



COMMUNITY WATER USE

GOVERNANCE CONSIDERATIONS

Acknowledgements

We gratefully acknowledge the funding and support for the programme entitled Adaptive Response and Local Scale Adaptation for improving water security and increasing resilience to climate change in selected communities in Giyani, Limpopo. The programme is funded by the Government of Flanders, managed by the Water Research Commission and implemented by Tsogang Water and Sanitation, Association for Water and Rural Development (AWARD), University of the Western Cape (UWC) and the WRC's TTO Enterprise Development.



Disclaimer

The content of this handbook does not necessarily reflect the views and policies of the WRC or its partners, nor does mention of trade names or commercial products constitute endorsement or recommendation for use. The WRC and partners cannot be held liable in any way for the damage, personal harm or any breakdowns stemming from actions related to the contents of this handbook.

The Giyani Local Scale Climate Resilience Programme (GLSCR) aims to develop and implement activities that will research, develop and demonstrate climate adaptive responses and solutions for optimising water utilisation in drought-stricken areas.

The programme will focus on the Greater Giyani Municipal area within the Mopani district and aims to impact an estimated 5000 beneficiaries over a three-year period in terms of water utilisation, improved water mix, and socio-economic opportunities as responses to climate adaptation.

A 2019 WRC study on droughts and adaptation strategies has highlighted risks to reduced productivity, livelihoods and food security, and an increase in vector and water-borne diseases in communities such as Giyani. Ultimately, climate change impacts on water resources in the Giyani area cannot be underestimated.

The programme has three key areas that will support for improving local scale adaptation and resilience in Giyani.

They are:

- 1) a strengthened enabling environment whereby local authorities, institutions, communities, traditional authorities and market players are mobilised to improve climate resilience and water utilisation;*
- 2) improved energy, ground and surface water solutions developed with communities to optimise and diversify water sources;*
- 3) activities that support livelihoods and local economic development opportunities.*

The programme will cover a spectrum of rural and rural residential areas in Giyani, working closely with the Mopani District Municipality and the Greater Giyani Local Municipality. Implementation partners include Tsogang Water and Sanitation as the lead on water projects and infrastructure; Association for Water and Rural Development (AWARD) in support of capacity development and stakeholder engagement, University of the Western Cape (UWC) as the water and energy technical partner and the WRC's TTO Enterprise Development arm on social enterprise development supporting local economic development projects.





A GUIDELINE FOR GOVERNANCE CONSIDERATIONS

**A guideline for local governance considerations in the rural
villages of Greater Giyani Local Municipality**



ABOUT THIS GUIDELINE

This guideline aims to provide principles to provide for more effective local governance and participation on water supply, usage and access at different levels in rural areas.

The guideline offers principles to enhance local governance and participation in water supply, usage, and access in rural areas of Limpopo Province. It emphasizes strengthening local governance structures, promoting inclusive participation from communities, and clarifying roles among stakeholders to avoid overlap. Additionally, it encourages sustainable water use practices, collaboration across government levels, and addressing infrastructure challenges to ensure reliable supply. By following these principles, rural areas can develop a more effective, participatory, and resilient approach to water governance.

Who is the guideline for?

The governance consideration is designed for a wide range of stakeholders involved in water supply, usage, and access. This includes local government authorities, community leaders, water management institutions, non-governmental organizations (NGOs), and the rural communities themselves. It is especially aimed at those responsible for decision-making, ensuring accountability, and facilitating community participation in water governance. The guideline seeks to empower these stakeholders to work together effectively to improve water access and sustainability while addressing local needs and challenges.

What does the guideline contain?

The governance consideration guideline outlines key principles to improve water governance in rural areas like Giyani. It emphasizes intergovernmental coordination and addresses challenges in water infrastructure and resource management, providing a framework for transparent, accountable, and effective governance.

How to use the guideline?

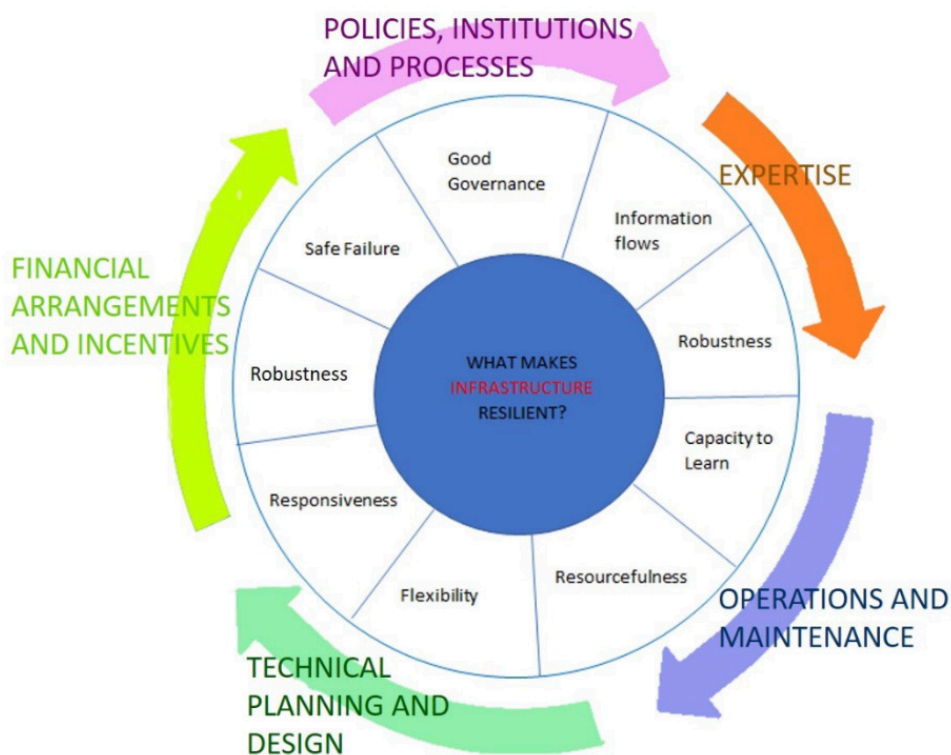
To use the governance consideration guideline effectively, stakeholders should begin by strengthening local governance structures and fostering transparency and accountability in decision-making processes. The guideline should be used to promote equitable access to water by developing policies that address local needs, and to encourage sustainable water use practices through community education in operation and maintenance.



GOVERNANCE CONSIDERATIONS

Governance means how we manage water supply, usage, and access at different levels. The GLSCRIP focuses on the technical design and how local communities and institutions can manage and maintain water systems, especially in a changing climate. It's also important to consider managing water resources in villages and catchment areas. Demand for water is going up, but the environment's ability to provide it is declining, which is a big problem. Managing catchment areas is crucial but often overlooked. Until now, the government has been providing water access and infrastructure, expecting people to take care of it. However, how this is supposed to work hasn't been clear.

Day-to-day operation and maintenance of water systems involve paid operators and volunteer committees at the local level, connected to local authorities. Some attention has been given to defining roles and responsibilities. But how these groups work together and with their communities, known as governance and participation, is essential for successful and long-lasting water projects. This document considers guiding principles to provide for more effective local governance and participation.



Above: A diagram outlining Infrastructure resilience properties (Gallego-Lopez & Essex, 2016)

COMMUNITY LEVEL INVOLVEMENT

All members of a community are expected to make use of provided infrastructure and water access in a responsible manner. For this to be possible all community members need to be considered in terms of their needs, be informed about the technical aspects of operation for the system, understand the implications and limits of access and availability of water, know and agree to the management and operational confines of the system and be willing to follow the rules set in place for quality, management and use of water.

The above can only happen if every single member in the community takes some individual responsibility and considers the impact of their actions on their neighbours and community. In larger and more urban communities, individual behaviour is controlled primarily through payment for specific services and access, with associated regulations. In rural and informal communities, this system of control does not exist. This can lead to high levels of inequity, competition, abuse, and mismanagement of water supply systems. The temptation is to attempt to enforce payment and regulation of services. The solution however, lies more in the full participation of all community members in every phase of the process.

EMPOWERING COMMUNITY INVOLVEMENT

To ensure successful water supply schemes, it is essential to engage community members at various levels. Here's how we can achieve this:

Assessments and Understanding

- Involve community members in initial baseline, vulnerability, and feasibility assessments for proposed water supply schemes.
- Ensure they understand water access options, sources, availability, and implications for their village.

Information and Education

- Provide community members with the information they need to assess different scenarios for water access options.
- Create opportunities for learning and in-depth analysis of water management concepts in their areas. This includes topics like climate change impacts, rainfall patterns, groundwater management, water quality, technical aspects of proposed systems, solar energy, water purification, conservation, and more.

Service Understanding

- Foster an understanding that water provision is a service with different levels and sources of access, depending on financial contributions and specific needs.

Transparency and Trust

- In complex programs, scenarios are developed, refined during planning and implementation, and may change during contractual and commissioning phases. Clear and ongoing explanations are essential to manage expectations.
- While it's tempting to avoid making specific promises to prevent conflicts, it's better to explain changes and difficulties as they arise. This increased transparency builds trust, rapport, and accountability in expenditure.

Scheme Parameters & Decision-Making

- Engage community members in negotiating and defining all parameters of the water scheme, empowering them to take responsibility for its operation, management, and maintenance.

Local Governance & Decision-Making

- Involve community members in day-to-day decision-making and in selecting or electing local water governance structures and committees.
- Make them part of the decision-making process concerning issues like equity and benefit distribution.

Empowering community involvement ensures that water supply systems are not only sustainable but also tailored to the specific needs and preferences of the community, creating a sense of ownership and responsibility among its members.

ASSUMPTIONS

It is possible to make some assumptions on how individuals in rural communities will behave, based on experiences in engaging these communities in designing, planning and implementing local water access options, rather than being the passive recipients of externally designed and implemented water supply systems.

These experiences have shown that:

- Community members are willing and able to participate.
- Community members are willing to volunteer their time, labour, and money towards ensuring a functional water system.
Community members are committed to ensuring that their water supply system is operational and looked after.
- Community members are willing and able to make rational and considered decisions around water use and management if provided with appropriate information on which to base such decisions.
- The actual level of involvement in the operation and maintenance of the system is a choice for community members. Some members participate by voluntarily following the rules and others are more involved in the management of the system.
- Levels of water access need to be equitable and transparent.



LOCAL GOVERNANCE STRUCTURES

In many communities, informal arrangements for local governance are already in place, offering a degree of stability and fairness within the community. However, these arrangements often fall short of meeting the requirements of Water Service Authorities. Local water committees, although voluntary, play a significant role in these structures, but they have some notable weaknesses:

Limited Authority

- While committee members hold a certain level of authority within the community, they lack the power to effectively enforce rules or regulations.
- They cannot officially or legally enforce community-agreed rules, which often leads to the development of informal arrangements.

Community Contributions

- Typically, community members contribute their time and make small regular payments to support various activities, such as water infrastructure maintenance or borehole pumping costs.
- Committees maintain records of contributors and non-contributors. Those who do not comply may be excluded from the decision-making process, and their concerns may not be considered.

Beneficiation and Compensation

- Committee members may use their authority to secure benefits for themselves. This is often seen as a form of compensation for their efforts.
- If managed transparently, this practice can contribute to the long-term sustainability of committees, as it provides an incentive for members who deal with numerous challenges and conflicts.

Exclusion and Prejudices

- At the village level, this system of beneficiation can work and maintain operational stability with minimal conflict.
- However, there is a risk of excluding vulnerable households and individuals from a service that should benefit everyone. Those in extreme poverty, engaging in high-risk behaviors, or facing social isolation may be left out.
- Prejudices may also surface, particularly against unmarried women with children and “foreigners.”

External Facilitation

- To ensure fairness and equity, it is recommended that this process be externally facilitated. Communities may struggle to design fully equitable systems on their own.

Promoting transparency and addressing inequalities within local governance structures is essential to ensure that all community members benefit from the water service without discrimination or exclusion.



LOCAL WATER COMMITTEES

Care needs to be taken to ensure that these committees are well represented and should include representation from:

- The traditional ward councils
- The Local ward councils (Local Municipality)
- Local representatives of the Water Service Authority and providers
- Members form local development structures and interest groups, including for example the livestock association, development committees, farmers associations and groups, cooperatives, churches, schools and creches and Local household members; both with access to individual water supply options (like boreholes and springs) and without.

These committees need well developed constitutions with roles and responsibilities outlined therein. These committees also need to have arrangements in place for operations and maintenance of the water service in their village as well as security of infrastructure.

Security concerns for infrastructure are a reality and something that water committees invariably will need to deal with. Local security arrangements are important and are already being more commonplace, both for infrastructure and for livestock. In some villages in Giyani, including Mayephu, 24hr patrols have already been put in place to monitor and control theft. It is foreseeable that these patrols can also undertake monitoring of the water infrastructure, within the same broad system. In other villages, households closest to the infrastructure are tasked with 'keeping an eye' and are assisted by the water committees, or guards are appointed and provided with a stipend collected from community contributions.



OPERATION AND MAINTENANCE (O&M)

Operation and Maintenance (O&M) is sometimes underestimated as a simple technical matter, but the frequent breakdowns in water supply systems in many villages highlight its complexity.

Adequate O&M relies on a range of organizational functions and competencies, including:

Human Resources

Skilled and motivated personnel are crucial for successful O&M.

Tools and Spare Parts

Access to the right tools and an inventory of spare parts are essential for effective maintenance.

Transport

Reliable transport is needed to reach various maintenance sites.

Reporting Mechanisms

Effective systems for reporting breakdowns and issues.

Accountability Frameworks

Clear accountability and responsibility structures.

Regular Funding

Assured and regular funding to support ongoing maintenance.

O&M encompasses routine tasks like part replacement, refueling, servicing, cleaning, and monitoring, as well as handling irregular breakages, outages, and malfunctions. Ensuring the long-term success of O&M depends on suitably skilled personnel and relies on financially and politically viable institutional and organizational systems.

FACTORS INFLUENCING O&M QUALITY

Several factors influence the quality of O&M

Staff Quality

The competence and expertise of O&M staff.

Dedicated O&M Funds

Access to funds allocated specifically for O&M.

Record-keeping and Data Analysis

Maintaining high-quality records and analyzing data effectively.

Technical and operational procedures for ongoing water supply system management are typically designed by institutional role players in water service provision. The key question here is how communities engage in this activity.

COMMUNITY INVOLVEMENT IN O&M

It is often assumed by both local beneficiaries and water service providers that communities can handle day-to-day O&M tasks. Community members claim they can and do undertake simple, low-cost maintenance activities, like fixing leaks, replacing valves, and managing water distribution.

However, challenges arise when faults are more technical, such as pump malfunctions, electrical issues, or fuel supply problems. Additionally, difficulties can occur in obtaining replacement filters and spare parts, often due to limited access. Good working relationships with technical and institutional partners are critical in addressing these technical challenges.

In summary, the fundamental principle is that everyone should be engaged, even if it involves basic tasks like closing running taps or reporting issues to water committees and operators. These activities fall under corrective maintenance and are demand-driven. For preventive maintenance, pro-active planning and collaboration between stakeholders are essential to prevent issues before they occur.

NOTES ON COST RECOVERY

Sustainable infrastructure projects must generate a sound revenue stream based on adequate cost recovery and be supported, where necessary, by well - targeted subsidies (to address affordability). Users' willingness to pay for O&M and development of suitable tariffs are central to the ongoing sustainability of a water supply system.

Tariffs usually contain two charges; a charge that depends on the volume of water used and one that is no e.g. connection fees, ad hoc maintenance fees and the like.

From discussions with local water committees in Giyani, members are confident that monthly fees from users is an option. The value of such fees should in their opinion not be higher than R20/ user/ month, given that most households in these villages are extremely poor and unemployment levels are very high. This is clearly not a full cost recovery option but can assist greatly in overall sustainability.

Regular monthly payments by all households in a village is however logistically problematic, especially for larger villages. Generally ongoing financial contributions for groups larger than 20-30 members becomes unwieldy, with high levels of effort spent on policing and the resultant conflicts often lead to failure of the process.

Below are some suggestions of how this can be managed:

- Monthly contributions by households are recorded by the water committee and those who do not pay are regarded as non-participants and not supported when they have difficulties in access. This is an existing system in some of the villages and is accepted and manageable but has the distinct drawback of excluding vulnerable households.
- Divide the village into sections with smaller numbers of households and manage monthly contributions and access per section. In this approach, each section can be provided with a target value of monthly, weekly or daily financial contributions to allow for access. The decentralization of this system is a strength, but defaulting can still cause major difficulties. Cross subsidization for the poorer households is however an option.



- Use of local savings mechanisms to allow for regular payments. The large majority of rural households belong to a range of informal savings groups, such as stokvels and funeral groups. Local savings and loan associations are an extension of this practice, which allows for improved cashflow and accumulation of funds for specific uses. The strength of these groups is that they are voluntary and generally well established in rural communities. The drawback is still that vulnerable households are excluded and that these groups require some level of external facilitation and policing to remain well managed in the longer term.

Thus, the main question becomes one of how equitability and the right to water can be ensured for vulnerable households. The logical option is that those households with the ability and resources to secure larger volumes of water for themselves cross-subsidize those who cannot. This approach would entail tariffs set at village level related to the volume of water accessed.



RECOMMENDATIONS

WATER SERVICE PROVIDERS & AUTHORITIES

The full engagement and participation of local communities is also impacted by how the water service stakeholders and institutions interact with them. Below are some broad recommendations for management of these relationships:

- Local level governance systems need to be respected but also interrogated in terms of acceptable levels of provision for equity in access to water within the community.
- Engagement of the governance committees and community as a whole in being more equitable in terms of their access arrangements is important. Community engagement needs to be broader than just the committees and operators at all stages of the discussion: Feasibility, design, implementation, operation and maintenance.
- Committees should be well represented – traditional authorities, local government councillors, active water users in the areas, such as crop and livestock farmers and individuals who can represent more vulnerable groups in the village.
- Institutional engagement in punitive measures for those who have informal or illegal connections is unlikely to have a positive outcome.



- Hoarding of water and water provision options, by those households which can afford it and have power within the community should be dissuaded. Here, a user pays arrangement can potentially be negotiated. At the very least, they should not have more access to communal water than everyone else in the community.
- Payment for water use in excess of an agreed amount, can be used towards setting up a community level fund for maintenance and operations.

Ongoing monitoring of water levels, specifically for borehole schemes, with a coherent system of reporting is important. In this respect provision of dip meters will be required. Scheme operators need to have someone to report to who can make decisions regarding use, over-use and remedial actions that can be taken.



References

Gallego-Lopez, C., & Essex, J. (2016). Designing for infrastructure resilience. UK: Evidence on Demand. DFID. SADC-GMI. (2020). Training manual for operation and maintenance of groundwater infrastructure in SADC.

Bloemfontein, South Africa: SADC-GMI report.



Water Research Commission
Virginia Molose – virginiam@wrc.org.za
www.wrc.org.za

Association for Water and Rural Development (AWARD)
Derick du Toit – derick@award.org.za

Tsogang Water and Sanitation
Kenny Phasha – kennyphasha@tsogang.org

University of Western Cape
Prof Nebo Jovanovic - njovanovic@uwc.ac.za