EFFECTIVE STRATEGIES FOR SUSTAINABLE WATER SERVICES: CURRENT OBSTRUCTIONS AND POTENTIAL PATHWAYS AROUND THEM

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ABSTRACT

South African efforts to channel increased financial flows to support the provision of sustainable water supply and sanitation services have enjoyed limited success and the quality of service provision is declining. This paper identifies critical obstacles to performance improvement and suggests potential pathways to overcome them. Current obstacles include a failure to balance infrastructure investment with O&M (operations and maintenance) resources or to ring-fence water-related financial flows at municipal level; institutional deficiencies which weaken oversight and limit intervention where systems fail; and inappropriate norms and standards for service provision coupled with unrealistic user expectations, which are often encouraged by weak political leadership. Potential reform interventions that are feasible within current Constitutional arrangements are described and the constraints on their implementation are outlined, together with strategic suggestions on how these may be overcome. In most cases, substantial policy innovation will be required, backed by institutional reform.

Keywords: Current obstructions, Effective strategies, Potential pathways, Sustainable water services

INTRODUCTION

By 2010, South Africa, together with many other countries, had achieved the year 2000 Millennium Development Goal (MDG) of halving the proportion of people without sustainable access to safe drinking water. A target for access to improved basic sanitation was only introduced as an afterthought at the 2002 World Summit on Sustainable Development and proved to be more challenging. Nevertheless, South Africa which had lobbied strongly for the inclusion of a sanitation goal, declared that it had been achieved in 2012 (Stats SA, 2015).

Following the relative success of the MDGs, the United Nations adopted a more aspirational programme for its next development round. The sustainable development goals (SDGs) were presented as “a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity” (UNDP, 2015). Accordingly, the SDG targets are considerably more ambitious than the MDGs. SDG6

includes targets for universal access to safe and affordable drinking water as well as to adequate and equitable sanitation and hygiene.

In the more detailed elaboration of the targets and indicators, emphasis is placed not just on the provision of infrastructure services but also on 'affordable access' to them as well as their safe and sustainable management. The achievement of these more onerous, albeit obvious, criteria for performance assessment is indeed proving to be challenging. Moreover, independent projections suggest that, on present performance, South Africa will not achieve them by 2030 (WHO/UNICEF JMP, 2022).

This paper reports on the current status of service delivery and, after setting out the current institutional context for service delivery, considers the challenges that are calling the achievement of service delivery goals into question. It identifies areas in which the water supply sector's performance is deteriorating and some of the factors that contribute directly to this poor performance, many of which are well known. However, while the direct drivers of poor performance can be identified, it is necessary to identify and address the barriers to action if the sector's performance is to be improved.

It is suggested that these barriers lie primarily in the institutional and political sphere, and compounded by financial constraints. Based on this analysis, with the challenges better defined, some potential interventions to improve performance are outlined and an indicative programme, structured to sequence and prioritise the actions required, is set out. The paper focuses specifically on water supply rather than on the water supply and sanitation services in their entirety. This is both because water supply is the more immediate public priority but also because it is less complex than sanitation where the challenge is to balance contesting environmental regulation, social preferences, and financial constraints.

BACKGROUND: TRENDS IN THE PROVISION OF WATER SUPPLY SERVICES

The following four metrics are often used to monitor the performance of water supply services:

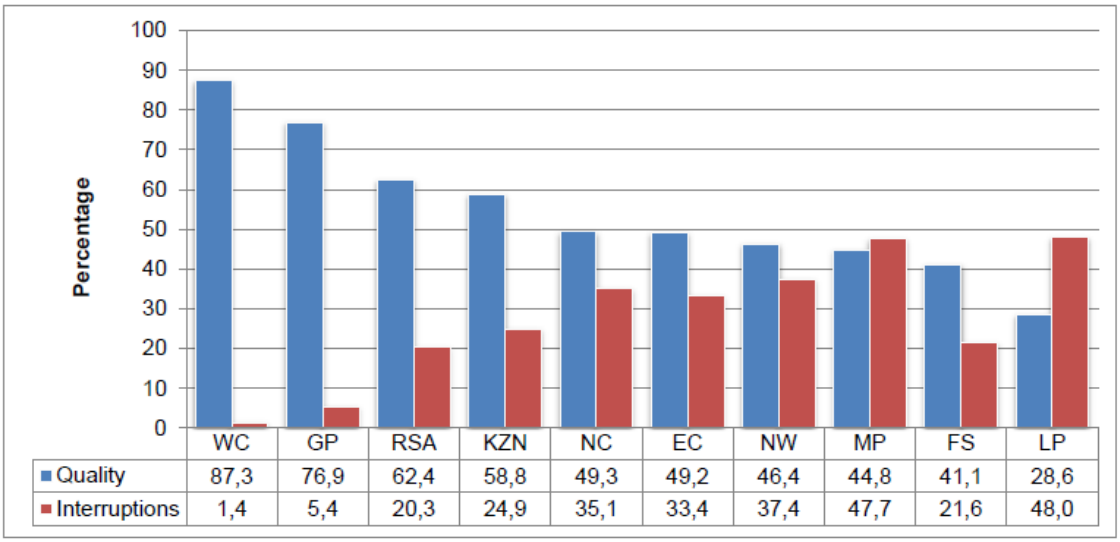
- availability of supply infrastructure (population served by infrastructure);
- reliability of the quantity and quality of the supply provided;
- sources of water actually used by households; and
- user satisfaction with the service received.

Availability of infrastructure is an indicator of the technical ability to provide a water supply while reliability indicates whether the system is effectively managed from a technical perspective. Information about the source of water actually used (often determined through household surveys) offers insights into the quality of access (convenience) of the supply but critically also whether it is affordable. Finally, 'user satisfaction' provides both a gauge of the users' expectations as well as providing a check on the validity of the technical indicators reported.

South Africa performed well against the MDGs because they focused on the availability of water supply infrastructure. The number of households with access to

piped water has expanded significantly since 1994: between 2002 and 2021 it grew from 9.45 million (84.4% of the population) to 12 900 (91%) in 2012. However, although the number of households served continued to rise, service provision did not subsequently keep pace with population growth and the proportion of households served declined to 88.7% in 2021 even as the number served rose to 17.95 million (Stats SA, 2021). Physical access in the metropolitan municipalities ('Metros') had reached 98.6% with the unserved population now in smaller cities, towns and rural areas. However, the reliability and quality of the supplies provided have faltered. The measure of reliability adopted for the national norms and standards (Dept of Water Affairs and Forestry, 2001) is the number of supply interruptions reported by households which lasted more than two days at a time, or more than 15 days in total over the year. Using this metric, the performance picture is mixed with substantial divergences between the national averages and the situation in individual provinces and municipalities. At a national level, 25.8% of households reported that their supplies were unreliable. Rates of interruption ranged from 55% in provinces with large, dense rural populations to just 9.5% and 4.6%, respectively in predominantly urban Gauteng and Western Cape.

These interruptions correlated with households' reported perceptions of the quality of their supplies. Provinces with low rates of interruptions were rated as having a high quality of services while those with higher rates of interruption reported a lower quality. Poor reliability and its impact were also confirmed by the alternative sources such as water vendors and tankers, which households reported using when their formal supplies failed.



	WC	GP	RSA	KZN	NC	EC	NW	MP	FS	LP
Quality	87,3	76,9	62,4	58,8	49,3	49,2	46,4	44,8	41,1	28,6
Interruptions	1,4	5,4	20,3	24,9	35,1	33,4	37,4	47,7	21,6	48,0

Figure 1. 2018 Percentage of households rating the quality of water services provided by the municipality as good and those reporting service interruptions by province (Stats SA, 2019)

ANALYSIS: CONTRIBUTORS TO POOR PERFORMANCE

The poor and deteriorating performance of water supply systems is attributed to a number of factors, most of which are well known and documented.

Infrastructure inadequate to meet existing and future needs

Despite substantial investment since 1994, there are still many communities where there is no infrastructure to provide a formal safe and reliable water supply. According to the DWS's estimates (https://www.dws.gov.za/niwis2/AccessToWaterID) over 7 million people, 12% of the population, did not have access to 'water infrastructure' in May 2021. The largest deficits were in the rural provinces of Eastern Cape (30%), Limpopo (25%), KwaZulu-Natal (19%), NorthWest (16%) and Mpumalanga (13%).

Even where there is infrastructure, it is often reported that poor service delivery is due to inadequate or old infrastructure. This is then given as the motivation for new infrastructure investments. However, there are also many examples of infrastructure elements (treatment plants, bulk pipelines, reservoirs) that are not fully functional, often because they are not connected to or cannot be supported by other elements of the system. In addition to current needs, South Africa's population has been growing more rapidly than expected. The 2012 National Development Plan estimated that, by 2030, the population would grow from 50.6 million to between 58 and 61.5 million, including immigrants (using projections provided by the Actuarial Society of South Africa). It has already exceeded the higher estimate and is now expected to reach around 65 million by 2030 (United Nations, 2022), 5 million more people than the NDP planned for. The implications of this underestimate were already highlighted in a 2013 report which noted that "… policymakers will be compelled to meet the service needs of a larger population in areas like healthcare, education, employment or basic infrastructure need", warning that key decisions on social and economic development need good forecasts (Go et al., 2013)

Poor operation and maintenance of existing infrastructure

Even where infrastructure is present, it is often not providing a reliable supply to households. This is a longstanding problem. In 2003 it was alleged by civil society activists that water supply interruptions were due to cut-offs for non-payment (Bond and Dugard, 2008). However, formal surveys found that most were due to technical failures. The reasons for interruptions given by affected households were mainly operational: pipe bursts, pump breakdowns and lack of maintenance accounting for 57%, vandalism (17%) and water source problems (e.g. drought) 17%, while only 10% were due to cutoffs for non-payment. This pattern continued for the next decade with around 80% of the households that complained of unreliable supplies attributing this either to poor maintenance or to the fact that water was only delivered occasionally (presumably by tanker trucks), often where piped supplies had already failed (Galvin, 2016).

A recent systematic review by the South African Institution of Civil Engineers found that, outside the large urban areas, much of the country's water supply infrastructure is at risk of failure. It is "poorly maintained and not coping with demands. Public may suffer severe inconvenience and even danger if prompt action is not taken." The urban infrastructure was found to be "satisfactory for now" but it was noted that "condition is acceptable although stressed at peak periods. Will need investment in Medium Term Expenditure Framework period to avoid serious deficiencies" (South African Institution of Civil Engineers, 2022).

Failure to manage water use and collect revenue

Water supply infrastructure is designed to provide a specific level of service, which determines the expected consumption by present and future users. Actual household water use depends on the household facilities (indoor baths and flush toilets, for instance) as well as the cost of the water (Nel et al., 2017). This assumes that meters are installed and read, and that consumption is billed and paid for, which is often not the case. In 2019, over 55% of households with piped water connections reported that they did not pay for water although only 16% formally qualified for free basic water (Stats SA, 2020). As a result, not only was less funding available for operation and maintenance but there was also no incentive for households to limit their water use. The resulting excessive consumption by some users increases production and distribution costs and deprives other users of reliable supplies.

Insufficient funding or inadequate welfare provision?

Failure to collect revenue may aggravate local government funding challenges. However, careful analysis is needed since it is unclear whether non-payment is due to the unwillingness or inability of users to pay for their water use. The proportion of South Africans living below the formal upper-bound poverty line before COVID was already around 55% and may have risen since then (Gumede, 2021). If policy is that all South Africans living below the (upper) poverty line should have access to free basic water, there is a substantial funding gap that will have to be met by public finance transfers. This affects, in particular, operation and maintenance expenditure. If the transfer through the equitable share of revenue is insufficient, the more systemic challenge may be that public finance and water sector policy are not coordinated and, as a result, budgetary transfers are not adequate to meet the policy goals that have been established for service delivery (Khambule, 2022).

The adequacy of funding for capital expenditure is more difficult to determine. Capital expenditure is required both to meet the needs of growing populations as well as refurbishing and replacing existing infrastructure. In the urban areas where the population is growing most rapidly, allocations of public funds through municipal infrastructure grants should cover the proportion required to meet the needs of 'poor' households while funding for smaller, rural municipalities, where populations are growing more slowly, will have to reflect the larger proportion of 'poor' households.However, the rate at which infrastructure must be refurbished or replaced is determined to a large extent by the quality of infrastructure operations and maintenance. Failure to spend and perform adequately on maintenance thus increases the requirement for capital funding but raises the question of whether this

should be supported by national government if it is the consequence of weak local management.

Municipal capacity and unqualified staff

Many municipalities perform poorly because they do not have adequately qualified personnel to manage their water supply systems (Lawless, 2017). While there were shortages of entry-level technical personnel in the first decade of democracy, there is now a substantial pool of relatively recent graduates actively seeking opportunities. It is often reported that technically qualified staff are unwilling to relocate, in particular to rural municipalities (Lehmann et al., 2008). However, in many of those municipalities the staffing structure is 'top heavy' and senior technical staff may be placed at the 3rd or 4th tier, which is not adequately remunerated, although this is slowly being remedied.

A further concern is that a technical academic qualification alone does not prepare its holder to work in a technical field such as engineering. Further structured professional development is mandatory for new graduates in most branches to achieve the 'professional engineer' status which is a statutory requirement to perform consulting engineering work or to take responsibility for the performance of engineering work. The registration process also requires support and supervision arrangements that often prove difficult to provide in smaller municipalities.

Availability of water resources

The provision of potable water services must always be underpinned by access to a reliable water resource. While resource shortages are sometimes mentioned as a contributor to water supply failures, there are few places in South Africa where water resource availability is an absolute constraint, even in rural areas (Bond and Dugard, 2008). Supply shortages during dry periods are more often the result of poor planning and operation rather than any acute drought event. The constraints are usually failure to address in a timely manner the planning, implementation and funding required to develop and operate a system to abstract and transport the water to the users (Galvin, 2016).

DISCUSSION: CRITICAL OBSTACLES TO PERFORMANCE IMPROVEMENT

The immediate contributors to poor performance, outlined in the analysis above, are well known. They are relatively easy to identify and, potentially, to begin to rectify. The critical question therefore is to identify the obstacles that have blocked effective remedial action. It is suggested that these fall into three distinct but interlinked domains:

- Bias against operation and maintenance in municipal financial systems;
- Institutional constraints in a complex context; and
- Politics and policy ambiguity.

Bias against operation and maintenance in municipal financial systems

At an operational level, infrastructure investment is often not coordinated with funding for the O&M of the systems of which new infrastructure is a part. As a consequence, inadequate O&M funding reduces infrastructure lifespan. Legislation requires those municipalities that are water services authorities (not all are) to produce a water services development plan (WSA s13(h)v). This should set out capital and operational expenditure and the sources of revenue to support it. However, even where these plans are prepared, there is limited evidence to suggest that they are used to guide the application of resources and infrastructure is often built without budgetary provision for its operation and maintenance.

A bias toward infrastructure investment is inherent in the structure of national government's financial support to municipalities. Infrastructure investment is funded through conditional grants whose conditions correctly seek to prevent funds intended for service provision 'leaking' to be used for other purposes. However, funding for O&M in poorer municipalities is not similarly protected. The Constitution (s.227) states that the purpose of the equitable share is to enable local government to "provide basic services and perform the functions allocated to it". The equitable share is the primary source of funds for O&M in the smaller, poorer, municipalities that do not have high levels of user payment. It has been suggested that it is already inadequate to meet these needs (Ledger, 2019).

However, although its constitutional purpose is clearly stated, the equitable share is formally 'unconditional' and is often used for other, more or less licit, activities. The reluctance of the National Treasury to require greater reporting of and discipline over its use has been unhelpful and contributed to the diversion of funds to other purposes and the consequent underfunding of water supply O&M. The misapplication of the equitable share is aggravated by the failure of municipalities to ring-fence and account separately for water services activities although the Water Services Act requires that "when performing the functions of a water services provider, a water services authority must manage and account separately for those functions". A particular challenge is that municipalities account to multiple agencies of government, National Treasury, CoGTA as well as sector regulators. This leads to a lack of coherence of approach and confuses efforts to ensure compliance and accountability. While the Auditor General, CoGTA and National Treasury have begun to question municipal O&M spending deficits, more direct accounting would support such efforts.

One consequence of this confluence of poor planning and weak O&M is the accelerated aging of assets due to poor maintenance. There is a vicious cycle in which the lack of O&M leads to service failure and is compensated for by investment in replacement infrastructure, particularly in installations involving mechanical and electrical equipment. Other systemic problems include a failure to manage water use and collect revenue which is addressed below. This often reflects policy ambivalence and political reluctance to ask for, let alone enforce, reductions in water use.

Institutional constraints in a complex context

Extreme autonomy: Municipal water supply in South Africa is undertaken by over 150 municipalities which provide water supply services to communities in very different

physical and economic contexts. The institutional architecture of the sector and the regulatory framework that has been built around it have some flaws that are now contributing to its weak performance. The history is that, ahead of the establishment of a democratic government in 1994, a range of possible institutional arrangements for domestic water supply was considered. Aside from the option of establishing a single, national, water supply utility, the alternatives considered included greater concentration through the establishment of ten or fifteen regional water supply organisations as well as extensive decentralisation that would allow local communities to take responsibility for their own operations. In the event, the structure was determined by the need to establish institutions that could bridge the historic racial and economic divides, a primary objective for the local government structures that were formalised in the 1996 Constitution. The Constitution and subsequent municipal legislation also provided for a two-tier system in which district municipalities could support smaller local municipalities that would otherwise not have the capacity to undertake their functions.

The Constitution thus allocated a variety of powers and functions to municipalities, including “Water and sanitation services limited to potable water supply systems and domestic wastewater and sewage disposal systems”. National and provincial governments’ concurrent role was limited, in the first instance, to oversight and regulation and was constrained by complex procedures for intervention if necessary to “maintain essential national standards or meet established minimum standards for the rendering of a service”. As argued in Muller (2021), this “extreme autonomy” afforded to local government was effectively a ‘sunset clause’ to protect minority interests during the transition.

Both too few and too many institutions: While the initial institutional arrangements provided a basis for the progress made to date, the system has begun to reveal significant weaknesses. In larger rural municipalities with more dispersed populations, there are arguably too few water supply management institutions to manage a large number of small systems. This places an administrative and financial burden on the district municipalities that have to respond to relatively minor operational problems which might more effectively be addressed locally. In these circumstances, it would be better to provide district level technical support to small local operators. However, the current situation is that small and peripheral communities that are not adequately served by their formal water supply authority cannot access resources or support to manage their supplies themselves.

Equally, the capacity of many smaller municipalities would be limited even if human and financial resources were appropriately deployed. Such small institutions find it difficult to comply with the administrative processes as well as retaining the technical staff needed. Although they may be able to run day-to-day operations, they also require access to specialised resources that would be available in a larger institution. They would benefit from being members of a larger family of supply systems with some central support. In this context, the role of the family of water boards established by the DWS to provide bulk water services across municipal boundaries may become relevant. The Water Services Act allows them to undertake additional other functions, such as retail water services, although they cannot be imposed on municipalities. One suggestion currently being investigated is water boards could be requested to become regional water service providers, acting where current municipal providers are failing.

The incentives of the status quo: Any attempt to transfer the water supply function to new institutions is likely to be resisted by the incumbents. A consequence of the autonomy enjoyed by municipalities – and lack of consequence management for their failures – is that their political administrations have been able to divert financial resources from areas such as water supply or manage them to their own advantage. A general finding, reported as part of an investigating into the staffing of the water supply functions, is that "support departments, although meant to support line departments, have usurped the authority and undermine the processes that are the domain of technical departments". This obstructed the progress of young candidates who sought to work towards professional registration. However, it also enabled other forms of corruption. Failure to maintain, and even sabotage, supply infrastructure has been identified as one mechanism by which officials and their private sector collaborators have gained access to lucrative opportunities such as contracts to provide tanker-based water supplies to communities where piped services have 'failed' (Muller and Schreiner, 2020).

Politics and policy ambiguity

The extreme autonomy granted by the Constitution to local government is one of the root causes of the declining performance of water supply institutions. This autonomy insulates poorly performing municipalities from external intervention and makes it difficult for the affected communities to remedy municipal failure. As outlined below, if the issue were to be carefully and strategically addressed, greater intervention might be found to be consistent with the provisions of the Constitution. Indeed, the mere existence of a credible threat that national or provincial agencies could step in and take over the water supply function might encourage better municipal performance. Such efforts would, however, be politically challenging since those who benefit from their current autonomy would likely oppose it. The situation is complicated because the Constitution allocates primary responsibility for municipal oversight to provincial government. There is inevitably a tight nexus between local and provincial politics which makes it difficult for provincial agencies to enforce unpopular interventions on their local government colleagues or to support moves that would limit their autonomy.

Similar political sensitivities also inhibit discussions about measures to discipline the use of equitable share and ensure that it is devoted primarily to meeting the Constitutional intent which is to "provide basic services". It is a challenge to promote objective discussion about the levels of service that can be afforded by different communities. Because of South Africa's high levels of inequality, the politicians, technicians and even civil society representatives who lead such discussions invariably have 'better' standards of service than the basic levels available for poorer communities. This makes it uncomfortable for them to advocate the restraint that is inevitably necessary.

The debate about free basic services further illustrates how political discomfort translates into damaging policy ambiguity. The official national policy on free basic water is that its provision is only funded for households that are formally registered as 'indigent'. In 2019, only 16% of all households with piped water connections were eligible and equitable share funding was calculated on that basis. However, according to the 2019 household survey (Stats SA 2019), over 55% of those households

reported that they did not pay for water. This divergence presumably reflected a combination of municipal tolerance in not enforcing payment and a failure to perform their basic function of metering and billing 'non-indigent' water users. The consequence, however, was that municipalities received less funding than needed to sustain safe and reliable supplies while in many of the communities concerned, supplies were unreliable or failed completely. This situation was aggravated because households whose consumption is not metered or billed have no incentive to constrain their water use.

RECOMMENDATIONS: PATHWAYS TO BETTER PERFORMANCE

Urgent intervention is required to address the poor performance of many municipal water supply systems. The aim should be to reverse the deteriorating trends, meet community needs and government's policy goals and, while doing that, to achieve the relevant UN Sustainable Development Goal, which is rapidly moving out of reach.

A strategic programme of interventions

Given the water supply sector's limited human and financial resources and other constraints, it is important to identify, prioritise and sequence a set of interventions that might improve performance.

Too often, the response to the challenge of poor water supply system performance is to call for additional investment in infrastructure or simply for more financial resources for the service. However, the analysis suggests that additional capital funding for new or refurbished infrastructure will not, in itself, improve outcomes. Practical experience in many systems is that, for a variety of reasons, funding nominally directed to build municipal water supply infrastructure often fails to result in better supply performance. Funds may be diverted to other purposes, formally or informally. Even when the funds are applied for investment in new infrastructure, there is no assurance that performance will improve if investment has not been guided by a systematic planning and prioritisation process and construction undertaken by qualified contractors to ensure value for money.

In addition, too little funding goes to the O&M of the infrastructure once it has been commissioned. This reflects limited allocations from the equitable share of revenue, low municipal revenue collections from water supply tariffs but, more generally, the diversion of funding intended for water supply to other purposes. The consequence is that poor operations and maintenance lead to early failure of mechanical and electrical equipment as well as civil infrastructure.

In order to improve service provision, it will be necessary to:

- enable the recruitment and deployment of competent operational and planning staff into a functional organisational structure;
- ring-fence funds allocated for water supply and their appropriate, balanced application to operations, maintenance and investment; and
- control water use, through the application of an appropriate combination of metering, billing, collection and enforcement measures backed by community

consultation and mobilisation that provide an agreed framework for free basic water provision.

However, these building blocks can only be put in place once a new foundation has been laid which remedies the institutional and political failings that currently undermine effective water supply service provision. These inter-linked interventions would include:

- establishment of norms and standards for basic and 'above basic' levels of supply, in consultation with community of users;
- consultation with public finance authorities about the quantum of public funding to provide basic water supplies and the conditions for its allocation and application;
- political support for the implementation of the agreed norms and standards in practice; and
- establishment of mechanisms to transfer any funds intended for municipal water supply to the institution that provides the service, including the equitable share, conditional grants as well as revenue collected from users.

For this to be possible, further interventions must end the culture of municipal impunity enabled by the extreme autonomy nominally afforded to local government by the Constitution, complicated by the intermediate oversight role afforded to provincial governments. This would need to:

- enable external intercession (by national government) on behalf of affected communities where municipal administrations fail to provide effective services and provincial interventions have failed; and
- establish institutional capacities to provide effective water supply service, particularly in poor, poorly planned and spatially heterogenous communities as well as more formal municipal contexts.

Performance improvement is thus dependent not on giving the right people sufficient funds to do their jobs but implementing the interlinked set of social, political and institutional interventions that might make it possible for them to do so. Each of the interventions needs to be addressed in detail which is beyond the scope of this paper. However, none of them are *prima facie* impossible. To illustrate this, three specific issues are considered.

The Constitutional autonomy of local (and provincial) government

For over a decade, successive ministers have complained that the Constitution and municipal and water sector legislation make it too difficult to intervene to remedy water service problems at local level. However, s.152 of the Constitution states that the objects of local government are to, inter alia, "ensure the provision of services to communities in a sustainable manner" and "promote a safe and healthy environment". Further, s.153 requires a municipality to "structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community". Finally, s.155 requires national government to "see to the effective performance by municipalities of their functions … by regulating the exercise by municipalities of their executive authority".

While there are, correctly, caveats and constraints about how national government should go about this task, constitutional law also recognises that a balance must often be struck between different provisions. Further, these should give priority to substantive rather than procedural issues as explained by Seedorf and Sibanda:

*"Constitutional restrictions on public power may be both procedural and substantive. The focus of substantive restrictions is an entrenched and justiciable bill of rights and a commitment to certain foundational values, such as the rule of law. The separation of powers falls on the procedural side, although its purpose is related to substantive interests: it is a means to ensure the protection of individual rights by way of the distribution of political power between different institutional actors and includes mechanisms to ensure that such power is not unduly exercised" (*Seedorf and Sibanda, 2008).

Given the demonstrable deterioration in the performance of water provision, particularly in poorer communities, it is surely time to argue that the rights of citizens to basic services provided for in the Bill of Rights must trump the procedural protection of local government autonomy. The legal challenge is complicated because the Constitution gives the primary responsibility to provincial government to oversee and intervene in the local sphere. But Schedule 4 of the constitution classifies "water and sanitation services" as "functional areas of concurrent national and provincial legislative competence". National government is thus expected to regulate performance by municipalities and inherent in the duty of regulation is the obligation to ensure performance of the matters regulated. Since s.154 requires that national and provincial governments "by legislative and other measures, must support and strengthen the capacity of municipalities to manage their own affairs, to exercise their powers and to perform their functions", there is scope for determined action and procedural innovation to address the local service delivery failure.

Alternative institutional arrangements for water services

Peering through the constitutional fog, where there is persistent failure by municipalities to perform their water supply responsibilities, national government has a clear duty to intervene. However, the duty to intervene must be accompanied by a demonstration of the capability to intervene effectively. In this area, more remains to be done.

A mechanism for intervention is needed that requires municipalities that persistently fail to perform their water supply functions effectively to hand over the function to an institution that will do so on their behalf. However, municipalities will still have a degree of political accountability for service provision even if they do not directly perform the function themselves. This is not particularly novel. Many municipal services from waste collection to financial accounting are currently conducted by external contractors who account to the municipality for their performance.

In this regard, s.19 of the Water Services Act (1997) already distinguishes between the role of the water services authority (WSA), which has overall accountability for service provision, and the role of water services provider (WSP) which actually performs the function under contract to the WSA. This can still allow municipalities to exercise oversight of a WSP's performance but not to take control of its operations.

This arrangement, which makes the municipality responsible for the performance but does not allow it to divert resources from it or interfere in its operations, may be more effective than the present situation where the municipality is both the provider and oversight authority.

A set of institutional options to provide this service function is available. Already, a handful of municipalities have a private company acting as a WSP (In many more, specialised functions such as the operation of water treatment works, or metering and billing are already contracted out).
In addition, there is provision in the Water Services Act for institutions such as water boards to undertake the WSP function on an agency basis. This is already being done in municipalities such as Emfuleni (albeit with wastewater management) as well as in the Amatole District Municipality in the Eastern Cape.

Whether through water boards or private companies, such water services provider arrangements can allow specialised capacities to be deployed, particularly to smaller municipalities that are not able to recruit and retain the necessary technical skills. The challenge of expanding these arrangements further will be to ensure that there are clear and transparent procedures as well as technical support to guide their application and mechanisms to transfer finances to them.

Revised norms and standards

The 1997 Water Services Act provides for norms and standards to guide water service provision. These are established by the Minister through regulations. This mechanism offers a ready-made framework for new approaches to be developed and implemented. The norms and standards are often seen as the formal commitment to the levels of service that government will provide and the conditions under which these will be available. Just as important, however, they imply a commitment by citizens to accept the conditions and, if required by the norms and standards, to pay for services beyond the basic services that are provided free of charge.

For this reason, any revision of the norms and standards should ensure that the conditions of service to be established are generally understood and supported by the wider community of water users. Only then can municipalities effectively enforce conditions such as payment for services by users who take more than the basic free allowance. At the same time, the establishment of norms and standards provides an opportunity for both national and local government to understand and agree on the extent of the financial commitments that are required for service providers to perform their functions effectively.

CONCLUSIONS

The need for action and innovation to address failing water supply is evident and widely recognised. What has been missing is a clear set of options to address the gap. Overarching responsibility for this lies with the Department of Water and Sanitation which has available to it the mechanisms of the Water Services Act. These may need to be simplified since they were introduced at a time when there was great pressure for private sector involvement which had, in turn, engendered considerable

opposition. However, domestic water supply is complex and politically sensitive and is a mandate shared with other national departments (CoGTA and National Treasury) as well as provincial governments. Action and innovation must therefore be guided by a coherent overarching strategy that identifies and addresses the different political, financial and technical challenges and their inter-linkages. The proposals in this paper are intended to illustrate the type of action that is required rather than provide a definitive prescription. Critically, such a programme of action will depend on broad public support for its success. Once the need for action is recognised, the next step should be to initiate the wider public debate that will be required to ensure sufficient consensus to be built to enable the adoption of new approaches.

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