Half empty or half full?

Water, sanitation and hygiene in Kenya

1. Introduction

Water is among the most fundamental requirements for life, historically recognised in both national and international priorities and targets, from the Millennium Development Goals (MDGs) to Kenya's National Development Blueprint, Vision 2030. Water is the subject of Sustainable Development Goal 6, with a total of eight targets to be achieved by 2030. In line with SDG 6 targets 1 to 4, Kenya in its Vision 2030 aims to "ensure that improved water and sanitation are available and accessible to all."

Achieving this calls for concerted efforts from the government and others to expand access to water and sanitation services. The key challenge lies not in reaching those close to the existing piped networks or in areas with relatively high rainfall, but in reaching the most excluded especially in remote rural areas. Constitutionally, county governments are now responsible for the provision of water services. At the national level, the Ministry of Water and Irrigation has the mission to "contribute to national development by promoting and supporting integrated water resource management to enhance water availability and accessibility".

This brief presents data on citizens' access to water services and related topics. Is progress being made towards universal access? What are the main challenges that households have to overcome in order to access clean and safe water? Do citizens feel services are improving or getting worse?

Data for this brief come from Twaweza's flagship *Sauti za Wananchi*, which is a nationally-representative, high-frequency mobile phone panel survey. Information on the overall methodology is available at www.twaweza.org/sauti. For this brief data were collected from 1,741 respondents from the Kenyan *Sauti za Wananchi* panel. This was the eighth round of calls to the panel, conducted between 5 and 28 November 2016.

The key findings are:

- Two in three Kenyan households get their drinking water from an improved source

This brief was written and produced by Twaweza East Africa.
Data were collected by Ipsos Kenya. Released March 2017

P. O. Box 13784-00800, Nairobi, Kenya
t: +254 715 563720, +254 786 563722
e: info@twaweza.org | www.twaweza.org/sauti

Twaweza ni sisi

- Access to clean and safe water appears to be declining slowly in urban areas, but is improving in rural areas
- The task of collecting water is borne primarily by women and children in over nine in ten households
- Three in four households use rainwater as a supplement to other sources, but in most cases, rainwater runs out within a week
- In rural areas, the biggest challenge in accessing clean and safe water is the distance to water points
- In urban areas, the biggest challenge is irregular water supplies
- Two in three households treat their water in some way before drinking
- Six in ten citizens are dissatisfied with their county government's handling of water services

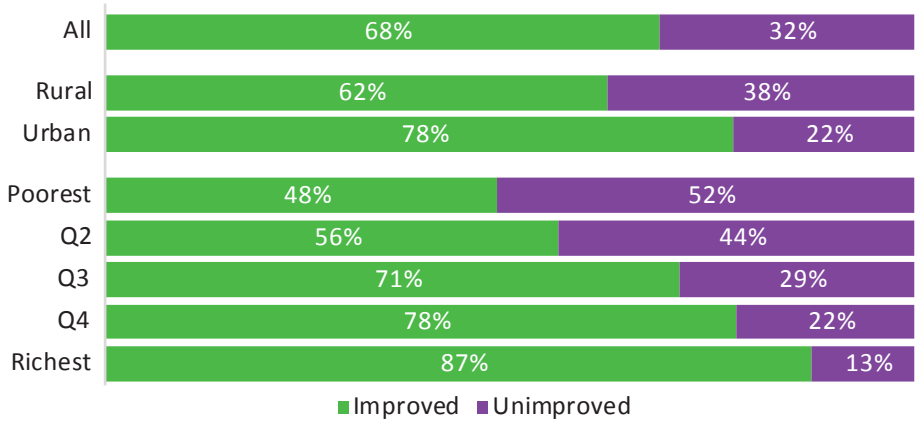
2. Nine facts about water and sanitation in Kenya

Fact 1: 68% of Kenyan households use an improved water source

Seven out of ten households (68%) in Kenya get their drinking water from an improved[1] water source. Piped water, protected wells and springs, and rainwater collection are classified as improved sources, as defined by nationally and internationally recognised standards.

In urban areas, eight in ten households (78%) have access to clean and safe water compared to six in ten households (62%) in rural areas. There is a clear link with wealth, with 87% of the richest households having access compared to 48% of the poorest households.

Figure 1: "What is the main source of drinking water for members of your household?"



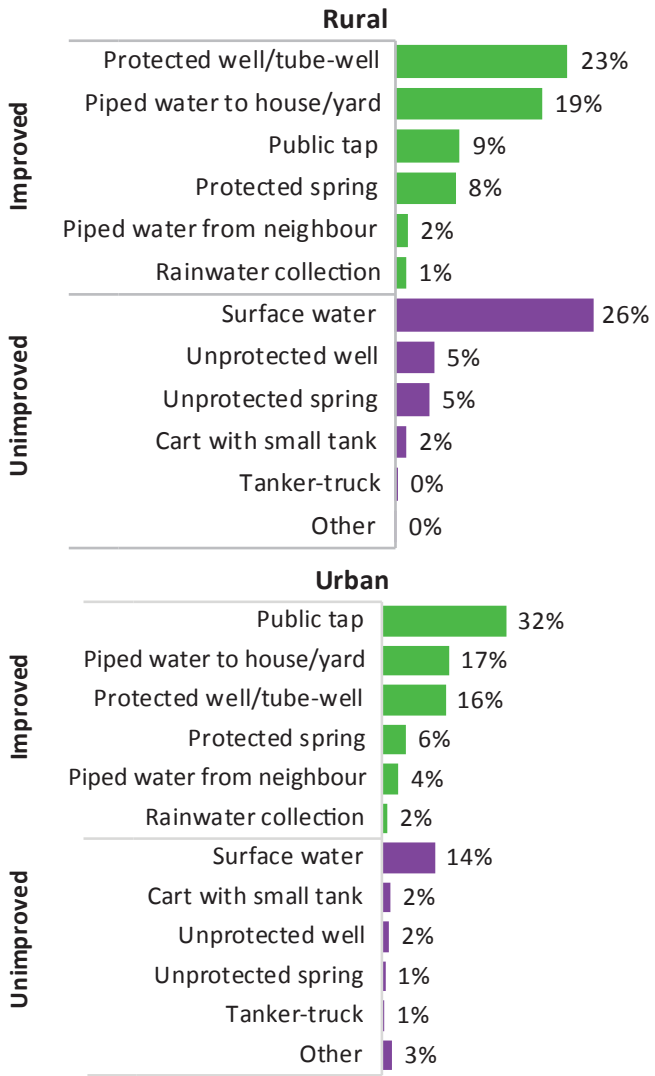
Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

1 As defined by the World Health Organisation (WHO) and UNICEF – see https://www.wssinfo.org/definitions-methods/watsan-categories/

Breaking down these figures further, in rural areas 31% of households use surface water such as a river, lake or dam water; 23% use protected wells; and 30% have access to a piped source as their main source of drinking water.

In urban areas, piped water (53%) is the most common source of drinking water: 32% use public taps, 17% have piped water into their dwelling or yard and 4% use a neighbour's piped supply. In both urban and rural areas, at most 2% of households harvest rainwater for use as their main source of drinking water.

Figure 2: "What is the main source of drinking water for members of your household?"

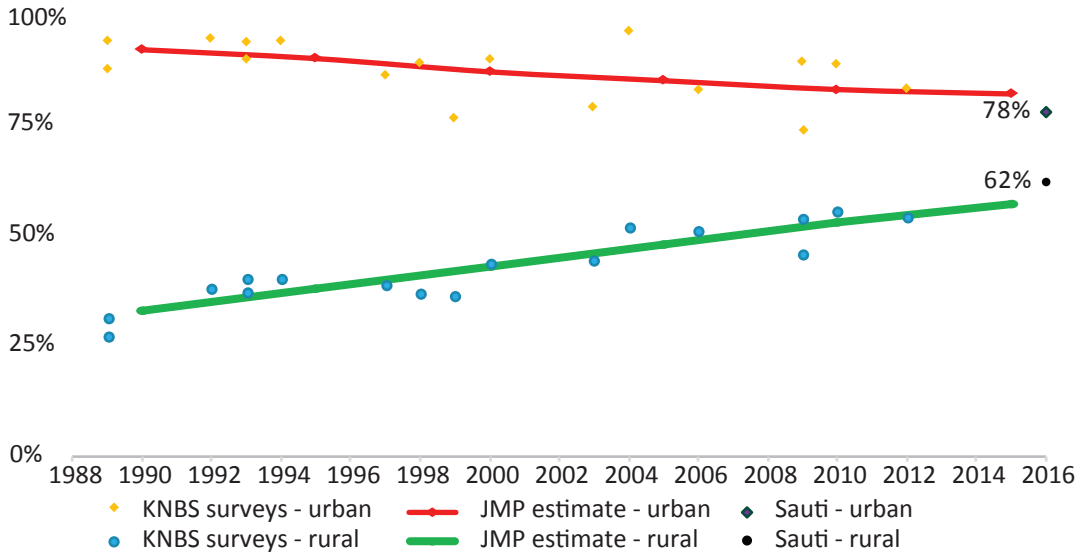


Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Fact 2: Access to clean and safe water is increasing in rural areas and declining in urban areas

We can compare the data in this brief with data previously collected by the Kenya National Bureau of Statistics (KNBS)2, and with estimates compiled by the Joint Monitoring Programme (JMP) of UNICEF and the World Health Organisation[3]. *Sauti za Wananchi* data confirm the slow decline in the level of access to clean and safe water in urban areas of Kenya, from around 90% in 1990 to around 80% currently. There has concurrently been a steady rise in access in rural areas from around 35% to around 60%. The decline in access in urban areas could be due to the high rate of population growth in Kenya's towns and cities with infrastructure failing to keep pace.

Figure 3: Access to improved water sources since 1989, urban and rural



Source of data: *KNBS and JMP[4]; and Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*

Base for Sauti data: *All respondents, n=1,741*

2 Census (1989); Demographic & Health Survey (1989); Welfare Monitoring Survey (1992); Demographic & Health Survey (1993); Welfare Monitoring Survey (1993); Welfare Monitoring Survey (1994); Core Welfare Monitoring Questionnaire (1997); Demographic & Health Survey (1998); Census (1999); Multiple Indicator Cluster Survey (2000); Demographic & Health Survey (2003); World Health Survey (2004); Kenya Integrated Household Budget Survey (2006); Demographic & Health Survey (2009); Census (2009); Malaria Indicator Survey (2010); Kenya Aids Indicator Survey (2012). Available from https://www.wssinfo.org/documents/.

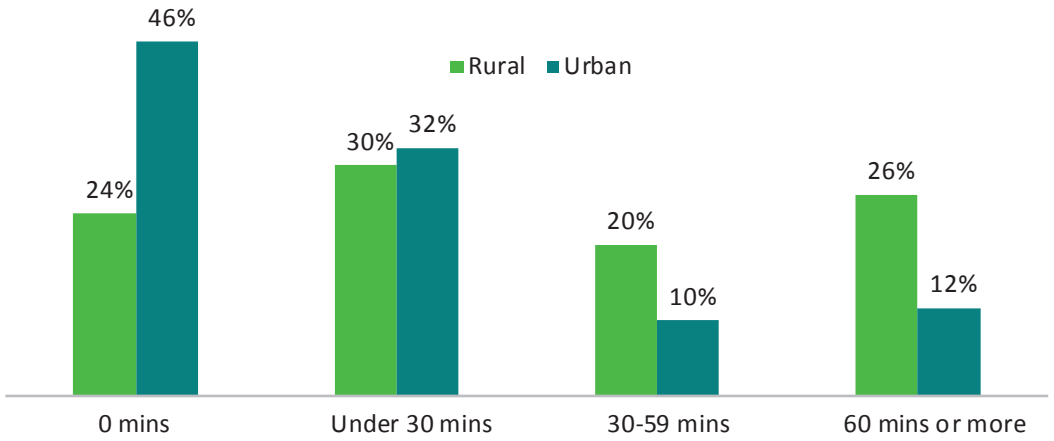
3 Based on the KNBS survey data. JMP data available from https://www.wssinfo.org/documents/.

4 See https://www.wssinfo.org/documents/.

Fact 3: One in four rural households need an hour or more to collect water

In rural Kenya the time spent collecting water is much longer than in urban areas: one in four households (26%) spend an hour or more; one in five (20%) households spend between 30 and 60 minutes while slightly more than half (54%) are able to get their water within a 30-minute period. In urban areas, the majority of households (78%) are able to collect water within 30 minutes, while 12% of households spend an hour or more.

Figure 4: "How long does it take to get to this water source, collect water and come back?"



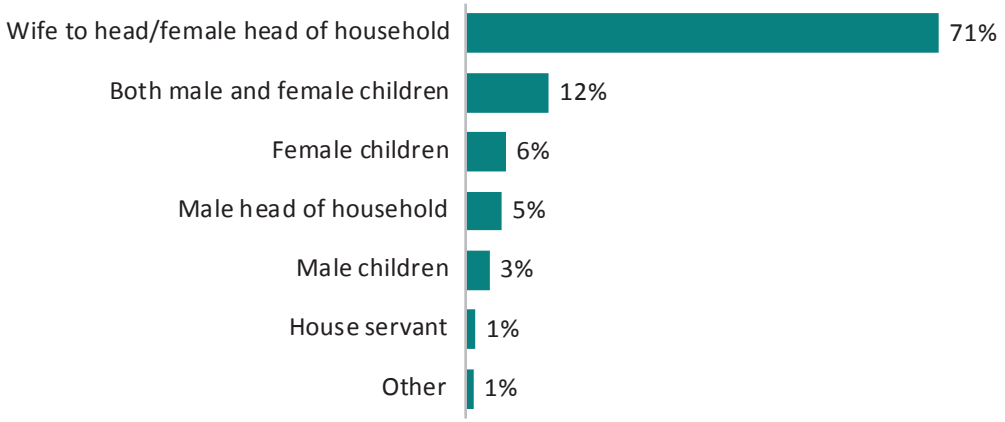
Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Fact 4: In 92% of households, women and children collect the water

For seven in ten (71%) Kenyan households, the responsibility for collecting water is borne by either the female head of household or wife to the head of household. In a further two in ten (21%) households, the responsibility falls on children. There is no significant difference in these figures between urban and rural areas.

It should be noted that these data are based on household members' own reporting of who is responsible, rather than on observation. It may be that in a greater number of these cases, the actual task of collecting water is carried out by children or domestic workers, but the adult women in the household direct this work and it is felt to be their responsibility.

Figure 5: "Who in your household is the person responsible for collecting water?"

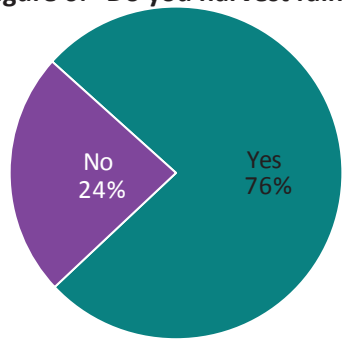


Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *Households without piped water onto premises, n=1,121*

Fact 5: Three in four households harvest rainwater to supplement other sources

Three quarters of Kenyan households (76%) report that they harvest rainwater, though just 2% of households use this as their main source of drinking water.

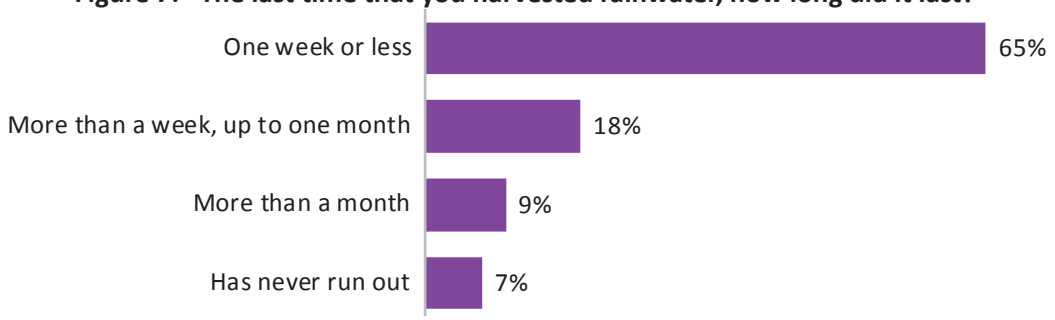
Figure 6: "Do you harvest rainwater?"



Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Among those who use rainwater as either their main or a supplementary source, 65% state that the collected water lasted for one week or less.

Figure 7: "The last time that you harvested rainwater, how long did it last?"

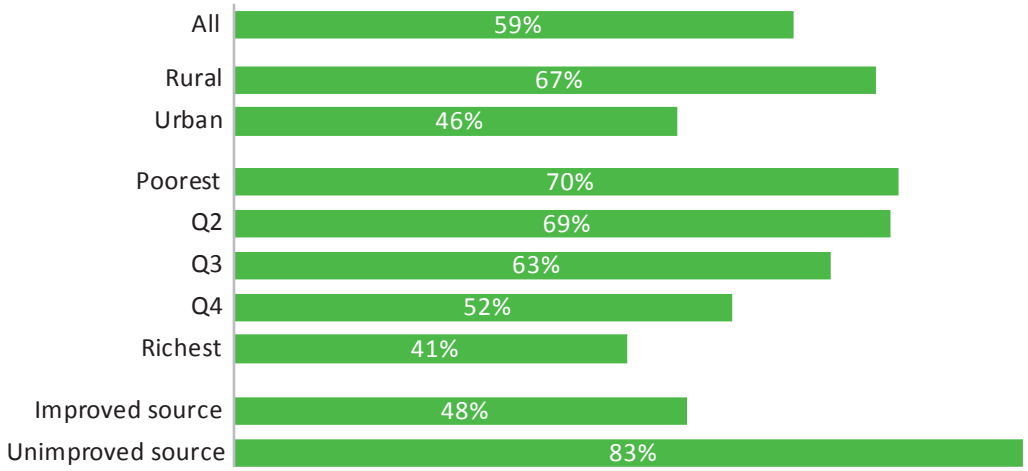


Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *Including only those households that sometimes harvest rainwater, n=1,194*

Fact 6: Six in ten households do not pay for their water

Fewer than half (40%) of Kenyan households pay for the water they use. This figure is higher in urban areas (51%) than rural (32%), and higher among richer households (55%) than poorer households (31%). Noticeably, payment for water is closely linked to whether or not a household uses an improved water source: one in six (17%) who use unimproved sources pay, compared to half of households (52%) using improved sources.

Figure 8: "Do you pay for water?"
(% answering "no")



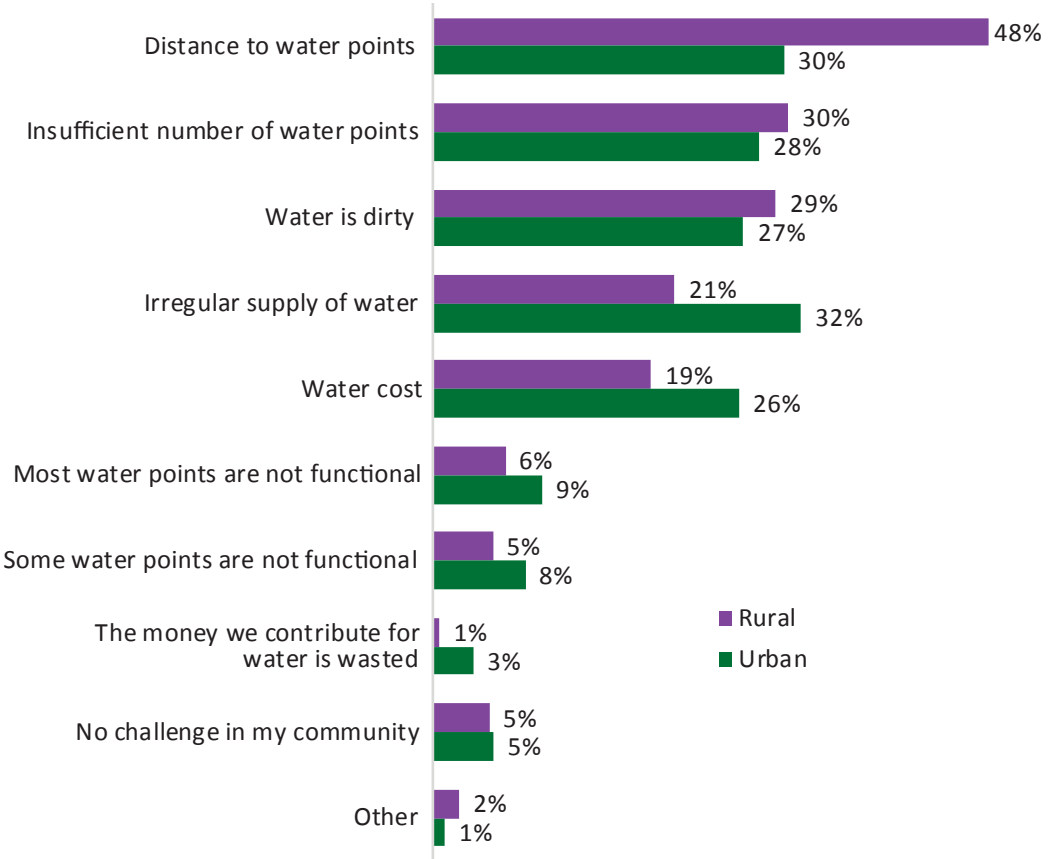
Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Fact 7: In rural areas, the distance to water points is the biggest challenge

In rural Kenya, citizens named the two biggest challenges facing their community in accessing clean water: half (48%) pointed to the distance to water points; three out of ten (30%) cited the lack of water points; and a similar number (29%) complained about dirty water.

In urban areas, irregular supply (32%) and distance to water points (30%) were mentioned as being amongst the two biggest challenges facing communities in accessing clean drinking water. Insufficient water points (28%) and dirty water (27%) were also cited by many, along with the cost of water (26%).

Figure 9: "What are the two main challenges your community faces in accessing clean drinking water?"



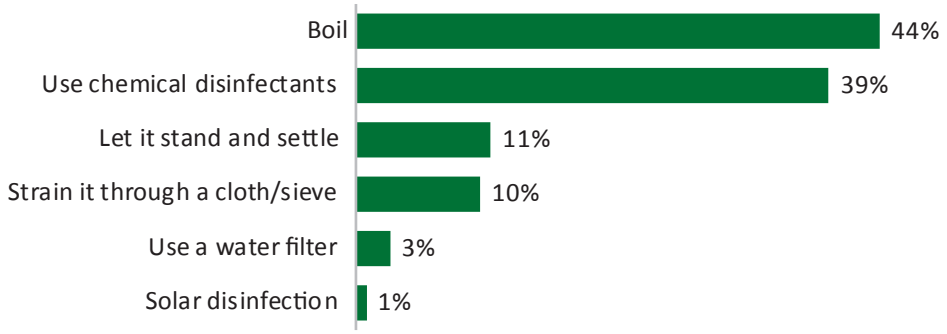
Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Fact 8: Two in three households treat their water before drinking

Two thirds of Kenyan households (65%) report treating their water before drinking, while 35% do not. Four in ten households report boiling water (44%), and using chemical disinfectants (such as WaterGuard) (39%). One in ten (11%) let it stand and settle or strain the water through a cloth or sieve (10%)[5].

5 World Health Organization standards and guidelines on water treatment: http://www.who.int/water_sanitation_health/hygiene/om/linkingchap6.pdf

Figure 10: "Do you do anything to the water to make it safer to drink?" (% mentioning the following)



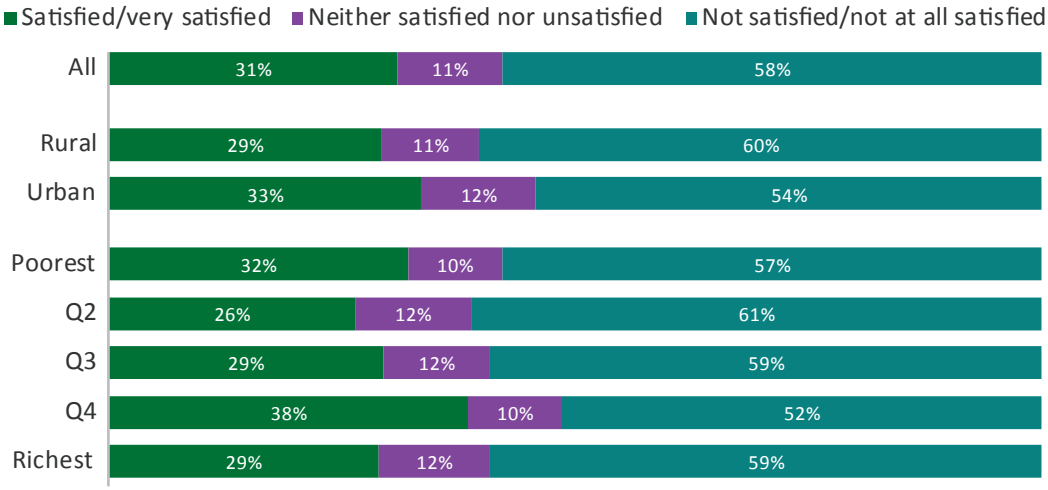
Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Among those households (35%) who don't practice water treatment of any kind, two thirds (63%) think their water is safe for drinking, while one quarter (23%) say they lack the resources to treat their water.

Fact 9: Six in ten citizens are unhappy with their county government's delivery of water services

Six in ten Kenyans (58%) are dissatisfied with how their county governments are providing water services. The differences between urban and rural areas and also between poor and rich households are small.

Figure 11: "How would you rate your county government in terms of providing water services to you and your household?"

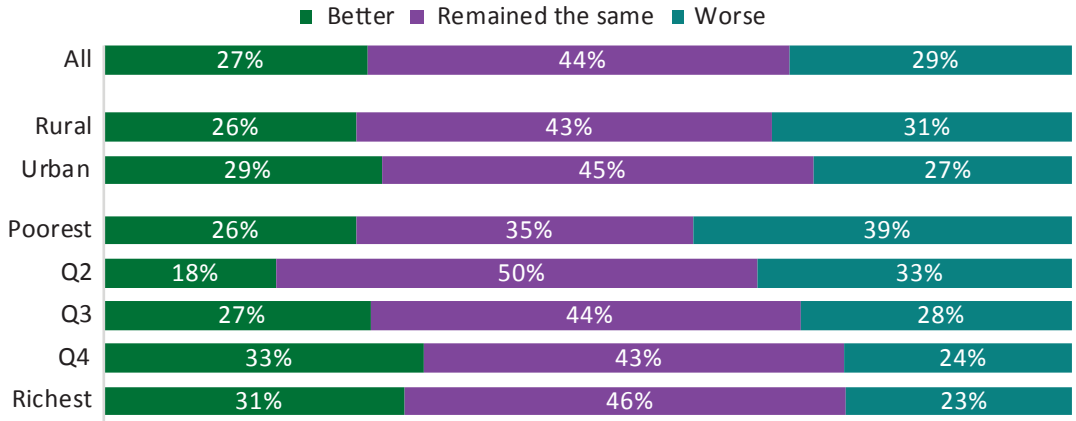


Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

Kenyans are split on whether access to clean and safe water has improved or gotten worse over the past twelve months, with three in ten (29%) saying things had gotten worse and a similar number (27%) saying there had been an improvement.

There is a difference between the rich and the poor, with poorer citizens (39%) more likely than wealthier Kenyans (23%) to say that things are getting worse.

Figure 12: "If you reflect on the past 12 months, has your access to clean and safe water gotten…:"



Source of data: *Sauti za Wananchi Mobile Phone Survey – (5 – 28 November 2016).*
Base: *All respondents, n=1,741*

3. Conclusion

Kenya's National Vision 2030 and the (global) Sustainable Development Goals both set the admirable goal of universal access to improved water and sanitation services by 2030. This was never likely to be an easy target, but this brief shows just how difficult it will be, in four main ways.

First, although there has been steady progress in improving access to clean and safe water in the rural areas of Kenya, from around 35% of households with access in 1990 to around 60% now, this rate of increase will not be sufficient to meet the universal access goal. With current trends, it will take around 40 years to reach this goal. And in practice, easy to reach communities are likely to be served first meaning that even maintaining the current rate of increase will become more challenging. In addition, although rural access is increasing, it still takes rural Kenyans significantly longer to collect water.

Second, this brief provides further evidence to back up the conclusion of the UNICEF and WHO's Joint Monitoring Programme for water and sanitation that access to clean and safe water in urban Kenya has been declining for the past 25 years. Although, they do find that

overall access to clean and safe water in Kenya increased from 37% in 2009 to 63% in 2015. Water provision and infrastructure have not been expanded sufficiently to keep pace with rapid population growth in urban areas. This does not bode well for the future as more and more citizens find themselves drawn towards Kenya's cities, which already contain dense, underserved populations.

Thirdly, water is a fundamentally gendered issue. It is the women who bear primary responsibility for ensuring that households have water. Yet women are often side-lined in public debate, so their demands are not heard. Thus issues such as distance to water points, insufficient numbers of water points persist.

Fourth, inequalities by wealth are significant across the board. The richest 20% of the population are almost twice as likely to have access to an improved water source than the poorest 20%. The poorest are also more likely to think that access to water has declined in the past 12 months.

Consequently, it is not surprising that Kenyans are concerned about the state of their water and sanitation services. A clear majority (58%) are dissatisfied with the services provided by their county government.

We cannot meet our targets for water and sanitation with the current rate of progress. Although there are achievements to celebrate there is no room for complacency. Technology driven water point monitoring, community-based water point management and innovations in urban planning could all contribute to new approaches in the sector. The success in expanding rural access provides a firm foundation to build on to make universal access a reality.