage to the Chief during public meetings as a sign of respect, whereas in urban areas, people are influenced by Western culture. Consequently, these cultural variations create dynamics in water governance in different rural areas, as these values are also attached to water resources management. It is important to note that water resource management often starts at a spiritual level before other social, institutional, and political factors are considered.

Local organizations, such as ERS, LIMA, and UCP, are critical in catchment management in South Africa, and their participation should be prioritized. The South African government has developed strategies for catchment management, but the present study highlights gaps in public participation that hinder the fulfillment of mandates set by new water legislation. To achieve good water governance, the National Water Act (Act 36 of 1998) and the National Water Resource Strategy (NWRS) aim to fully implement decentralized institutions for water resources management, including Catchment Management Agencies (CMAs). However, the study reveals that CMAs must be more effectively implemented in the study area, with only a Catchment Management Forum (CMF), a voluntary rather than a statutory body.

It is crucial to note that CMFs cannot function alone, and the South African government should finalize the establishment of CMAs in all nine existing WMAs. CMAs should be given the statutory authority to determine the role of players and achieve their plans. Traditional leaders and communities should be fully involved in catchment strategies as land stewards. Indigenous meteorological science should be incorporated into water policies such as the current National Water Act and the National Water Resources Strategy. Community structures led by community members should be established, focusing purely on water resource management.

The National Department of Water and Sanitation, Cooperative Governance and Traditional Affairs (COGTA), and the South African Local Government Association (SALGA) should consider incorporating indigenous knowledge into policymaking. Traditional leadership should be intensely involved in water governance to bring back old indigenous water governance practices. The dual administration of councilors and traditional leaders may create challenges. However, empowering community-based organizations and civil society organizations, such as ERS, LIMA, and UCP, can

play a vital role in improving catchment management strategies in South Africa. Addressing these challenges is crucial for sustainable water resources management and ensuring water availability for future generations.

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