BIC Chapt 2

CHAPTER 2

Running out of options? The status of service delivery in the Harare-Chitungwiza metropolis[1]

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1. Introduction

This chapter analyses the status of service delivery[2] in the Harare-Chitungwiza metropolis, the largest in Zimbabwe, from a human rights perspective. The perspective calls for the integration of human rights into development processes and activities so as to facilitate access to basic livelihood resources, such as food, water, housing and health, in order to ensure fundamental freedoms and human dignity (Hellum, 2003). In this chapter I focus on how people in the metropolis enjoy environmental rights, which are considered to be part of human rights (Mushayavanhu et al, 2004). Environmental rights are concerned with the quality of the people's surroundings as represented by access to good social services. In this chapter service delivery is contextualised within the broader national socio-political processes and specific governance practice in the metropolis. Specific issues that are examined include access to water, sanitation, waste management and shelter.

Zimbabwe is an interesting case for such a study. After attaining independence in 1980, the country made impressive strides in the provision of social services. For example, in the mid-1990s access to safe water in the urban areas was 99%, while coverage in the rural areas was estimated at 64% (Machingambi and Manzungu, 2003).[3] But the progress made in the first ten years of independence (1980-1990) was not sustained. Water and sanitation provision have decreased (ibid.) due to a combination of economic[4], social and political problems (see, among others, Bond and Manyanya, 2002; Harold-Barry, 2002). Beyond this general characterisation of the problem, it is important to widen the debate in one main respect. In this chapter I do this by not being fixated with the statistics – the story behind the numbers is critical.

2. The study area

2.1 Formal settlements

A divided history

Harare, Zimbabwe's capital city, was founded in September 1890, called Salisbury in 1892, and declared the country's capital city in 1896 (Zinyama, 1995). Over the last century, the city has registered significant population growth. For example between 1961 and 2002 the population increased sixfold from 310 360 to 1 900 000. Beach (1999) notes that the indigenous population resident in the rural areas increased elevenfold from 881 000 to 10 400 000 between 1920 and 1992. The lower growth rate in the urban areas could be attributed to draconian colonial laws designed to keep the indigenous black population out of towns (Yoshikuni, 2006). In recent times the city has grown at a faster rate than the general population. For example, the current estimated annual population growth rate of 7-8% (Chikowore, 1995; Zinyama, 1995) is much higher than the national average of 2-3 % (CSO, 1992).

The City has had a divided history in three main respects. First, the development pattern in the early years was characterised by division of land between the municipal area (or townlands) in the centre and outlying peri-urban farmlands. The latter evolved into white residential areas, which were administratively run by separate Town Management Boards (later known as Town Councils). There was one rural council in the form of the Borrowdale Rural Council. Administration of the then whites-only suburbs was not established all at once (Table 2.1).

TABLE 2.1: YEAR OF ESTABLISHMENT OF ADMINISTRATION OF THE THEN WHITES-ONLY SUBURB

Suburb	Year administration established
Meyrick Park	1944
Highlands	1945
Waterfalls	1948
Greendale	1950
Hatfield	1952
Mabelreign	1953
Mount Pleasant	1954
Marlborough	1967

Source: Zinyama (1995)

Second, there was the development of separate suburbs for the black African population (Zinyama, 1995). Table 2.2 presents an overview of developments in the black settlements established before independence. The division of the city along racial lines ceased with the arrival of independence in 1980. Today the divisions are socio-economic. The former white areas, now known as 'low-density' areas, are home to high-income residents. The former black areas, now known as 'high-density' areas, are where people of low income live. In either case 'density' describes the concentration of population in the respective areas. Table 2.3 shows the population concentrations in the respective suburbs as recorded in 1987. Third, there was the development of dormitory or satellite settlements. The first, Chitungwiza, which lies 30 km south of Harare, began as black settlement initiated by the Anglican Church for refugees fleeing from the civil war (1966-79). Today it is the third largest city in the country. The sec-

TABLE 2.2: OVERVIEW OF DEVELOPMENT OF BLACK RESIDENTIAL AREAS IN HARARE

Suburb	First occupied	Remarks
Mbare	1907	Consists of one section with hostels originally designed for single workers and three-roomed cottages for married workers
Highfield	1935	First government township
Mabvuku	1952	Developed as conventional housing for married couples
Mufakose	1959	Detached and semi-detached houses for married couples designed to cater for higher income groups than those living in Mbare, Mabvuku and Highfield
Rugare	Mid-1950s	Detached and semi-detached houses developed by the National Railways for its employees
Dzivarasekwa	1961	Second government township for domestic workers employed in white suburbs to the north-west of the city
Marimba Park	1961	Government low-density township for high-income people with freehold title
Kambuzuma	1964	Government middle-income suburb based on the core housing scheme [5]
Tafara	1967	Developed by Greendale Town Management Board for domestic workers employed in the north-eastern suburbs
Glen Norah	1971	Developed by Government and composed of employer-tied houses for letting to employees. Others were handed over to the City Council for letting
Glen View	1979	Site-and-service scheme for letting. Core house developed with materials provided by the City Council on loan

Source: Zinyama (1995)

TABLE 2.3: POPULATION CONCENTRATION IN HIGH AND LOW DENSITY SUBURBS IN HARARE

	High density	Low density
Total no. of housing units	64 890	39 172
Housing units per hectare	11.2	1.24
No. of persons per hectare	109.46	9.24

Source: Zinyama (1995)

ond, Epworth, lies to the south-east of Harare and was begun by the Methodist Church to cater for people displaced by the civil war. Both settlements were started in the 1970s. The third, Ruwa, lies 20 km to the east of Harare. The last, Norton, lies some 40 km to the west of the city. No information could be found on how Norton and Ruwa came into being.

Although the urban areas are independent in the sense that they have their own municipalities, they share the same water system. This is used by some three million people or 25% of the country's total population (Manzungu and Machiridza, 2005). The waste generated from the various industrial, commercial and domestic activities poses huge environmental problems for the city's water sources (Moyo, 1997).

Administration and governance

The first administration of the city was established in 1892 in the form of the Salisbury Sanitary Board, the predecessor to the Municipality of Salisbury that was established in 1897. Its mandate was to provide water and sewerage disposal services (Chikowore, 1995). In conformity with the politics of the day, the Board promoted racial segregation in the city by establishing native townships separate from white areas (see below).

The administration and governance of the city has always been an issue. For example Zinyama (1995) contends that the

> *proliferation of administrative units with much duplication of functions ... was not conducive to proper planning and functioning of such a sprawling urban complex. ... In order to facilitate proper planning and functioning of the a sprawling agglomeration, the different administrative units were amalgamated in July 1971, following recommendations of a government-appointed commission of inquiry with the creation of Greater Harare under one local authority* (Zinyama 1995: 15).

There was, however, a different opinion in this regard:

> *The unscrambling of the Greater Harare authority may prove to be the only way of administering this city efficiently. A return to the local Town Management Boards would not be a retrogressive step at all ... there has been a conspicuous tendency in recent years for government to remove those functions that were suited to administration by the municipal authority [but] which generated valuable rev-*

enue for the city. The most vital one ... is the supply of electricity ... when the government decided to transfer the generation and distribution of electricity nationally to the Zimbabwe Electricity Supply Authority (ZESA). Harare City Council operated its electricity undertaking efficiently, both technically and financially ... However this changed in 1987 when the generation station, distribution network and other assets and liabilities were transferred to ZESA; leaving the City Council of Harare as a mere collection agent responsible for billing of consumers. (Colquhoun 1995: 35).

Almost a decade later after Colquhoun's complaint, water and sanitation was to follow suit (see below). This in many ways illustrates that the governance problem has been at the centre of municipal politics in recent years. Manzungu and Mabiza (2004) report that the state suspended and eventually dismissed the popularly elected Harare Executive Mayor who was elected into office in the 2000 elections, winning on the ticket of opposition party, the Movement for Democratic Change (MDC).[6] Later the opposition-dominated Council was replaced by a government-appointed Commission beholden to the ruling Zimbabwe African National Union, Patriotic Front (ZANU-PF). The final onslaught was the take-over of water and sewerage functions from local authorities to the state-owned Zimbabwe National Water Authority (ZINWA).

The take-over of water and sewerage in all urban areas was opposed by ordinary residents, civil society and politicians from both ruling and opposition parties. The *Zimbabwe Independent* of 7-13 September 2007 reports that the Minister of Water Resources noted that ZINWA had taken over 42 out of the 52 urban centres. He, however, raised issues of sustainability

Government cannot perpetually assume direct responsibility for the financial requirements of ZINWA's long-term and sewer programmes, it is necessary that the authority's water and sewer tariffs reflect economic levels that sustain treatment and pumping of water.

The paper further reported that the ZANU-PF dominated parliamentary committee on Local Government, Public Works and Urban Development argued that the take-over of water and sewer reticulation services in urban centres by ZINWA was not in the best interests of residents. The purported consultation was said to be poor as it was confined to government circles. Appendix 1 presents highlights of selected reports of protestations covered in the print media.

2.2 Informal settlements

There are informal settlements located around the City. These fall into two categories. First there are official informal settlements, such as Dzivarasekwa Extension and Hatcliffe Extension, which were set up by the government as temporary holding camps for displaced people. The second type refers to other informal settlements that have grown up informally around the city.

3. Concept and practice of environmental rights

3.1 Introduction

Environmental legislation is critical in ensuring sustainable management of the environment as it aims to strike a balance between exploitation and protection of environmental resources. In this regard, environmental rights are important – they are meant to provide a benchmark for guaranteeing decent, acceptable living standards, whilst at the same time ensuring conservation of environmental resources. For this purpose the Government of Zimbabwe enacted the Environmental Management Act in 2002 (Zimbabwe, 2002). The Act states that every person has a right to:

- A clean environment that is not harmful to health,
- Access to environmental information, and
- Protect the environment for present and future generations[7].

The main objective of the study was to assess the concept and practice of environmental rights across different socio-economic groups in Harare (Tambura, 2005). A household questionnaire was used to collect data from residents of an old suburb developed before independence (Mbare), a new suburb (Warren Park D) and an informal settlement (Dzivarasekwa Extension). A sample of 20 respondents was selected from each suburb. Table 2.4 presents the main characteristics of the study areas.

Officials of relevant government ministries and the Harare City Council officials were interviewed between late 2004 and early 2005. Government ministries consulted included the Ministry of Environment and Tourism, the Ministry of Health and the Ministry of Local Government, Public Works and National Housing.

3.2 Environmental awareness

Generally none of the respondents were aware of their environmental rights as provided for in the Environmental Management Act. However 36.25% were aware of some 'human rights'. The right to clean water was frequently mentioned. The proportion of people with knowledge of some 'human rights' was as follows: Dzivarasekwa (25%), Mbare National (16%), Mbare Flats (16%) and Warren Park D (43%). The highest figure in Warren Park D could be attributed to the presence of a more educated population (if formal employment is used as proxy for education). Some 78% of the respondents were formally employed. In Dzivarasekwa the relatively high percentage of awareness could be attributed to the presence of nongovernmental organisations (NGOs), which promoted civic awareness. The majority of the respondents across the suburbs claimed that they did not have access to environmental information (Figure 2.1).

3.3 Access to water

Figure 2.2 shows that the majority of the respondents in all suburbs except Dzivarasekwa Extension had access to tapped water. In the latter tapped water could only be accessed in the early hours of the day (before 5am) and even then for only a few hours. In Dzivarasekwa Extension 85% of the population used unprotected wells.

The percentage breakdown of people who regarded water as unclean was as follows: Dzivarasekwa (19%), Mbare National (26%), Mbare Flats: (26%), and Warren Park D (29%). The proportion of residents who considered the water as unsafe was as follows: Dzivarasekwa (30%), Mbare Flats (29%), Mbare National (21%) and Warren Park D (20%). People undertook a variety of measures to improve its quality (Figure 2.3).

People in Dzivarasekwa claimed that they used the water as it was because they 'did not have enough firewood to boil it'. There was also no paraffin, which in the past they used as a source of energy for cooking. Their properties were not connected to electricity. Residents in both Mbare National and Mbare Flats claimed that they did not have time to boil the water. In some cases bi-carbonate of soda was added to improve the water quality. However, officials from the Ministry of Health discounted this as an ineffective method. It only improved the taste and the odour and did not kill pathogens.

3.4 Sanitation

Dzivarasekwa Extension is not connected to the City's sewer system, instead pit toilets were provided when the suburb was constructed in 1991. However, people shunned these collapsing unserviced toilets. All the residential areas experienced sewage blockages, which resulted in a number of perceived problems (Figure 2.4).

The City Council was accused of 'taking a long time' to respond to sewerage blockage complaints. In some cases, as in Mbare Flats, residents went for more than two weeks without getting any response. The Council representatives attributed this to shortages of resources mainly fuel, spare parts and manpower.[9]

3.5 Waste management

Officials from the City Heath Department claimed that refuse was supposed to be collected at least once a week. Every three months, residents were supposed to be provided with bins or sanitary bags in which to dispose of waste. In practice, this did not happen. Erratic refuse collection and lack of proper bins were cited as the main problems. Faced with this situation residents sought alternative means of disposing of waste (Figure 2.5).

In Dzivarasekwa, erratic services led to the creation of dumping pits. Generally residents were said not to play their part in improving the situation. For example the majority of the residents did not practise waste segregation. Findings were that it was not practiced by Dzivarasekwa (98%), Mbare Flats (86%), Mbare National (82%) and Warren Park (78%). Source segregation facilitates separating biodegradable and undegradable waste so as to improve management of waste. There was no information to suggest that the residents were made aware of this. The fact that residents were provided with only one bin provides further evidence in that direction.

3.6 Shelter

Residents in Dzivarasekwa were the only ones without brick houses. Most of the respondents had wooden cabins and plastic shacks as additional rooms. Figure 2.6 shows the distribution of the type of accommodation in the study area.

The available accommodation did not meet the minimum standards of the Ministry of Local Government through the Physical Planning Department (Table 2.5).

On average, over half (67.5%) of the accommodation in the study areas did not meet the stated minimum quality standards. The distribution was as follows: Dzivarasekwa (100%), Mbare National (60)%, Mbare Flats (95%) and Warren Park D (15%). In Dzivarasekwa, the accommoda-

FIGURE 2.1 ACCESS TO ENVIRONMENTAL INFORMATION

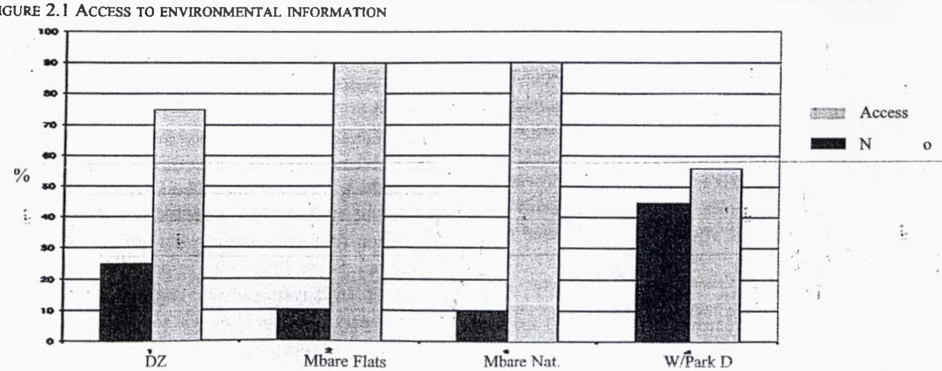


TABLE 2.4 CHARACTERISTICS OF SELECTED SETTLEMENTS IN HARARE

Settlement	Location and main characteristics	Service facilities
INFORMAL SETTLEMENT		
Dzivarasekwa Extension	• Established in 1991 • Situated approximately 50 metres from the formal settlement of the same name • Inhabited by people moved from Epworth and Porta Farm settlements	• Disused communal pit toilets [8] • Communal water points in the area are connected to the city of Harare system
OLD FORMAL SUBURB		
Mbare	• Established in 1907 • Located about 10 km south of the city centre • Is divided into two sections: Mbare Flats (blocks of flats) and Mbare National (housing units)	• Water, sanitation and waste-disposal services provided by the Harare City Council. Many houses do not have individual water meters
NEW FORMAL SUBURB		
Warren Park D	• Established in 1981 • High density about 20 km out of the city centre along the Bulawayo road	• Water, sanitation and waste disposal services provided by Harare City Council

FIGURE 2.2: TYPES OF WATER FACILITIES USED IN RESIDENTIAL AREAS

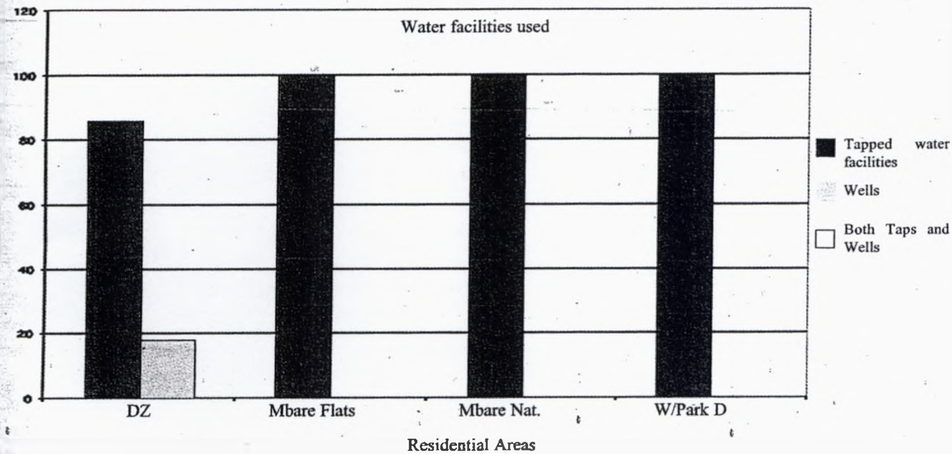
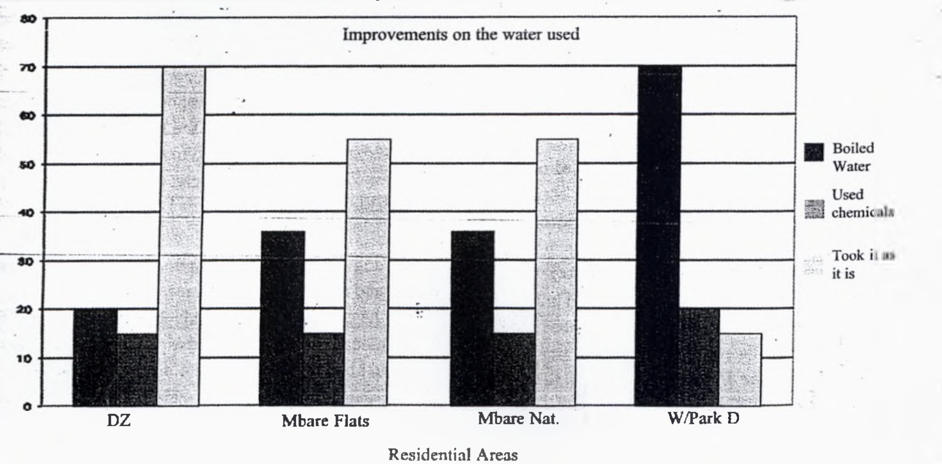


FIGURE 2:3: MEASURES UNDERTAKEN TO IMPROVE QUALITY OF DRINKING WATER



tion units were all wooden cabins, with inadequate ventilation. In Mbare Flats respondents shared one room divided by curtains. Residents thought that such overcrowding gave rise to the spread of respiratory diseases such as tuberculosis.

3.7 Conclusion

TABLE 2.5: MINIMUM QUALITY STANDARDS FOR HOUSES

Aspect	Minimum quality/sizes
Size of stand	$325m^2$
Type of house	Brick
Size of house	$250m^2$
Size of each room	$15m^2$
Number of rooms	4
Extent of windows	1/10 of room area
Average family size	5
Number of rooms allocated to each household	2
Number of households	2

The population in the study areas cannot be said to be enjoying environmental rights in relation to access to water, adequate sanitation, provision of shelter and waste management. Mushayavanhu et al (2004) have argued that in Zimbabwe the enjoyment of environmental rights is compromised by the fact that, while there are in place legal and institutional mechanisms such the Environmental Management Act, there are, no supporting measures such as constitutional guarantees, as is the case in South Africa where residents have a constitutional recourse.

4. Water demand management in practice

Water demand management has been touted as providing solutions to water problems in southern Africa (see Mwendera et al, 2003). It refers to the adaptation and implementation of a strategy by a water institution to influence the water demand and usage in order to meet any of the following: economic efficiency, social development: social equity, environmental protection, sustainability of water supply and services; or political acceptability (ibid.). This section presents and discusses issues involving water demand at household level. It is based on three studies (Machiridza et al, 2004; Gwiza, 2005; Manzungu and Machiridza, 2005). Manzungu and Machiridza (2005) have observed that the water demand management discourse in southern Africa was informed by aggregate studies which did not shed light on the behaviour of individual residents. ZINWA seems to have appreciated this fact. It appealed to residents that water management was everyone's responsibility (*The Herald*, 7 March 2007). In fairness, ZINWA also realised the problem was one of supply. *The Sunday Mail* of 5 August 2007 quoted a ZINWA official saying that the construction of the Kunzwi Dam remained the solution to water problems in the city.

4.1 Water consumption

Studies conducted in residential areas of different socio-economic status in Harare and Chitungwiza between 2004 and 2005 revealed that the level of water consumption was correlated to the economic status of residents (Table 2.6).

Generally high-income residential areas, such as Borrowdale and Mount Pleasant, consumed at least three times more water than low-income households.[10] Even in the former, residents complained of water inadequacy (Figure 2.7), indicating that the real issue was about reliability of water supply.[11] This is supported by the fact that the city's daily demand of 700 megalitres far exceeded the daily pumping of 580 megalitres (Machiridza et al, 2004).

Across all suburbs priority of water use was in this order: domestic (cooking, drinking, laundry) and irrigating vegetable and flower gardens (mostly in the low-density areas). Some residents in the low-density areas also used water for filling their swimming pools. The majority of the residents in Harare did not have alternative water sources, particularly those residing in low-income suburbs (Figure 2.8).

Most of the respondents indicated that there was very little possibility of them using less water (Manzungu and Machiridza, 2005) because water was either inadequate or very unreliable.

4.2 Water conservation

About half of the respondents (54%) in Harare did not report any water leakages. Of the remainder, 81% reported leakages to Council staff. The remainder said that the Council found out on its own. Harare Council officials estimated 30% water loss due to leakages. The time taken to respond ranged from an hour to months. No estimates of the level of household water loss due to leakages were available. Figures 2.9 and 2.10 show different water conservation techniques used in Harare and Chitungwiza respectively. The fact that the market did not have what could be called water-saving appliances limited prospects for conserving water (Gwiza, 2005).

In Chitungwiza there was widespread use of grey-water (wastewater). The majority of the people in St Mary's (83%) used grey water compared to 40% and 23% in Unit J and New Zengeza 4 respectively. Grey-water was used for vegetable production, irrigating lawns and flushing toilets.

In Chitungwiza a number of water saving/conservation devices and techniques were mentioned e.g. placing a brick in the cistern. However, only 10% of residents in St Mary's placed bricks into cisterns, compared to 3% in Unit J and none in New Zengeza 4. In Harare residents did not like using grey-water for various reasons (Figure 2.11). This applied to both high- and low-income households.

FIGURE 2.4: PERCEIVED PROBLEMS ASSOCIATED WITH SEWAGE BLOCKAGES IN DIFFERENT RESIDENTIAL AREAS

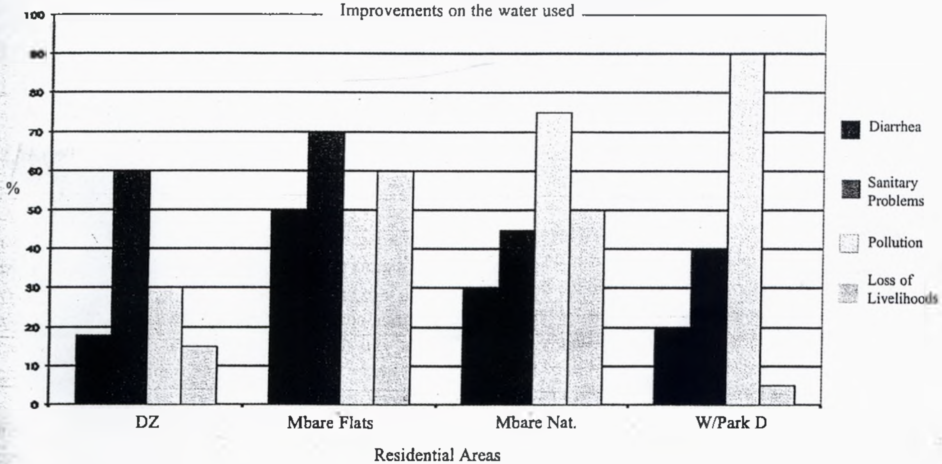


FIGURE 2.5: WASTE DISPOSAL METHODS EMPLOYED IN RESIDENTIAL AREAS

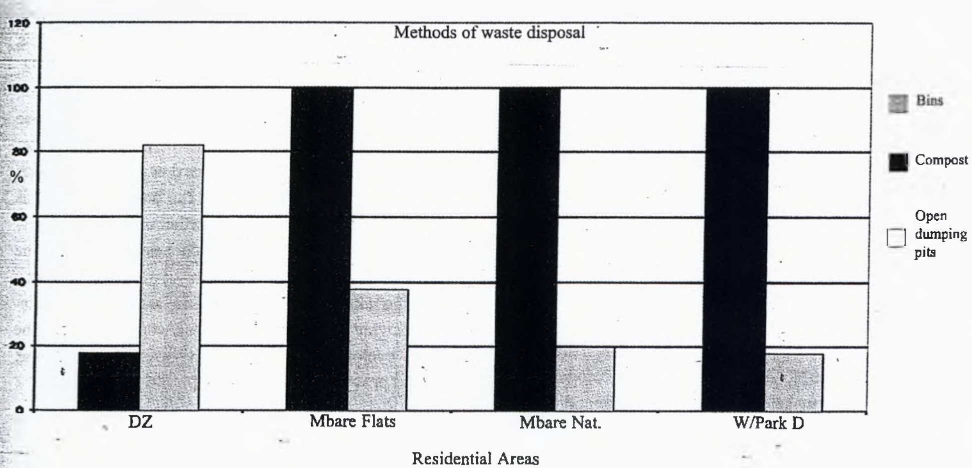
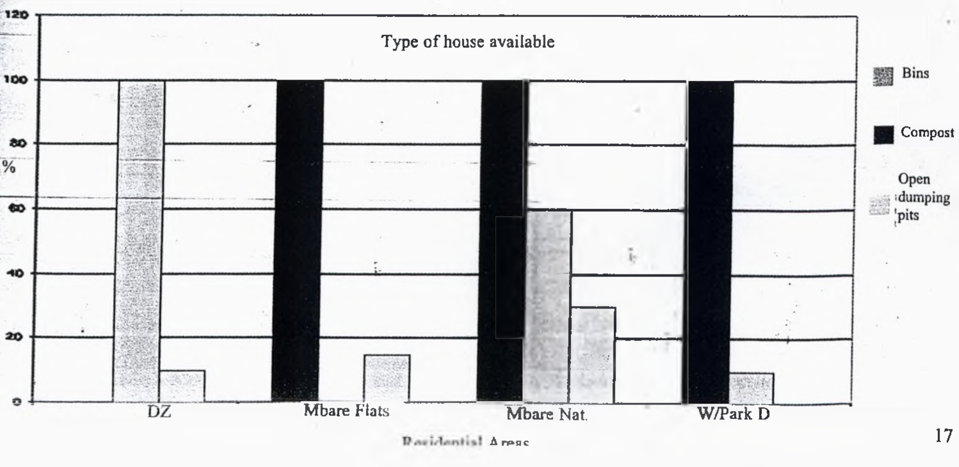


FIGURE 2.6: HOUSING IN RESIDENTIAL AREAS



4.3 Conclusion

Efforts directed at implementing WDM at household level in Harare and Chitungwiza seem misplaced at the present moment. Water demand management can only work if its three components of water supply, water consumption and water governance are co-ordinated. For WDM to be implemented it is necessary, in the first instance, to pay attention to the water supply situation. Inadequate or erratic water supply does not convince residents to implement WDM. Indeed, a poor water supply creates a situation in which residents are likely to 'hoard' water by establishing storage facilities in the event of water becoming available. Many of the technologies were inappropriate due to the fact that the manufacturing sector provided the market with technologies that were oriented towards water supply rather than water demand management. The lack of good governance mechanisms, as illustrated by the wilful undermining of democratically elected institutions in the form of the Mayor and councils (Manzungu and Mabiza, 2004), was inimical to WDM.

There were other issues at play. Harare is located upstream of its water sources and, therefore, pollutes its own water (Moyo, 1997). This problem has been made worse by the lack of investment in social services that would match the increasing population. Waste management, ecological sanitation and wastewater use all depend on adequate investment in infrastructure, and not only in repairs and maintenance but forward planning.

5. Ecological sanitation

5 .1 Introduction

Nhapi (2005) has suggested that improving sanitation in Harare cannot be accomplished by conventional means. The sanitation challenge is greater in informal settlements, which is why some NGOs have introduced ecological sanitation. The latter makes use of human waste and turns it into something useful and valuable. It poses a minimum risk of polluting the environment and no threat to human health. (Morgan,1999). In Zimbabwe, two types of toilets that are based on the principle have been introduced. These are the Fossa Alterna (migrating pit) and the Sky Loo. The former was introduced in Hatcliffe and the latter in Dzivarasekwa.

The fossa alterna makes use of two pits that are approximately one metre deep. They are lined with a ring beam since they are to be reused. A light slab and superstructure are placed over the pit. The pit is used and soil and ash are added during its use. When the pit is three quarters full it is left and the superstructure is moved to the next pit. The used pit is topped up with soil and other materials that may make good compost. It is watered occasionally. After six months, it is then excavated and the compost put to use. The system continues with the superstructure moving between the two pits.

The sky loo is entirely above ground. A base slab is built first. Concrete and brick walls form a vault above it. There is a step at the front end and a sloped rear end, which is used as an access to the vault. The base slab has a hole near the centre with a small urine soakage pit beneath. Urine is diverted into an area where it can go to waste. Alternatively, it is stored in containers and used (diluted 10:1) on vegetables. A latrine slab is mounted on top of the vault and high enough to allow the bucket or bag to enter the vault beneath it. The latrine is used as a pit latrine with the addition of soil and ash. When the bucket is full, it is emptied into a bag to decompose further and the manure is eventually used in the garden, in trenches or tree pits. The system is original in that it is only a transfer point since the composting takes place elsewhere. In Hatcliffe the population is provided with boreholes that were drilled by the District Development Fund. In Dzivarasekwa no borehole water was provided in the form of public stand pipes.

To date there has been no independent systematic assess-

FIGURE 2. 7: PERCEIVED ADEQUACY OF WATER IN HARARE

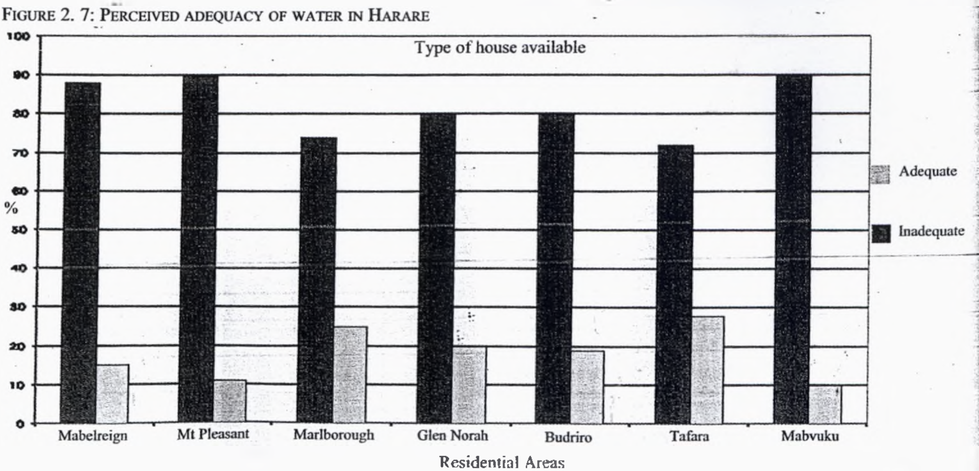


TABLE 2.6: PER CAPITA WATER CONSUMPTION PER RESIDENTIAL AREA

	Name of surburb	Income level	Consumption (l/person/day)
HARARE	Borrowdale	High	466
	Mount Pleasant	High	353
	Mabelreign	Middle	226
	Waterfalls	Middle	216
	Marlborough	Middle	167
	Kuwadzana	Low	58
	Glen Norah	Low	105
	Budiriro	Low	108
	Tafara	Low	69
	Mabvuku	Low	29
	Mbare	Low	120
	Hatclife	Low	104
CHITUNGWIZA	St Mary's	Low	87.5
	New Zengeza	Low	150
	Unit J	Low	132

Source: Machiridza et al (2004); Manzungu and Machiridiza (2005) and Gwiza (2005)

FIGURE 2.8: ALTERNATIVE WATER SOURCES IN HARARE

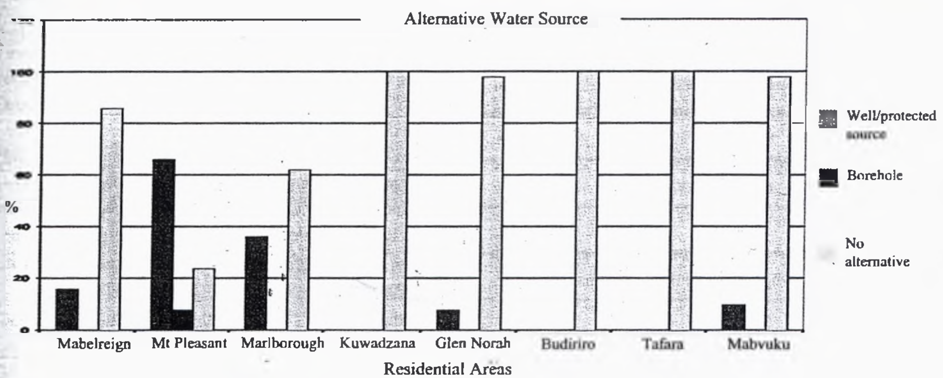
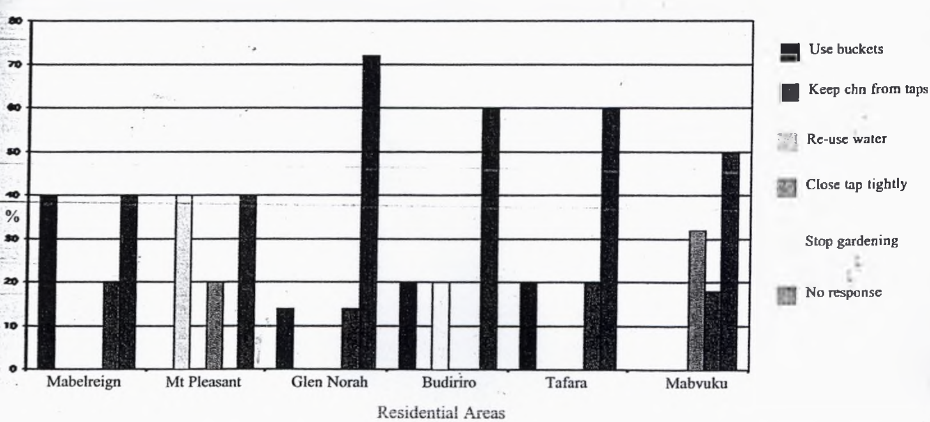


FIGURE 2.9: EXAMPLES OF WATER-SAVING TECHNIQUES IN HARARE



ment of the impacts of ecological sanitation, hence the assessment undertaken in Hatcliffe and Dzivarasekwa Extension.

5.2 Use of ecological sanitation facilities

Table 2.7 presents information on the study areas.

A questionnaire was administered to over 90% of the total number of households in the two sites. Of the whole population in Dzivarasekwa, 28% used 'the bushes'. They found both the communal facilities and the sky loos inappropriate. In relation to the latter, the major objection was that the ecosan technology entailed handling of human waste. In Hatcliffe there were a higher proportion of residents with personal pit toilets (74%). They dug their own pit latrines made of grass, plastic and other materials they come across as a way of avoiding the facilities provided under the ecological sanitation concept. In Dzivarasekwa, however, the high water table precluded this. This contributed to the low percentage (14%) with personal toilets.

Lack of appropriate use of sanitation facilities gave rise to incidence of faecal contamination. This was confirmed by an exercise undertaken to assess the use of 'bush toilets'. The exercise involved assessing physical evidence of faeces from a list of possible sites such as soccer field, homestead, clinic, primary school and pre-school area. The most contaminated site in Hatcliffe was the homestead' while in Dzivarasekwa it was the soccer field. In Hatcliffe it would appear this was because of absence of personal toilets around some homesteads. In Dzivarasekwa it was because of local privacy considerations. The soccer field was located at the outskirts of the settlement.

5.3 Water quality

Figure 2.12 shows that water contamination was a problem in both cases, indicating presence of contamination resulting from faeces.

The water in Hatcliffe was less contaminated than that in Dzivarasekwa due to the low water table and the fact that the boreholes were adequately protected. The human cost of poor sanitation was revealed by the presence of waterborne diseases such as dysentery, diarrhoea, and bilharzia. (Figure 2.13). The higher incidence of dysentery in Dzivarasekwa than in Hatcliffe could be attributed to the poor water quality from the unprotected wells.

5.4 Conclusion

On paper ecological sanitation looks a great idea as it has the potential to effectively address the sanitation problems in informal settlements. However, the reality on the ground is that the concept is deeply unpopular as attested by the low utilisation of the facilities. The evidence documented in this study concurs with Guzha and Muduma (2000) who found that most Zimbabwean communities were faecophobic and were, therefore, unlikely to accept any task that may cause them to handle human waste.

6. Overall Conclusions

The state of basic social services in the Harare-Chitungwiza metropolis, examined in this study, has reached a level where even the government, which tends to be in denial about the country's problems, has acknowledged the dire state of affairs. Superficially this might provide reason for their take-over of water and sanitation facilities in urban areas. However, the government's assumption of the affairs of the City needs to be properly contextualised. First, the poor service, given as a reason for the take-over, was a cover up. What was happening in Harare reflected a deterioration of services throughout the country, a lack of forward planning, a diminishing tax base, and inadequate financial support through the fiscus. Indeed, the situation was much better before the popularly elected Mayor and council were hounded out of office. They, at least, would have had the support of their constituents who elected them on the platform of improvement. It is ironic that the government has chosen to occupy the high moral ground when most things under its purview have disintegrated (Bond and Manyanya, 2002). The ostensible reasons for assuming control were in fact an autocratic bid to (re-)assume control of urban areas. In such a scenario notions of 'social good' are merely the rationalisations of an all-powerful state.

The question of whether this political strategy has been successful does not have a straightforward answer. On the one hand, the state managed to wrest control of the urban areas and, by so doing, was able to gain access to urban revenues. On the other hand, the fact that the services did not improve (accompanied by loud complaints by residents) has not made the government any more popular leaving it with no viable options. This could explain the proposed banning of executive mayorship as reported in the print media.

From the above it is clear that the re-introduction of good governance systems with vibrant local authorities cannot, on its own, solve the problem, given the current state of the services. Ironically the central government will continue to be involved. For example, all attempts at WDM without solving the water supply side, which means building the Kunzwi Dam, depend on the state providing the required financial resources or providing a guarantee to the local authority. By the same token, going back to a decentralised management structure by itself does not guarantee success because the delayed investment in social services has taken a heavy toll on these services.

ENDNOTES

1 This paper is based on research undertaken by undergraduate students I supervised between 2004 and 2006. These were Jepfeter Matande, Chingamidzai Gwiza, Prudence Tambura and Karen Manyati.

2 It should be noted that the quality of the service delivery has

FIGURE 2.10: WATER CONSERVATION TECHNIQUES IN USE IN CHITUNGWIZA

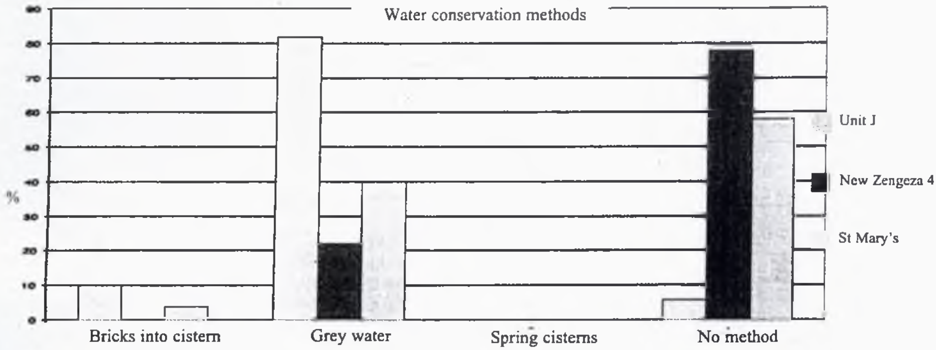


FIGURE 2.11: PERCEPTIONS ON USE OF GREY WATER IN HARARE

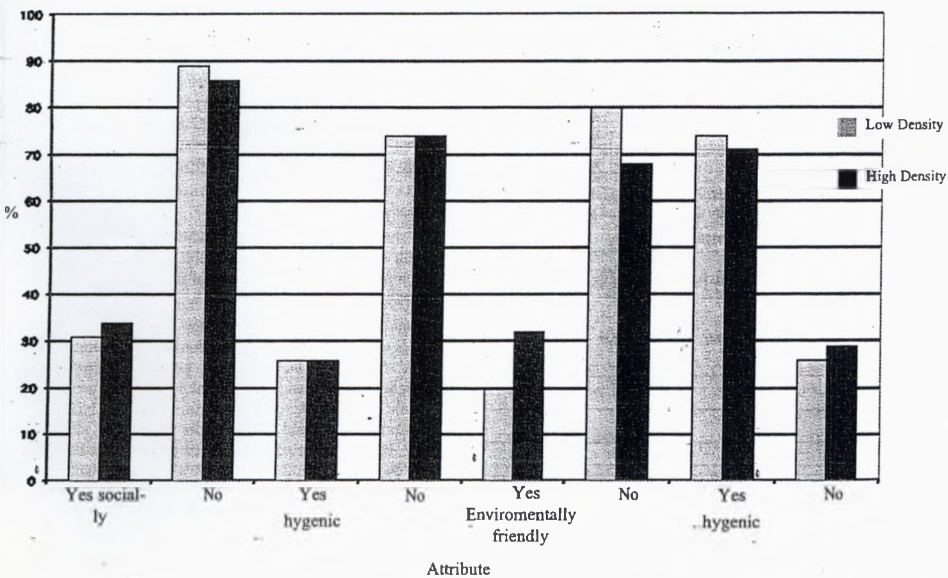


TABLE 2.7: DEMOGRAPHIC CHARACTERISTICS IN HATCLIFFE AND DZIVARASEKWA EXTENSIONS

PARAMETER	DZIVARASEKWA EXTENSION	HATCLIFFE EXTENSION
Total population	1 445	2 126
Adult males (%)	18.7	22
Adult females (%)	19	23
Children males (%)	31	27.7
Children females (%)	30.8	26.7
Number of families	269	453
Dependency ratio	1: 4.4	1: 4.3

FIGURE 2.12 : WATER CONTAMINATION IN DZIVARASEKWA AND HATCLIFFE

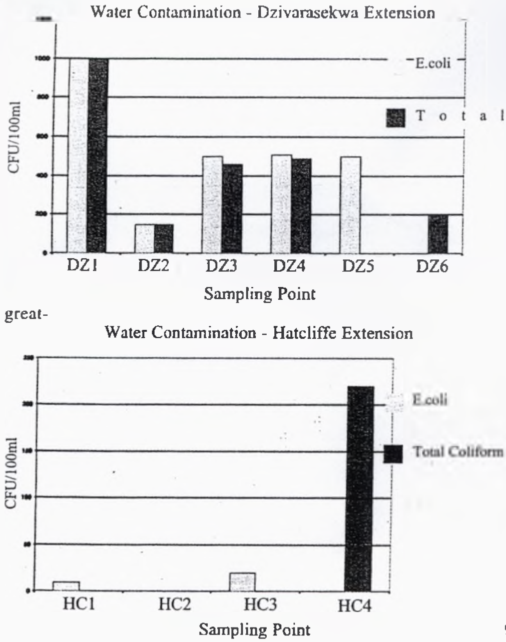
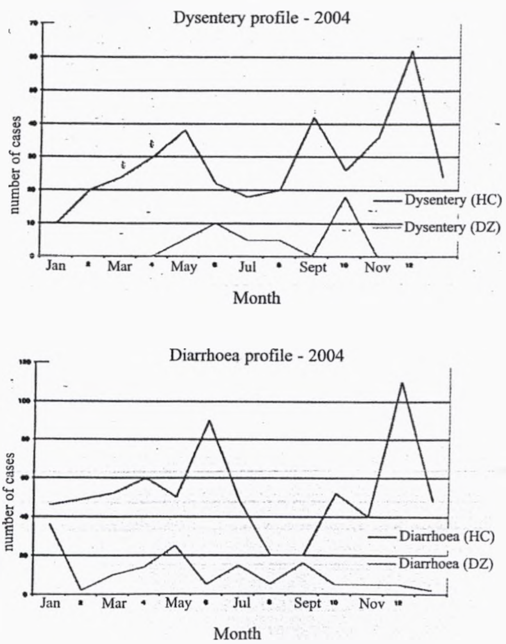


FIGURE 2.13 DISEASE PROFILE IN DZIVARASEKWA AND HATCLIFFE EXTENSION



ly deteriorated since the time this study was done.

3 At independence water and sanitation coverage in the urban areas was 100% because of the draconian laws put in place by the colonial government. For example only a few blacks were allowed into urban areas. However, in the rural areas water coverage was 56% while sanitation was 25% (Institute of Water and Sanitation Development, 2007, personal communication)

4 *The Zimbabwe Independent* (24-30 August 2007) reports that the year-on-year inflation rate for the month of July stood at 7 634.8% which represented an increase of 388.7 percentage pints on the June rate of 7 251.1%.

5 A core house was a basic dwelling unit which comprised at least one sleeping room, a toilet and a kitchen. Beneficiaries of the scheme were expected to add more rooms to the core house as funds became available.

6 Ironically, according to *The Sunday Mail* of 28 October 2007 and *The Herald* of 29 October 2007, the ruling party has now decided to abolish the post of Executive Mayor because the mayors have failed to deliver good services to residents. It is worth pointing out that the Executive Mayorship was introduced against a backdrop of opposition from residents who saw this as a waste of money.

7 The point is expanded thus (i) to participate in the implementation of promulgation of reasonable legislative, policy and other measures that prevent pollution and environmental degradation, (ii) secure ecologically sustainable management and use of natural resources, and (iii) promote justifiable economic and social development.

8 At the time of the study the toilets made of cement blocks were in a state of disrepair.

9 It should be said that the situation has deteriorated to the extent that. in some cases residents have given up reporting such problems because of lack of response.

10 Overall the figure fell within the recommended consumption level of 50l/person/day for basic water needs. It is pegged at 60–70l/day to cater for losses (Institute of Water and Sanitation Development, personal communication). Higher water consumption in the low density areas was due to the fact that there was a minimum of two bath rooms, a swimming pool and a large garden on the individual premises. There were also many more people who lived on the property, including domestic workers (and their families). Some of the properties have boreholes, so water usage through the meter system does not reflect the amount of water consumed.

11 It is important to note that water supply shortages have considerably worsened since these studies were undertaken. Some areas are going for months without water.

APPENDIX 1: SELECTED REPORTS OF OPPOSITION TO TAKEOVER OF WATER AND SEWERAGE IN URBAN AREAS

Media outlet/Date	Title of article	Highlights
Financial Gazette (March 8-14 2007)	We won't back down: Mutezo	At a meeting organised by the Zimbabwe National Water Authority and Bulawayo Presss Club the Minister of Water Resources said government would not back down. - people could shout, boo, whine or even invoke memories of Gukurahundi. The fact that the Council complained that they were going to lose 40 percent of its revenue that came from the water account that was vital to fund social services like housing and health was one of the reasons for the takeover. Government would not tolerate this abuse of the water account.
The Standard (11 March 2007)	20 arrested as anti-ZINWA protests erupt in Masvingo	Masvingo residents defied the three-month police ban on rallies and demonstrated to protest the takeover of water and sewerage services. They held a banner, "Rescue us from the Evils of Zinwa."
The Standard (4 March 2007)	Government set to commercialise ZINWA (advertisement placed by the Combined Harare Resident Association-CHIRA)	ZINWA increased water tarrifs by over 1 600 percent since December 2006 and is set to increase them by March this year. The Government of Zimbabwe is cash strapped and will now use ZINWA to siphon off residents' hard earned money to feed party political interests. There is no effective accountability with ZINWA. It is accountable to central government in contrast with local authorities which are accountable to residents. ZINWA rates are approved by Government and this heavily militates against civic participation in local governance.
Zimbabwe Independent (9-15 March 2007)	ZINWA incompetent (letter to the editor signed by Nyota, Harare)	Since ZINWA took over our water, it has managed to live by its name – Zimbabwe No Water Authority.
The Herald (March 2007)	Behaviour change key to water management (advertisement inserted by ZINWA)	ZINWA has embarked on a number of strategies and measures ranging from water rationing, leak detection and repair, pressure management and awareness campaigns to help residents access water throughout the year. While ZINWA is working hard to ensure that the available water resources are shared equally among residents, the consumers must also appreciate that efficient water use is to their benefit and not a punitive measure being imposed by the service provider.
The Standard (9 September 2007)	Water is life – Bulawayo will not die - churches (advertisement by Churches in Bulawayo)	The water situation in Bulawayo is a disaster as only two dams out of five are supplying the city as three have run out of water. Sadly, during September a fourth dam will also run out of water, leaving only one dam to supply Bulawayo's population. It saddens deeply that, though we wrote to the Minister responsible and to Local Government for two months about the looming disaster, there was neither acknowledgement nor any response to our letters. Hearts sank when it was reported in the media that during the last two weeks that the Government will not intervene in the Bulawayo water crisis until such time as the water system in the city was handed to ZINWA. ...the following are some important facts we have gathered; All Bulawayo supply dams were built by the City Council up until 1976; from 1976 to date the Government or ZINWA have not constructed new dams for Bulawayo save for Mtshabezi dam which however is not connected to Bulawayo water system; the population of Bulawayo has grown enormously since 1976; ±77 Nyamandlovu aquifer boreholes which were equipped and supplying Bulawayo were vandalised while the under the stewardship of ZINWA.

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