Community Engagement in Drinking Water Supply Management: A Review

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EXECUTIVE SUMMARY

This review emanates from the WRC project K5/2214 that investigates the possibility of incentivising community engagement in order to improve drinking water supplies in South Africa. The research is based on the notion that an increase in community engagement, particularly in rural areas, would result in an increased understanding of the current shortcomings of drinking water supplies, an increased understanding of the communication challenges between communities, Water Service Authorities (WSAs) and Water Service Providers (WSPs) as well as an improved experience of greater transparency and accountability for all stakeholders.

Community engagement is an important component of sustainable drinking water supply management. It provides on the one hand an avenue to establish the needs of communities and on the other hand ensures the buy-in and trust into systems developed by government authorities to deliver services. Active community engagement relies on communities wanting to engage and contribute to the management and governance of services and on governance structures seeking pro-actively such engagement.

Based on previous research one of the hindrances to reporting water supply faults by community members has been the limited understanding of roles and responsibilities of local and district municipalities. Community members are unclear whom to call and are disillusioned when there is no response to their complaints. The impersonal management of complaints through call centres has resulted in citizens withdrawing from complaining altogether. Aspects such as reference numbers for follow-up of a logged call are rarely understood and are perceived as making the process of complaining itself difficult. Even in major metropolitan areas a difference between the numbers of complaints logged in affluent areas compared to under-resourced communities is clearly identifiable.

Information Communication Technologies (ICTs) have shown to offer new ways of engaging with the wider public on aspects such as governance and recently there has been an increase of literature suggesting such possibilities in the WASH (Water, Sanitation and Hygiene) sector. The proliferation of mobile phones in developing countries and the rural areas of South Africa could result in ICTs contributing to overcoming the existing barriers of reporting water supply interruptions.

This document provides the necessary background to the above-mentioned research project in order to assess existing literature on the topic of community engagement, service delivery, incentivisation and ICTs. The document is broken into the following sections:

- *Chapter 1*: An analysis of the current status of water service delivery in South Africa is presented using the Blue Drop reports on Drinking Water Quality of the Department of Water Affairs. Aspects such as the discrepancy between rural and urban municipalities, overall growth in service delivery and supply management and water quality will be discussed.
- *Chapter 2*: An overview of the many ways in which communities engage with governance will be provided in the second section. An investigation into national and international trends will provide a first assessment of how governments incentivise communities and public stakeholders in contributing to governance and resource management. By analysing the local governance structures and government policies on community engagement, public participation and community managed supplies, some of the South African specific challenges to service delivery and community engagement are discussed.
- *Chapter 3*: ICTs have been used extensively over the last decade in the context of public engagement and governance. Events such as the Arab Spring, the Tunisian Revolution, the Spanish 15M-movement and the Occupy-Wall Street movement, were organised and managed through ICTs. Whilst

these historical events speak to a particular aspect of governance and stakeholder engagement, there are some key lessons to be learnt in how to harness ICTs in this context.

- Chapter 4: This section of the report provides an analysis of the current understanding and best practises of incentivising communities. A key aspect to this research is to understand how to assess and judge the success of incentivising communities. It is envisaged that the roles incentives play in engaging with the public and what incentives are relevant in the service delivery sector will be clarified.

- Chapter 5: The last section of the report provides overall conclusions. From the findings of the literature a first assessment of the project, the relevant research and possible challenges are identified.

CONTENTS

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LIST OF FIGURES

_____

LIST OF TABLES

_____

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CHAPTER 1: WATER SERVICE DELIVERY IN SOUTH AFRICA: AN OVERVIEW

1.1   INTRODUCTION

The water sector in South Africa has been through a substantial restructuring process since 1994, including updated water acts, developed water policies, and restructured water resource management resulting in significant institutional changes (Lindfors, 2011) (Hudgson & Manus, 2006). In the White Paper of 1994, the goal of Department of Water Affairs and Forestry was defined as ending the inequity in access to basic water supply and sanitation service. The central concepts of social equity and the right to a healthy environment are entrenched in the Constitution, adopted in 1996. The Constitution proclaims that *"everyone has the right to have access to sufficient food and water"* (Section 27(1) (b)) and requires the Government to *"take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights"* (Section 27(2)) making the Government responsible to put in place arrangements to secure access to sufficient water to meet the domestic needs of all South Africans (McDonald & Pape, 2002)*; (Republic of South Africa, 1996). Several laws and policies such as the National Water Act and White Paper on National Water Policy support these concepts.

However, while legislation and policies were updated, it soon became obvious that many people were too poor to take advantage of new services. The free basic water policy was developed as a response to this. It was introduced in 2001 and guarantees all citizens an amount of water free of charge (Muller, 2008). The Free Basic Water Provision makes the first 6000 liters per month free to all households. This amount is calculated based on a household of eight people consuming 25 liters per person per day. The water should be accessible at a maximum distance of 200 meters from each dwelling, with 98% assurance of supply at a flow rate of 10 liters per second of potable quality (Department of Water Affairs and Forestry, 2003)*.

The roles and responsibilities regarding water provision, maintenance of infrastructure and water quality monitoring are shared between various governmental organizations in the country. Water management is constitutionally a national function within the Department of Water Affairs, but environmental and pollution issues are partly of provincial concern. The national and provincial governments have a responsibility to ensure that Water Service Authorities, located within the local government, are performing their function in providing water and support and assist them in order to doing so, see Figure 1.

As Lindfors (2011) describes, the national Department of Water Affairs (DWA[1]) has the overall responsibility of water resource management and water service provision. As the leader of the water sector, its role is to support and strengthen the Water Service Authorities. This includes offering guidance toward effective

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[1] Prior to 2010 the Department of Water Affairs (DWA) was called the Department of Water Affairs and Forestry (DWAF). The terms DWAF and DWA are used throughout this report based on the timeline of the publication referenced. Any reference prior to 2010 is referred to as DWAF, after 2010 is referenced as DWA.

management, monitoring performance and enabling capacity building. Moreover, the DWA has a central role in monitoring the sectors performance and ensuring its effectiveness of duties. If the Water Service Authority is incapacitated to meet their standards the DWA has the responsibility to intervene (Department of Water Affairs and Forestry, 2003). DWA is also responsible to update legislation and develop standards and national water policies while the South African Bureau of Standards (SABS) actually defines the standards which water quality must meet (Department of Water Affairs and Forestry, 1994). Additionally, DWA manages information to be used for support, monitoring, regulation and planning (Department of Water Affairs and Forestry, 2003).

National Government	**South African Bureau of Standards** Defines standards which water quality must meet	**Department of Water Affairs and Environment** Lead the water sector Support implementing and planning bodies Develop policies, legislation and guidelines Monitor performance on national level	**Department of Health** Collecting information on the incidence of waterborne diseases Being the lead early warning authority and execution agents for medical intervention if necessary
Provincial Government	**Catchment Management Agency** Provide support to implementing and planning bodies Fill the role of Water Service Authority if water service at local level fails Planning of water resources, licensing and monitor water use etc.		
Local Government	**Water Service Authority** Ensuring access, planning and provision of drinking water Perform monitoring to compare results to national drinking water standards Enter into contracts with WSP best able to achieve these requirements	State owned	**Water Boards** Supply bulk water within a specific region when necessary
Public, private or mixed entities	**Water Service Provider** To provide the services and perform the duties as required in the contract, the WSA and the Constitution		**Water User Association** Supply bulk water within a specific region when necessary

Figure 1 Roles and Responsibilities of water service delivery (Lindfors, 2011)

In 2005, the Drinking Water Quality Regulation program was initiated by the DWA. It required microbial and chemical water quality testing to be done based on the South African National Standard 241 (SANS241 (SABS, 2006). This program, which was re-structured and re-named in 2008 to the so-called Blue Drop System (BDS), had the objective to ensure improvements of tap water quality through improved performance of Water Service Authorities (Souza et al., 2009). The intention of introducing the Blue Drop Certification program in 2008 was to increase awareness of water quality standards and to hold municipalities responsible for service delivery. Whilst monitoring has substantially increased, the public's trust in water quality has not grown to the same level. By awarding Water Service Authorities with "Blue Drop Status" if

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they are compliant with drinking water legislative and best practice requirements, it is hoped to increase transparency in drinking water quality management (Department of Water Affairs, 2010).

1.2 THE BLUE DROP ASSESSMENT

The Blue Drop assessment is based on strategic performance areas and forms a holistic approach to water management. The Blue Drop System is built on an incentive-based regulation to stimulate a process of sustainable improvement. The specific criteria taken into account when evaluating the Water Service Authorities concerns are: water safety plans, process control, efficiency of monitoring programs, credibility of sample analysis, submission of results to DWA, compliance with SANS 241, failure response management, responsible publication of performance and efficacy of basic DWQ asset management. This means that a low blue drop score is not necessarily reflective of unsafe water, but the WSA may need to improve management aspects. The criteria and the related requirements for each of them are listed in Figure 2.

Criteria (& weighting)	Requirements (& secondary weighting)
Water Safety Plan (5%)	1. A Risk Assessment (on the basis of Water Safety Plan concept) must have been done, covering all areas of responsibility (from catchment to consumer) (30%) 2. The water Safety Plan must detail roles and responsibilities, deadlines for management activities, and 3. Management´s commitment to fund implementation (30%) 4. Proof on how findings of the Risk Assessment influenced the monitoring program. 5. It must also indicate plans for security improvement (40%)
Process Control and Maintenance Competency (10%)	1. Treatment works complying with Regulation 2834 of water Act. In terms of Classification and Registration (20%) 2. Process Controllers complies with skills requirements of Regulation 2834 of Water Act (40%) 3. Availability of skilled maintenance skills (10%) 4. Operations and Maintenance manual is in place (30%)
Efficiency of Drinking Water Quality Monitoring Program (15%)	1. Operational monitoring efficiency (20%) 2. Compliance monitoring efficiency (40%) 3. Adequate monitoring coverage or distribution network (20%) 4. Number of key analyses (e.g. *E. coli*) per population served (regulatory yardstick is a minimum of 1:10 000) (20%)
Credibility of Drinking Water Sample Analysis (5%)	1. Proof to be provided of the laboratory used (10%) 2. Laboratory is either accredited or participates in an accredited Proficiency Scheme (obtaining an acceptable Z-score) (50%) 3. Proof that analysis result are used to improve process controlling (30%) 4. DWQ Data is fully verifiable on the Blue Drop System (BDS) (10%)
Regular Submission of Drinking Water Quality Results to DWA (5%)	1. Results must be submitted 12 months a year (100%)

Criteria (& weighting)	Requirements (& secondary weighting)
Drinking Water Compliance with the South African National Standard (SANS 241) (30%)	1. Provide adequate figures/information on monitoring data for compliance calculation (20%) 2. Complies with more than 99% of key micro bacteriological limits and more than 95% of key chemical limits (80%)
Drinking Water Quality Failure Response Management (15%)	1. Proof provided of a Drinking Water Incident Management Protocol (45%) 2. Proof of Implementation – DWQ Failure Incident register (55%)
Responsible Publication of DWQ Management Performance	1. Annual Publication of DWQ Management performance (50%) 2. Evidence to be provided that wider audiences reached through the communication means (50%)
Efficacy of basic DWQ Asset Management (10%)	1. An annual Process Audit done on treatment works (20%) 2. An update Asset Register to be in place (30%) 3. Treatment works operations should not exceed design capacity (20%) 4. Operations budget should make provision for Maintenance (30%)

Figure 2 Criteria and Requirements for Blue Drop Status

The latest Blue Drop report was published in 2012 and shows the country's water has improved over the past four years. A total of 931 water supply systems in 153 municipalities were assessed in 2012 with a national Blue Drop Score of 87.6%. The table below provides a detailed overview for each province. In general, there is an overall improvement for all provinces but a definite improvement is noticed in 2010, as seen from both Table 1 and Figure 3. This could be attributed to the influence of the FIFA World Cup, where a boost in infrastructure development would have occurred and benefitted the water sector, especially in major cities and provinces hosting games. The improvement in the "host" provinces is less evident in 2011, but the improvement in other provinces is noticeable. This could be credited to the redistribution of funding to improve infrastructure countrywide. In 2012, a general improvement can be noted for all provinces with WSAs accustomed to the process of evaluation for the Blue Drop System and better management methods have been implemented.

Table 1: Provincial Blue Drop Score and percentage improvement

| Blue Drop Score in Percentage (%)					Improvement
	2009	**2010**	**2011**	**2012**	**Percentage Improvement**
Eastern Cape	54,33	79,40	77,33	82,11	27,78
Northern Cape	28,30	46,87	62,07	68,20	39,90
Free State	40,03	48,50	64,10	73,60	33,57
Gauteng	74,40	85,54	95,10	98,10	23,70
KwaZulu-Natal	73,00	65,91	80,49	92,10	19,10
Limpopo	40,82	54,95	64,00	79,40	38,58
Mpumalanga	51,00	65,42	56,50	60,90	9,90
North West	39,97	66,01	62,25	78,70	38,73
Western Cape	60,32	92,45	94,09	94,20	33,88
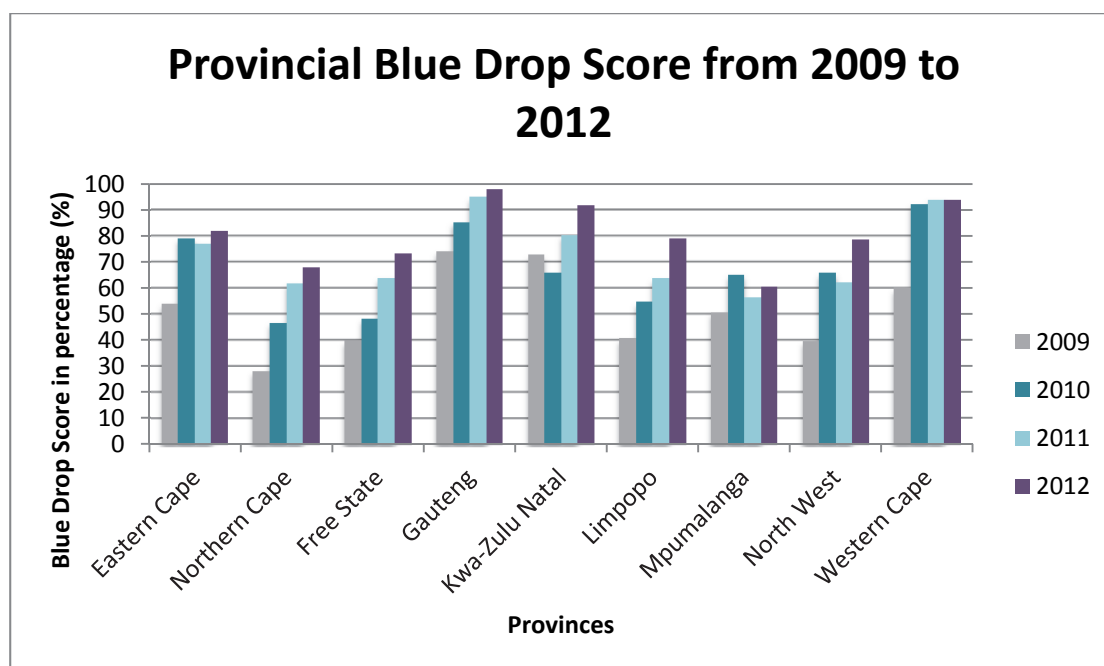
Figure 3: Provincial Blue Drop Scores from 2009 to 2012

Provinces like the Northern Cape, Limpopo, North West and Free State show continual improvement at a relatively fast pace (about 40% improvement over 4 years), where the Western Cape shows good progress in 2010 and improves steadily over the last 3 years. Mpumalanga has had the smallest percentage improvement with a mere 9.9%.

1.3   PERFORMANCE COMPARISONS

In order to create an overview of the current levels of drinking water supply management throughout South Africa an analysis of the criteria relevant to this study was performed:

- Monitoring efficiency
- Credibility of sample analysis
- Compliance with DWQ standards

The information was extrapolated from the Blue Drop Reports for the respective years and grouped into three components, namely:

- *Good* – High scores (above 80%) often yielding Blue Drop certification for the water system. This is indicated in green on the figures below.
- *Low* – a range of acceptable scores, which is still regarded as safe but not, meeting the desired Blue Drop Score (between 50% and 80%). Indicated in orange.
- *Unacceptable* – A low score (less than 40%) and often not meeting the minimum standard with SANS 241. Indicated in red.

Although data for all nine provinces was analysed, the results presented here reflect the best performing provinces as well as the provinces with the greatest level of rural service provision. Gauteng is a strong performer over the 4-year period of the Blue Drop Assessments and represents a metropolitan district that is characterized mostly by urban areas. Mpumalanga is representative of rural areas and according to the Blue Drop reports, regarded as a low performer (DWAF, 2012a). The Western Cape and Eastern Cape are examples of provinces that have a combination of both rural and urban areas.

1.3.1 Gauteng

Gauteng is regarded as the best performing province regarding DWQ and Blue Drop status (DWAF, 2012b). As per Figure 4 Gauteng's monitoring efficiency is high with most municipalities audited achieving relatively high *Good indicator* scores. An improvement in performance is noted in 2010 and the respective years, compared to the base year 2009. The highest improvement is in 2012, with a high *Good indicator* value of about 95% and a Low indicator score of 5%, with no occurrence of the *Unacceptable indicator*. Figure 5 shows the credibility of sample analysis for Gauteng and similarly to the monitoring efficiency shown above in Figure 4, most municipalities assessed are achieving good results where the score is relatively high and improving each year.
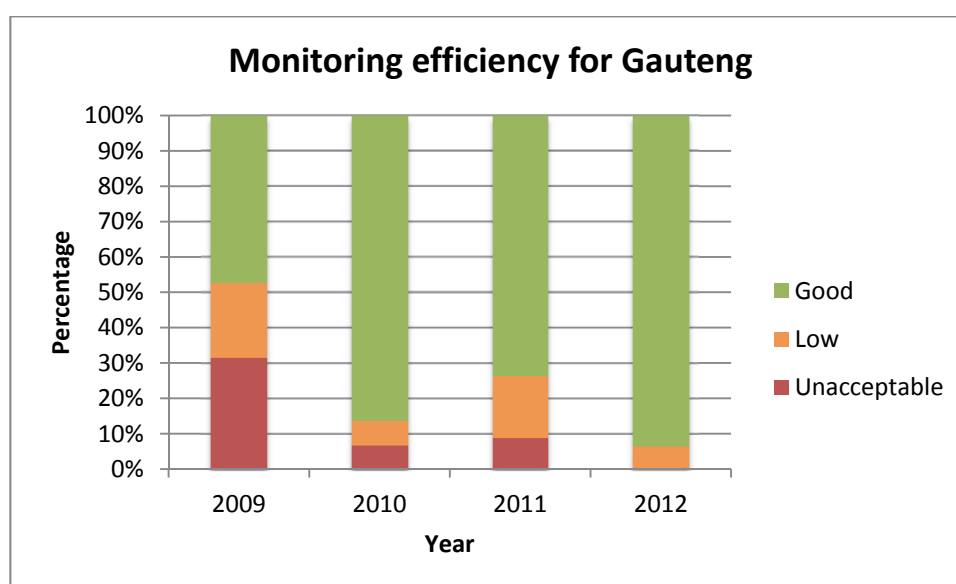
Figure 4 Monitoring efficiency Gauteng
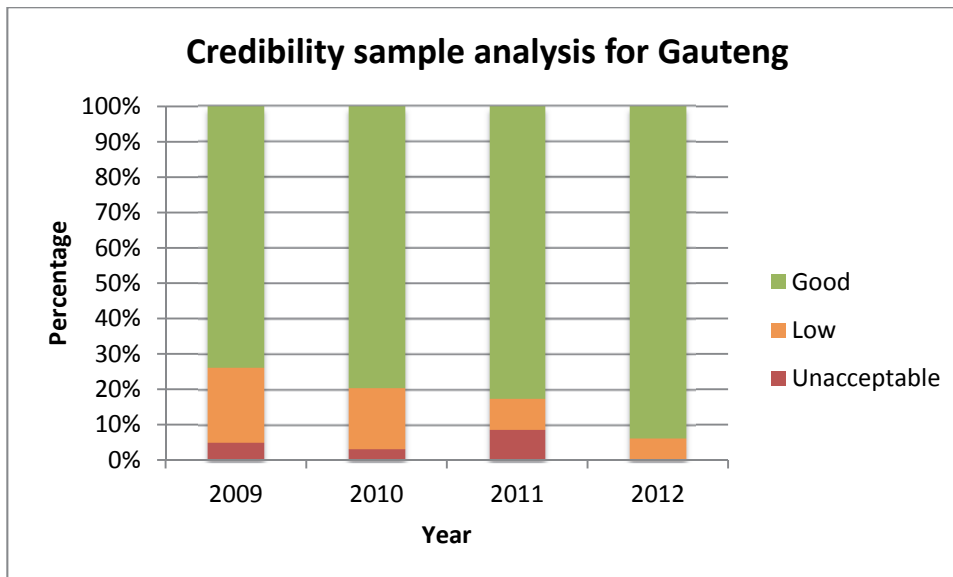
Figure 5 Credibility sample Gauteng
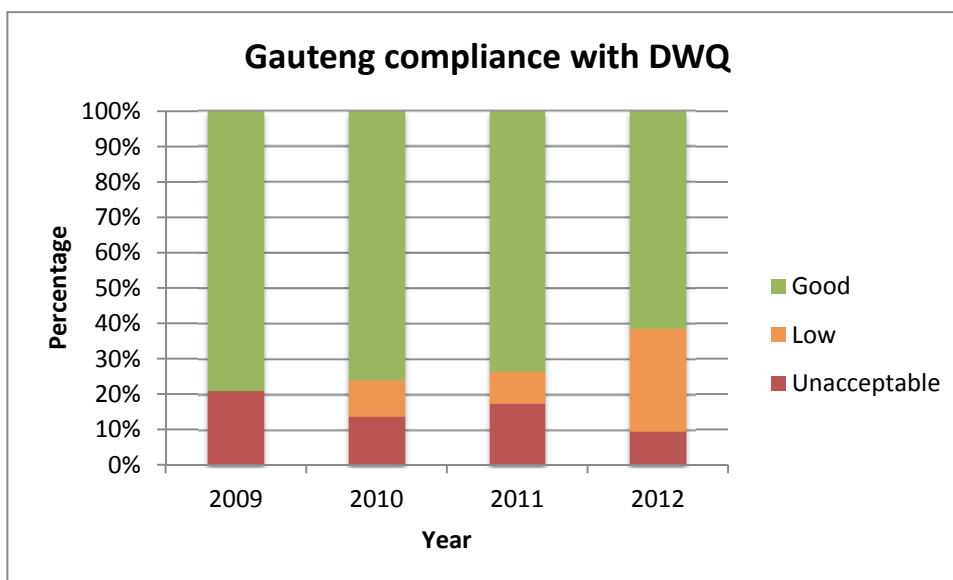
Figure 6 Compliance Gauteng

Gauteng's compliance with DWQ is considered to be good since the majority of the audited water systems comply with the regulations. There is improvement in performance from 2009 to 2010 with 2011 remaining relatively consistent and a decline is noticed in 2012. Even though the *Unacceptable Indicator* decreases from about 17% to 10%, the *Low Indicator* increases from about 10% to about 29%, which reduces the *Good Indicator* by about 12%. No explanation for this decline can be garnered from the Blue Drop reports since the number of municipalities and water systems audited have remained consistent from 2011 to 2012.

1.3.2 Mpumalanga

In contrast to Gauteng's top performance, Mpumalanga was selected, as it is the worst performer in the Blue Drop assessments. It has the lowest percentage improvement over the 4-year cycle of audits (DWAF, 2012). It was also selected based on its characterization of comprising of mostly rural areas where Gauteng is considered Metropolitan with its characteristic urban areas.
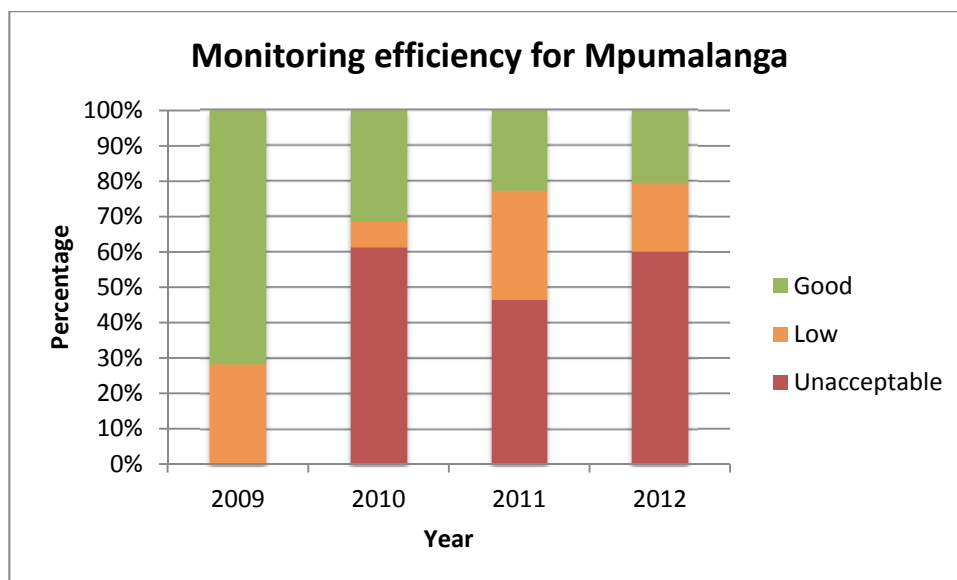
Figure 7 Monitoring Efficiency Mpumalanga

Compared to Gauteng the Monitoring efficiency for Mpumalanga, shown in Figure 7 above, is relatively poor as a steady decline can be noticed from 2009 to 2012. The *Good Indicator* was approximately 71% in 2009 and declined to approximately 20% in 2012. Where there was no *Unacceptable Indicator* in 2009, it increased to about 60% in 2012 (with a slight improvement in 2011). The credibility of sample analysis is shown in Figure 8 and similarly, compared to Gauteng; Mpumalanga's performance is relatively poor with a decline in performance of the 4-year period. No explanation can be concluded from the Blue Drop reports as to the improvement in 2011.

Figure 9 illustrates the performance of Mpumalanga's compliance with the DWQ regulations. The improvement in 2011 is noted in comparison to the other three assessment years, where the *Good Indicator* is about 55% and the *Unacceptable Indicator* is lower compared to the other years (about 26%). Again, no explanation can be concluded from the data analysed for the improvement in 2011, however, it is interesting to note that there was an overall decline in the Blue Drop scores for the Mpumalanga province in that year (refer Table 1, pg. 5).

Credibility sample analysis for Mpumalanga
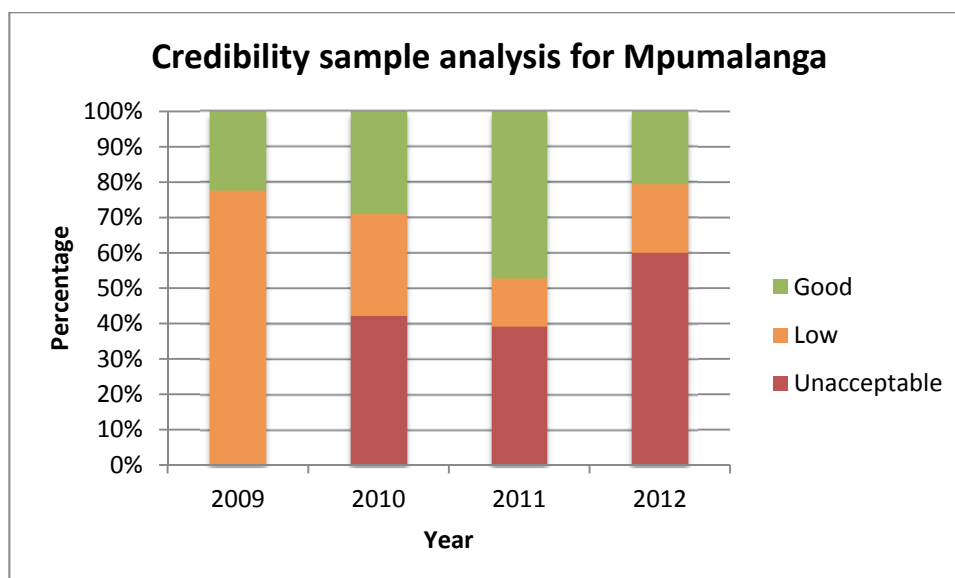
Figure 8 Credibility Sample Mpumalanga

Mpumalanga compliance with DWQ
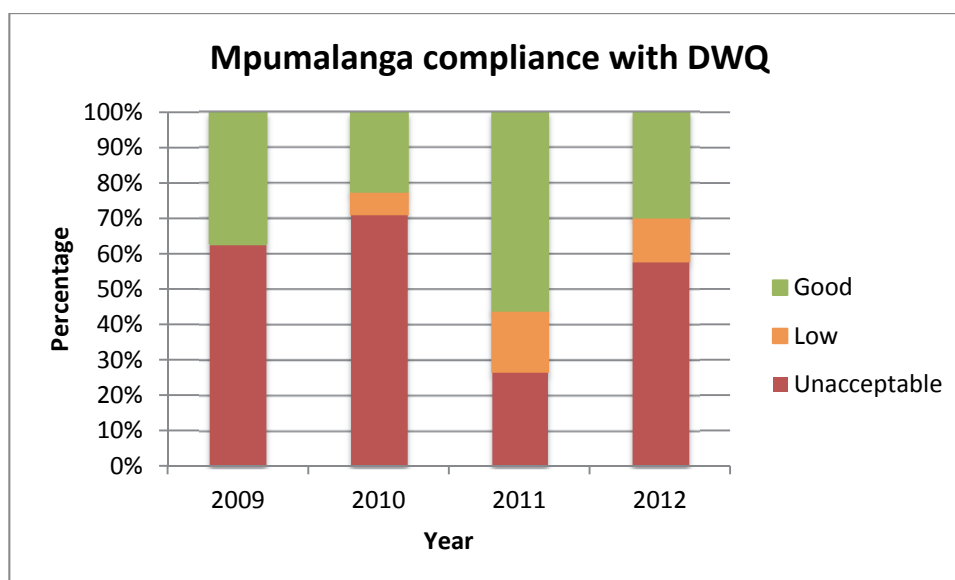
Figure 9 Compliance Mpumalanga

1.3.3   Eastern Cape

The Eastern Cape encompasses both rural and urban settings and also contains parts of the former homelands of South Africa (i.e. Transkei and Ciskei). There is an overall improvement in the province of the Blue Drop scores from a mere 54% in 2009 to 82% in 2012 (see Table 1, pg. 5). Compared to Gauteng the monitoring performance of the Eastern Cape is relatively poor, much like Mpumalanga, with the performance declining. As can be seen from Figure 10, in 2009 the *Good Indicator* was about 69% and the *Unacceptable Indicator* was about 19%. In 2012 the *Good Indicator* decreased to about 18% where the *Unacceptable Indicator* increases to about 42%.
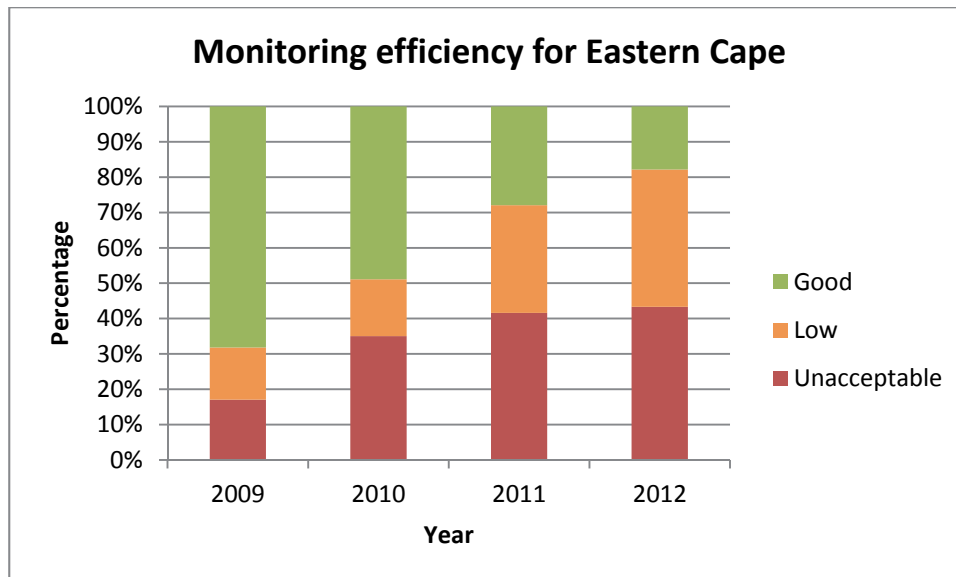
Figure 10 Monitoring Efficiency Eastern Cape
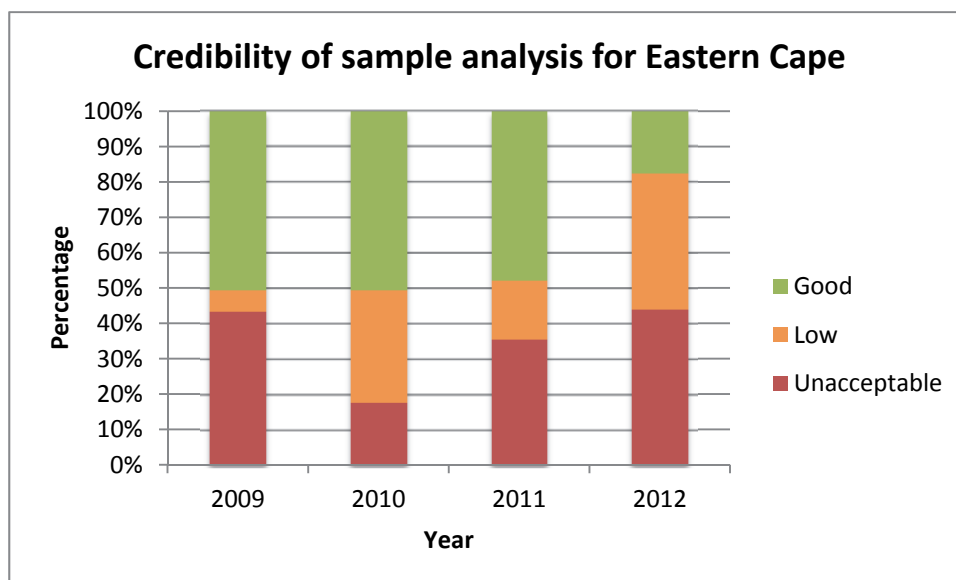
Figure 11 Credibility Sample Analysis Eastern Cape

Figure 11 shows the credibility of the sample analysis for the Eastern Cape. An improvement is noted in 2010 where the *Good Indicator* remained more or less constant (at about 45%), i.e. scores have remained in the high percentile and the credibility of the water samples tested was good. In the same year, the *Low Indicator* increased by about 26%, reducing the *Unacceptable Indicator* by approximately 24%. However, in the following years, the *Unacceptable Indicator* increased, whilst the value of the *Good Indicator* dropped substantially. The compliance for DWQ is an important assessment in the Blue Drop Report as it measures whether the drinking water of a specific water system adheres to SANS 241. As can be seen from Figure 12, there is not much variation in performance, but the levels of the *Unacceptable Indicator* are considered to be high (above 50%) when compared to other provinces. Overall the Eastern Cape is improving its

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performance, however, there is evidence that the water quality of some systems in parts of the province are stagnating or declining.
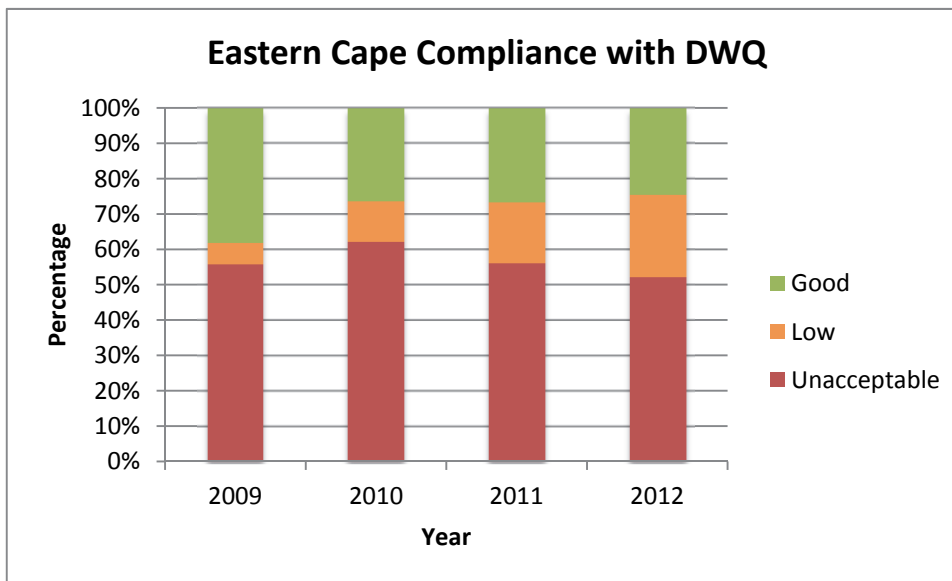
Figure 12 Compliance Eastern Cape

1.3.4 Western Cape

The Western Cape was chosen as it too represents a wide-ranging mix of urban and rural environments, e.g. Cape Town (as a metropolitan city) versus areas like the Karoo (small towns with surrounding rural areas).
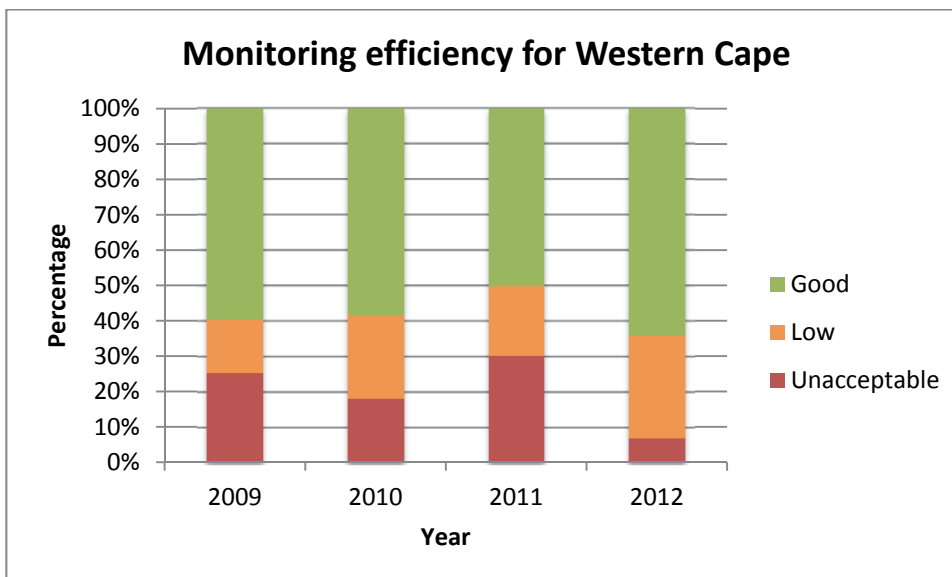
Figure 13 Monitoring efficiency Western Cape

Compared to Mpumalanga and Eastern Cape, the monitoring efficiency of the Western Cape (shown in Figure 13 above) is fairing much better, yet slightly underperforming when compared to Gauteng. Gradual

improvement is shown over the 4-year assessment period where the *Good Indicator* remains the same over 2009 and 2010 at about 60%. A decline is noted in 2011 where the *Good Indicator* is about 50% and an improvement is noted in 2012 where the *Good Indicator* increased to about 63%. The *Low Indicator* remains somewhat constant ranging between 15-20% and the *Unacceptable Indicator* shows a decline as the *Good Indicator* improved over the progressive years.
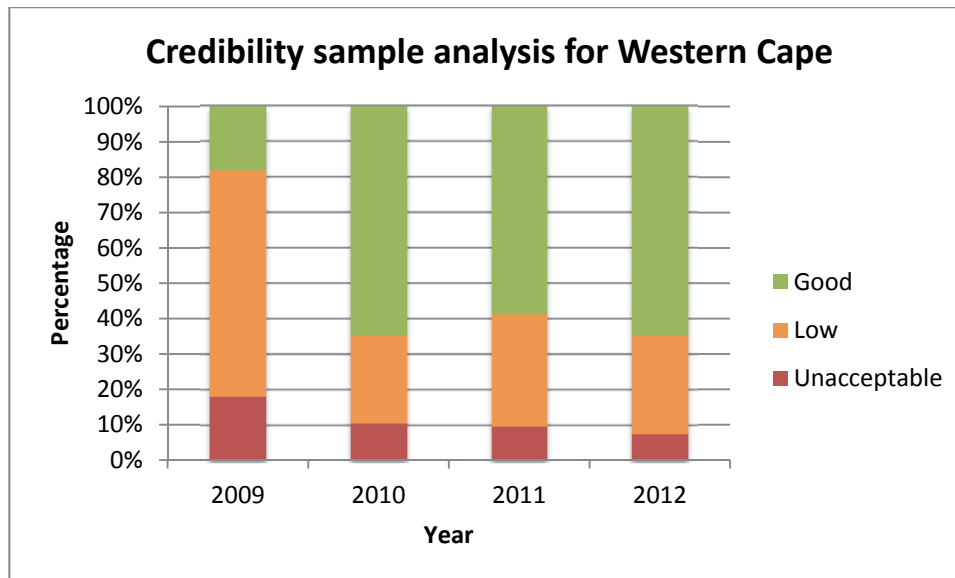
Figure 14 Credibility Sample Western Cape

Figure 14 illustrates the improvement of the credibility sample analysis for the Western Cape. As can be seen, there is a vast improvement from 2009 to 2010 (*Good Indicator* score improves from about 19% to about 42%) and then stabilizes over the next three years. In comparison to the other provinces, the Western Cape is still performing better than the Eastern Cape and Mpumalanga, respectively, and still marginally underperforming when compared to Gauteng.

Similarly to the previous criteria, the Western Cape is displaying progressive improvement over the Blue Drop auditing period. There is a slight decline in 2010 with the *Good Indicator* decreasing from about 50% to 40%, however, the *Unacceptable Indicator* decreased from approximately 47% in 2009 to about 36% in 2010 and the *Low Indicator* making up the remainder.
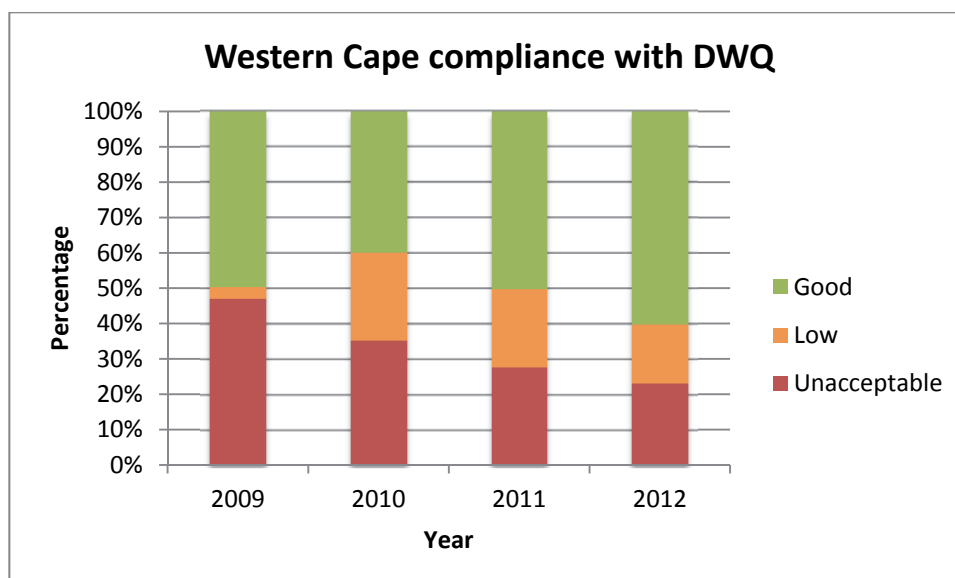
Figure 15 Compliance Western Cape

1.4 COMMUNICATION OF DRINKING WATER QUALITY TO THE PUBLIC

Since 2011 the Blue Drop Assessment has increased the focus on the responsible publication of Drinking Water Quality Management Performance to the public. In order to increase awareness of water quality, the interruption of services, accountability of municipalities and other aspects of the Blue Drop Assessment, WSAs and WSPs are required to share the information with all stakeholders as part of part of the community engagement process in the water sector. Assessed are if the management performance was annually published and if there is evidence that a wider audience was reached through communication means. Below are the performance indicators for 2011 and 2012.
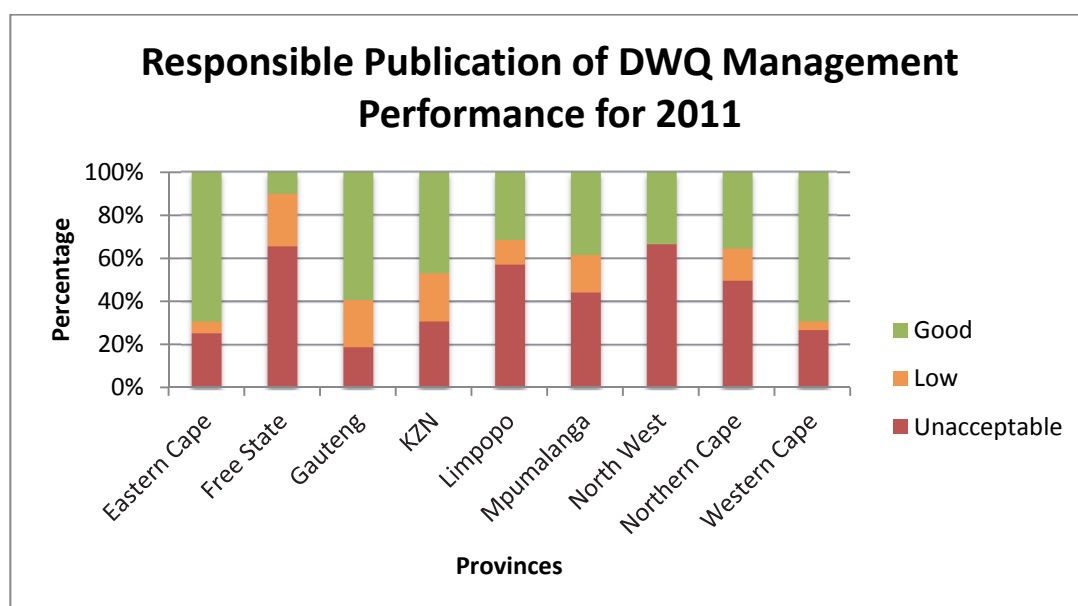
Figure 16 Publication of DWQ in 2011
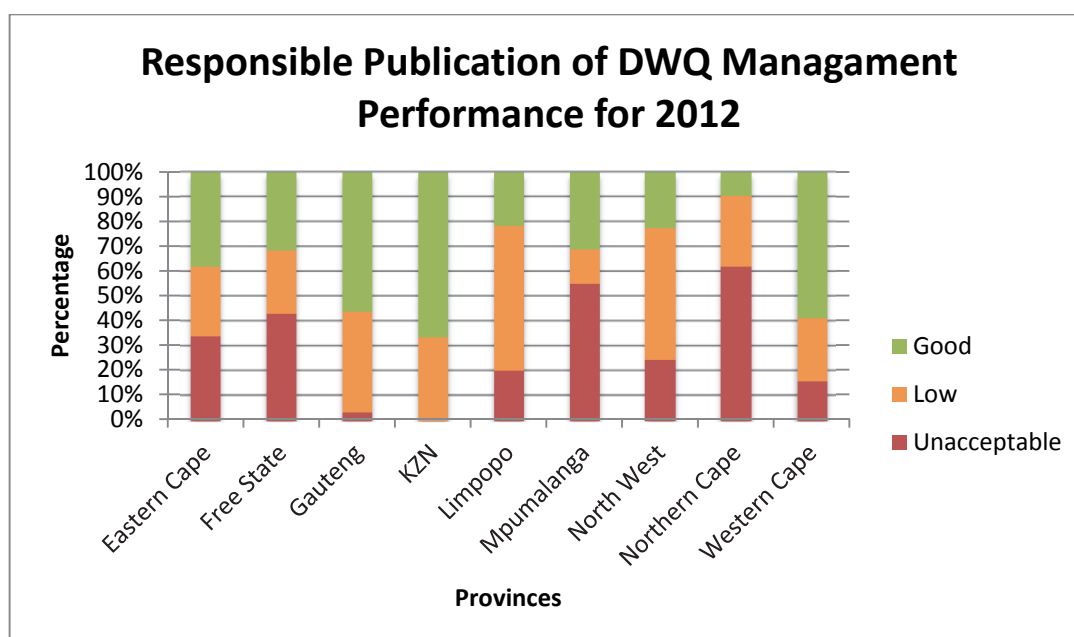
Figure 17 Publication DWQ in 2012

The publication of results is more complex than anticipated and the purpose of this assessment does not only review the publication itself, but also assess if communities have been reached. Interestingly, the provinces with the low Blue Drop Score seem to be performing well in informing their public stakeholders on the quality of drinking water. KwaZulu-Natal (KZN), Limpopo, and the Free State show a marked improvement from 2011 to 2012, whilst the Eastern Cape and Mpumalanga declined. Urban areas – where information distribution should be easiest – seem to be lagging behind some of their rural counterparts as can be seen in the case of Gauteng and the Western Cape.

1.5 CONCLUDING REMARKS

The Blue Drop reports give an insight into the current situation of water quality and the management of water services. It has helped to inform the overall performance of the audited municipalities and the disparities that exist between them i.e. high performing versus low performing regions. Furthermore, it has highlighted municipalities that could benefit from this study. As can be seen from the graphs (Figure 4, Figure 5 and Figure 6) Gauteng is the best performing province in Blue Drop status and water quality. It has managed to score a high Blue Drop score since the inception of the program in 2009, gradually improved and maintained its status and high scoring ability. The Western Cape has also performed well, even though slightly underperforming when compared to Gauteng, but still managing to improve over the assessment periods and maintain Blue Drop status (DWAF, 2012). The Eastern Cape and Mpumalanga show that improvement is possible, yet struggle to maintain their level of performance. This could be attributed to management approaches adopted by municipalities and lack of resources. From the data presented by the Eastern Cape and Mpumalanga, it is evident that the water quality in some areas are stagnating or declining and this needs to be addressed most urgently since declining water quality has a direct impact on the health of the population.

CHAPTER 2:   PUBLIC CONSULTATION AND SERVICE DELIVERY

2.1   INTRODUCTION

In South Africa, public participation is not a privilege but a Constitutional right. This is given greater prominence by the fact that chapter 1 of the Constitution of the Republic of South Africa, 1996, emphatically states that the Constitution is the supreme law of the Republic, the obligations imposed by it must be fulfilled and that any other law or conduct in conflict with it is invalid and (Tsatsire, 2008). The need for public participation in government, as required by the Constitution must, therefore, be met. This Constitutional provision places an obligation on government to establish public participation structures and systems. Tsatsire (2008) argues that public participation must be pursued, not only to comply with legislative prescriptions, but also to promote good corporate governance. In support of the 1996 Constitution, subsequent local government legislation and policy papers include local residents under the definition of local government. Although public consultation and participation are part of the new developmental mandate assigned to local government, they remain part of the challenges confronting municipalities.

The transformation of local government in South Africa has a number of important implications. The first implication is that in terms of a variety of legislative prescriptions, the status of local government has changed. Municipalities have been assigned additional responsibilities and structures have changed to suit these new functions. Planning must be integrated and developmental, and municipal performance must be measured and judged by municipalities themselves, by residents and by the provincial and national governments. As part of its developmental role, municipalities are now required to form partnerships with their communities. This is prescribed in terms of the new definition of a municipality, which includes a municipal structure and its residents. The new developmental mandate is perhaps viewed by many as a way of doing business differently with particular emphasis on community consultation and participation.

The South Africa government has made significant strides to ensure that citizens are able to enjoy an improved quality of life. Despite this, there remain numerous problems that negatively influence service delivery such as unemployment, brain drain leading to skills shortages, high crime rates and poverty. Each municipality faces different social and economic conditions and has different performance levels and support needs. Thus a more segmented and differentiated approach was required to address the various challenges of municipalities. This prompted the government to introduce the Local Government Turnaround Strategy (LGTAS) to tackle the problems that each municipality faces. The notion of the LGTAS is that this would allow the various municipalities to become developmental and to help maximise the use of scarce resources. As community consultation and participation are viewed as essentials in an effort to achieve the aims and objectives of the new developmental mandate and LGTAS, an overview of pertinent legislative prescriptions pertaining to community consultation and participation, particularly at the local government sphere, now follows.

2.2   LEGISLATIVE PRESCRIPTIONS PERTAINING TO PUBLIC CONSULTATION AND PARTICIPATION

Shaidi (2007) states that the legacy of separate development (apartheid) in South Africa is still visible in the segregated human settlement patterns, as well as in the type and characteristics of municipal institutions. As such, transformation from the former political era to the new democratic dispensation requires an understanding of the historical role of local government in creating and perpetuating local separation and inequality. Equally important is an understanding of the impact that the policy of apartheid had on municipal institutions as well as the history of resistance to apartheid local government structures. International experience has shown that citizen and community participation is an essential part of effective and accountable local governance in South Africa (Shaidi, 2007). The third sphere of government in South Africa can be regarded as being the closest to communities and in terms of the new developmental mandate assigned to it, public consultation and participation are of particular importance.   The following legislation is of importance in this regard:

- The Freedom Charter adopted by the Congress of the People in Klip Town, near Johannesburg in 1955;
- The Constitution of the Republic of South Africa, 1996;
- The White Paper on Local Government, 1998;
- The Local Government: Municipal Structures Act, 117 of 1998;
- The Local Government: Municipal Demarcation Act, 27 of 1998;
- The Local Government: Municipal Electoral Act, 27 of 2000;
- The Local Government: Municipal Systems Act, 32 of 2000; and
- The Local Government: Municipal Finance Management Act, 56 of 2003.

An overview of selected legislation will be provided below.

2.2.1   Public participation in the Constitution of South Africa, 1996

In terms of Section 152 (1) of the Constitution of the Republic of South Africa, 1996, the objects of local government are:

- to provide democratic and accountable government for local communities;
- to ensure the provision of services to communities in a sustainable manner;
- to promote social and economic development;
- to promote a safe and healthy environment; and
- to encourage the involvement of communities and community organizations in the matters of local government.

In terms of Section 152(2) of the 1996 Constitution, municipalities must strive, within their financial and administrative capacity, to achieve the objects set out in Section 152 (1), which emphasises, *inter alia*, the need to encourage the involvement of communities and community organisations in local government matters. It is evident from the above that the underlying principles contained in the Freedom Charter are now embedded in the Constitution of the Republic of South Africa, 1996. The Constitution clearly stipulates the new developmental role of local government and, hence, the new mandate for local government. Although

the Constitution does provide for the new developmental mandate for local government, it does not stipulate the structural framework within which public consultation and participation should take place. It was the White Paper on Local Government, 1998, which provided a basis for developmental legislation with strong emphasis on public participation.

2.2.2 Public Participation Provisions Contained In the White Paper on Local Government, 1998

The White Paper on Local Government, 1998 (Government Gazette, Vol. 18739, 13 March 1998) is based on the following premise:

- That apartheid had fundamentally damaged the spatial, social and economic environments in which people live, work, raise families, and seek to fulfill their aspirations; and
- That local government consequently has a critical role to play in rebuilding local communities and environments, as the basis for a democratic, integrated, prosperous and truly non-racial society.

As such, the White Paper on Local Government, 1998, examined the state of local government at the time (1998) and made several recommendations. Amongst these recommendations was the need to promulgate legislation that would promote a new mandate for local government through public consultation and participation. In terms of Section B of the White Paper on Local Government, 1998, developmental local government is defined as local government committed to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives. In order to realise the concept of developmental local government, Section B of the White Paper, 1998, stipulates the following key components:

- Characteristics of developmental local government;
- Developmental outcomes of local government, and
- Tools and approaches for developmental local government.

The characteristics of developmental local government are prescribed as:

- Maximizing social development and economic growth;
- Integrating and coordinating;
- Democratising development, empowering and redistributing; and
- Leading and learning.

With regard to democratising development, the White Paper on Local Government, 1998, requires that municipal councillors should promote the involvement of citizens and community groups in the design and delivery of municipal programmes. It can therefore be argued that developmental local government hinges on public consultation and participation. The White Paper further prescribes the provision of household infrastructure and services, creation of liveable, integrated cities, towns and rural areas and promotes local economic development as the outcomes expected of local government, in the context of a developmental state. The White Paper also provides for the following tools and approaches for developmental local government:

- Integrated Development Planning (IDP), budgeting and performance monitoring;
- Performance management, and

- Working together with local citizens and partners.

One of the strengths of integrated development planning is that it recognises the linkages between development, service delivery and democracy. The White Paper, 1998, requires municipalities to enhance public consultation and participation at four levels, namely:

    i)   As voters, to ensure maximum democratic accountability of the elected political leadership for the policies they are empowered to promote;

    ii)   As citizens who express, via various stakeholder associations, their views before, during and after the policy development process in order to ensure that policies reflect community preferences as far as possible;

    iii)   As consumers and end-users, who expect value-for-money, affordable services and courteous and responsive service; and

    iv)   As organised partners involved in the mobilisation of resources for development via for-profit businesses, non-governmental organisations (NGOs) and community-based institutions.

It is clear from the above that public participation takes place on four levels: the public as voters; as citizens, as consumers and as organised partners in development. It can be argued that as The White Paper on Local Government, 1998, was not an Act of Parliament it did not have the full force of law required to enforce its provisions. Public participation structures such as ward committees could not be established on the strength of the White Paper alone. As a result, additional developmental legislation had to be promulgated to give effect to, *inter alia*, strengthening community consultation and participation (Shaidi, 2007).

2.2.3   Public Participation Provisions in Terms of the Municipal Structures Act 117 of 1998

Because local government is regarded as the sphere of government closest to communities, the core of related legislation is to establish measures to ensure that citizens give input into the decisions that local municipalities make. The Local Government: Municipal Structures Act, 117 of 1998, was the first developmental legislation that dealt in specific terms with the structures and processes required to effect public consultation and participation in the Republic of South Africa.

In terms of Section 72 of Act 117 of 1998, only metropolitan and local municipalities of certain types may have ward committees. This means that there are a number of municipalities that need to develop public participation mechanisms other than the ward committee participatory system.   In terms of Section 72(3) of the Act, the object of a ward committee is to enhance participatory democracy in local government. This, in practice, is carried out through public participation and consultation. According to Section 72(1) of the Act, only metropolitan and local municipalities of the types mentioned in Sections 8(c), (d), (g), (h) and 9(b), (d), (f) of the Act may have ward committees.

Four important deductions related to ward committees can be made, *viz.:*

- The object of ward committees is to enhance public participation and consultation in matters of local government;

- Ward committees are structured communication channels between local government and its communities;

- Ward committee members, with the exception of the ward councillor, are community representatives who perform their duties on a voluntary basis; and
- Although the Act empowers the metro to dissolve a ward committee that fails to fulfill its objectives, it does not provide for a monitoring and evaluation system required to measure performance indicators.

2.2.4 Public Participation Provisions in the Municipal Systems Act 32 of 2000

Although the Municipal Structures Act, 1998, deals with, *inter alia*, the establishment of ward committees as a public participation structure it does not provide for the related procedures and processes. It is Section 17 of the Municipal Systems Act, 32 of 2000, that provides for the mechanisms, processes and procedures for community participation.

In terms of section 17(2) of the Municipal Systems Act, 2000, a municipality must establish appropriate mechanisms, processes and procedures to enable the local community to participate in the affairs of the municipality and must provide for:

- The receipt, processing and considerations of petitions and complaints lodged by the members of the local community;
- Notification and public comments procedures, when appropriate;
- Public meetings and hearings by the municipal council and other political structures and political office bearers of the municipality, when appropriate;
- Consultative sessions with locally recognised community organisations and, when appropriate, traditional authorities; and
- Report back to the local community.

With regard to communication with the public, Section 18(1-2) of the Act stipulates that a municipality must communicate to its community information:

- The available mechanisms, processes and procedures to encourage and facilitate community participation;
- The matters with regard to which community participation is encouraged;
- The rights and duties of members of the local community; and
- Municipal governance, management and development.

2.3 LINK BETWEEN WARD COMMITTEES, DEVELOPMENT AND COMMUNITY PARTICIPATION

Development is both a subjective and objective sustainable increase in the quality of life of an individual or a community (Cloete et al., 2000). This view of development is based on that of Torado (1997) and implies that:

- Development is not an end product, but a continuous process of improvement in living conditions;
- Development has both subjectively perceived and objectively determinable dimensions (a state of mind and a physical reality);

- Development should be durable, which implies that it must empower people to improve their own conditions themselves over a long period, in a relatively independent way; and

- Development needs a balanced or synchronized improvement in different policy sectors (social, cultural, economic, political, organizational and technological) and in the areas of basic life-sustaining and higher-order needs in order to be durable.

According to Cloete et al. (2000), the level of development in a community is determined by the initial starting conditions, such as natural conditions or events caused by policy decisions and the influence of public participation. A similar conceptualisation of development is adopted by Torado (1994), who holds the view that development must represent change through which an entire social system moves away from a condition of life widely perceived as unsatisfactory toward a condition of life regarded materially and spiritually as "better". In this regard, it is argued that at least three core values should serve as a conceptual basis and practical guideline in understanding the meaning of development, namely:

- To increase the availability and widen the distribution of basic life-sustaining goods and services such as food, water, shelter and protection;

- To raise levels of living, including higher incomes, the provision of jobs, improved education and greater attention to cultural values; and

- To expand the range and economic choices available to individuals by liberating them from dependence and servitude resulting from alienating material conditions of life.

The above definition agrees with that of Meiring et al. (1994), who define development as the purposeful change of the environment in order to improve the well-being of the inhabitants, both quantitatively as well as qualitatively. To achieve this goal of promoting the general welfare of inhabitants, Meiring et al. (1994) are of the view that development must aim at:

- Eliminating poverty caused by a lack of the means to provide for food, clothing, housing and other material needs;

- Eliminating social problems; and

- Empowering each citizen to attaining a good and specific standard of living.

According to the World Development Report (1994), sustainable and meaningful development can be achieved if, amongst other things, a strong voice and responsibility is given to the communities and stakeholders involved in the development. This highlights the imperativeness of public consultation and participation in development.

It is, therefore, evident from the preceding discussions that community participation does not happen in a vacuum. Communities are motivated to participate by the prospect of bringing development to their areas – development that is sustainable and empowering. This is development that focuses on basic essential human needs such as water, food, health, safety and the like. It also focuses on the utilization of indigenous knowledge in ensuring that development is appropriate to local conditions and needs. The work of the ward committees, therefore, is to understand development in the right context and to engage the community in the identification of their needs and prioritizing them against scarce resources.

2.4   AIMS AND DEVELOPMENTAL OBJECTIVES OF THE LGTAS

The Local Government Turnaround Strategy (LGTAS) recommends a number of adjustments and reforms in the leadership, policy, regulatory and oversight environments of municipalities (Local Government Turnaround Strategy Report, 2009). It appears that the logic behind the strategy is for government to turn struggling municipalities around and to successfully execute basic service delivery mandates. Taken further the LGTAS Report (2009) encourages communities to rise to the challenge of ensuring that municipalities become sites of excellence and are led and staffed politically and administratively with office bearers and public officials who are responsive, accountable, efficient, effective and conduct their duties with civic pride. The LGTAS is premised on the primary assumption that municipalities should be everyone's business and that they should be "owned" across society and be made to work better for everyone by everyone.

It is proposed that the ultimate aims and objectives for municipalities in terms of the LGTAS and the Local Government: Municipal System's Act 32 of 2000 are to provide democratic and accountable government for local communities, to build clean, responsive and accountable government, to renew the vision of developmental local government, to be responsive to the needs of the local people, to ensure municipalities meet the basic needs of communities, to improve the organizational and political performance of municipalities and in turn the improved delivery of services, to ensure the provision of services to communities in a sustainable manner, to promote social and economic development, to encourage the involvement of communities and organisations in the matters of local government, to strengthen partnerships between local government, communities and civil society, to facilitate a culture of public service and accountability amongst its staff, to assign clear responsibility for the management and co-ordination of the administrative units and mechanisms, to aim at restoring the confidence of the majority of the citizens on public activities and local government affairs.

Taken further the LGTAS (2009) requires that all municipalities are expected to provide household infrastructure and services; to create a liveable, integrated and inclusive cities, towns and rural areas; to improve functionality, performance and professionalism in municipality administration, to promote local economic development, to foster community participation and consultation as well as community empowerment and distribution and to create a healthy environment in which vulnerable groups are supported and protected. Municipalities are also required to mitigate the growing social distance between government and communities, if any, and to plan and manage their built in environment in ways that promote social cohesion, inclusive growth and sustainable development (LGTAS, 2009).

It should be noted that the 283 municipalities in South Africa have different capacities and are faced with different social and economic challenges. Depending on the different challenges it will be necessary for the municipalities to focus on those responsibilities that they are able to deliver on. This would mean that certain municipalities ought to focus on a smaller set of functions while other municipalities could extend their focus. In order to determine the level and kind of support needed from the National and Provincial spheres of government and other stakeholders to achieve the ideal municipality, the different capacities and circumstances of municipalities need to be taken into account (Local Government Turnaround Strategy,

2009). Certain authors hold the view that while the LGTAS in itself cannot be faulted, it is the successful implementation thereof that, at this stage, is still in doubt (Venter and Landsberg, 2011). Boraine (2010) states that the focus by the national government on local government is to be welcomed. It is after all the sphere of government that has the greatest impact on the day-to-day lives of local communities. Of equal importance is the stated abandonment of a "one size fits all" approach that has predominated government thinking for the past 15 years. Boraine (2010) further states that the adoption of a different approach means that the governance of metropolitan areas which are the engine rooms of the South African economy as well as areas of growing poverty and unemployment, can finally be taken seriously. According to Boraine (2010), the jury is still out on whether the government's new local government strategy is going to succeed when previous attempts, such as "Project Consolidate", did not appear to have much of an impact.

2.5   THE CHALLENGE OF PUBLIC PARTICIPATION AND SERVICE DELIVERY

The national government has acknowledged that the problems facing local government structures are a result of internal and external factors over which municipalities have limited control. The internal factors relate to issues such as quality of decision-making by local government councillors, quality of appointments, transparency in the tender and procurement systems and levels of financial management and accountability. The external factors relate to the revenue base and income generation potential, inappropriate legislation and regulation, demographic patterns and trends, macro and micro economic conditions, undue interference by political parties and weaknesses in national policy, oversight and Inter-Governmental Relations (http://www.cogta.gov.za). The LGTAS aims to rebuild and improve the basis requirements for a functional, responsive, accountable, effective and efficient "developmental" local government (http://www.foundation-development-africa.org).

Mbele (2010) and Blake (2010) propose that there are potential weaknesses pertaining to the LGTAS. Areas where the strategy appears to be weak are its silence on the question of the approaches to be undertaken by municipalities to manage diversity, global climate change, increasing urbanisation problems, technology, research and training as well as the question of management of change, management of conflict and information control. The above points are important in relation to successful service delivery (Blundel et al., 1997). Schwella et al. (1996) highlight the problems of insufficient resources, problems of capacity building in many municipalities, problems of implementation, accountability, transparency, too much bureaucracy as well as a lack of control, monitoring and evaluation measures by certain municipalities. Blake (2010) states that certain municipalities appear to be run in an authoritative management style by the ruling party thus undermining participatory development management; which is not in keeping with prescriptions contained in "developmental" local government legislation. Taken further there appears to be in certain government departments and municipalities what Cloete (1996) and Blake (2010) describe as kleptocracy, lawlessness, patronage, payoffs, kick-backs, phony contracts and nepotism. The LGTAS seems to be relatively quiet on such activities, which is of concern.

It also appears to be silent on the concerns of rural local economic development as the strategy mostly addresses the dynamics of urban municipalities. The primary aim of community engagement is to make municipalities more accountable and responsive by enhancing service delivery and improving governance

(Buccus et al., 2007). However, there are some obstacles that need to be addressed. Municipal officials are often perceived to be inaccessible by the community due to their associated high level of office (Green et al., 2005). This notion is maintained in a study conducted by Buccus et al. (2007), where community members felt that community engagement made no difference to governance as they believed that it was used as a mechanism to legitimize decisions that were already made at a higher level.

Political aspirations often interfere with fundamental processes where service delivery is used as a political tool to encourage re-election. An example is given in Sisonke, where lack of service delivery to an IFP ward by an ANC council was seen as an attempt to undermine the IFP. Furthermore, the relationship between traditional leaders and elected officials is another challenge to engagement processes and structures where uncertainties in political motivations exist (Buccus et al., 2007). Lack of communication amongst municipal departments and political intervention also hampers the progress of service delivery as projects are not properly funded or prioritized. This breakdown in communication often leads to inefficiencies and uninformed decisions (Green, JM & Smith, 2005).

2.6   CONCLUDING REMARKS

Based on the above review of literature and legislation, it has been shown that all municipalities are required to institutionalise community participation strategies in order for such initiatives to be effective. In addition to the strategies already mentioned, community members can also participate through public meetings such as *izimbizos* (outreach programmes), customer care surveys and media participation. The key vehicle for public participation is the election process, where the public elect into office the government and representatives that uphold the values and policies that they wish to see implemented. Should the government of the day not honour the values and policies it propagated during the election process, it might not be returned to power at the next election. However, whilst elections are important, participation between elections is also important. Community consultation and participation should be an integral part of the planning, implementation, monitoring and evaluation of the delivery of government programmes.

These programmes should be informed by the needs of communities, identified through ongoing community involvement and engagement. After implementation, monitoring and evaluation, communities should also be consulted to establish the impact of and their level of satisfaction with the programmes implemented. It can therefore be said that public participation is a continuous cycle which does not have a beginning or an end. The LGTAS clearly aims to restore the confidence of local communities in their respective municipalities' abilities to deliver services as part of a developmental state approach. This is especially true in light of the numerous and often violent protest action that appears to be on the increase in South Africa because of poor service delivery by certain municipalities. Strategies have resource implications if they are to be successful.

The individual local municipal turnaround strategies to be formulated by municipalities throughout the country are no exception. For the strategies to be effective municipalities must implement measures aimed at boosting income. Financial viability cannot be divorced from vigorous revenue in the form of local rates. It is against this background that the National Local Government Turnaround Strategy will possibly face its

greatest challenge in terms of meeting its aims and objectives. Municipalities should also more vigorously pursue the importance of community consultation and participation strategies, especially in terms of various legislative prescriptions.

CHAPTER 3: THE ROLE OF INFORMATION COMMUNICATION TECHNOLOGIES IN GOVERNANCE

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3.1 INTRODUCTION

The World Bank report of 2012 on information communication technology (ICT) for development highlighted the importance and rise in the use of mobile phones. It was pointed out that the mobile phone had become indispensable, as it was "arguable the most ubiquitous technology" worldwide (World Bank, 2012). In comparison to the developed world, developing countries are seen to be in the best position to exploit the benefits of mobile communications. The mobile industry has its largest share in the developing world, as studies carried out by International Telecommunications Union show that 67% of mobile subscribers live at the end of 2006 in developing countries (Bhavnani et al., 2008). According to the World Bank report of 2012 of 5.9 billion mobile subscriptions, 3.4 billion were in low- to middle-income economies (World Bank 2012). "Evidence from selected studies carried out by the United Nations Conference on Trade and Development (UNCTAD) shows that mobile phones have become the most important mode of telecommunication in developing countries. For the vast majority of the low-income populations mobile telephony is the sole tool connecting them to the information society… The benefits of mobile phones might be proportionally greater in resource-constrained settings, e.g., the poor and rural populations" (Patil, 2011).

3.2 MOBILE COMMUNICATION AND DEVELOPMENT

Mobile communications have created a variety of opportunities for human development "from providing basic access to education or health information to making cash payments to stimulating citizen involvement in democratic processes" (World Bank, 2012). Mobile phones provide opportunities in which individuals and groups may begin to transform the situations they find themselves in, such as improving human and economic conditions. Applications for mobile phones have been developed to help rural farmers to gain access to pricing information through text messages, mothers receiving medical reports on the stages of their pregnancy by phone, and migrant workers sending remittances without using the usual banks. Mobile phones have been used in election monitoring and are being seen as the key tool to topple unpopular regimes (World Bank, 2012).

The use of mobile technology in the development discourse is at times conceptualized as a tool that may be used to enhance productivity in place of labour, as a way to alter or enhance information processing; and as way to alter or enhance social relations (Donner, 2005). Research on this conceptualization of mobile phones has looked at the role of mobile communication in political mobilization and resistance (Rheingold, 2002 cited in Donner, 2005). In a survey of studies that have focused on the use of mobile technology in developing countries, Donner (2008), highlights studies that focus on the impact of this technology in development as "the mobile is an incredibly powerful tool for exchanging ideas at a distance, and for managing daily life…examples of impact studies come from the ICTD perspective, where researchers are

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interested in whether mobiles promote or enable economic growth or broader well-being. Mobile phones have been appropriated to be used in ways that are determined in the context of where the user finds themselves in, for example, the practice of intentionally leaving missed calls" (Donner, 2008).

According to infoDev's report on the use of mobile phones in South Africa (2012), the main tool of communication for the low-income population is the mobile phone, which allows the conclusion that mobile technology will likely be the preferred medium in providing value added services (infoDev, 2012). InfoDev's (2012) surveys reveal that South Africa's mobile coverage is about 90% of the land mass and over 75% of the population own a mobile phone. Of those who own a mobile phone, 98.5 % have a prepaid SIM card, the remaining 1.5% own contract lines. Mobile phones are mainly used for making and receiving phone calls, missed calls or placing "please call me"-messages, sending and receiving text messages (SMS) and organizing day-to-day lives. Distinction between rural users and urban users is important to bear in mind when looking at mobile technology and development.

Focus groups revealed that low-income urban users are aware of available applications, make use of social media and browse the Internet for jobs and educational grants. Rural users of similar income levels make use of micro browsing because of its convenience, but are sceptical about the importance of mobile applications. Mobile users without Internet access rely on traditional media for information and voice or text messages for communication. However, 71% of the low-income users have a mobile device that can access the Internet. There is a high use of social media with 50% of mobile users having signed up for a social network. However, interaction with government is limited with 69% of low-income users with Internet access not having used their phones to get information from a government organization (infoDev, 2012).

3.3   GOVERNANCE AND ICTs

Hellström (2008) defines governance as the relationships between the state, market and civil society and the coordination and decision making according to set norms and rules. Good governance, the form of governance that democratic states aim for, is seen as a "functioning democratic system where the freedom of expression and a sound juridical system is in place" (Hellström, 2008). The term *good governance* does not have a set definition but comprises of participation, the rule of law, effectiveness and efficiency, transparency (built on the free flow of information), responsiveness, consensus orientation, equity, accountability, and strategic vision, (UNDP, 1997 cited in Hellström, 2008). Over the last decade the notion of having access to mobile communication to influence governance is becoming more prevalent (Castells, 2012).

3.3.1   M-Governance

The potential role of ICTs in governance has been identified as one that speaks to the participation from citizens in good governance. ICTs offer a space in which individuals can participate in discussion forums as well as contribute through social networking pages and blogs (World Bank, 2012). A number of so-called "m-Government" (i.e. mobile government) systems have been developed and implemented, for example in the Philippines. "about half of Philippine government agencies offering e-services have incorporated SMS as a

service delivery mechanism and in enhancing political participation" with the main purposes being to "provide information, to set-up feedback mechanisms for stakeholders either in form of complaints or suggestions, and to make service delivery faster and more convenient" (Lallana, 2006 cited in Poblet, 2011). Mwololo (2008 as cited in Poblet, 2011) reported that a survey in Kenya showed, that half of the Kenyans survey participants had "used their mobile phones to access government websites". In developing countries, India has been highlighted in developing government service that uses mobile phones (Karan and Khoo, 2008 cited in Svenson et al., 2012). SMS systems have been used for fair food distribution and for monitoring of healthcare delivery (Svenson et al., 2012). In South Africa, a number of mGovernance systems have been put in place. For example in Cape Town, service faults can be reported by SMS and rates can be paid through a cell phone billing system. An SMS system developed by the Department of Water Affairs provides information on the water quality at any location in the country (DWA, 2012).

Another example is Lungisa, a community monitoring and reporting application (infoDev, 2012). The application allows for people to report complaints of service delivery using their cell phone. Through a monitoring platform progress on the complaints made can be tracked (infoDev, 2012). The Johannesburg municipality makes the use of the social media platform twitter, for customers to get real time updates about water saving and water service issues on @jhbwater (www.joburg.org.za). The municipality has described this as a way of improving on service delivery and improving accessibility. Residents are encouraged to participate on the site with the twitter account, alerting the municipality of any issues. The Lwazi information system allows citizens to report service delivery issues in their preferred language of choice (CSIR, 2011). This service was created with the intention of targeting individuals located in remote rural areas but with access to a mobile phone or landline. The aim is to capture information that can be used to enhance service delivery. The project was said to have been successfully piloted in six locations, urban and rural but with a need to improve the accuracy, naturalness and work on the sustainability of the project (CSIR, 2011).

Whilst there are many positive initiatives to use ICT in governance, mGovernance applications are not without their challenge. Hellström et al. (2010) highlights the following:

- "Costs, payment, revenue sharing – who should pay for the services?
- Content, who should produce and update content? Can this also be done by ordinary citizens? Generally, people tend to be consumers of the available services and applications rather than provide and create content themselves
- Usability issues and the limitations of mobile phones – small screens, short messages, complicated commands. Advanced phones with bigger, colour screens that are GPRS enabled are still too expensive for the East African masses.
- Some services are tied to a specific operator – interoperability issues between operators and roaming between countries must be solved. Compatibility and a variety of platforms are related challenges.
- How to promote mobile penetration and increased accessibility in areas that are not commercially viable? Universal funds and Rural Communication funds are used but they are not efficient enough.

- Regulation and legal aspects of mobile applications and use of the services are lagging behind in East Africa." (Hellström et al., 2010)

3.4 PUBLIC PARTICIPATION THROUGH CROWD-SOURCING

Mobile phones are being used to enhance participation in issues of democracy through crowd sourcing. Crowd sourcing refers to using a "crowd", i.e. a large group of people, to collect and distribute information on a topical issue. Political movements, such as the Arab Spring, Occupy Wall Street and the Indignadas, have relied heavily on crowdsourcing to distribute the message of the movement (Castells, 2012). Another example on the African continent, is that of Ushahidi ("testimony"), founded by a group of activists in Kenya, and recognized as one of the pioneers of crowd sourcing (Economist, 2011). After Kenya's disputed elections in 2008, Ushahidi plotted reports on violence, mainly sent through text messages, on a website. In the end, over 45,000 reports were submitted in real time, collecting more testimony than reporters and elections monitors combined. The platform also helped create a database and historical archive of election incidents, which can now be referred to and accessed for election-based research and for future election planning purposes (UNDP, 2012). The organization has now gone on to offer software and even a web-based service to monitor anything from elections to natural disasters (Economist, 2011). Ushahidi has also been used in South Africa to track xenophobia incidents (UNDP, 2012; www.ushahid.com). In Zimbabwe kubatana.net made use of SMSs as a way to promote human rights and good governance through a crowd sourcing approach. This platform allows the participation of society commenting on political issues and need for change (www.kubatana.net).

3.5 SERVICE DELIVERY AND ICT

Lack of communication and engagement between governments and citizens may be a key reason for protests and social movement resistance. Castells (2012) goes one step further and speaks about the "networks of outrage and hope" which represent the notion of communities not being heard and resisting the decision making of governments. ICTs are seen as a potential avenue to open up communication, making government accessible and empower citizens to hold decision makers accountable. The cell phone is experienced as a tool, which individuals may anonymously use to participate in governance without fear of reprise (Castells, 2012). South Africa is familiar with the challenge of service delivery protests and the outrage of communities responding to failed implementations of infrastructure developments. ICTs have been identified providing an opportunity to improve the communication between stakeholders and increase public participation in the local decision-making.

In 2012 the South African Local Government Association (SALGA) developed a municipal guide and roadmap to successful ICT governance for local municipalities in order to foster innovation and implementation of ICT projects. SALGA is a combined representative of local municipalities that seeks, among other directives, to "transform local government to enable it to fulfill its developmental role...develop capacity within municipalities" (www.salga.org.za).

SALGA recognized the importance of aligning ICT and governance in order to improve the role of local municipalities, highlighted in its strategic plan of implementing ICTs in service delivery. The following aspects are highlighted in the SALGA ICT agenda:

- Recognition that ICT's can be better leveraged to improve effective administration, service delivery and socio-economic development and that ICTs should therefore be integral to the functioning of any well run municipality;
- Raising the political and actual profile of ICT within local authorities and communities. (SALGA, 2012).
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ICT use is seen as having the potential for rapid and sustainable economic and social development when used appropriately within municipalities. SALGA speaks directly to the vision of LGTAS, which asserts that municipalities should have appropriate infrastructure and connectivity and that all municipalities should have ICT systems to speed up service delivery, improve efficiency and accountability (SALGA, 2012). The successful implementation of ICT within municipalities requires orientation, education and training of staff, which is a costly process but necessary for the successful use of ICT systems.

3.6   CONCLUDING REMARKS

Whilst the benefits of mobile communication for developing countries have been highlighted, there is needed to be aware of the challenges in implementing the service. The success of mobile government is likely to be more possible in an enabling system with policies and programmes that enable institutional reforms and process redesign. Key challenges for the implementation of m-governance are to enable technology transformation and develop the institutional infrastructure necessary for responding to the increased demand for services and good governance. At this point the question is on how to move beyond traditional government services to making m-governance "interactive, transactional services and ultimately create applications that encourage citizen to engage" (infoDev, 2012). Overall ICTs can push change in the area of service delivery as they can facilitate bi-directional communication between the community and government. The recognised importance of community engagement highlights the commitment to provide tools to make community engagement possible. As shown in the review above ICTs empower individuals to be able to communicate their concerns without fear of being belittled or victimised by government representatives and their community members. The desire to report a complaint is demonstrated by the many service delivery protests in South Africa.

CHAPTER 4: INCENTIVISING COMMUNITY ENGAGEMENT

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This study is assessing the notion of incentivising rural communities to report drinking water supply issues using ICTs. In order to understand how public engagement can be fostered and increased, new avenues to engaging with citizens need to be investigated and the possibility of incentivising change has to be analysed. As shown in the chapters above, public participation and community engagement are crucial to good governance and are also a legal requirement in South Africa. As mentioned before active community engagement relies on communities wanting to engage and to contribute to the management and governance of services and on governance structures seeking pro-actively such engagement. However, research has also shown that communities in rural areas are less inclined to engage in the formal structures of governance than their urban counterparts. Similarly, rural communities are less responsive and influenced by reports in the media (Gool, 2011) and some research even shows that despite negative reporting on water quality in rural areas, communities still felt that their water was safe (Gool, 2011).

Mamdani (1996) suggests that this could be based on the notion that rural communities perceive themselves as a subject rather than a citizen and might therefore experience services as a privilege rather than a right. People are often aggravated with the inequalities between the services that they receive and the level of service they desire (Zhuwakinyu, 2012). In a study done by Green & Smith's (2005) it was found that whilst households were dissatisfied with the service they received, they were apprehensive to demand better services from municipalities since most felt that they had no rights to exercise such complaints based on the low-levels of participation and non-payment of bills (Green, JM & Smith, 2005). Smith (2000) (in Francey, 2011) cites limited access to transport and communication links as barriers to engagement for the poor. Participation in governance requires knowledge of the existing structures and encourages only the "usual people to respond" (NCC, 2008 as quoted in Francey, 2011). As highlighted in previous chapters, service delivery protests are an indicator for the breakdown in the communication and trust between municipalities and their communities. These protests also speak to the breakdown of public participation in the decision making process. In order to re-establish good governance, communities must be given the opportunity to engage and current barriers have to be overcome. One way to overcome such barriers of disengagement is to incentivise engagement. As the literature reveals this is a rather complex process and much has been learnt over the last decade on the challenges of incentivising public engagement.

The earliest discussions on incentivising public engagement can be found in the legal domain, i.e. the reporting of a crime. Feldmann et al. (2009) refers to this kind of monitoring within society as "social enforcement", i.e. the act of reporting an illegal behaviour of a citizen by another citizen. Social enforcement has become a key feature of regulatory policy and statutes show an increase in relying on individuals to report misconduct. Francey (2011) highlights the need for incentivising participation of under-resourced and poor citizens in a study on consumer involvement in the water service regulation sector: "incentives may well be required to ensure true representativeness and sustain consumer involvement at the partnership level, especially where consumer involvement is meant to be inclusive of the poor, who describe themselves as 'often uneducated, afraid of authorities, lacking time and money to voice opinions' ". Hohmann et al. (2012)

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show that individuals are more committed to co-operate if communication between stakeholders increases and if social feedback reinforces the co-operative nature of an individual. This is particularly relevant when using social networks to increase communication. This study also found that tailored social feedback to individuals led to a significant increase of the contribution to the public good, whilst feedback on the consequences of an action was not necessarily an incentive to change behaviour or contribute.

Sheth et al. (2010) observed that individuals could be incentivised to change behaviour if the feedback on a consequence came from a trusted source. The study investigated hygiene interventions in maternal health and showed that health care personnel were a trusted source of information and health facilities served as an effective venue to communicate behaviour change. Sheth et al. (2010) describe that the behaviour change strategies included mass media promotion, clinic based education, government engagement through popular government representatives and interpersonal communication. Whilst monetary rewards are often used as an incentive, Feldman et al. (2009) found that the offering of money to whistle-blowers led to less rather than more reporting of illegality. It was shown that if the informant had an ethical stake in the outcome, the appeal had to be to the informants' sense of duty. The financial incentive was counterproductive since it set off the internal motivation to report. Lado et al. presented in a study from 1997 his findings that financial incentives to save money in the water sector and to manage scarce water resources were far less effective in rural and poor environments and proved difficult to implement (Lado, 1997).

Feldman et al. (2009) suggests that the majority of the population perceive their own social enforcement actions as more ethically driven than that of their neighbour. A stigma can develop based on the incentive to report and if the levels of moral outrage are low, financial rewards are likely to be a decisive factor.
Sheth et al. (2010) showed that the key incentives in their study were:
- the advantage over the existing alternatives
- compatibility with existing needs
- low complexity
- trial-ability and
- observability of results.

Franceys (2011) presented findings that indicated that poor communities are generally very interested and willing to be involved in improving access to water supply and that education and the understanding of water supply system can serve as an incentive. The participants in Franceys study felt empowered through the education they received and one of the findings indicated that the institutional form of the customer involvement was less important than the activity of involving customers. "Customer involvement makes only a marginal difference to the actual service input though an important difference to societal perception" (Franceys, 2011). Another incentive to report service faults in the water sector was the experience of putting the report in the public domain, which would serve as a punitive incentive to the municipality to resolve the matter.

Abbot et. al. (1998) show that there have to be clear incentives in order for a community to be interested in monitoring over a longer period. Their study shows that participatory monitoring is difficult and costly – not

only for an organisation but also for the community. Abbot et al. refer to a study done by Irons and Walker in 1998 in Australia, who highlights economic factors that limit the potential of community-based monitoring:

- o "Community groups rarely have access to sufficient resources to enable long term monitoring
- o There is no reason to believe that it is sufficient to motivate consistent, longer-term monitoring service in the community without proper remuneration"

Burchell et al. (2009) show in their report on public culture as a professional science that there should be a greater institutionalised commitment to incentives public engagement and citizenship. However, counter voices expressed concerns that such incentivising for public engagement might promote a cynical instrumentalism, manifesting as an effort to be seen to be engaged rather than engaging for its own sake.

CHAPTER 5: CONCLUSIONS

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This review provides the background for the WRC study K5/2214 on the assessment of incentivising community engagement in drinking water supply management. In order to overcome the current barriers of engagement between rural municipalities and their respective communities, the study hypothesises that there is a possibility to incentivise and mobilise rural communities to monitor water supply and that ICTs can provide new ways to enhance public engagement. The literature chosen to understand the current national and international views regarding this hypothesis were therefore in the areas of:

-   The status of water service delivery in South Africa

-   An understanding of public participation and community engagement in South Africa

-   The use of ICTs in governance and public engagement in the national and international context

-   A review of the understanding and practise of incentivisation of public citizenship

The assessment of the Blue Drop status of representative provinces in South Africa provided a consolidated overview of key challenges facing the water sector. Whilst there is an overall improvement in the country's water system, a detailed analysis of four provinces showed that the growth of development has been skewed towards the well-resourced provinces of Gauteng and the Western Cape. In Mpumalanga and the Eastern Cape water monitoring efficiency has in fact deteriorated and reached in 2012 higher unacceptable level than in 2009. The indicator of "responsible publication of the water quality management performance" which was introduced in 2011 as a commitment to good governance is intended to provide greater transparency and accountability to the public. However, there has been a decline in the communication with the public from 2011 to 2012, which is particularly surprising when looking at urban areas, which have far greater possibilities of sharing information through social networks and the Internet.

The literature review on public consultation and service delivery revealed that there is a commitment to engaging citizens enshrined in the legal frameworks of South Africa. From the constitution to the various local government acts, public engagement is highlighted over and over again. The LGTAS shows that there was learning from the first decade of democracy and recognition of the failures of local governance. The introduction of LGTAS in 2009 is intended to turn around local decision-making and again public participation is highlighted as a key requirement. The LGTAS takes a further step by stating that it is the responsibility of the public to hold government's office bearers and public officials accountable. The hope is that through the LGTAS local communities will be able to restore their confidence in their respective municipalities in order to strengthen the decision-making in South Africa.

The review of literature in the sector of ICT and governance showed on the one hand a growing enthusiasm of the potential of ICTs for development and governance, on the other hand a growing body of literature speaks also to the challenges. ICTs and governance have seen a greater growth in urban areas where mobile phones can connect to the Internet, whilst areas without Internet connectivity and low-end phones still rely on the traditional media of voice and test message. A number of existing systems and implementation of m-Governance systems showed that there is certainly an increase of using ICTs in this sector over the last 5

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years, but issues highlighted in the implementation range from cost to content to usability. South Africa has attempted to provide guidance to local municipalities regarding the use and implementation of ICTs through the ICT implementation guide, which was developed by SALGA and published in 2012.

The literature review on the notion of incentivising community engagement revealed that there is no one-size-fits-all to incentive structures and that a detailed understanding of the psychological and situational factors within a community is necessary. Cases of incentive based regulatory systems, such as whistle blowing, showed that financial incentives may have an opposite effect to engaging citizens. On the other hand, engagement with under-resourced communities showed that it is unreasonable to believe that long-term monitoring is possibly without remuneration. It was also highlighted that social consciousness and the contribution to the public good may depend on social feedback to individuals rather than on feedback on the consequence of actions. What such social feedback would entail depends on the sector of engagement and the community involved. The notion of institutionalising incentive structures was suggested as a possible solution, but care has to be taken of the unintended consequences with an administrative and often bureaucratic approach to incentivising public engagement.

The literature review provided substantial background to the study. In approaching the development of a research methodology, it has become clear that the design of an incentive structure has to be carefully considered and will rely on intensive engagement with the municipalities and their respective communities. The same goes for the understanding of ICTs as being part of the solution to overcome current barriers. In the first instance a baseline survey should assess how communities and municipalities engage currently and what the intended status of engagement for all stakeholders would be.

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