

CITIZENS' REPORT CARD on urban water, sanitation and solid waste services in Kenya

Summary of results from
Nairobi, Kisumu and Mombasa
2007



Maji na usafi? Njooi tujadiliane
Citizens' voice on water and sanitation

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Solid Waste Services in Kenya
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Kisumu and Mombasa

May, 2007

Contributing Stakeholders

The Ministry of Water and Irrigation provided the umbrella under which the CRC initiative was forged. The initiative was facilitated by civil society organizations at the city level by the Kenya Alliance of Resident Associations (KARA) in Nairobi, Sustainable Aid in Africa (SANA) International in Kisumu, and Ilishe Trust in Mombasa respectively. These lead agencies worked in partnership with a loose association of between 15 - 20 stakeholders comprising civil society organizations, resident representatives and service providers responsible for water, sewerage, on site sanitation and solid waste services in each town - collectively referred to as a consortium. The three consortia owned the process at the local level, with the lead agencies responsible for convening meetings.

The lead agencies alongside Network for Water and Sanitation International (NETWAS) and Institute of Civic Affairs and Development (ICAD) joined to form a multi-stakeholder umbrella policy level consortium at the national level. The Ministry of Water and Irrigation, the Water Services Regulatory Board, the Ministry of Health and the Ministry of Local Government as well as a small group of donors namely GTZ, UN Habitat, SIDA and DANIDA were involved in deliberations on the outcomes and the policy implications emerging from the city consortiums. WSP Africa brokered the process between the various partners and provided technical assistance.

This Summary Report is based on the three city level reports drafted by the lead agencies.

Members of Kisumu Consortium

Lake Victoria Water Services Board (LVWSB), Kisumu Water and Sewerage Company (KIWASCO), Kisumu Municipal Council (Environment Department), Department of Health in the Council, CARE Kenya, World Vision, Gwako Ministries, Kenya Female Advisory Organization, CSO Network for Western Kenya, Kenya Water for Health Organization, (KWAHO), Christian Children's Fund, Sustainable Aid in Africa (SANA) International

Members of Nairobi City Consortium

Athi Water Services Board, Nairobi Water and Sewerage Company (NAWASCO) City Council of Nairobi (environment departments), Institute of Economic Affairs (IEA), Kenya Water Partnership office in the Ministry of Water and Irrigation, Kenya Water For Health Organization (KWAHO), Maji na Ufanisi (Water and Development), Consumer Information Network, Ivory Consult Limited, Resident Representative Tena Residents Association, Lavington Residents Association, African Women and Child Information Network and The Kenya Alliance of Residents Associations (KARA).

Members of Mombasa City Consortium

Coast Water Services Board, Mombasa Water and Sewerage Company, Department of Environment and Health of the Mombasa Municipal Council, Coast Development Authority, Environmental Trust of Kenya, Coast Development Lobby Group (CDLG), UJAMAA CENTRE, Women's Network Centre, Consumer First Network, Kituo cha Sheria, Coast NGO forum, Coast Rights Forum, Action Aid, National Council of Churches of Kenya, Residents representatives from Likoni, Mombasa Island, Kisauni, Changamwe and Ilishe Trust.

Glossary of Key Terms

Kiosks: category for all kiosks whether supplied by the network or other independent sources.

Mains connections: all connections to the utility network, whether private in the residence or compound or shared in the compound or block of flats.

Mains kiosks: all kiosks connected to the utility network.

Poor: The Central Bureau of Statistics (CBS) maintains a National Sample Survey and Evaluation Programme (NASSEP) for obtaining household based information. The current frame (NASSEP IV) created after the 1999 housing and population census is made up of 540 urban clusters and 1,260 rural clusters. The clusters have further been categorized by CBS into 5 strata based on wealth/poverty status of the area where the clusters are located. Therefore the clusters, hence the households falling within stratum 1 are considered to be the wealthiest ones and those falling in stratum 5, the poorest. The NASSEP IV Sampling Frame was used to draw the sample clusters (poor and non-poor) for the Citizen Report Card Survey conducted in Nairobi, Mombasa and Kisumu. For purposes of our study, strata 1 to 3 were considered to be ‘non-poor’ while strata 4 and 5 were considered to be ‘poor’ with strata 5 being the informal settlements.

Protected sources: these include sources of water such as rainwater and covered wells that are less likely to be contaminated than unprotected sources like surface water.

Rising block tariff: increasing tariffs per unit of water for higher levels of consumption.

Scarcity: defined as low or lack of water supply lasting five days or longer; this is different from a short-term water cut or an advertised shortage.

Unaccounted for water (UFW): the difference between the quantity of water supplied to a city’s network and the metered quantity of water used by the customers. UFW has two components: (a) physical losses due to leakage from pipes, and (b) administrative losses due to illegal connections and under registration of water meters.

Unprotected sources: these include sources of water like open wells and surface water (streams and ponds) which are more likely to be contaminated than protected sources like covered wells.

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The process is owned by the citizens of Kenya and driven by selected stakeholder consortium groups comprising service agencies, key civil society agencies and the media. WSP Africa provided technical assistance in collaboration with Public Affairs Foundation, Bangalore.

The data presented was obtained through a random sample survey obtained from the Central Bureau of Statistics of the Ministry of Planning and National Development. The survey, data collection and data analysis was undertaken by Research International under the leadership of Melissa Baker, Masita Mokeira and Dixie Avugwi. The report was prepared by Clarissa Brocklehurst and peer reviewed by the lead agencies, Belinda Calagus, Ken Caplan, Tom Wolfe, Duncan Okello, Jean Doyen, Andreas Knapp, Nyambura Githagui and Gopa Kumar Thampi. Further review and technical assistance was provided by Piers Cross, Dennis Mwanza, Vivian Castro, Rosemary Rop, Alain Morel, Antti Inkinen, Kameel Virjee, Patrick Mwangi, Japheth Mbuvi, Toni Sittoni, Lilian Otiego, James Murage and Sylvia Maina. Strategic process support was provided by Jane Wachuga, Jecinter Hezron, Anne Michira and Maria Kimata.

Foreword

The Ministry of Water and Irrigation's stated priority for reform in the water sector is the strengthening of the quality of service delivery. Typically, such reform programmes target service delivery primarily through capacity building of the 'supply' side of service provisioning, such as institutional strengthening, strategic planning, training and increased budgetary allocations. This bias is premised on pressure to institute reforms and disburse funds, and the 'expert-driven' generation of the data that is informing the implementation of the reforms.

Lessons learnt in the sector during the 70's and 80 demonstrate clearly that it is not sufficient to concentrate on supply driven mechanisms in the efforts of improving service delivery. There is a need also to capacitate the 'demand' side through ensuring that the users of water and sanitation services are not only informed of the stated direction of policy, but are enabled to exercise their voice through participating, contributing and even holding the government and service providers to account as regards the impact policy has had on citizens livelihoods.

It is in this vein that the Ministry of Water and Irrigation welcomed the Citizen Report Card (CRC) initiative on urban water and sanitation services in Kenya. The Ministry views citizens' experiences, levels of satisfaction and priorities for service improvements as captured in the

CRC as a timely and welcome health check. The CRC will be discussed in detail and used as a basis for continued dialogue among citizen groups, service providers and policy makers towards marked improvements in the quantity and quality of services.

The voice of citizens, often weak, will be amplified through structured dialogue as an important and growing pillar of the reform process in Kenya. The newly formed sector institutions within the three cities of Mombasa, Nairobi and Kisumu should use the CRC as a catalyst for change in the present, and refer to these findings to measure progress in the future. At the policy level of special priority will be the challenges related to services to the urban poor for whom the achievement of the urban MDGs are of central focus in the Ministry. We invite you to join in the dialogue over service improvements not only for this special group, but for the realization of quality urban water and sanitation services for all Kenyans.



Engineer Robert Gakubia

Director of Water Services,
Ministry of Water and Irrigation
May 29th, 2007

Executive Summary

This is a national summary of the Citizen's Report Card (CRC) on water, sanitation and solid waste (i.e. rubbish) services undertaken in Kenya's three largest cities - Nairobi, Mombasa and Kisumu in September and October 2006. CRCs are a tool providing service providers and policy makers with feedback from citizens¹. These CRCs were undertaken by a representative group of stakeholders in each city and individual city reports have been prepared alongside the national summary.

CRCs gauge both citizens' access to and satisfaction with services. They point out areas where service providers are succeeding and areas that need improvement. When prepared regularly, CRCs may be used as a combined advocacy/benchmarking tool.

The information provided in a CRC may be helpful to utility managers in strategic planning; to policy makers in guiding the sector; to regulatory bodies in sector oversight; to investors in deciding where to channel funds; and to civil society representing an objective measure of public perception. Most importantly, CRCs are useful for citizens who generally lack the information conducive to meaningful dialogue.

The CRC is the experience of citizens as told by citizens. It is not a technical sector overview written for specialist audiences and does not include figures from the service providers such as volume of water produced or number of households served. It is meant to guide recommendations but does not in itself provide the solutions.

Residents appreciate the water companies' performance in the following areas.

- The overall levels of satisfaction are adequate for Nairobi's non-poor.
- Consumers like the taste, smell and colour of water from mains connections.
- Consumers on the network are receiving bills on a monthly basis.

Findings that need to be addressed

- All consumers want increased reliability of the water supply.
- The poor are paying higher prices for lower levels of service than the non-poor.
- Kiosks are a critical source of drinking

water. Users are especially vulnerable during times of scarcity as prices rise and they are forced to use expensive or unsafe alternatives like ponds and rivers.

- Consumers want a stronger customer-orientation and improved information services from the service providers and policy makers.
- Residents express lower satisfaction with sanitation than water services. They want more public toilets and expansion of the sewerage network.
- The poorest people do not have access to adequate sanitation facilities.
- Overall satisfaction with solid waste services is low.

Table 1: Poverty Figures by City²

| City | Percentage of poor people |
|---------|---------------------------|
| Nairobi | 21% |
| Mombasa | 38% |
| Kisumu | 43% |

¹ The Ministry of Water and Irrigation (MWI) is responsible for policy formation and overall sector coordination; the Water Services Regulatory Board (WSRB) is a statutory body in charge of setting and enforcing standards for dealing with consumer complaints, developing guidelines for tariff setting and developing performance agreements between WSPs and Boards; Water Companies are also called Water Service Providers (WSPs) or Water Utilities; Water Service Boards (WSBs) own the water and sewerage infrastructure in their area and can lease the infrastructure to qualified WSPs for operation and management; and City Councils are responsible for solid waste collection and on-site sanitation (including the management of public toilets).

² Basic Report on Well-being in Kenya. Based on Kenya Integrated Household Budget Survey - 2005/06. April 2007. Kenya National Bureau of Statistics. The Regal Press Kenya Ltd, Nairobi, Kenya.

Process and Methodology

The value of the CRC is in the findings but also in the collaborative process that was used. The process was undertaken in a manner to equip and build the capacity of civil society to engage in continued and meaningful dialogue with service providers and policy makers. NGOs led the initiative on behalf of a wider, multi-stakeholder consortium in each respective city. In Nairobi, the Kenya Alliance of Residents Association (KARA) was the lead agency; Ilshe Trust in Mombasa; and Sustainable Aid in Africa International (SANA International) in Kisumu.

The methodology for the CRC was designed with both qualitative (focus group discussions) and quantitative (survey) tools. An important objective of the CRC was to investigate the differences in access and satisfaction of services by poor and non-poor households. To this end, the Central Bureau of Statistics prepared a list of randomly-selected households. The survey consisted of 2,905 household interviews in the three cities (Nairobi 1,378; Kisumu 719; and Mombasa 808) conducted in September and October 2006.

Seven themes were selected for data analysis and presentation:

- availability, access and use of services
- costs incurred by customers
- perception of water quality and reliability of supply
- satisfaction with services
- transparency³ in service delivery
- priority areas for improvement
- interactions with the service providers

The sections below present the main findings on overall satisfaction followed by individual sections on water, sanitation and solid waste.

Key Overall Findings on Satisfaction with Services

In comparing the three cities, the residents of Kisumu and Mombasa are less satisfied with public-agency provided services than the residents of Nairobi. Satisfaction with kiosks connected to the network is less than 50 percent in all cities, much lower than the satisfaction of customers with connections to the network.

Figure 1: Satisfaction of users of public agency services

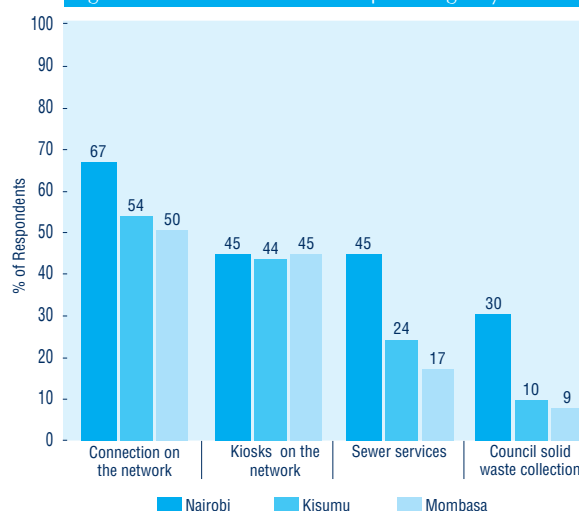
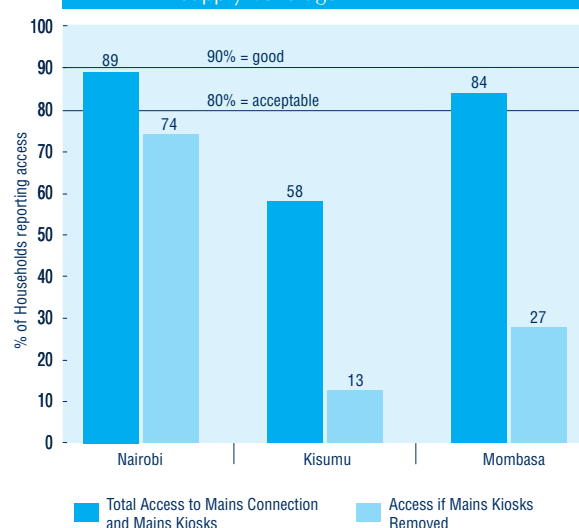


Figure 2: Achievement of benchmarks⁵ in water supply coverage



Finally, satisfaction with sewer and solid waste collection services is considerably lower than satisfaction with water services, but little is being done to improve or reform these services. Consumers feel they are not getting enough information on water and sanitation services and are not informed of changes in policy. Consumers overwhelmingly state they prefer face-to-face interaction with water companies over other channels of communication.

A key point is that the poor in Nairobi, Mombasa and Kisumu pay higher prices for

³ We asked users of mains connections about how "transparent" their service provision was in terms of billing practices, information on stoppages, and petty corruption.

Table 2: Amount paid for 1,000 litres from the network and from kiosks

| | Nairobi | Kisumu | Mombasa |
|---|---------|--------|---------|
| Total per month for 1,000 litres from network (KES) | 17 | 47 | 25 |
| Total per month for 1,000 litres from kiosks (KES) | 100 | 100 | 100 |

lower levels of service than the non-poor. In addition, kiosks users are especially vulnerable during periods of scarcity as they shift to more expensive or unsafe sources of water like ponds and rivers.

Water Services: Key Findings

Access and usage

There are distinct inequities in access to network connections between the poor and the non-poor. In Kisumu, only 7 percent, an alarmingly low fraction of the poor, are connected to the network.⁴ Poor households in all three cities are much more likely than the non-poor to use kiosks as their primary source of water. The non-poor are faring significantly better in Nairobi and Kisumu where 95 percent and 81 percent respectively are connected to the mains in or around the house, compared to only 50 percent of the non-poor in Mombasa.

It is clear that kiosks are helping the water companies achieve their benchmarks for coverage, even though kiosks are a lower

level of service. Currently, none of the three water companies achieves a score of “good” (>89 percent coverage) and their scores drop even more when kiosks are omitted from the calculation.

Reliability and quality

Many households are experiencing periods of water scarcity and the poor are more likely to face scarcity⁶ than the non-poor. Households in Kisumu are more likely to report scarcity than those in the other two cities. Periods of scarcity are forcing consumers to use unsafe and expensive sources of water. Overall, consumers appreciate the taste, smell and colour of water from mains connections. However, it is interesting to note that the overwhelming majority still treat their water, demonstrating marked uncertainty with the safety of the water

Mombasa woman shares experience of shifting sources as coping mechanism during scarcity

Mama Khadija is a vegetable vendor and life-long resident of the Kashani-Bombo area of Kisauni Division in Mombasa. She is disappointed in the company's provision of water. She laments, “December-February is a nightmare until the rains. Then around July to August, again we suffer. We rely on the role played by the vendors - where else would we get water? We are in such need we take it. We do not ask where the water comes from because we have no choice. When there is shortage of water we buy from the vendors one 20-litre for 30 shillings.” Source: *Focus Group Discussion, Mombasa Feb, 2006.*

Improved Customer Service

“The NCWSC services have improved a lot. Unlike in the past, you do not need to know or pass through anyone. When you have a billing problem, all you have to do is to visit the next business centre or its Kampala Road headquarters and one will get a very long, long, really long print out of your billing statement. You can even carry it away in a carton! You will then go through bit by bit with an officer. You will thereafter leave satisfied on whether an error existed or not. They must be commended for this.” Source: *Focus Group Discussion, Nairobi Feb 2006*

⁴ The connections to the network category includes private connections inside the home and shared connections in the compound.

⁵ These are Government of Kenya benchmarks set by the Water Services Regulatory Board (WSRB). The WSRB accepts both kiosks and connections in the figures for coverage.

⁶ Scarcity is defined as low or lack of water supply lasting five days or longer.

are obliged to use sources outside the home, like kiosks, are spending long periods of time fetching water and enduring inconvenience and stress. This burden is falling more on women than on men, as almost 70 percent of households said the primary water collector is a woman.

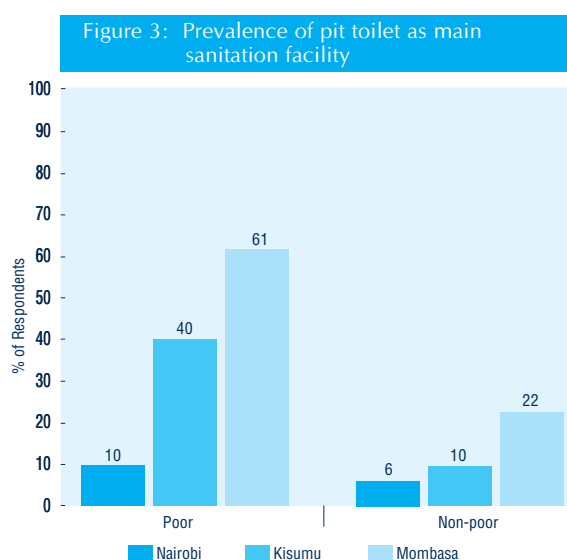
Customer service, cost and satisfaction

To the companies' credit, billing frequency for most users is monthly, in conformity with the requirements of the service agreements. However, consumers do not find the water companies accessible and have little faith in having their complaints resolved. As a result, consumers are not complaining and interacting with the companies. In addition, the companies are not being effective in reaching households with information on service disruptions and stoppages. Interestingly, few households reported offering or being asked for bribes from the water companies. However, the question was only asked of people with household connections to the mains who pay their own bills, leaving out a large number of people who also interact with the water companies, such as kiosk operators and landlords.

There are significant differences in the amounts paid for water by consumers in the three cities. The table on the left shows the averages across the cities, but it is clear that the poor spend a larger percentage of their income on water than the non-poor. The rising block tariffs⁷ may result in high prices for those at shared connections, or those buying water from private connections. Finally, the heavy reliance by the poor on kiosks, where water is more expensive in volumetric terms than at private connections, means the poor are paying large amounts for water, and more per cubic meter than people with connections as demonstrated in the table below. In Nairobi, the poor are paying almost six times as much for water than the non-poor.⁸

Sanitation Services: Key Findings

Overall, the residents of Nairobi, Mombasa and Kisumu express lower satisfaction with sanitation services than with water services.



Experience from Kisumu on sanitation

“In Manyatta many of us have lived in our own homes for many years and we use pit latrines. But many houses lack latrines. The owners of big houses (landlords) build big and spacious houses without leaving space for constructing latrines. The tenants are forced to use flying toilets which they throw away at our residential homes. Does the council look into latrines while approving the house plans?” Source: *Focus Group Discussion, Kisumu, Feb 2006*

There is a clear divide between the poor and the non-poor in the types of facilities used.

Poor households are more likely to be relying on pit latrines and shared (rather than private) sanitation facilities. In Mombasa, 61 percent of the poor rely on pit latrines as their main sanitation facility, compared with only 10 percent of the poor in Nairobi. It is evident that poverty is preventing some people from having toilets at home and there is a lack of affordable, accessible public toilets to address the problem of open defecation and “flying toilets.”

⁷ A rising block tariff is where there are increasing tariffs per unit of water for higher levels of consumption.

⁸ The estimates are derived by using the water companies' actual tariffs and assuming a kiosk price of 2 KES per 20-litre jerrycan.

People are generally confused about where their toilet waste goes, but it is clear that some toilets are being allowed to empty into storm sewers, soak pits and cesspits, where fecal waste presents an environmental and health hazard. Many people report experiencing problems with the sewer system, especially bad smells, overflowing and leakage from broken mains. Almost three-quarters of respondents in Kisumu report that they have experienced problems with flooding of the mains sewer.

Eastlands man shares on nuisance with pit latrines

“Once in the morning as I was leaving for work I saw two people working very hard at the bottom of the hill digging a channel this way, upwards. I wondered what they were digging, but I was in a hurry to go to site, so I did not ask and forgot about it. That night, just after I had gone to sleep there was a sound ‘...bubbb bbup bubb bub bub bbb pa!’ and then a loud smell, it was unbearable, filling everywhere. When I checked outside through the dark I could see some people emptying the latrine near us, pushing the contents onto the ground. Everything in the latrine was flowing downwards from the toilet. I realized now that the channel that was being dug from the bottom of the hill since morning had reached the latrine near our house and everything was being carried down like a heavy stream making this strange sound and with a terrible smell, causing everyone to wake up! The channel was used to push everything from the toilet into the stream which leads to Nairobi River at the bottom of the village.” Source: *Focus Group Discussion, Nairobi Feb 2006*

Solid Waste Services: Key Findings

The options for solid waste disposal are very limited, and many people resort to burning or dumping their solid waste in open areas or drains. City Councils are providing very few solid waste services and residents are extremely unsatisfied with the Councils’ performance. In Nairobi, 80 percent of the non-poor are using private solid waste collection agencies. Poor people have even more limited options as few of them use private collection agencies, probably because of cost. For example, only 10 percent of the poor in Kisumu use private solid waste collection agencies.

Partnerships for Moving Forward

The CRC provides feedback on citizens’ experiences, levels of satisfaction and priorities for service improvements in water, sanitation and solid waste. In addition to its advocacy strengths, the CRC benchmarks service provider performance at the city level. By analyzing the trends across three of Kenya’s major cities, the CRC has unveiled urgent priorities for national policy consideration, especially regarding services for the urban poor.

As a collaborative tool, the CRC will be discussed in detail and used as a basis for continued interaction among citizen groups, service providers and policy makers. The authors hope that this interaction contributes to marked improvements in the quantity and quality of services. The stakeholders intend to issue the second Citizen Report Card on water and sanitation services in two years to see how far we have come and to continue working together towards the same goal--better service for all.

Guide to symbols used

A unique feature of this report is the use of symbols to provide an easy indication on the overall satisfaction levels of citizens with the services. For ease of reference, the symbols used indicate the following:



Satisfaction



Dissatisfaction



Challenges of equity between different social groups require attention

MAFUTA TAA
BEI YA STATION

DONGE
5/ = na
71 BARIDI = 3/
31 BARIDI = 5/
21





Introduction

1.1 What is the Citizen Report Card?

The Citizen Report Card (CRC) is a simple but powerful tool to provide public agencies with systematic feedback from users of public services, and enable them to identify strengths and weaknesses in their work. CRCs are compiled from data collected during a randomized sample survey of the users of public services - in our case, water, sanitation and solid waste (rubbish) management services. The responses are aggregated in order to rate the services. Just like the report cards used to rate students in school, the Citizen Report Cards give consumers an opportunity to 'score' the quality and adequacy of water and sanitation services, and express their satisfaction with them. They thus allow the concerns of consumers to come to the attention of decision-makers, and give consumers and civil society organisations a tool for bringing pressure to bear for their resolution.

It is important to understand the difference between the data provided by a CRC and that of other studies or reports. Whereas a study of service provision standards may provide factual information on the number of connections registered by a utility, the water quality based on laboratory tests, or the volume of wastewater treated, CRCs provide information of the consumers' perceptions of services: whether they have access to connections, whether they think the water is clean, whether they feel the service meets their needs.

1.2 Why Prepare a Citizen Report Card?

Historically, consumers of public services in Africa have not enjoyed high levels of engagement with service providers on the planning or ongoing management of their services. Strengthening 'consumer voice' and the accountability of service providers is very important in order to improve public services. Citizen Report Cards provide reliable,

quantitative information on the aspects of service provision that users know best, and are based directly on users' experience. This information can be used to generate recommendations on sector policies, program strategy and management of service delivery. Furthermore, the information can be used as a basis for policy makers, service providers and consumers to engage in dialogue, an important step towards improved public services.

CRCs facilitate prioritization of reforms and corrective actions needed to improve quality of services by drawing attention to the problems; they can be particularly powerful in pointing out the inequalities in services provided to the rich and the poor. CRCs also provide positive feedback to service providers by identifying good practices, and can also facilitate cross-fertilization of ideas and approaches.

1.3 The Context: Urban Water Sector Reform in Kenya

The Citizen Report Cards for urban water, sanitation and solid waste management have been undertaken in the context of recent and active change. The water sector reforms currently underway in Kenya have been a reaction to a sector in crisis - a sector overwhelmingly characterized by inefficiencies, lack of investment, poor management and a confusing array of legal and institutional frameworks. In addition, the sector has suffered from poor governance, manifested in high levels of corruption, lack of clarity of roles and responsibilities, and a lack of transparency and accountability by service providers. In addition to these institutional and financial challenges, the exponential growth of Kenya's urban centers has put increasing pressure on utilities to extend services to new areas.

It is in this context that the Kenyan government has launched a water sector reform program. Reform has been driven by a number of official policies and strategies, of which the most

Table 3: Characteristics of the three cities and utilities

| | Nairobi | Kisumu | Mombasa |
|---|------------|---------|-----------|
| Date Company Established | 2003 | 2001 | 2005 |
| Total Population of Service Area | 2,500,000 | 480,000 | 826,000 |
| Number of Registered Connections | 220,000 | 7,600 | 56,729 |
| Percent of Inactive Connections | 56% | 26% | 38% |
| People per Active Connection | 26 | 85 | 23 |
| Volume of Water Produced Monthly (m ³) | 13,280,707 | 488,000 | 1,739,250 |
| Volume of Water Produced Monthly per capita (m ³) | 5.3 | 1.0 | 2.1 |
| Unaccounted for Water | 40% | 66% | 35% |

important legal milestone was the enactment of the Water Act of 2002. The overarching philosophy of the reform has been to separate water resources management from water supply and sewerage development. Within the water supply and sewerage development component, asset ownership, services provision, regulation and policy formulation have been further separated.

Although the Ministry of Water and Irrigation remains at the helm of the sector, new bodies have been created with explicit roles and responsibilities. Within the newly-decentralized institutional and legal framework, there are now four major institutions:

- the Ministry of Water and Irrigation (MWI) is responsible for policy formulation and overall sector coordination.
- Water Service Providers (WSPs) are the utilities or water companies; they are state-owned but have been commercialized to improve performance and run like businesses within a context of efficiency, operational and financial autonomy, accountability and strategic, but minor, investments.
- Water Services Boards (WSBs) own the water and sewerage infrastructure in their area and can lease the infrastructure to qualified WSPs for operation and management; they are also responsible for mobilizing financial resources for investment in new assets and rehabilitation of existing ones.
- the Water Services Regulatory Board (WSRB) is a statutory body in charge of setting and enforcing standards within the sector and issuing licences to WSPs; advising WSPs

on procedures for dealing with consumer complaints; developing guidelines for tariff setting; and developing performance agreements between WSPs and Boards.

Service Provision Agreements are signed between the Water Services Boards and the Water Service Providers. These include benchmarks for minimum levels of service provision, for instance the percentage of the population with access to water provision, hours of service, and billing frequency.

One of the reform's stated goals is to increase stakeholder and beneficiary community involvement in the planning and operations of water supply facilities.

1.4 The Three Cities

The Citizen Report Cards were undertaken in three of the largest cities in Kenya: Nairobi, Mombasa and Kisumu. As can be seen in Table 3, the populations of these three cities vary dramatically, as do the sizes of their water utilities. Nairobi is by far the largest city, and its utility has the largest number of connections (though many of them are inactive). Kisumu is the smallest city, with a very small utility. Kisumu's water company produces the smallest amount of water of the three, but Mombasa produces the least on a per-connection basis. Nairobi and Kisumu both produce approximately 60 cubic meters of water per month for each registered connection, but Mombasa produces only 30. If the population as a whole is considered, Nairobi produces 5.3 m³ per capita per month, Mombasa 2.1 m³ per capita per month, and

Kisumu only 1.0 m³ per capita per month. In summary, while Nairobi's utility has the largest reach and serves a large proportion of the city's population, Kisumu's utility is very small, serving a subset of the city's residents.

The figure for "unaccounted-for water" in the table is the difference between the quantity of water supplied to a city's network and the metered quantity of water used by the customers. UFW has two components: (a) physical losses due to leakage from pipes, and (b) administrative losses due to illegal connections and under-registration of water meters. To a large extent, the level of UFW is an indicator of how well a utility is managed, and the reduction of UFW is a crucial step to both improve the financial health of a water utility and save scarce water resources. UFW in a well-run utility is generally in the order of 15 to 20 percent. All three utilities have high UFW, with Kisumu's being the highest at 66 percent; well over half of the water produced there either does not reach the consumer or does not result in revenue for the company.

The reforms initiated by the government are in different stages in each city. While Nairobi has made considerable progress in implementing change, Kisumu and Mombasa have started only recently.

1.5 The Process of Preparing the Citizen Report Cards in Kenya

The CRC process began by building awareness of the potential of Report Cards in four cities: Nairobi, Kisumu, Mombasa in Kenya, and Dar es Salaam in Tanzania. This introduction, through a series of participatory workshops with stakeholders, was combined with assessments to ascertain whether local conditions were suitable. Political receptivity, the openness of service providers to receive feedback and the vibrancy of civil society and media in the cities were assessed. It was decided to focus the process in three cities in one country, Kenya, and Mombasa, Nairobi and Kisumu were selected in June 2005.

In November 2005 a national meeting and three city-level meetings were held to involve all stakeholders in the CRC process, and broad-

based stakeholder alliances to 'drive' and 'own' the processes locally were created. The meetings were used to build shared understanding of CRC objectives, expected outcomes, timelines, and the roles and responsibilities of different institutions. A "consortium" in each city and one at national level now existed, with membership made up of utilities, NGOs, and officials from the Ministry, the regulatory agency and the relevant city councils.

The civil society organizations who would act as Lead Agencies were selected in each city, and were introduced to each City Consortium. These were:

- In Nairobi, the Kenya Alliance of Residents Associations (KARA); an umbrella body for resident associations across Kenya established in 1999, KARA champions pertinent issues raised by neighborhood groups, such as good governance, environmental sustainability, security, water, land and judicial issues.
- In Mombasa, Ilishe Trust; established in 1993, Ilishe Trust supports grassroots human rights action. Its activities include legal representation, education and awareness programs, and savings and credit programs.
- In Kisumu, Sustainable Aid in Africa (SANA) International; established in 2001, SANA assists communities in Kisumu and rural parts of Nyanza Province to access water and sanitation services.

A training workshop was subsequently held for members of the Lead Agencies. They were trained on the key concepts and methodology of the Citizen Report Card process, including design of the questionnaire, advocacy and dissemination of the findings. A detailed planning process was undertaken to chart milestones in the CRC process.

In February 2006 each Lead Agency in Mombasa, Kisumu and Nairobi organized several Focus Group Discussions (FGDs) with groups of city residents to examine the issues and challenges affecting delivery of water supply, sanitation and solid waste management services. A total of 40 FGDs were conducted amongst communities, spread over the low, middle and high income residential areas, and capturing inputs across different gender, age groups and social profiles. The FGDs were guided by a

common checklist developed by the city-level consortia, and which focused on issues around access, costs, coping mechanisms, quality of services, experiences in seeking redress, and economic governance.

Research International, a locally-based social research firm, was recruited through a competitive process in September 2006. Their tasks included designing the survey instrument, determining the sampling methodology, collecting the data through household interviews, analyzing the data and presenting it in a Survey Report. Inputs from the city-level consortia – especially those from service providers and citizens – were critical in the design of the survey instrument. As the data were analyzed, they were discussed with the Lead Agencies, and in November 2006 meetings were held of the consortia at city and national level to present the top-line findings.

1.6 Methodology of Data Collection and Report Card Preparation

The survey consisted of 2905 household interviews in the three cities (Nairobi 1378, Kisumu 719, Mombasa 808). The survey aimed to cover the area in which the water companies are mandated to provide services. Thus the sample, designed by the Central Bureau of Statistics, was made up of households within the municipal boundaries of the three cities.

An important objective was to investigate the differences in perception of services by poor and non-poor households. In order to do this, the existing Central Bureau of Statistics definitions of urban socio-economic strata were used. The major urban areas have been stratified into the following five categories of living standards:

1. upper
2. lower upper
3. middle
4. lower middle
5. lower

Of these, strata four and five were classified as “poor” within our sample, and the first three strata were classified as “non-poor”. Note that poor formal settlements would be included in Strata 4, and informal settlements in Strata 5.

The Central Bureau of Statistics prepared a list of randomly-selected households that were then contacted by Research International’s interviewers to participate in the survey.

Mombasa and Kisumu were “over-sampled”, that is, the sample size was increased disproportionate to the actual population, in order to ensure there were enough respondents for analysis. Only data based on sample sizes of at least 30 respondents has been reported in this Report Card. Despite this, for some categories of data the number of respondents was too small for analysis, and any data based on sample sizes smaller than this has either not been used, or is presented with suitable explanation for indicative purposes.

Oversampling was adjusted for during analysis by weighting the data. This ensures that in any analysis of the three cities together, Kisumu and Mombasa are taken in their actual proportion relevant to Nairobi.

In order to carry out the household interviews, RI mobilized field teams of a total of 44 interviewers, seven team leaders, three supervisors and three quality control supervisors. All attended a centralized five-day training session in Nairobi. Quality control comprised full checks of questionnaires in the field, 11 percent of interviews were selected at random and checked by the supervisor (“back-checks”), and in 7 percent of interview interviewers were accompanied by supervisors. Representatives of the Lead Agencies and WSP attended the training and participated in some of the fieldwork. Fieldwork took place between September 7th and October 8th 2006.

Six themes were identified for data analysis and presentation:

1. Availability, access and use of services
2. Perceptions of quality and reliability of services
3. Transparency of service delivery
4. Interactions with the service agencies
5. Costs incurred by users
6. Satisfaction with services

Each of the city-level report cards, and this National Summary, is organized according to these themes.





1. Introduction

- What this report is
- What is a cell?

1.1 Background

- Historical/institutional dynamics of women's health in public - health
- Historical/institutional context of Sub-Saharan Africa & West Africa

1.2

Methodology

- 2 main
- qual

Water Services

2.1 Availability, Access and Usage of Water Sources

What sources do people have access to and use in the three cities?

Figure 4 shows the pattern of access for the total population of the three cities. These are the sources that are available to a household, not only the ones they choose to use. (Note that respondents could indicate that they had access to more than one source.) The data reveal that Nairobi has the highest rate of access to mains connections, considerably higher than the other two cities, and Kisumu the lowest.

We asked respondents about their use of a wide range of different water sources, each one described in detail by the interviewer. In order to make comparison across the three cities easier, some of the subcategories of water sources have been combined in this summary. For instance, all connections to the mains, whether private in the residence or shared in the compound, have been combined. Water kiosks, whether supplied by mains or other independent sources, and whether managed privately, by the water company or by NGOs, have been shown together. Likewise, all water delivered or supplied commercially “on demand” by third parties, whether from mobile vendors or tankers or in the form of bottled water, has been joined into one category. Protected sources, such as rainwater and covered wells with handpumps are shown as one category, as are unprotected sources (open wells and surface water such as streams and ponds). More details of these individual categories can be found in the city-level Report Cards.

We found that access to mains connections is significantly lower among the poor in each of the three cities (see Figure 5). The difference is particularly dramatic in Kisumu, where only 7 percent of the poor report having access to mains connections, while 81 percent of the non-poor do.

Figure 4: Access to water sources

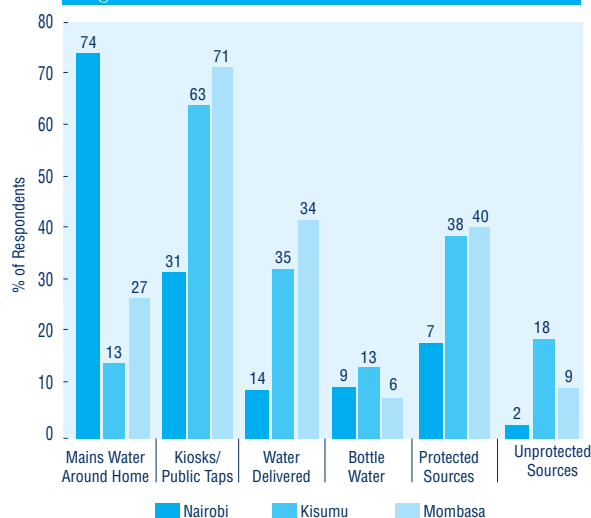
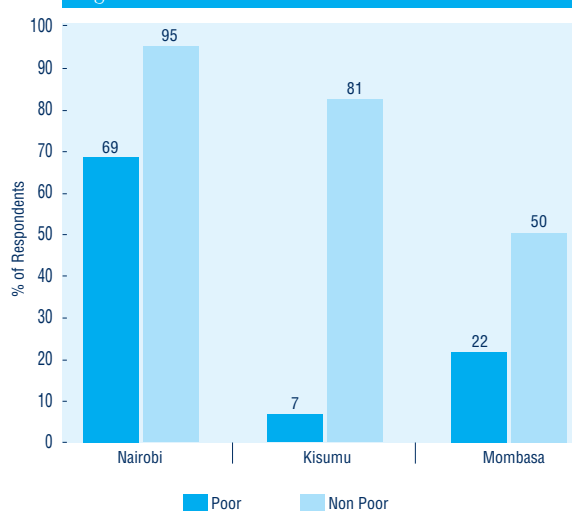


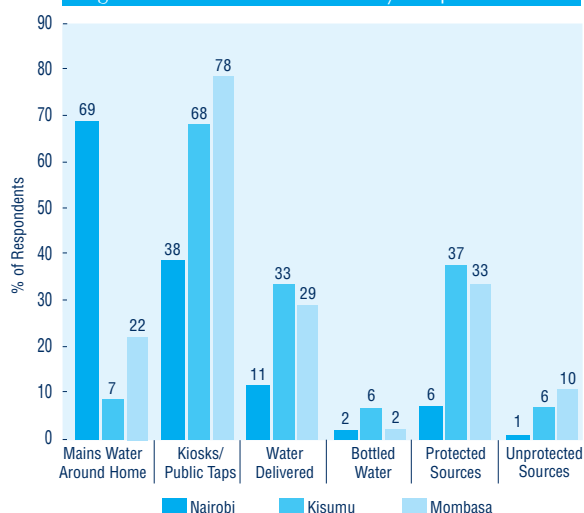
Figure 5: Access to mains in and around the home



There are distinct inequities in access to mains connections between the poor and the non-poor, with the poor reporting lower access.

We asked respondents which sources they used, as well as which sources they had access to. The results are presented in the following figures, divided by poor and non-poor. In both Mombasa and Kisumu, mains are clearly the predominant

Figure 6: Water sources used by the poor



source used by the non-poor. Poor consumers are much more likely to report using kiosks, except in Mombasa where they are used to a large extent by the non-poor as well. In all three cities, and particularly in Kisumu, a number of poor households report using unprotected and unsafe sources.

When respondents were asked what sources they used specifically for drinking water, we found that unprotected sources are even being used for drinking water (Figure 8).



A small but significant number of households is using unprotected sources for drinking water.

When we look at the data on the use of kiosks⁹ (Figure 9) we see the extent of the difference in usage patterns among poor and non-poor. Over 60 percent of the poor in both Kisumu and Mombasa report using kiosks, showing that they are the main source of water for the poor in both these cities, despite the low level of service they offer (discussed further in Section 2.3.2). Although the use of kiosks by the poor is highest in Mombasa, where 71 percent of poor respondents reported using them, 28 percent of the non-poor in that city also use them. This means that the level of inequity is highest in Kisumu, where kiosk use is very low among the non-poor (over 80 percent of whom report using

⁹This includes all kiosks and standposts, whether supplied by the water company or by private wells.

Figure 7: Water sources used by the non-poor

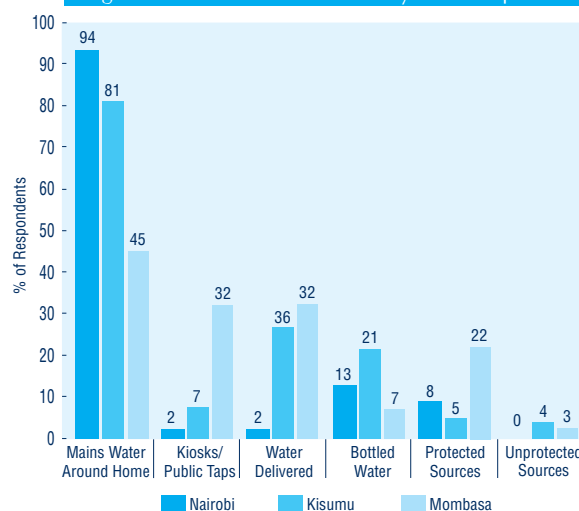
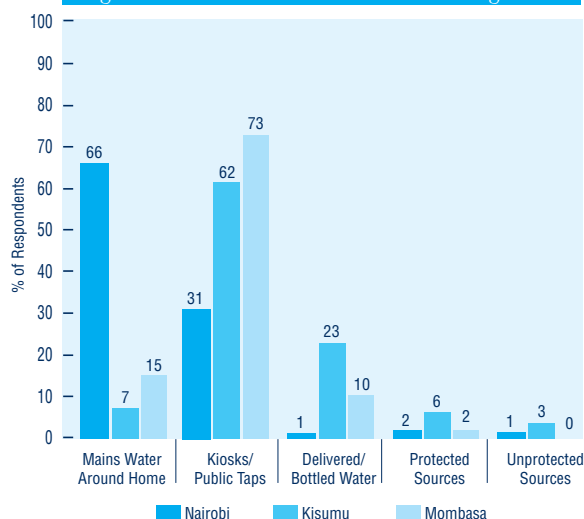


Figure 8: Water sources used for drinking



mains water in and around the home), but high among the poor at 63 percent. It is interesting to note that the use of kiosks by the non-poor in Mombasa, at 32 percent, is almost as high as the use among the poor in Nairobi at 36 percent.



Poor households are much more likely to be using kiosks as their primary source of water than the non-poor.

Do utilities meet the benchmarks for service provision?

In order to meet the benchmark for “coverage of the service area” specified in the performance agreements a certain percentage of the population has to have “adequate drinking water” through the public distribution network. Two levels of

Figure 9: Use of kiosks among the poor and non-poor

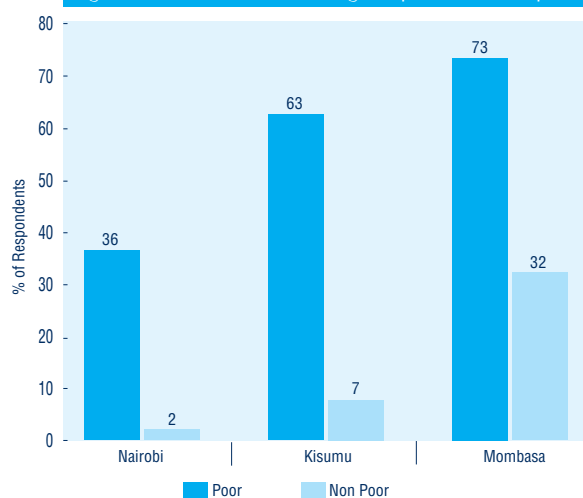


Figure 10: Achievement of benchmarks in water supply coverage

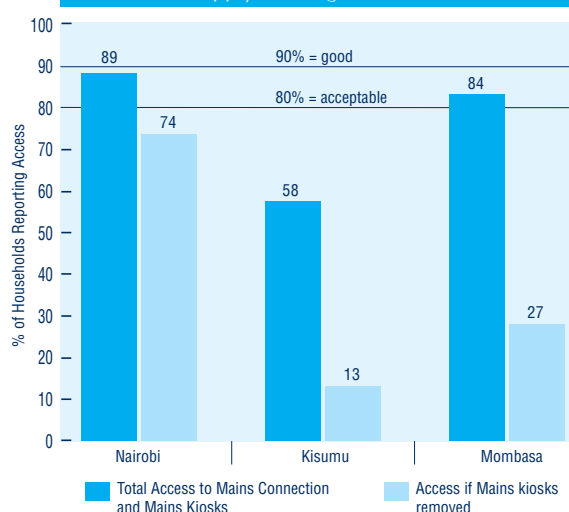


Figure 11: Scarcity from primary water source in the last year

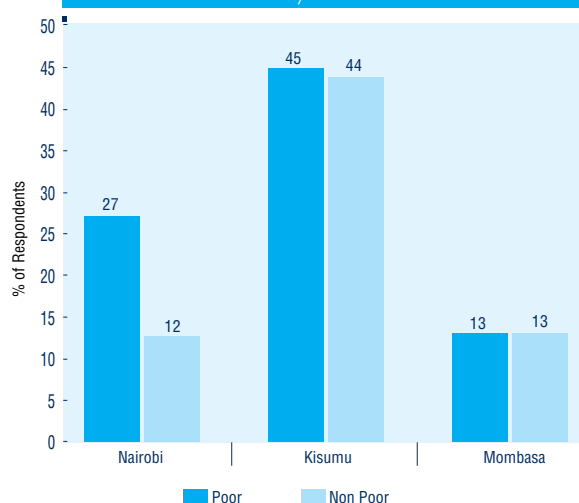
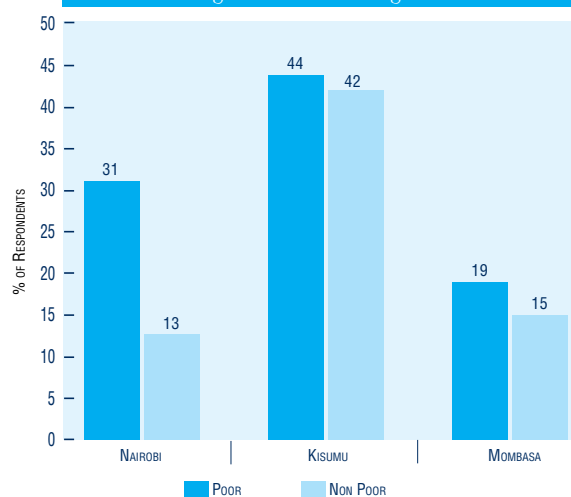


Figure 12: Scarcity in the last year among households using mains for drinking water



service are included in the definition of the distribution network: connections to mains water and kiosks served by mains.

Figure 10 reveals that none of the three water companies achieves a score of “good” in terms of coverage, as all provide less than 90 percent of their population with access to the mains. Two of the cities achieve “acceptable” coverage of over 80 percent, but Kisumu is far below even this level, at total access of only 58 percent.

If the numbers are re-computed including only access to the mains through connections

(either private or shared) and excluding kiosks, the difference is dramatic. None of the three cities achieves an “acceptable” score, and access in Kisumu and Mombasa is very low.



None of the three water companies achieves a score of “good” in terms of coverage, and Kisumu does not reach a score of “acceptable”.



Water companies are relying heavily on access to the mains through kiosks to achieve their benchmarks for coverage, despite the fact that kiosks offer a much lower level of service than connections.

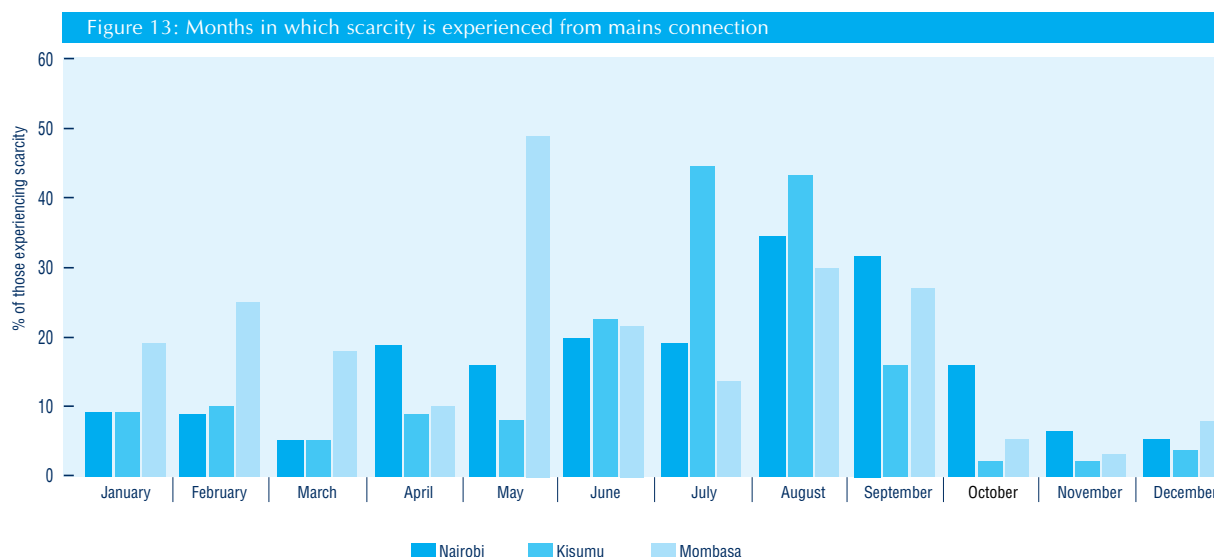


Table 4: Scarcity experienced by poor users of kiosks

| | Nairobi | Kisumu | Mombasa |
|--|---------|--------|---------|
| Percentage of poor kiosks users reporting scarcity | 19 | 43 | 13 |

the non-poor are too small to allow analysis of the data, but the data for the poor show that, as with mains connections, a much higher number of users in Kisumu report experiencing scarcity than in the other two cities (see Table 4).


2.2 Scarcity

What proportion of households experienced water scarcity during the last year?

We asked respondents about times of scarcity, which were defined as low or lack of water supply lasting five days or longer. It was explained to respondents that this is different from a short term water cut or an advertised shortage.

As Figure 11 shows, significant numbers of households told us they experienced scarcity, particularly in Kisumu, where more than 40% of both the non-poor and poor experienced scarcity. Scarcity is lowest in Mombasa and among the Nairobi poor. Nairobi showed the most dramatic difference between the poor and non poor, with poor households more than twice as likely to say they experienced scarcity.

The households using mains connections for drinking water (see Figure 12) are even more likely to report periods of scarcity than the population as a whole. Again, poor users are more likely to report scarcity from mains connections in all three cities, but particularly in Nairobi. Users of kiosks also reported that they experienced scarcity. The sample sizes for

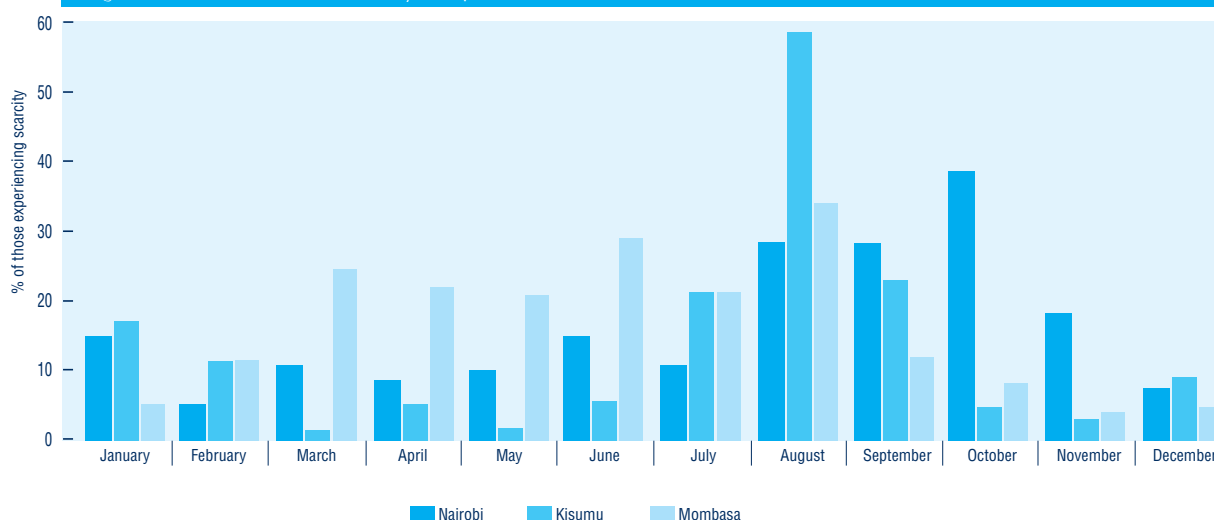
 Many households are experiencing periods of water scarcity, and the poor are more likely to face scarcity than the non-poor. Households in Kisumu are more likely to report scarcity than those in the other two cities.

Which are the months in which scarcity is experienced?

The two figures below show the months in which scarcity was reported by users of mains connections and kiosks. The pattern is very similar (not surprisingly as most kiosks are served by the mains), showing that the months in which it is most likely for most respondents to experience scarcity are July and August. A higher percentage of kiosk users reported scarcity than users of mains connections, suggesting that in times of scarcity kiosks are less likely to receive water than domestic connections.

A higher proportion of Mombasa households reported scarcity throughout the year. Scarcity thus appears to be a chronic situation in Mombasa. The highest percentage of users reporting scarcity is found in Kisumu, where scarcity reaches its peak in August; in that month

Figure 14: Months in which scarcity is experienced from kiosks



almost 60 percent of kiosk users report problems. Significant numbers of households in Nairobi report scarcity continuing into September and October, especially kiosk users.

How do water usage patterns change during scarcity?

We analyzed the data on water use for drinking for the subset of respondents who said they experienced scarcity. We found that the poor and non-poor differ in their response to scarcity. Non-poor users, who are more likely to use the mains in normal times, also seem to be much more likely to continue to use them in scarcity times, at least in Nairobi and Kisumu. The non-poor are also more likely to migrate to using water delivery and bottled water in times of scarcity, whereas the poor seem to rely more on protected wells and rainwater and even unprotected sources, including rivers, streams and dug-out wells, presumably because of the cost implications of buying supplemental water. For both the poor and the non-poor, we can conclude that the problems posed in times of scarcity impose a cost, either in amounts spent on delivered or bottled water, or in the time spent fetching water from outside the home.

In Nairobi, Figure 15 shows that the use of purchased water and protected sources outside the home among the poor increases significantly in times of scarcity. The use of unprotected sources also rises from 1 percent to 3 percent. Among the non-poor, 65 percent continue to

use the mains, and the others increase their use of kiosks and protected source outside the home. Even among the non-poor, 1 percent start using unprotected sources.

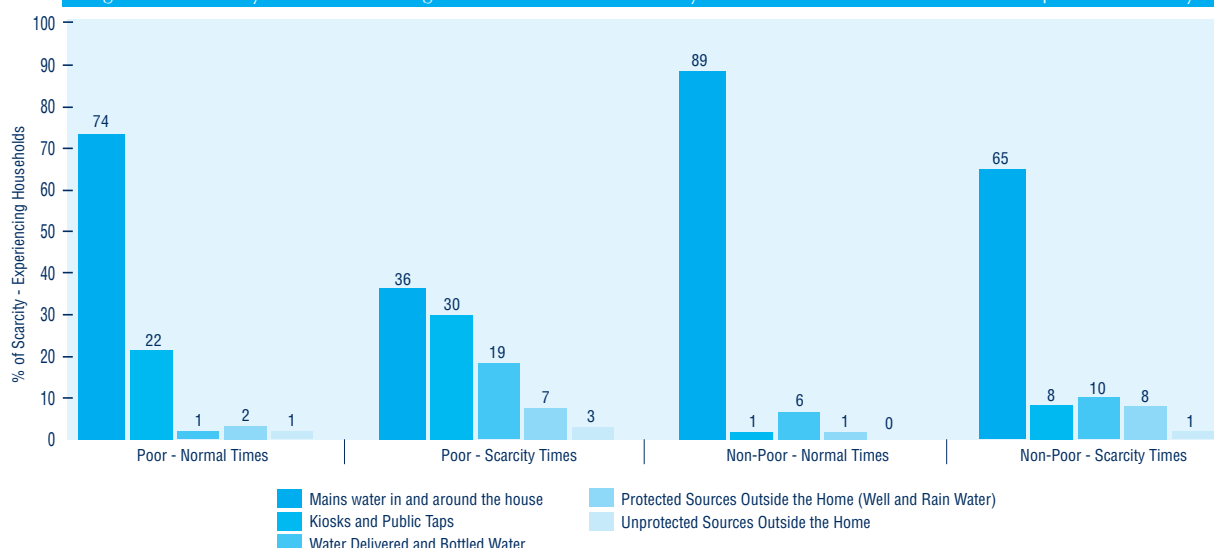
In Kisumu, few of the non-poor in this subset use the mains to start with, and this reduces to only 1 percent in times of scarcity. Kiosk use also goes down, and clearly many households migrate to protected sources (from 2 percent to 24 percent) and unprotected sources (from 1 percent to 9 percent). Among the non-poor, the use of water delivery increases significantly, and the percentage using unprotected sources rises from 1 percent to 2 percent.

In Mombasa most of the poor households who experience scarcity use kiosks during normal times, and their use drops significantly in times of scarcity. The use of delivered and bottled water increases from 5 percent to 34 percent, and the use of protected sources outside the home increases from 0 percent to 14 percent. None of these households reported using unprotected sources in normal times, but 2 percent said they do in scarcity times. The non-poor who experience scarcity in Mombasa rely largely on purchased water in scarcity times: 62 percent of this subset use this source, up from 25 percent in normal times.



Periods of scarcity are forcing consumers to use unsafe and expensive sources of water.

Figure 15: Primary source of drinking water in normal and scarcity times for Nairobi households who experience scarcity



2.3 Consumer Perceptions on Quality and Reliability of Service

2.3.1 Users of Mains Connections

The data presented here are for users of connections to the mains, whether at the home or shared.

What do users think of the taste, colour and smell of mains water?

The data show that the vast majority of households using water from connections to the mains said they found the taste and smell acceptable, and that the water was clear. (There was little variation in the responses for poor and non-poor, so total numbers are presented here.)



Consumers are happy with the taste, smell and colour of water from mains connections.

How regular is the supply of water from the mains?

We asked respondents who used mains how many days a week they receive water. In normal times a large proportion of mains users in Nairobi and Kisumu reported getting water seven days a week, but the figure is lower for Mombasa. In scarcity times only mains users in Kisumu report having a consistent level of

service. In scarcity times, most mains users in Mombasa reported getting water only three days a week.

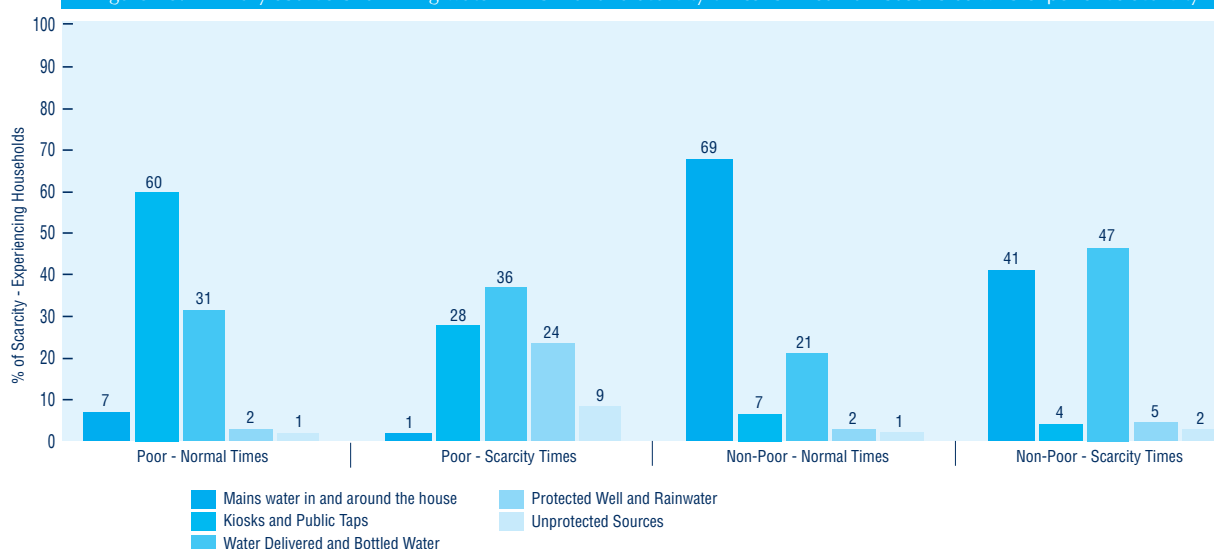
As well as asking about the number of days per week, we asked respondents who used the mains how many hours a day they received water from them. Combining the figures for days per week and hours per day results in an aggregate measure of the reliability of mains service. The maximum combination is 24 hours of water seven days a week, or 168 hours a week. The benchmarks for service require provision of a minimum of 20 hours a day, or 140 hours a week, to be scored as “good”, and a minimum of 16 hours a day, or 112 hours a week, to be scored as “acceptable”.

As can be seen from Figure 19, none of the three utilities merit a score of “good”, even in normal times. Only Nairobi and Kisumu have acceptable scores, and Nairobi’s drops to being unacceptable during scarcity times. Mombasa’s service provision in this regard is well below the acceptable level in both normal and scarcity times.

How frequent are stoppages?

Figure 20 shows the percent of mains-using households who reported experiencing major stoppages, defined as interruptions in water supply lasting more than 24 hours. It is clear that the poor seem to experience more stoppages

Figure 16: Primary source of drinking water in normal and scarcity times for Kisumu households who experience scarcity



than the non-poor in all three cities, and that stoppages affected more of the population in Kisumu than the other three cities.



Hours per week of service are below the performance agreement benchmarks, particularly in Mombasa which does not achieve an acceptable score in either normal or scarcity times.



Major stoppages of more than 24 hours are common, and the poor experience more stoppages than the non-poor.

What are the coping measures adopted by consumers to meet issues of quantity and quality of water?

Despite good impressions of taste, smell and colour, Figure 21 shows that a majority of users in each city felt it was necessary to treat mains water, probably because they are worried about bacterial contamination. Kisumu consumers are most likely to treat their water. The poor treat their water less, perhaps reflecting affordability problems.

Boiling is the most common form of treatment in Nairobi and Kisumu, but chemicals (defined here as alum, chlorine or “WaterGuard”) are more common in Mombasa.

We asked households that used the mains whether they had storage tanks. Kisumu

Table 5: Percent of mains users obtaining water from mains seven days a week

| | Nairobi | Kisumu | Mombasa |
|----------------|---------|--------|---------|
| Normal Times | 68 | 79 | 48 |
| Scarcity Times | 44 | 81 | 28 |

households were most likely to report having a storage tank (a total of 72 percent of mains-using households). In Nairobi the figure was 43 percent, and in Mombasa it was the lowest at 34 percent. Poor households using the mains were much less likely to have storage tanks (see Figure 23), perhaps reflecting affordability problems – this is despite the fact that the data suggest they suffer more from stoppages.



Users of mains sources in all three cities are incurring costs in terms of home treatment methods and storage tanks in order to cope with problems of water quality and unreliability of service.

2.3.2 Users of Sources Outside Residential Premises

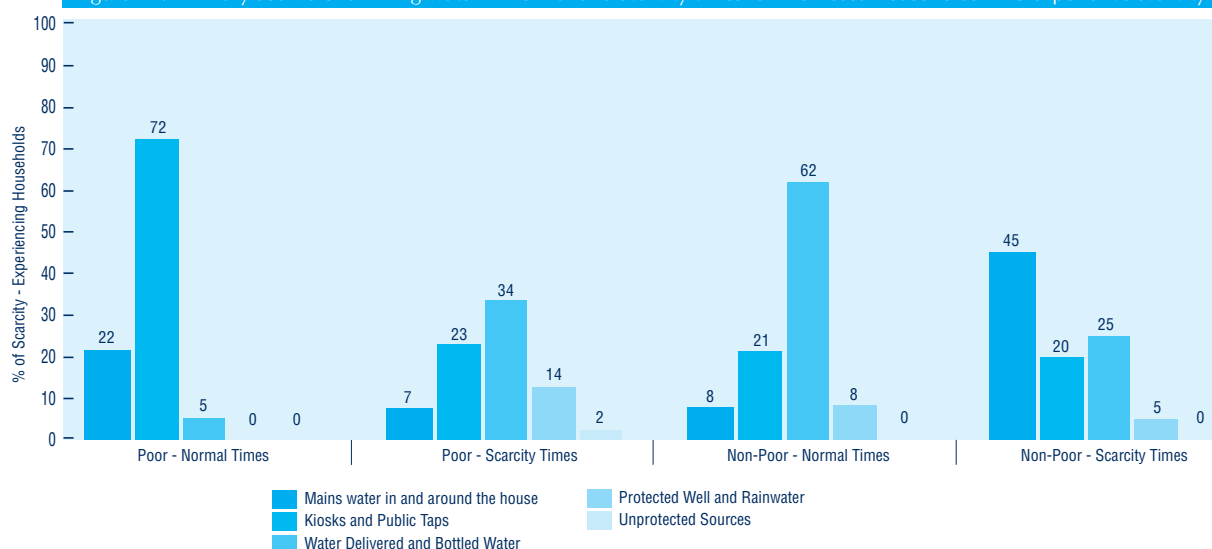
How accessible and convenient are sources outside residential premises?

Households using sources outside the residential premises reported that they were open, on average, six or seven days a week.

Table 6: Accessibility and convenience of opening hours of sources outside residential premises

| | Nairobi | Kisumu | Mombasa |
|--|---------|--------|---------|
| Mean number of days a week sources are open | 7 | 7 | 6 |
| Percent of households who say sources are open 24-hours | 4 | 13 | 7 |
| Percent of households who say opening hours are convenient | 78 | 91 | 69 |

Figure 17: Primary source of drinking water in normal and scarcity times for Mombasa households who experience scarcity



Very few households reported that they were open 24 hours a day. Despite this, the majority of these households said that the opening hours were convenient. Interestingly, the non-poor seemed to be less likely to say these hours are convenient.

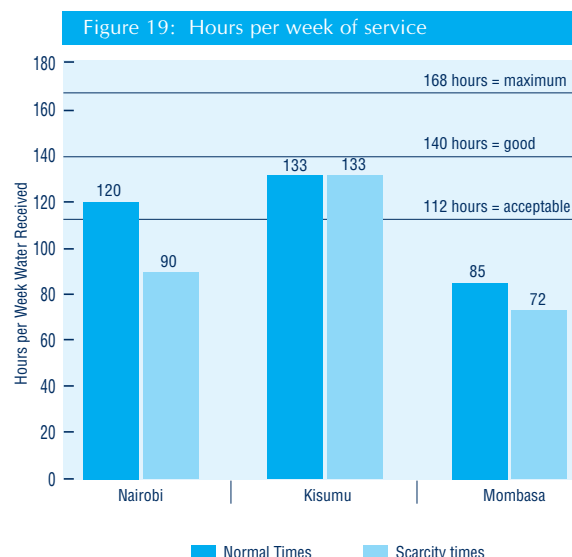
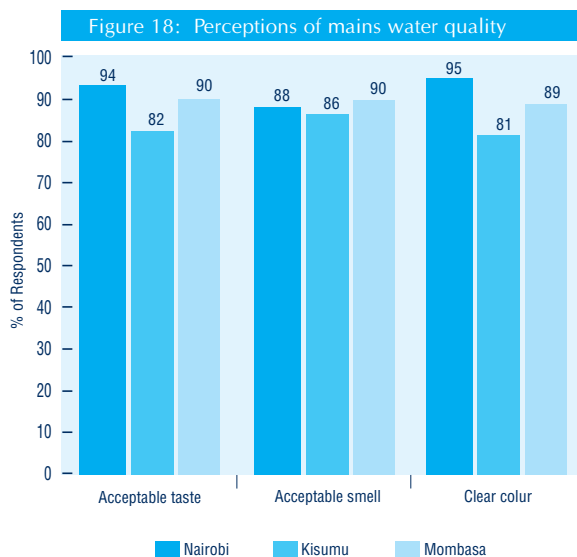
How long does it take users of water sources outside the home to fetch water?

We asked households who used sources outside the residential premises how many minutes they spent fetching water every day. (As the vast majority of the households fetching water from outside the household premises is poor, only the data from the poor are presented here. Small sample sizes made the data from non-poor households unsuitable for analysis).

Poor households in Nairobi are spending an average of 18 minutes fetching water (walking to the waterpoint and back plus waiting) in normal times, and those in Mombasa 20 minutes. The longest average time to fetch water is in Kisumu, where it takes 28 minutes. The time

spent fetching water increases during scarcity times (perhaps as a result of low pressure at the waterpoint.) Households report fetching water between four and six times a day.

The total number of minutes a day was taken as the average number of minutes spent fetching water multiplied by the average number of times households fetched water each day. As can be seen in Figure 24, poor families in all three cities are spending at least 40 minutes a day in water collection during normal times, and in Nairobi and Kisumu this increases dramatically in scarcity times, with a maximum of 200 minutes (more than three hours) in Kisumu. In all three cities the majority of households (68 percent in Nairobi, 67 percent in Kisumu, 65 percent in Mombasa) reported that adult women were the ones who fetched water. It is clear that women are shouldering the burden of water collection, and that this is exacting a high price in terms of time spent. If women from poor families are spending an hour or more a day fetching water in normal times, and even more in scarcity times, they are losing out on wage earning activities, have less



time to take part in community activities, get an education or care for other family members, and will also be suffering from exhaustion.

The data show that the participation of men in water collection increases in scarcity times, with adult males becoming slightly more involved. It can be assumed that this also has an impact on the wage-earning potential of households.

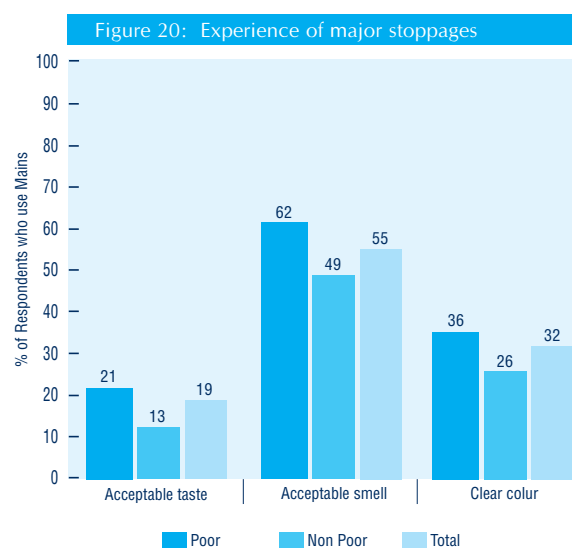
What kinds of problems do people encounter while fetching water?

We asked households who reported using water sources outside their residential premises, such as kiosks, if they faced problems when they fetched water. The highest proportion of respondents saying yes was in Kisumu, where 79 percent of users said they faced problems. In Mombasa the figure was 56 percent, and in Nairobi 42 percent.

The top three problems households told us about all related to how water collection is organized: long queues, quarrelling and queue jumping. These data indicate that fetching water from kiosks and other outside sources is stressful and unpleasant. As Figure 25 and Figure 26 show, the problems become even more pronounced in times of scarcity.



Those consumers who are obliged to use sources outside the home are spending long periods of time fetching water, and enduring inconvenience and



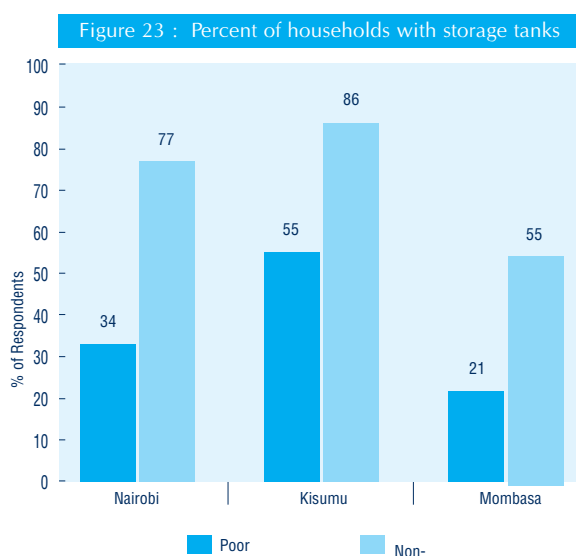
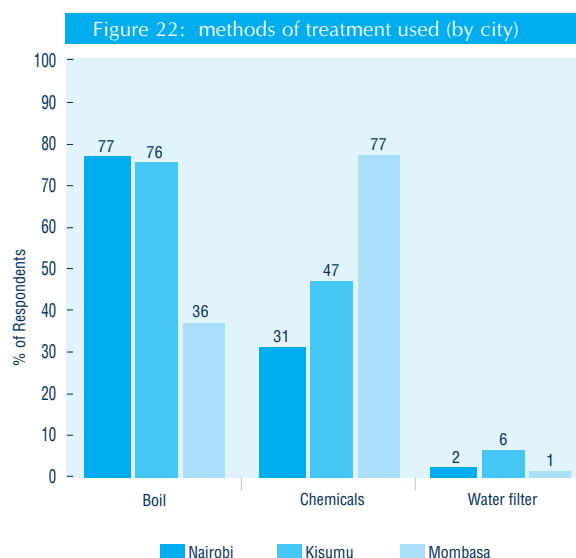
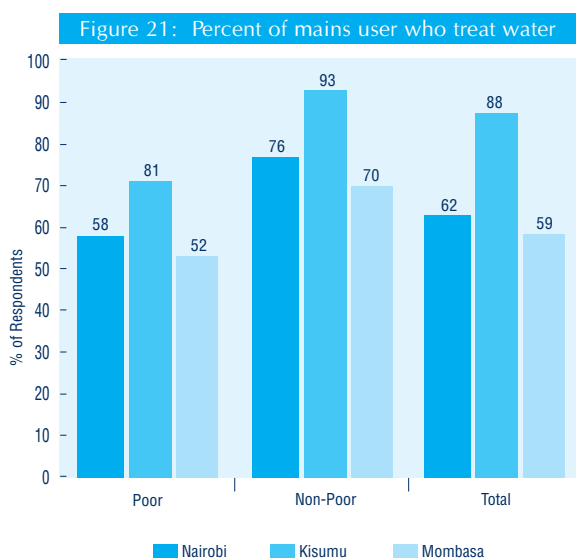
stress. This burden is falling more on women than on men as almost 70 percent of households said the primary water collector is an adult female.

2.4 Transparency of Service Provision

We asked users of mains connections about how “transparent” their service provision was in terms of billing practices, information on stoppages, and petty corruption.

Who pays the water bills?

When households who reported using mains connections were asked who paid the bills, an



interesting result was found – that a significant number of people do not pay their bills directly. In these cases, people said that their bill was paid by their landlord, and the cost of water either included in the rent, or passed on to them as a variable monthly cost. This means that many consumers do not have direct contact with the utility in terms of billing. This was especially true in Nairobi, where only 33 percent of households reported paying their own bills, with a much lower proportion of the poor (26 percent) paying their own bills than the non-poor (54 percent). This was also the case in Mombasa, where 65 percent of households paid their own bills (56 percent of the poor and 80 percent of the non poor). However, in Kisumu almost everyone paid their bills directly.

The implications of this are that many households, particularly in Nairobi, do not know the exact amount that their water consumption is costing, and have little direct contact with the utility. It places great responsibility on landlords in correctly charging renters for water use, for handling complaints about water charges, and for dealing in a transparent manner with the water companies.

How often do customers get water bills?

The data presented in Table 7 show that most mains users who pay their own bills report receiving a bill in the last month, which is in conformity with the requirements of the service agreements. However, the numbers of households who said they received a bill in the last month in Nairobi and Mombasa are lower than that for Kisumu, suggesting that these cities need to improve their billing regularity. Nine percent of respondents in Mombasa reported never receiving a bill, all of whom are poor.



Billing frequency for most users is monthly, in conformity with the requirements of the performance agreements.

How prevalent is the presence of water meters, and how frequently are they read?

The data showed that most people who paid their own bills reported having a meter, and most of them reported that it had been read in the last

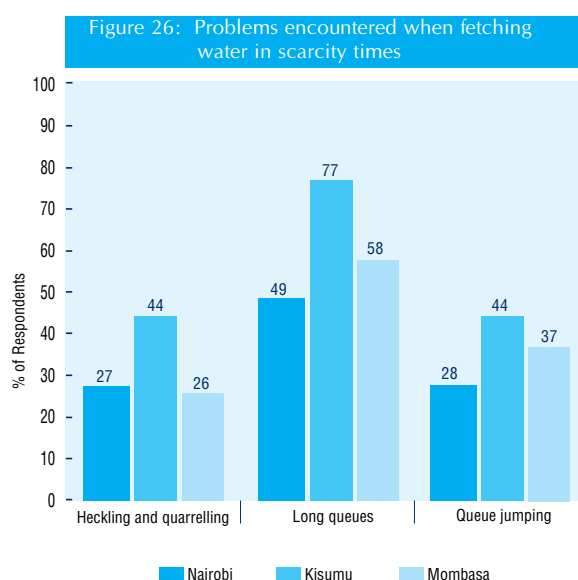
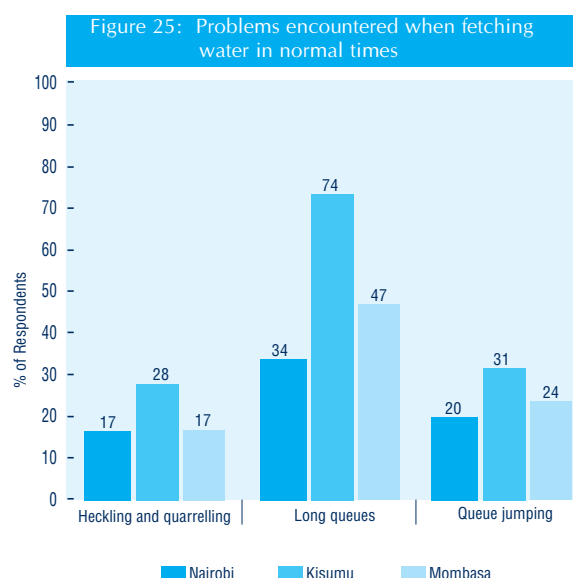
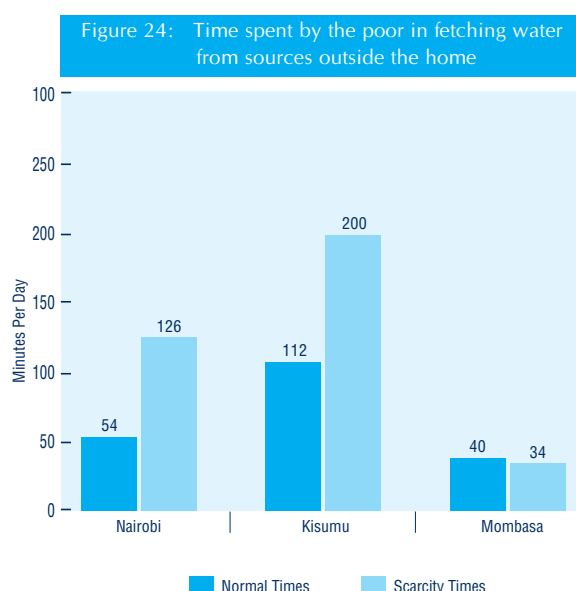


Table 7: Frequency of billing

| | Nairobi | Kisumu | Mombasa |
|------------------------------------|---------|--------|---------|
| Received bill in the last month | 72 | 96 | 73 |
| Received bill in the last 2 months | 10 | 0 | 6 |
| Never had a bill though eligible | 1 | 2 | 9 |

month. However, a significant percentage said they did not know if the meter had been read or not, suggesting that meter readers need to communicate more effectively with customers.

Do consumers report getting advance announcements on service provisions such as stoppages?

Figure 28 shows that the cities vary in their success in reaching consumers with information about major stoppages. Fewer than half of the households who use the mains and encountered stoppages reported having seen announcements, with the percentages in Mombasa and Nairobi very low (less than 20 percent). Even though sample sizes were small, the data suggest that

poor households in Kisumu were much more likely to be aware of announcements than poor households in either of the other two cities. This suggests that Kisumu is using more effective and egalitarian media for announcements. The Kisumu water company is known to make extensive use of radio and this may be the reason.



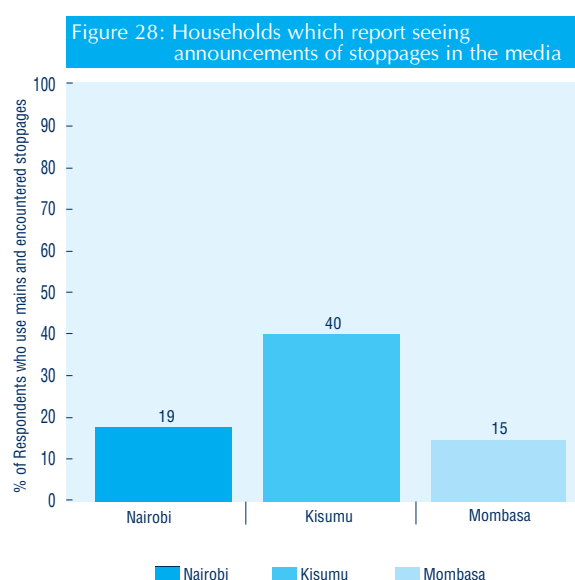
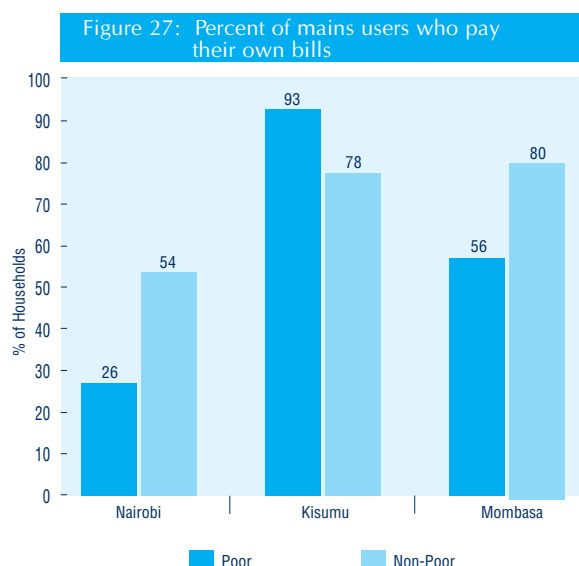
Water companies are not being effective in reaching households with information on service disruptions and stoppages.

Are the households who pay water bills being asked for bribes, or offering them?

Although we asked questions about bribes paid and received, the data were not conclusive. One reason was that the question was only asked of people with household connections to the mains who pay their own bills, leaving out a large number of people who also interact with the water company, such as kiosk operators and landlords, or people who pay bribes not associated with billing.

Table 8: Payment of incentives outside official payments

| | Nairobi | Kisumu | Mombasa |
|---|---------|--------|---------|
| Percentage of respondent households who paid their own bills and reported paying any incentives outside official payments | 5 | 4 | 10 |



We asked respondents “Have you ever had to offer any incentives outside official payments (this is a bribe including money, gifts, incentives or other assistance) in order to get a service or sort out a problem?”

To the water companies’ credit, only a small percentage of customers who pay their own bills reported ever offering or being asked for incentive payments. Of the three cities, bribery of this sort seems to be most common in Mombasa. Though the numbers are low, it is of concern that 10 percent of respondents in Mombasa reported incidents of bribery.

At the Focus Group Discussions held in each city in advance of the survey many participants told us that petty corruption is occurring. As many people, especially in Nairobi, rely on landlords to pay their water bill, this opens the possibility that bribery is occurring at the interface between landlords and water company staff. Examining this was beyond the scope of a household survey. Likewise, the survey did not examine whether bribery occurred between kiosk operators and water company staff.



Few households reported offering or being asked for bribes in relation to service delivery from the water company.

2.5 Interactions with the Water Company and Responsiveness

We asked respondents who used mains connections and paid their own bills about their interactions with the water company.

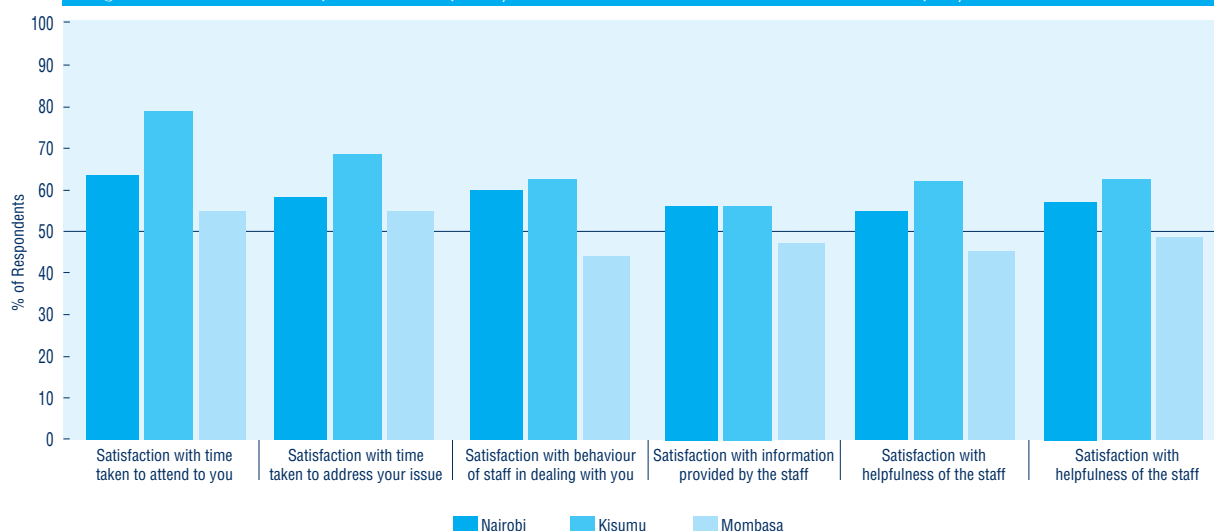
How many households reported billing problems, and what problems did they have?

The households that reported paying their own bills were asked if they had experienced any problems with their billings in the last 12 months. Approximately a third of respondents said yes. Of these, a large majority reported that their bills were too high. This was much higher than bills that were too low, perhaps due to the fact that customers are more likely to notice the problem if bills are too high.

Table 9: Households experiencing billing problems in last 12 months

| | Nairobi | Kisumu | Mombasa |
|---|---------|--------|---------|
| Percent of Households Experiencing Billing Problems in the Last 12 Months | 34 | 37 | 28 |
| Problems they reported: | | | |
| Bill amount was wrong-too high | 84 | 95 | 83 |
| Bill came too late to pay on time | 14 | 5 | 17 |
| Bill did not/has not come | 3 | 1 | 0 |
| Disconnected even though paid the bill | 0 | 0 | 1 |
| Bill amount was wrong-too low | 3 | 1 | 0 |
| Percent who complained | 75 | 78 | 76 |

Figure 29: Percent of respondents completely satisfied with interaction with the water company



It is interesting that Kisumu households are the most likely to report monthly billing (see Table 7) but a higher percentage of respondents in that city reported receiving a bill that was too high.

Did people who had a problem complain?

As Table 9 shows, one quarter of those who experienced problems told us they did not complain. Due to small sample sizes, we were not able to ascertain the difference between the poor and the non-poor, except in Nairobi where the poor had a lower rate of registering a complaint. Table 10 reveals that many people who use mains connections in Nairobi and Mombasa have never interacted with the water company, though a slight majority has in Kisumu. (Note that mains users were asked about interactions within the time period that the water company for their city had been operating.) Most people who did not interact with the company said that it was because they were satisfied or did

not think of it. However, a significant number in Nairobi said that they did not know where or with whom to interact, suggesting that the water company needs to improve its accessibility. In all three cities a small but significant percentage said that they did not think that contacting the utility would make any difference, indicating a lack of faith in the company to hear and address their concerns.



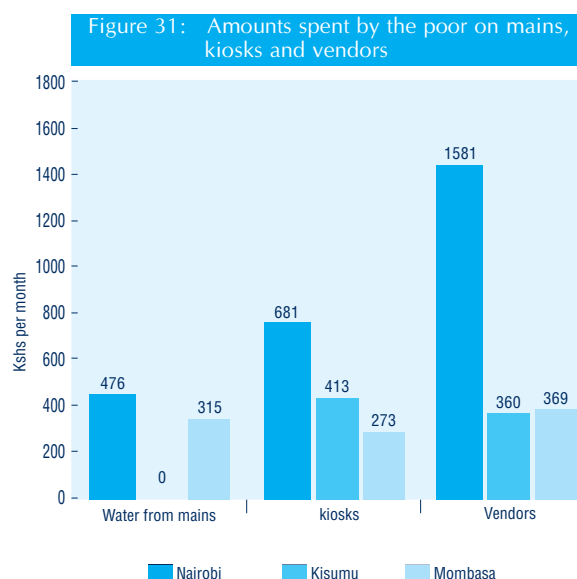
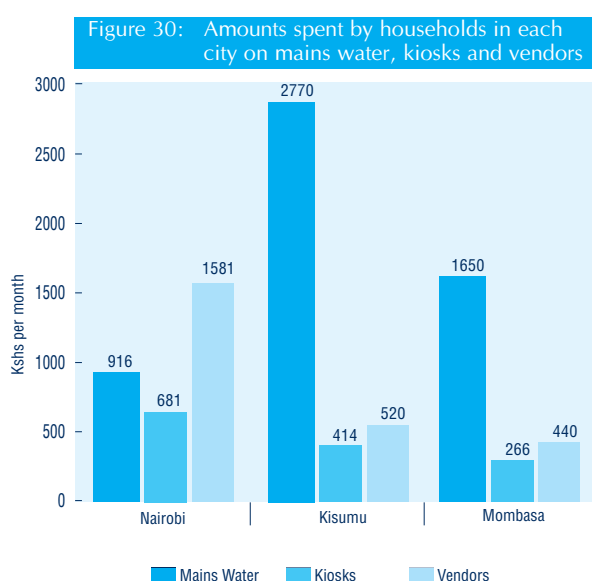
Consumers do not find the water company accessible, have little faith in having their complaints resolved, and are not complaining and interacting as a result.

How satisfied are consumers with their interaction with the water company?

The data reveal that satisfaction with the

Table 10: Interactions with water company

| | Nairobi in last 5 years | Kisumu in last 3 years | Mombasa in last 1 year |
|---|----------------------------|---------------------------|---------------------------|
| Have not interacted with Water Company | 79 | 42 | 64 |
| Of those that did not interact: | | | |
| Satisfied with services | 37 | 26 | 48 |
| Did not think of interacting | 29 | 55 | 40 |
| Did not know where or with whom to interact | 19 | 1 | 3 |
| Did not think it would make any difference | 7 | 9 | 7 |



way complaints and other interactions with the water company are handled is not high. We can assume that having 50 percent of the people a company interacts with leaving completely satisfied is a minimum level of achievement.

The Mombasa water company scored below this level for most parameters. Nairobi and Kisumu only exceeded 60 percent satisfaction in a few. Overall, the Kisumu water company seems to achieve the highest satisfaction.



Almost half of customers are dissatisfied with their interactions with the water company.

2.6 Costs Incurred in Accessing Water

How much are households paying for water?

We asked households who reported using mains connections, kiosks and vendors how much they spent on water per month. The results are presented in the following three charts. We had to use caution with these figures as for several of them the base of respondents was too small for analysis. Figure 30 shows the amounts paid by households (poor and non-poor combined) on mains, kiosks and vendors. We can see that there are interesting variations by city. In Nairobi, those households using vendors are paying very high amounts, and in general households are

Table 11: Tariffs in each city

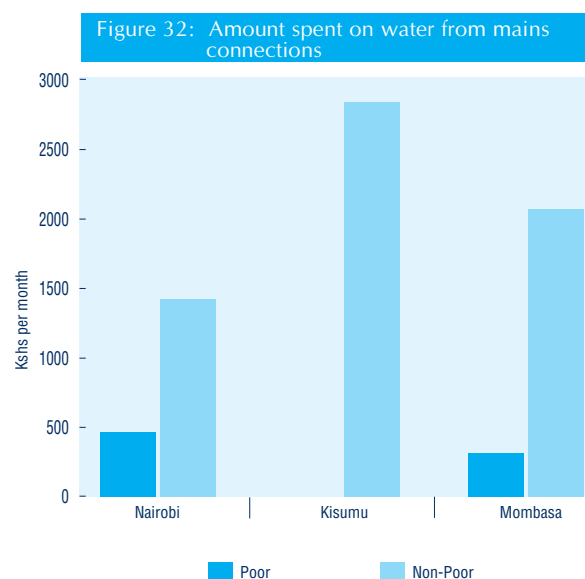
| | Nairobi | | Kisumu | | Mombasa | |
|--------------|------------------------|-----------|----------------------------|---------|--------------------------|---------------------------|
| Meter rent | Kshs 25 | | Kshs 150 | | Kshs 50 | |
| First block | 1 to 10m ³ | Kshs 12 | 0 to 6m ³ | Kshs 33 | Up to 10m ³ | Kshs 200 (minimum charge) |
| Second block | 11 to 30m ³ | Kshs 18 | 7 to 20m ³ | Kshs 40 | 11 to 20m ³ | Kshs 25 |
| Third block | 31 to 60m ³ | Kshs 27.5 | 21 to 40m ³ | Kshs 50 | 21 to 50m ³ | Kshs 30 |
| Fourth block | 61 and above | Kshs 34.5 | 41 to 60m ³ | Kshs 55 | 51 to 100m ³ | Kshs 45 |
| Fifth block | - | - | 61m ³ and above | Kshs 60 | 101 to 300m ³ | Kshs 75 |

spending more on vendors than on kiosks, probably because prices charged by vendors are higher than that charged at kiosks. In Kisumu, mains water appears to be costing households a great deal (the most per month of any of the categories). A comparison with the current tariff in Kisumu suggests that these figures must be interpreted with caution as the volumes of water that would have to be used to incur these costs are very high – above what would be considered normal single-household domestic use. It may be that many households in Kisumu are on-selling water to the unconnected.

This data can be presented for the poor alone (see Figure 31), but without data on the amounts paid by poor mains users in Kisumu (there were less than 30 respondents who gave us information on that question, which makes these data unreliable). Figure 31 shows us that poor households are spending significant amounts per month on kiosks and vendors. In Nairobi in particular, expenditure by poor families on vendors is very high, and this water is costing far more than mains water.

Figure 32 presents the amounts paid on mains connections by poor and non-poor (shown again without data for the Kisumu poor). It is clear that the non-poor are paying much greater amounts on mains water. We can assume that this is because they rely on it to a greater extent than the poor.

The variation in amounts spent on mains water is borne out by an examination of the tariffs in each city. Each has a step tariff, with different prices levied depending on how much water a household uses. Each city also levies a meter rent.



A household using 20 cubic meters of water a month through a private connection would thus pay the following in each city:

The amount paid for 20m³ in Kisumu is almost three times as much as that paid in Nairobi. This may in part be a reflection of the economies of scale in running a large utility like that in Nairobi.

It should be noted that households using shared connections under step tariffs can end up paying more than those at private connections, as the combined use by several households drives the price up into the higher steps of the tariff structure. For instance, five poor families sharing a tap, each using 6 m³ of water for a total of 30m³ per month, would incur the following charges:

In this case, the poorer families in Nairobi and Kisumu would actually be paying more on a volumetric basis than their wealthier

Table 12: Amount paid for 20 m³ from mains connection


| City | Nairobi | Kisumu | Mombasa |
|----------------------------|----------|----------|----------|
| Total per month | Kshs 325 | Kshs 908 | Kshs 500 |
| Average per m ³ | 16 | 45 | 25 |



Table 14: Amount paid for 6m³ from main and 1m³ from kiosk

| City | Nairobi | Kisumu | Mombasa |
|---|----------|----------|----------|
| Total per month for 6m ³ from mains | Kshs 101 | Kshs 282 | Kshs 150 |
| Total per month for 1m ³ from kiosks | Kshs 100 | Kshs 100 | Kshs 100 |
| Total for 7m ³ | 201 | 382 | 250 |
| Average per m ³ | 29 | 55 | 36 |

neighbours with a private connection. This is also the case when unconnected households buy water from connected neighbours. The increased water use drives the price into the third or even fourth block of the tariff, making the volumetric price very high.

The difference in the amount paid is even more dramatic if the poor families had to supplement their water use with water purchased from kiosks or vendors. This could easily be the case if they required water during periods of scarcity, which they could not ride out as they did not have storage tanks (which we can assume the non-poor household has). A household purchasing 50 jerrycans a month from a kiosk at the price of Kshs 2 per jerrycan would pay an additional Kshs 100 per month. This amount would be much higher if the price at kiosks was higher than Kshs 2, as it often is. Our data suggest that households are actually spending well over Kshs 200 and up to Kshs 700 per month on kiosk water.

 **There are significant differences in the amounts paid for water by consumers in the three cities.**

  **The heavy reliance by the poor on kiosks, where water is more expensive in volumetric terms than at private connections, means the poor are paying large amounts for water, and more per cubic meter than people with connections.**


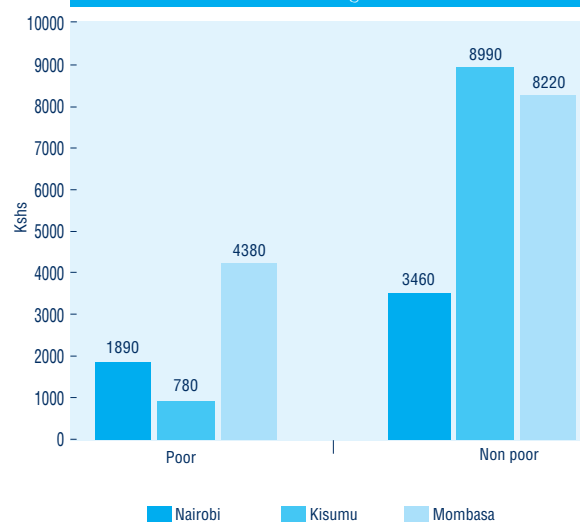
 **The step tariff may result in high prices for those at shared connections, or those buying water from private connections.**

Table 13: Amount paid for 30 m³ at a shared connection

| City | Nairobi | Kisumu | Mombasa |
|----------------------------|----------|-----------|----------|
| Total per month | Kshs 505 | Kshs 1408 | Kshs 750 |
| Average per m ³ | 17 | 47 | 25 |

Figure 33: Amounts spent storage tanks by households using mains



How much are households spending on storage tanks?

We asked households who used mains connections and said they had storage tanks how much they had spent on them. The data in Figure 33 show that households are spending significant amounts on storage to compensate for unreliability of supply, with the non-poor investing more than the poor.

The average amount our respondents reporting spending is Kshs 2100 in Nairobi, 2630 in Kisumu and Kshs 5600 in Mombasa; from which it appears that storage tanks are most expensive in Mombasa. Figures for the number of the storage tanks suggest that households install, on average, two tanks, and the total capacity is between 1000 litres and 3000 litres, with the poor reporting less capacity.

When we take the average amount our respondent households reported spending and extrapolate it over the entire city, it becomes apparent that very large amounts of money have been invested in storage tanks. If each of the estimated 655,000 households using the mains in Nairobi has invested Kshs 2100, this means an astonishing total of approximately 1.3 billion shillings has been invested so far city-wide to overcome shortcomings in utility

Table 15: Extrapolation of amounts invested in storage tanks

| | Nairobi | Kisumu | Mombasa |
|--|--------------------|-----------------|------------------|
| Total number of households in the city | 886,154 | 243,492 | 70,600 |
| Percentage of households using mains connections | 74% | 13% | 27% |
| Number of households using mains connections | 655,754 | 31,654 | 19,062 |
| Average amount spent on storage tanks by each household using mains connection | Kshs 2100 | Kshs 2630 | Kshs 5600 |
| Total estimated investment in storage tanks | Kshs 1,377 million | Kshs 83 million | Kshs 107 million |

Table 16: Satisfaction of mains connections users

| | Nairobi | | Kisumu | | Mombasa | |
|---|---------|----------|--------|----------|---------|----------|
| | Poor | Non-poor | Poor | Non-poor | Poor | Non-poor |
| Completely satisfied with: | % | % | % | % | % | % |
| Distance to source of water for drinking | 61 | 71 | 53 | 57 | 51 | 66 |
| Time it takes to get water | 57 | 66 | 39 | 55 | 46 | 61 |
| Regularity of water supply during normal periods | 68 | 73 | 79 | 68 | 58 | 56 |
| Regularity of water supply during periods of scarcity | 25 | 23 | 18 | 20 | 25 | 11 |
| Adequacy of water supply during normal times | 67 | 74 | 93 | 69 | 65 | 57 |
| Water pressure | 61 | 72 | 57 | 58 | 59 | 47 |
| Cleanliness | 77 | 73 | 76 | 61 | 76 | 73 |
| Other aspects of water quality | 66 | 75 | 67 | 63 | 74 | 78 |
| Behaviour of staff | 24 | 32 | 36 | 29 | 29 | 49 |
| Maintenance | 51 | 64 | 32 | 49 | 58 | 50 |
| Billing system | 30 | 32 | 36 | 36 | 26 | 46 |

supply. The calculations for all three cities are shown in Table 15.



Households are finding it necessary to invest significant amounts of money in storage tanks, amounting to an estimated one and a half billion shillings across the three cities.

2.7 Satisfaction with Water Provision

How satisfied are households with the overall provision of water?

Despite problems of scarcity, stoppages and unreliability, a surprisingly high percentage of users of mains connections are satisfied

with services, suggesting either that there is a still a large amount of goodwill towards water companies, or that users have developed low expectations.

However, in all three cities roughly half of users are not satisfied, suggesting that water companies need to do a lot more to address consumers' concerns.

Kiosk users are far less likely to be satisfied, reflecting the lower level of service provided by these sources. Interestingly, the non-poor expressed more dissatisfaction with kiosks than the poor.



Half of all users of mains connections are not satisfied, and dissatisfaction is even higher among users of mains kiosks.

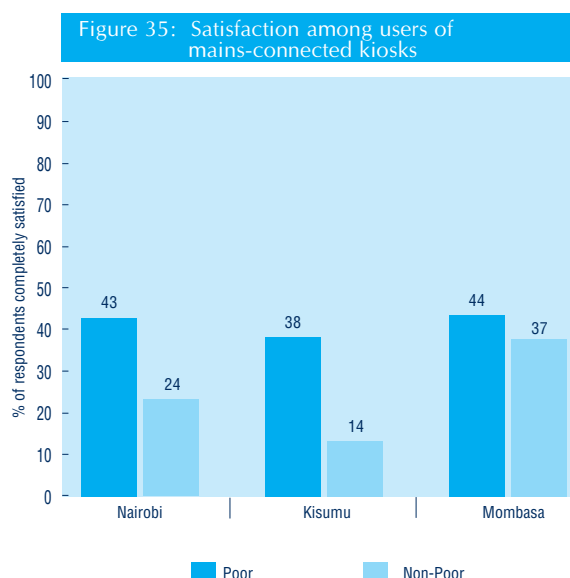
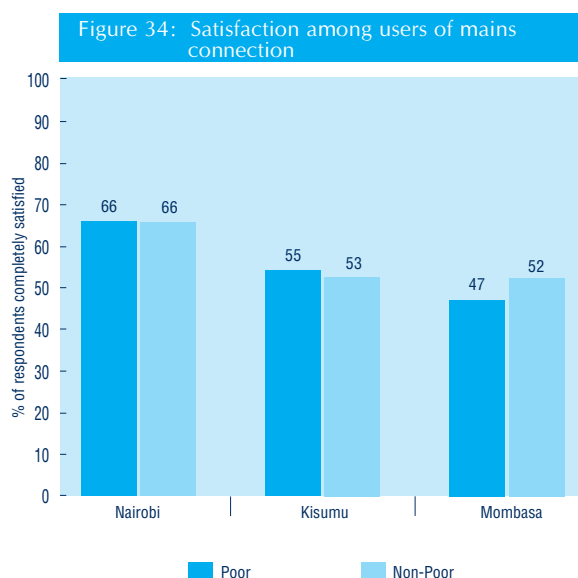


Table 17: Satisfaction of poor users of mains kiosks

| | Nairobi | Kisumu | Mombasa |
|---|---------|--------|---------|
| Completely satisfied with | % | % | % |
| Distance to source of water for drinking | 63 | 39 | 59 |
| Time it takes to get water | 65 | 34 | 54 |
| Regularity of water supply during normal periods | 68 | 69 | 62 |
| Regularity of water supply during periods of scarcity | 22 | 11 | 14 |
| Adequacy of water supply during normal times | 72 | 67 | 67 |
| Water pressure | 66 | 59 | 57 |
| Cleanliness | 64 | 54 | 81 |
| Other aspects of water quality | 60 | 57 | 82 |
| Behaviour of staff | 48 | 43 | 60 |
| Maintenance | 42 | 16 | 48 |
| Billing system | 25 | 2 | 14 |

How satisfied are households with specific indicators of service quality?

Among mains connections users, the areas that rated the lowest in terms of satisfaction are the regularity of water supply during scarcity times, the behaviour of water company staff and the billing system. It is clear that the conditions during scarcity times are a source of particular dissatisfaction for users, as this aspect rated by far the lowest. It is interesting that the other two low-scoring aspects of service relate to the interaction the customers have with the utility in terms of

billing and relations with staff. Mains kiosks users in all three cities were also dissatisfied with the water supply during scarcity times and the billing systems at kiosks. In Kisumu, they also expressed significant dissatisfaction with the distance to kiosks and the time it takes to get water.



There is serious dissatisfaction with a number of parameters of water services, in particular regularity of supply during scarcity times.





Sanitation Services

3.1 Availability, Access and Usage of Sanitation Options

What types of sanitation are people using?

Figure 36 shows the main place where respondents said their family members relieve themselves. It is clear that pit latrines are the type of toilet used by many people. Pit latrines are used much more by the poor (see Figure 37), and are more prevalent in Mombasa than elsewhere (they are used by significant numbers of the non-poor in Mombasa).

The prevalence of flush toilets is presented in Figure 38, and it can be seen that a majority of the non-poor use them, particularly in Nairobi. However, access to flush toilets among the poor in Nairobi is also quite high.

The next two charts show the breakdown by mode of sanitation (private, shared, public and open) for the poor and non-poor. A large majority of the non-poor use private sanitary facilities, whether pit latrines or flush toilets. The poor are more likely to use shared facilities, and a small number practice open defecation, especially in Kisumu. None of the non-poor respondents, on the other hand, use either

public toilets or open defecation as their primary mode of sanitation.



Poor households are much more likely than non-poor ones to be relying on pit latrines and shared (rather than private) sanitation facilities.

We asked households about the use of public toilets, and this question revealed that more people in Nairobi and Kisumu than in Mombasa used public toilets once a month or more frequently. The poor use public toilets much more than the non-poor in Nairobi and Kisumu, but the reverse is true for the small number who use them more frequently than once a month in Mombasa.

A small number of respondents in the sample (three percent of the sample as a whole, a total of 89 respondents) said that their family occasionally uses “flying toilets” or uses the open ground as a toilet. (This is not reflected in the data presented above as they are for only the main place where the family relieve themselves, and no respondent mentioned flying toilets in that category.) We asked respondents who said

Figure 36: Main place where family members relieve themselves

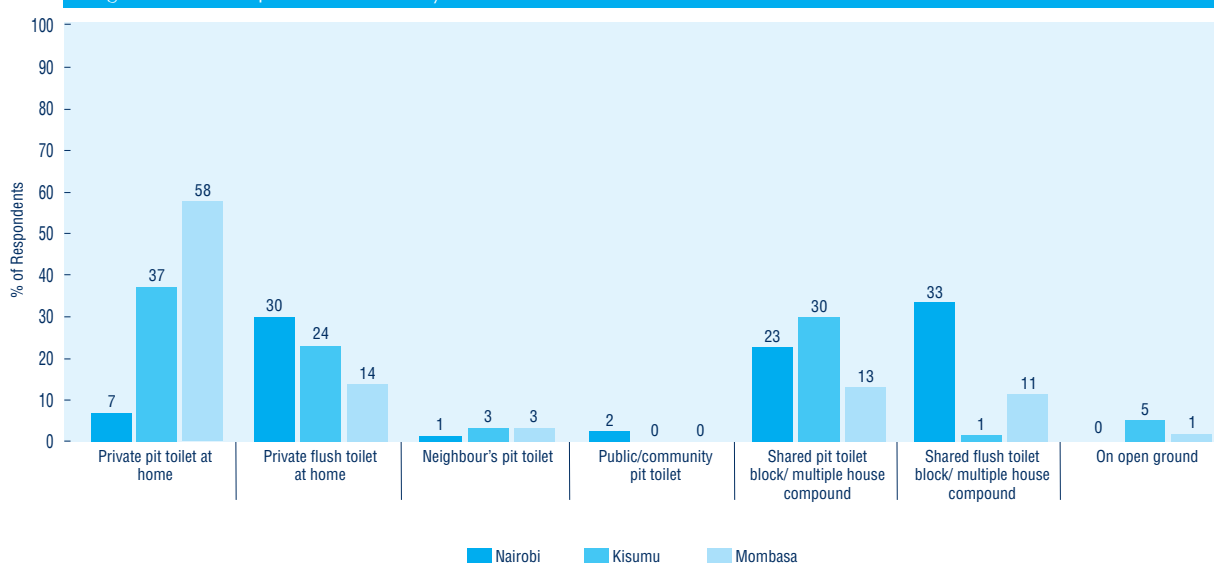


Figure 37: Prevalence of pit latrines as main source of sanitation

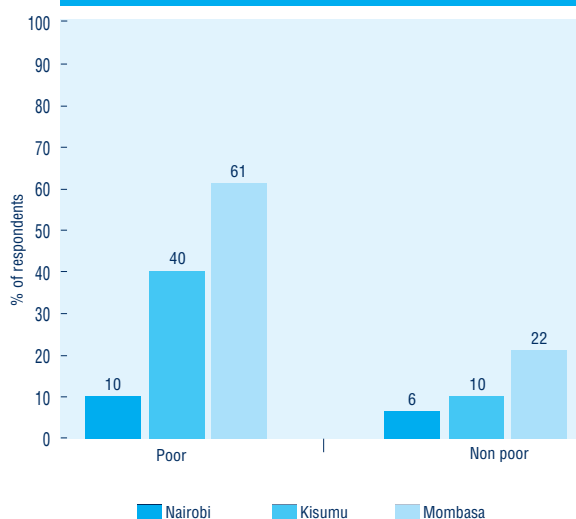


Figure 38: Prevalence of flush toilets as main source of sanitation

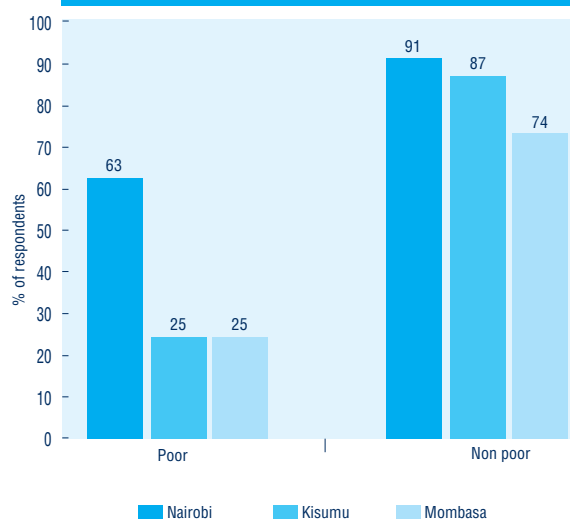


Figure 39: Modes of sanitation used by the poor

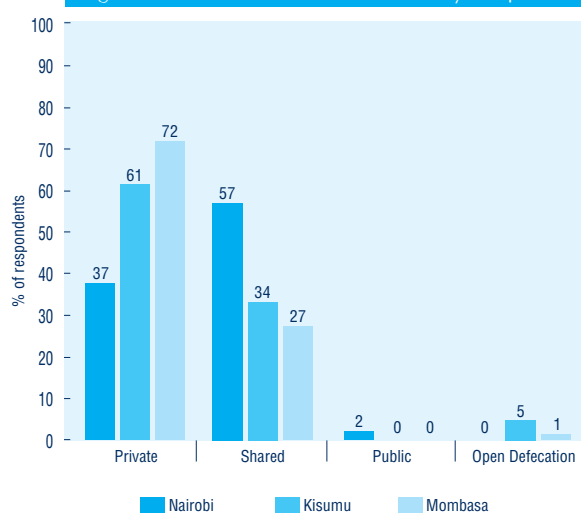
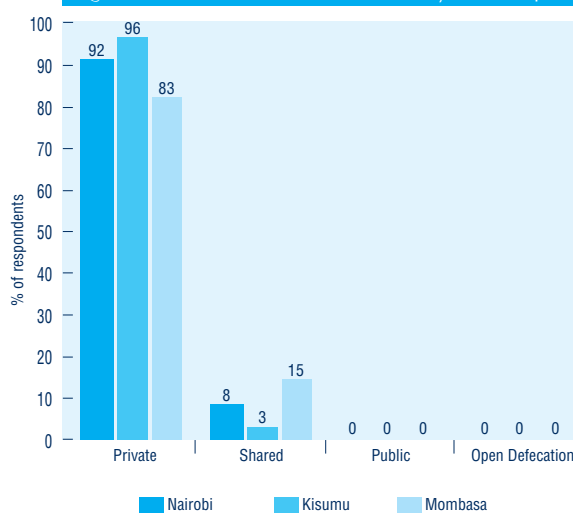


Figure 40: Modes of sanitation used by the non-poor



some family members practice open defecation or use flying toilets to tell us the reasons why. It appears that the main reason given for using flying toilets or open defecation is inaccessible public toilets and a lack of money to construct toilets at home. As any resident of a Kenyan city can confirm, even a small number of people using flying toilets can cause an unbearably unhygienic situation.



Poverty is preventing some people from having toilets at home, and there is a lack of affordable, accessible public toilets to address the problem of open defecation and “flying toilets” which results.

Where does the waste from toilets go?

We asked people who said they used flush toilets where the waste from their toilet goes. A majority of respondents using flush toilets in Nairobi and Kisumu said their toilet waste goes into the sewers, but in Mombasa more people said their flush toilets are emptied into septic tanks. A few respondents, notably in Mombasa, said their flush toilets empty into a pit, which is of concern as pits are usually not suited to the large quantities of wastewater that flush toilets produce.

When we asked those people using pit toilets where their waste goes, we found the range of responses was much wider, with some

Table 18: Reasons for practicing open defecation or using “flying toilets”

| Reason | Percent of Respondents |
|---|------------------------|
| No toilet at home because - no money to build | 19 |
| No toilet at home because - no space | 5 |
| Cannot construct toilet because does not own the land or property | 3 |
| Not near enough to a public toilet | 23 |
| Public toilet too expensive | 5 |
| Public toilet too dirty / disgusting / smelly | 11 |
| Landlord refuses to construct toilet | 16 |
| Doesn't mind it or prefers it | 3 |
| Toilets are unsafe for the children | 3 |
| The toilets are full and often overflow | 5 |
| Due to poorly constructed toilets, they collapse frequently | 2 |

pit toilet users saying their toilet empties into the sewers or a septic tank, and others saying it empties into storm sewers, soak-aways and cess pits designed for kitchen waste. This is a cause for concern as these do not provide suitable treatment of fecal waste. However, the data raise the question of whether people actually know where their toilet waste goes, as some people said their pit latrine waste goes into sewers, and overall more respondents reported having access to mains sewers than are officially provided with this service. This highlights the need for better education and awareness on sanitation issues.



People are generally confused about where their toilet waste goes, but it is clear that some toilets are being allowed to empty into storm sewers, soak pits and cess pits, where fecal waste presents an environmental and health hazard.

3.2 Problems Faced with Sewerage

How many people said they had problems with the sewerage system?

Figure 44 shows the percentage of respondents who said they had experienced problems with sewerage in the last year. The figure is particularly high for the Nairobi poor.

Figure 41: Percentage of households who use public toilets once a month or more

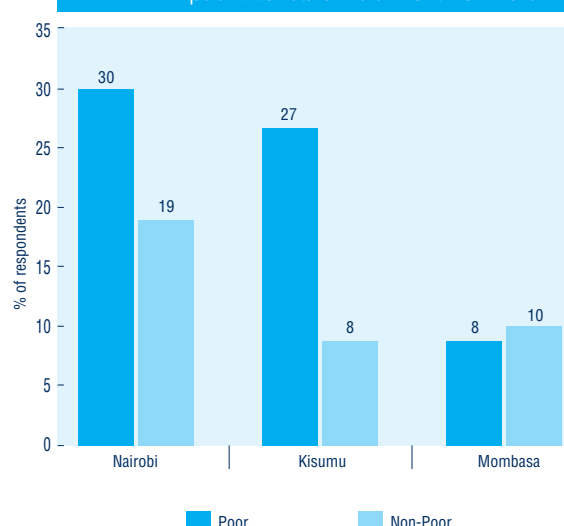
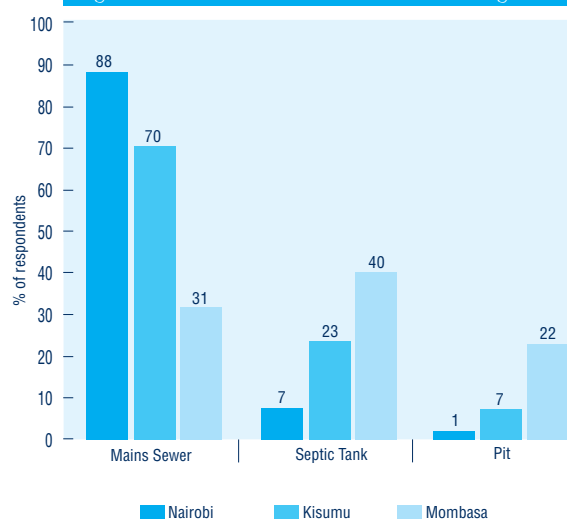
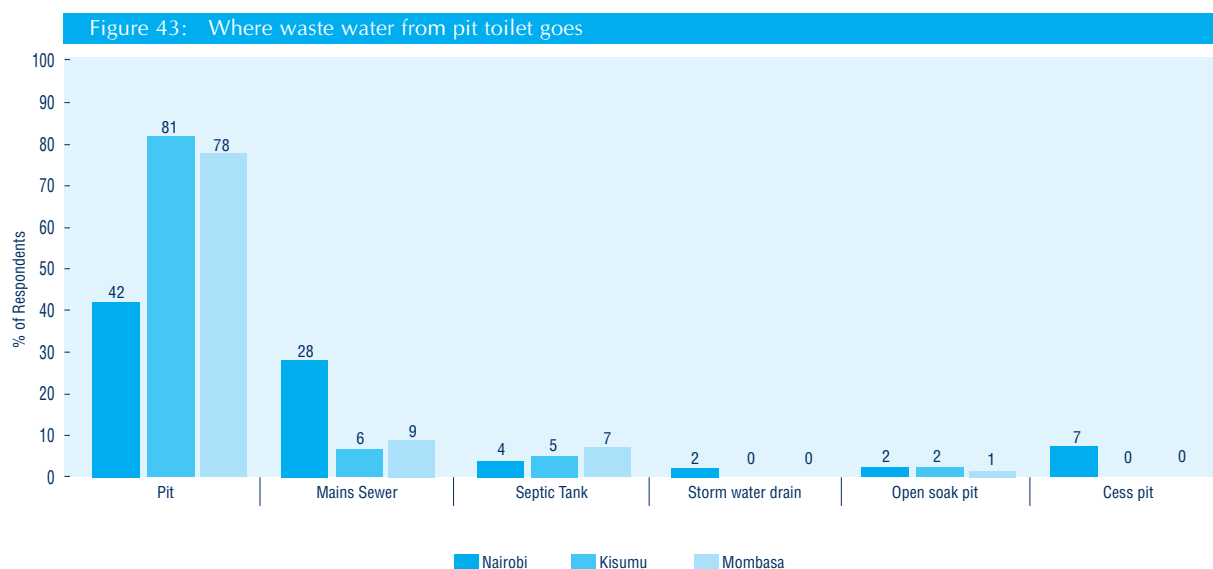


Figure 42: Where waste from flush toilets goes



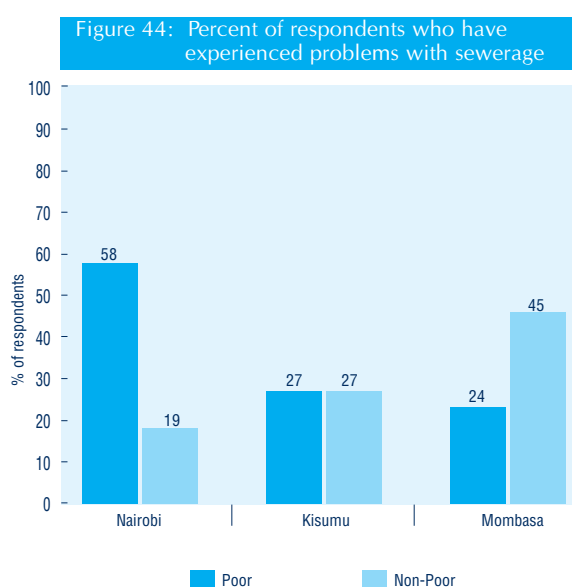


What types of problems with sewerage did people face?

As Figure 45 shows, the problems that seemed to be the most prevalent were flooding and overflowing of the sewers, and bad smells.



Many people report experiencing problems with the sewer system, mostly overflowing and leakage from broken mains, and bad smells.



3.3 Satisfaction with Sanitation

How satisfied are people with pit latrine emptying services?

Those people who expressed an opinion on pit latrine emptying services were not, in general, satisfied with them. Satisfaction in Kisumu was the lowest for both the poor and the non-poor. Overall, less than a third of people expressing an opinion were happy with these services.

How satisfied are people with the sewerage system?

Satisfaction with the sewers operated by the water and sewerage company was highest in Nairobi,

but even there less than a half of respondents were happy with either the maintenance or the presence of sewers (see Figure 47). Satisfaction was considerably lower in the other two cities.

How satisfied are people with public toilets?

Figure 48 shows the satisfaction with the availability of and cleanliness of public toilets. In Nairobi, two-thirds of respondents expressing an opinion said they were satisfied, but the rate of satisfaction in Kisumu is lower, and in Mombasa even lower, with less than a quarter of respondents there happy with the cleanliness of public toilets.

Figure 45: Problems experienced with sewerage

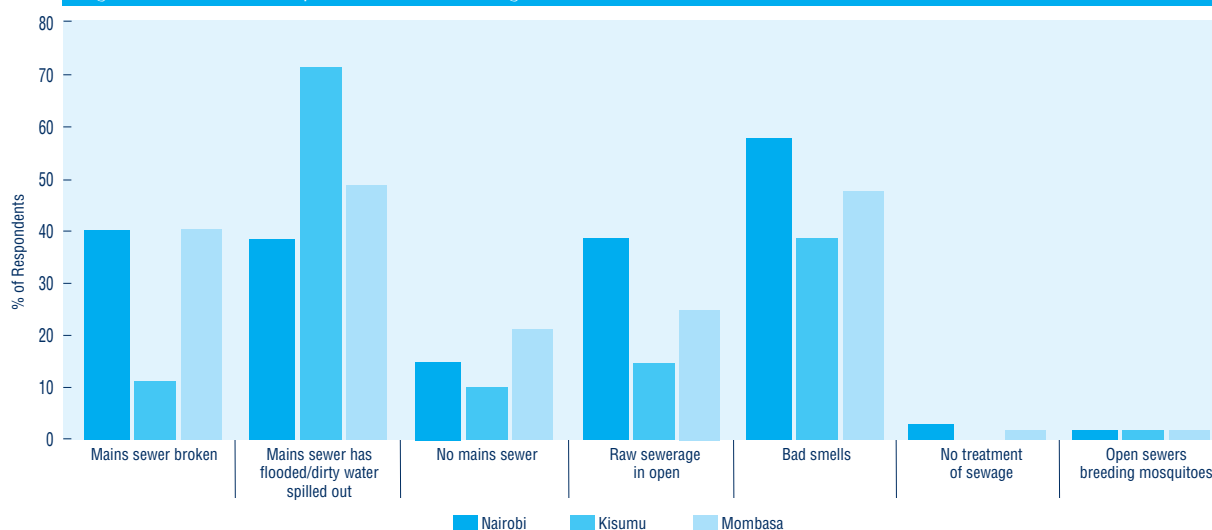


Figure 46: Satisfaction with pit latrine emptying

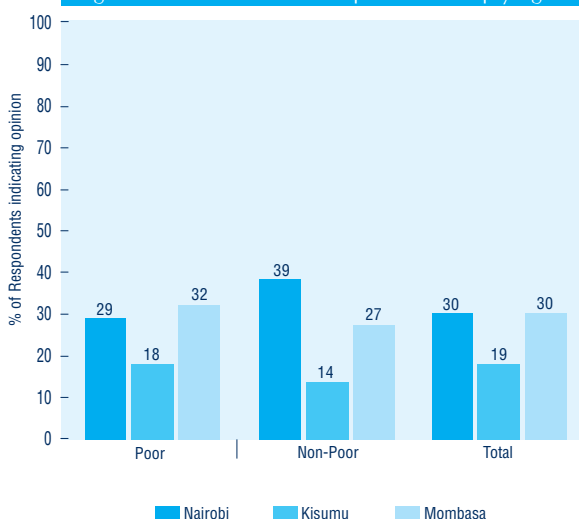
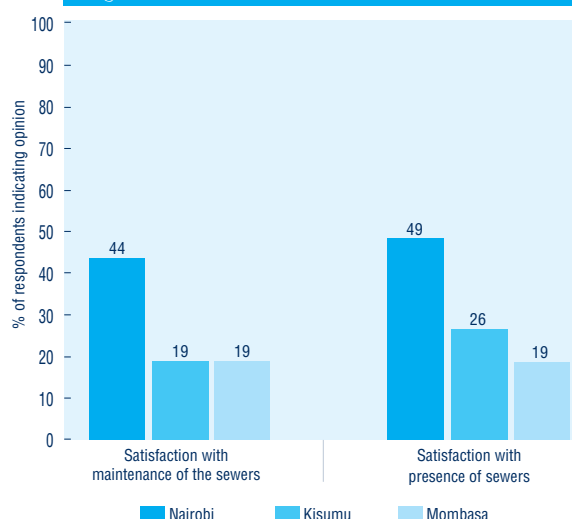


Figure 47: Satisfaction with sewers

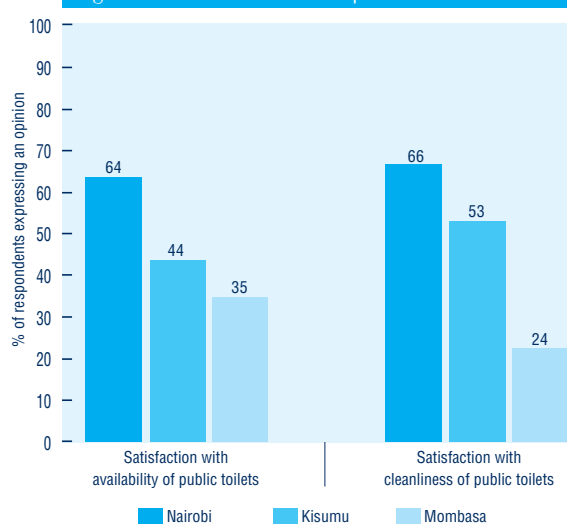


The data show that satisfaction with sanitation is lower than for water services, and that sewerage in particular is less satisfactory than the mains water supply.



Many people have experienced problems with sanitation services such as sewers, pit latrine emptying and public toilets, and satisfaction with them is low (lower than satisfaction with water services).

Figure 48: Satisfaction with public toilets





Solid Waste Management

4.1 Availability, Access and Usage of Solid Waste Management Options

How do people dispose of rubbish?

We asked about the options available to households for having their rubbish collected (see Figure 49). It appears that the city council offers services to very few households, especially in Nairobi and Kisumu. However, 64 percent of households in Nairobi reported having access to private collection companies, and 17 percent and 32 percent in Kisumu and Mombasa, respectively.

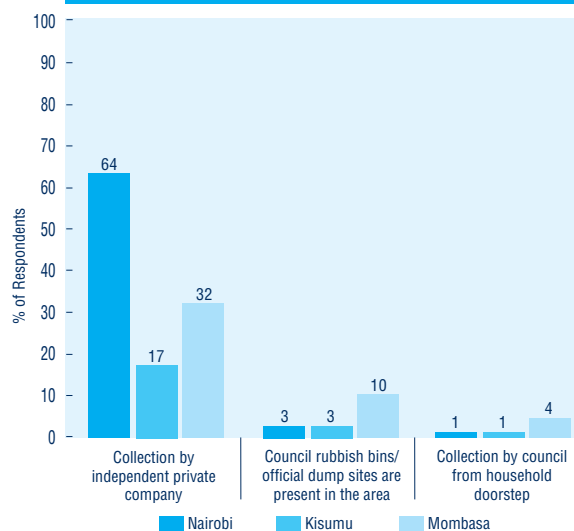
What households actually do to get rid of their rubbish is shown in Figure 50. While some households take advantage of the collection options available, it is clear that many others are resorting to burning and throwing their rubbish in open areas and drains, with the accompanying environmental consequences. Very few households use council collection services.

Few poor households, especially in Kisumu and Mombasa, use private collection agencies suggesting that the cost of this service may be an issue (see Figure 51). Though the numbers were small, it appears that poor households are also unlikely to use council collection services, where they exist.

None of the poor households surveyed in Nairobi and Kisumu reported using collection services provided by the city council, and only 1 percent of them in Mombasa.

Households that use private collection services were asked how much they pay for them. The average amount paid per month for private collection in Nairobi is Kshs 521, in Kisumu Kshs 182 and in Mombasa Kshs 230.

Figure 49: Collection options available for getting rid of rubbish from households

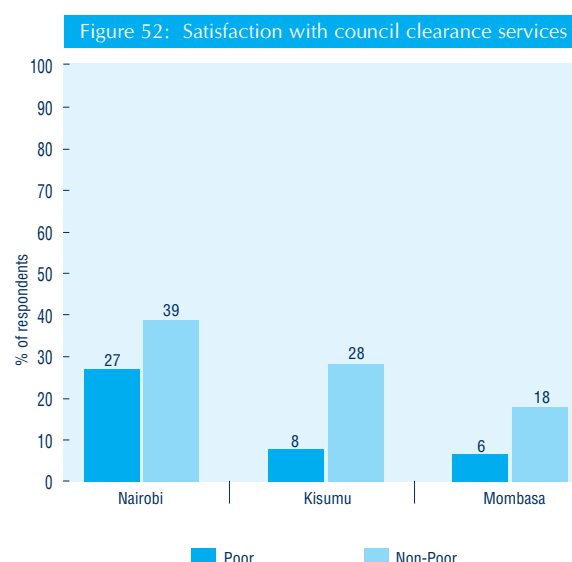
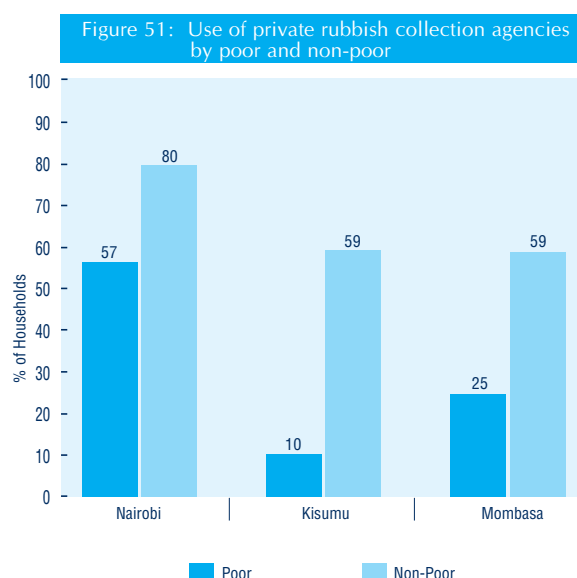
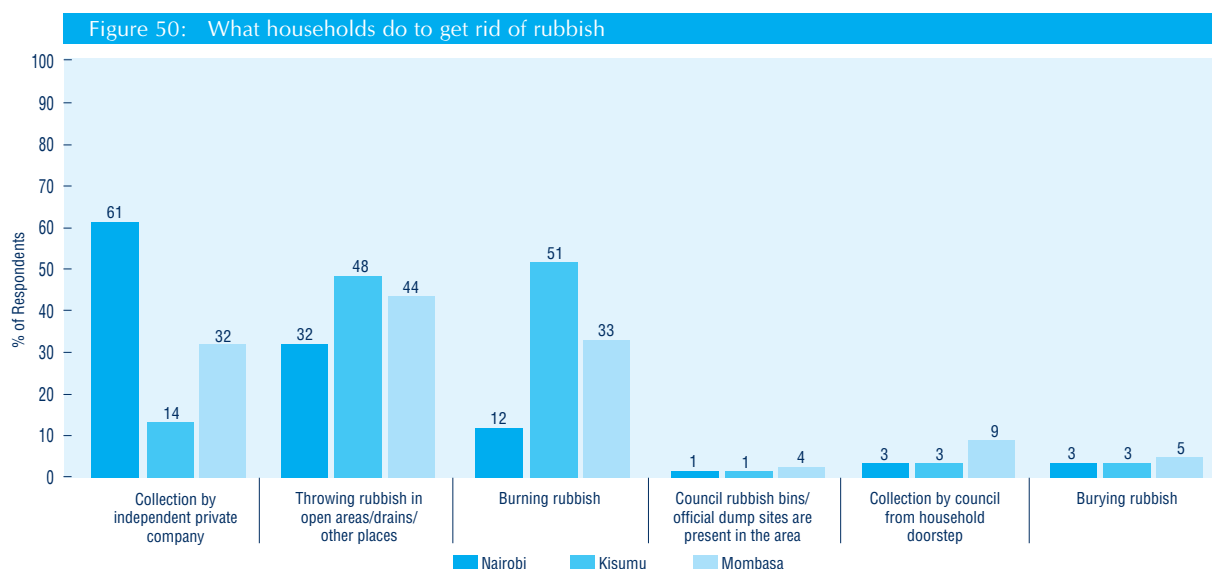


The options for solid waste disposal are very limited, and many people resort to burning or dumping their rubbish in open areas or drains. City councils are providing very few solid waste services. Poor people have even more limited options as few of them use private collection agencies, probably because of cost.

4.2 Satisfaction with Solid Waste Management Services

How satisfied are people with solid waste management services?

We asked respondents about their satisfaction with solid waste management services provided by the council. Overall, the percentage of respondents saying they



were “completely satisfied” was low, with a total of 30 percent of respondents expressing satisfaction in Nairobi, 10 percent in Kisumu and 9 percent in Mombasa. The rate of satisfaction was lower among the poor than the non-poor (see Figure 52).

residential area. An overwhelming majority said no, with only 3 percent of the total sample saying yes. Of the few who said yes, a third said they did not know what the role of public health officers was, and two thirds expressed dissatisfaction with their performance.



Satisfaction with solid waste management services is extremely low, particularly among the poor.



Satisfaction with solid waste management services is extremely low, particularly among the poor.

Are people aware of the public health officers and know what they do?

Households were asked whether they were aware of public health officers assigned to their



CHOO CHA UMA

TOILETS NOW OPEN
MALIPO
• KUOGA 15/=
• CHOO 10/=

Quality of Information Provision

Figure 53: Awareness of recent changes in policy

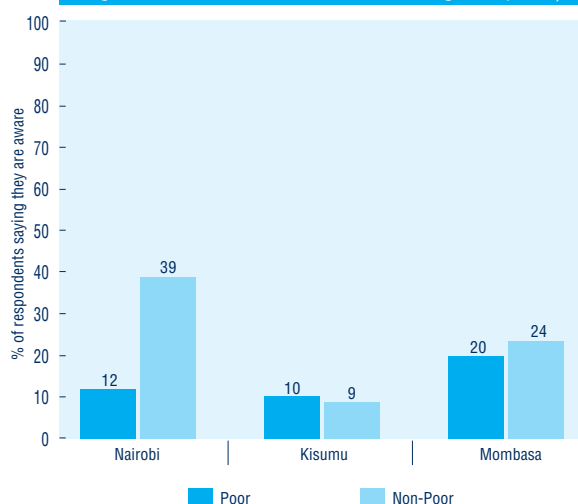


Figure 54: Adequacy of government information on water services

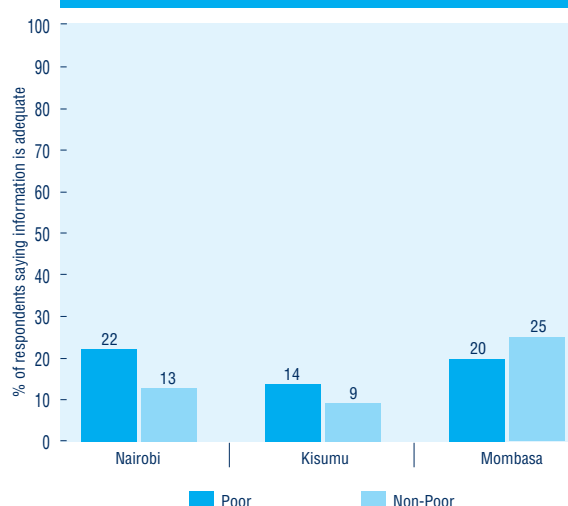
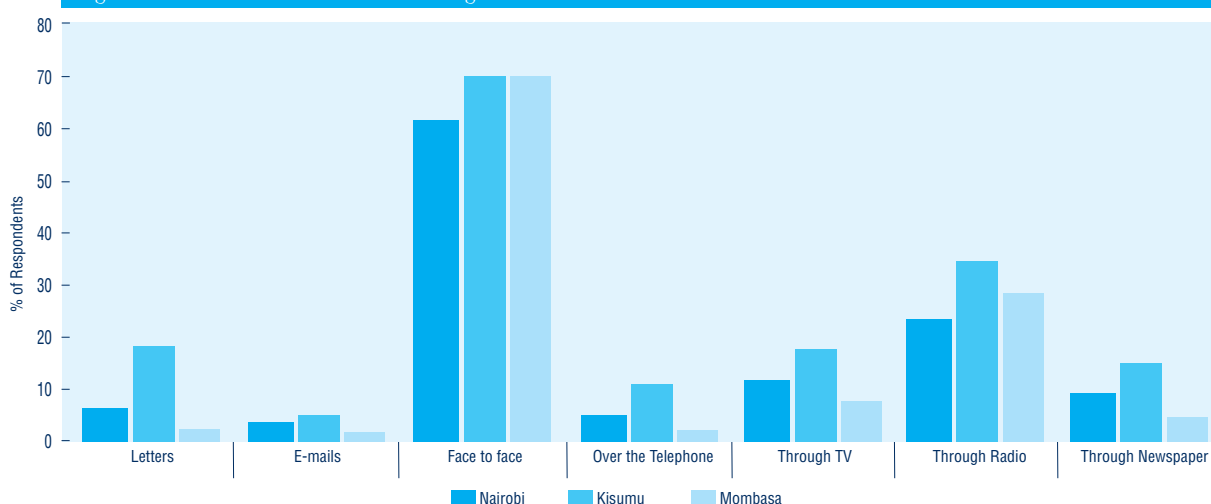


Figure 55: Preferred medium for sharing views



Are people aware of recent changes in policy?

Figure 53 shows that few people are aware of recent changes in government policy in the water and sanitation sector, especially in Kisumu. The Nairobi non-poor have the highest awareness.

Do people feel communication is adequate? How would they like to share their views?

Few households felt they were getting adequate information on water services (see Figure 54). When they were asked what medium they would prefer to use for interacting with the water company

and sharing views, respondents overwhelmingly indicated that they preferred face-to-face interaction. This is interesting when compared to the fact that a common cause for dissatisfaction with water companies is the behaviour of staff, and suggests that there are good reasons to improve the way staff relate to citizens.



Consumers feel they are not getting enough information on water and sanitation services, and are not informed of changes in policy. They would prefer face-to-face interaction with water companies.



Summary of Satisfaction with Public Services

The following charts show satisfaction with the four public-agency provided services examined by this Report Card: water services through mains connections and mains kiosks, sewerage, and council-provided rubbish collection.

In general:

- residents of Kisumu and Mombasa are less satisfied with public-agency-provided services than residents of Nairobi
- satisfaction with mains kiosks is lower than that of mains connections, at less than 50% in all cities
- satisfaction with sewer and rubbish collection services is considerably lower than satisfaction with water services.

These findings are worrying given that the current reforms seem to be aimed almost exclusively at water services.



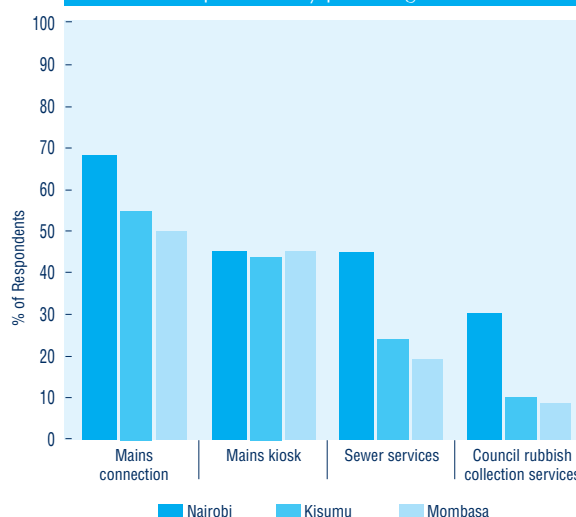
Satisfaction of users of kiosks is lower than that of mains-connections users in all three cities.



Satisfaction with sewer and council rubbish collection services is much lower than satisfaction with water services, particularly in Kisumu and Mombasa, but little is being done to improve or reform these services.

When we asked respondents about what they would like to see improved, we found that the areas of improvement differed according to whether a respondent was a user of a mains connection or a mains kiosk. The charts below show the first priority area mentioned. Having cleaner water was the most important area for improvement for both groups. Having more reliable service was also important, but bringing the source closer was more important to kiosk users.

Figure 56: Satisfaction of users of services provided by public agencies



Poor people are much more likely to say that having their source of water close to them is an important area for improvement than the non-poor, reflecting the fact that poor people are more likely to use sources outside the home (see Figure 59)

People want cleaner water and more reliable supply.

Kiosk users want their sources to be closer. Proximity of the water source is more important to poor people than to the non-poor.

Figure 57: First priority area for improvement in water services - mains connection users

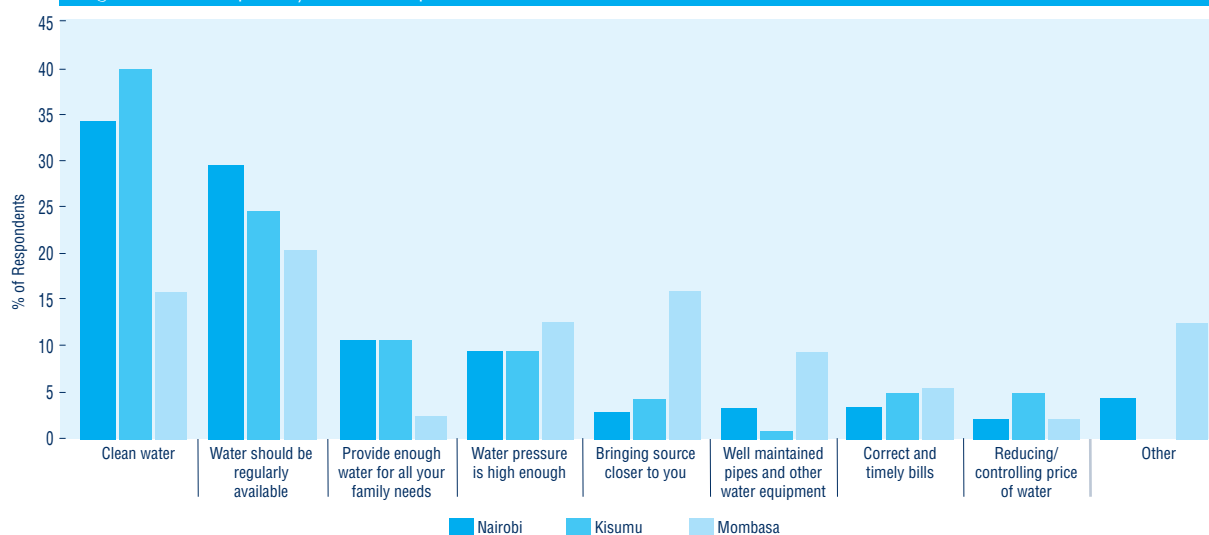


Figure 58: First priority area for improvement in water services - mains kiosk users

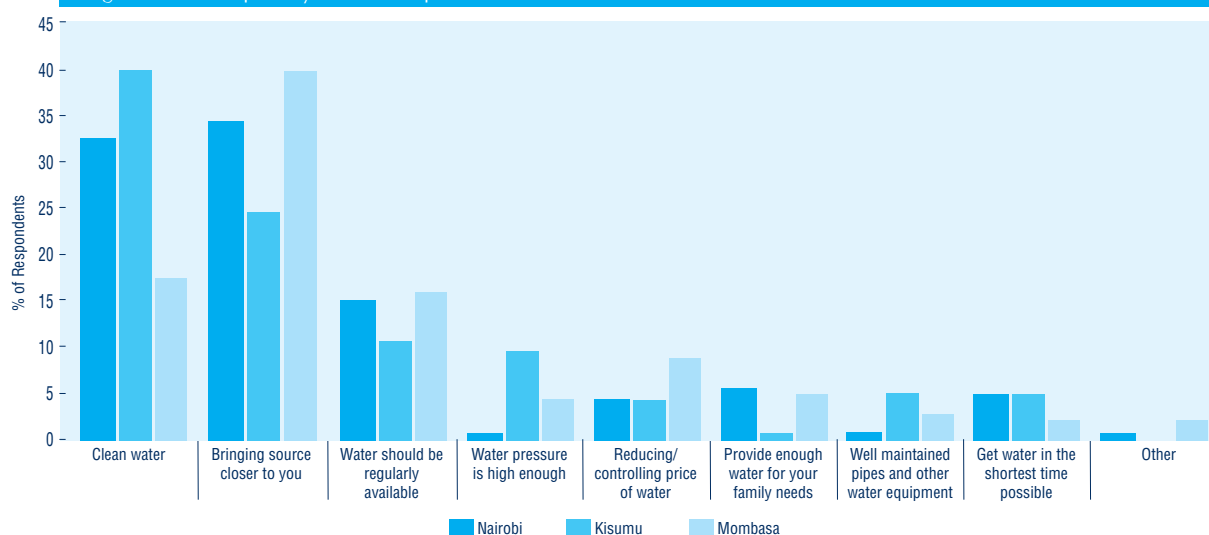


Figure 59: Proximity of sources as a first priority - poor and non-poor

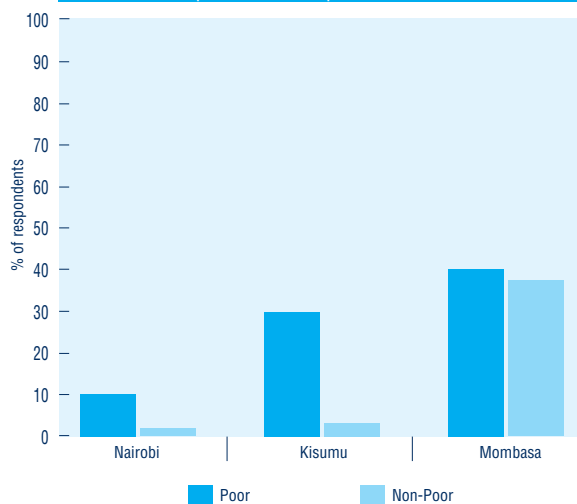


Figure 60: Reduction or control of water prices as a first priority - poor and non-poor

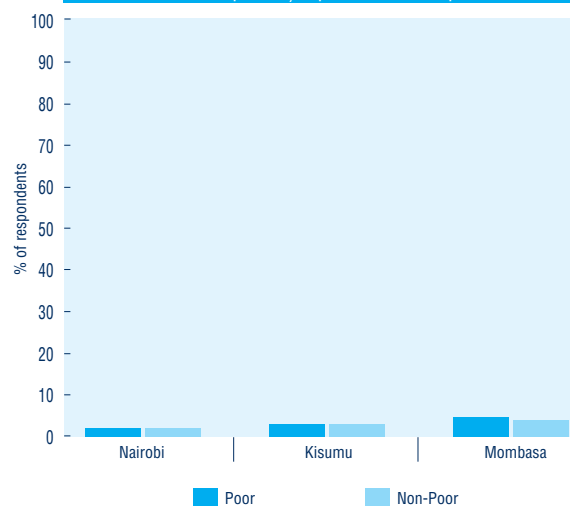
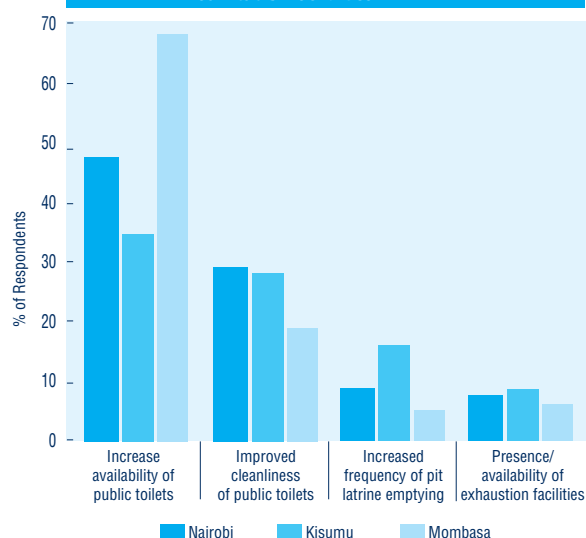


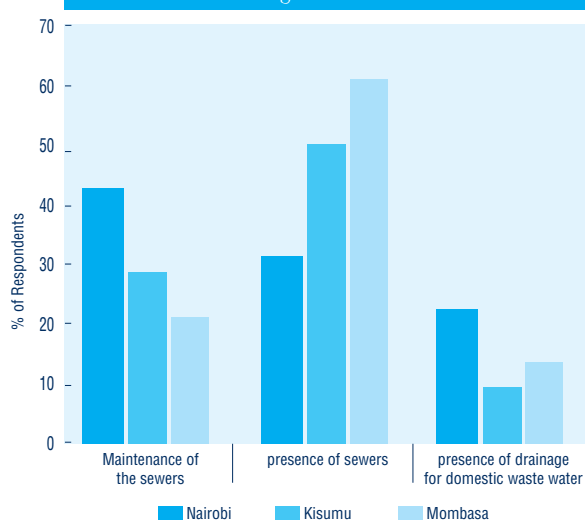
Figure 61: First priority area for improvement in sanitation services



When we looked at the data for priority areas of improvement for all users (not just mains connections and mains kiosks) and analyzed it according to what the poor and non-poor said, we found that reduction of price was a low priority for both (see Figure 60). This suggests that improved quality of service, not reduced price, is the main concern of users, regardless of whether they are poor or non-poor.

Improving quality of water services is more important than reducing their cost.

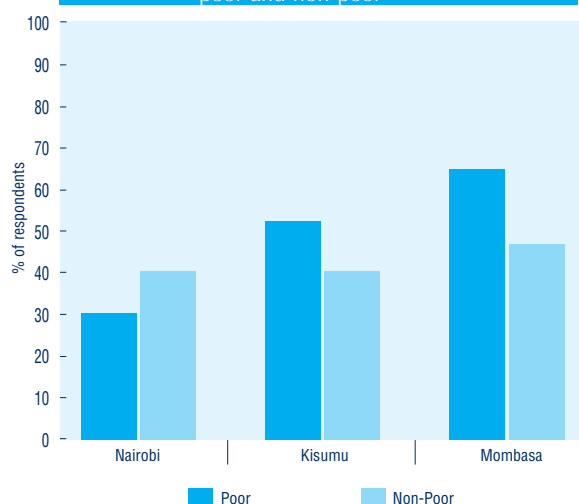
Figure 62: First priority area for improvement in sewerage services



We asked the respondents what areas of improvement they thought were important in sanitation services (sewers, pit latrine emptying, public toilets). Many respondents, particularly in Mombasa, said they wanted to see more public toilets. Increased frequency of pit latrine emptying was important to more residents of Kisumu than the other two cities (see Figure 61).

In terms of sewerage services, better maintenance of the sewers was important to people in Nairobi, but greater presence of sewers was mentioned by many more in Mombasa (see Figure 62). When we looked at the question of presence of sewers in detail, we found that more poor people thought this was important, perhaps reflecting the fact that sewerage is much less common in poor neighbourhoods (see Figure 63).

Figure 63: Presence of sewers as a first priority -poor and non-poor




People want more public toilets and greater access to sewers.





Key Findings and Conclusion


7.1 Water Supply


7.1.1 Access and Usage

 There are distinct inequities in access to mains connections between the poor and the non-poor, with the poor reporting lower access.



 A small but significant number of households is using unprotected sources for drinking water.


 Poor households are much more likely to be using kiosks as their primary source of water than the non-poor.


 None of the three water companies scores “good” in terms of coverage, and Kisumu does not score “acceptable”.


 Water companies are relying heavily on access to the mains through kiosks to achieve their benchmarks for coverage, despite the fact that kiosks offer a much lower level of service than connections.



7.1.2 Reliability and Quality


  Many households are experiencing periods of water scarcity, and the poor are more likely to face scarcity than the non-poor. Households in Kisumu are more likely to report scarcity than those in the other two cities.


 Periods of scarcity are forcing consumers to use unsafe and expensive sources of water.

 Consumers are happy with the taste, smell and colour of water from mains connections.


 Hours per week of service are below the benchmarks, particularly in Mombasa which does not achieve an acceptable score in either normal or scarcity times.


  Major stoppages of more than 24 hours are common, and the poor experience more stoppages than the non-poor.


 Users of mains sources in all three cities are incurring costs in terms of home treatment methods and storage tanks in order to cope with problems of water quality and unreliability of service.


 Those consumers who are obliged to use sources outside the home are spending long periods of time fetching water, and enduring inconvenience and stress. This burden is falling more on women than on men as almost 70 percent of households said the primary water collector is an adult female.


7.1.3 Customer Service, Cost and Satisfaction with Water Services


 Billing frequency for most users is monthly, in conformity with the requirements of the service agreements.



 Water companies are not being effective in reaching households with information on service disruptions and stoppages.


 Few households reported offering or being asked for bribes in relation to service delivery from the water company.


 Consumers do not find the water company accessible, have little faith in having their complaints resolved, and are not complaining and interacting as a result.


 Almost half of customers are dissatisfied with their interactions with the water company.


 There are significant differences in the amounts paid for water by consumers in the three cities.

  The heavy reliance by the poor on kiosks, where water is more expensive in volumetric terms than at private connections, means the poor are paying large amounts for water, and more per cubic meter than people with connections.


 The step tariff may result in high prices for those at shared connections, or those buying water from private connections.


 Households are finding it necessary to invest significant amounts of money in storage tanks, amounting to an estimated one and a half billion shillings across the three cities.


 Half of all users of mains connections are not satisfied, and dissatisfaction is even higher among users of mains kiosks.


 There is serious dissatisfaction with a number of parameters of water services, in particular regularity of supply during scarcity times.


7.2 Sanitation

 Poor households are much more likely than non-poor ones to be relying on pit latrines and shared (rather than private) sanitation facilities.



 Poverty is preventing some people from having toilets at home, and there is a lack of affordable, accessible public toilets to address the problem of open defecation and “flying toilets” which results.


 People are generally confused about where their toilet waste goes, but it is clear that some toilets are being allowed to empty into storm sewers, soak pits and cess pits, where fecal waste presents an environmental and health hazard.


 Many people report experiencing problems with the sewer system, mostly overflowing and leakage from broken mains, and bad smells.

 Many people have experienced problems with sanitation services such as sewers, pit latrine emptying and public toilets, and satisfaction with them is low (lower than satisfaction with water services).


7.3 Solid Waste Management

  The options for solid waste disposal are very limited, and many people resort to burning or dumping their rubbish in open areas or drains. City councils are providing very few solid waste services. Poor people have even more limited options as few of them use private collection agencies, probably because of cost.


 Satisfaction with solid waste management services is extremely low, particularly among the poor.


 Public health officers are not visible in the communities, and are perceived to have little impact.

7.4 Communications

 Consumers feel they are not getting enough information on water and sanitation services, and are not informed of changes in policy. They would prefer face-to-face interaction with water companies.

7.5 Overall Satisfaction

 Satisfaction of users of kiosks is lower than that of mains-connections users in all three cities.

 Satisfaction with sewer and council rubbish collection services is much lower than satisfaction with water services, particularly in Kisumu and Mombasa, but little is being done to improve or reform these services.

Priority areas for improvement

- People want cleaner water and more reliable supply.
- Kiosk users want their sources to be closer. Proximity of the water source is more important to poor people than to the non-poor.
- Improving quality of water services is more important than reducing their cost.
- People want more public toilets and greater access to sewers.

Conclusion

Monitoring and evaluation tools, like the CRC, are most useful when performed at intervals and when stakeholders know where the sector is aiming. This helps track progress over time and helps ensure a planning process that is focused with clear milestones.

Synopsis of Water

The goals of the water reforms are clear - an institutional framework that ensures access to clean, affordable water and improved services for all Kenyans. However, there is a clear policy gap in the sanitation and solid waste sectors. The findings of this Citizen's Report Card give us a clearer understanding of how these gaps affect people in their day-to-day lives. The findings reinforce what we largely know - that the poor are paying more for water and relying heavily on kiosks. However, it also gives us insight into lesser-known areas and offers tangible figures and a more coherent storyline for making informed decisions and evaluating progress.

As one would expect in a complex sector, the findings are both positive and negative. For example, the Nairobi non-poor are relatively satisfied with water services even though the findings indicate that consumers in Nairobi, as well as Mombasa and Kisumu, suffer from frequent stoppages and interruptions. The reason for high satisfaction even amidst frequent interruptions is that the non-poor can afford coping mechanisms like storage tanks.

It is clear that the poor are disproportionately affected by unreliable water supplies. Unlike the non-poor, the poor have little to no safe, affordable alternatives. Reducing the vulnerability of the poor is an issue that the water companies and the WSRB should address.

The water companies are relying heavily on kiosks to reach the benchmarks for coverage, even though kiosks are a lower level of service. The poor rely on kiosks as their main source of drinking water, but even one-third of the non-poor in Mombasa use kiosks. In all three cities, it is mostly adult women who are fetching water and facing long queues.

All three cities have moved to a flat rate for kiosks - 10 KES/m³ in Nairobi; 15 KES/m³; and a whopping 55 KES/m³ in Kisumu. However, step tariffs still exist for domestic connections even though it is widely known that households in low-income areas resell water and/or share a connection with other households. The negative effect of step tariffs on the poor should be noted by the WSRB and water companies

Also, there is a wide variation in the tariffs of the three cities, with Kisumu being significantly more expensive than Nairobi and Mombasa. The three cities have a different history when it comes to setting tariffs. To its credit, the WSRB is working on Guidelines for Setting Tariffs that will help systematize tariff setting across Kenya.

Kisumu is the most successful at interacting and communicating with its customers. In contrast, one-fifth of consumers who have not interacted with the Nairobi Water Company do not know where to go or who to talk to.

There is definite room for improvement in the area of communication between water companies and consumers. Increased communication on reforms is also necessary as the majority of residents are unaware of policy changes.

Synopsis of Sanitation

Residents of all three cities express high dissatisfaction with sanitation facilities. This is an area where policymakers and service providers need to increase their focus, especially in terms of options for the poor. One-third of the poor in Nairobi-- and the majority of the poor in Mombasa and Kisumu - use pit latrines as their main source of sanitation.

The current policy framework on sanitation does not recognize or regulate pit latrines, even though they are used by the majority of Kenya's urban poor. As a result, there are no pit latrine by-laws for technical standards or effluent disposal.

In terms of sanitation improvements, residents in Nairobi, Kisumu and Mombasa are asking for more public toilets and increased coverage of the sewerage network.

Synopsis on Solid Waste

Like sanitation, satisfaction with solid waste management is much lower than water. The non-poor depend on private operators for solid waste collection. However, the vast majority in Kisumu and Mombasa burn or throw their rubbish in open spaces. Like sanitation, solid waste management has serious public health implications and progress will be slow without significant policy intervention and adequate investment.

Both the sanitation and solid waste sectors could benefit greatly from serious reforms that outline clear revenue streams and by-laws; provide institutional clarity on roles and responsibilities;

and ensure that everyone, especially the poor, have access to services. The current picture we have of the sanitation and solid waste options is that options are substandard or limited and not coordinated for the greater public good.

As a collaborative tool, the CRC will be discussed in detail and used as a basis for continued interaction among citizen groups, service providers and policy makers. The authors hope that this interaction contributes to marked improvements in services. The stakeholders intend to issue the second Citizen Report Card on water and sanitation services in two years to see how far we have come and to continue working together towards the same goal--better services for all.



Ministry of Water and Irrigation



The Kenya Alliance of Resident Associations Nairobi



SANA International Kisumu



Ilishe Trust Mombasa



Coordinated by