



# Water, sanitation and hygiene in Kebridehar, Somali

## Baseline survey factsheet

In November 2014, a baseline survey for the One WASH Plus programme was undertaken in Kebridehar town, Somali Region. This factsheet presents a summary of the key findings relating to water supply, sanitation and hygiene infrastructure and the services received by households and available at public institutions.

### Key findings

Coverage of the town water supply system is low, as is the functionality of the system.

Household coverage with improved sanitation facilities is reasonably high.

Schools and health institutions all lack sanitation and facilities, and most do not have water connections either.

### Kebridehar is a major town in the Somali Region of Ethiopia with a population of 35,807 people (CSA projection to July 2014).

The most common livelihood in the town according to baseline survey responses is 'day labourer' representing 38% of those surveyed. A relatively large proportion of the population (59%) has a monthly income of more than 1,000 Birr, while only 13% reported a monthly income below the 500 Birr/month poverty line.

Public institutions in the town include nine schools and three health facilities.

14% of households in Kebridehar town indicated that at least one household member had suffered from diarrhoeal disease over the last two weeks.



# Water services

Less than a quarter (23%) of households report using a piped supply as their main source of water in the dry season. More than half of households take their main dry season supply from a *birka*. While normally filled from the piped supply this has important consequences for water quality management. Some 12% of households depend on secondary water providers (tanker trucks or water vendors with carts).

Table 1 Main source of household water supply in the dry season		Urban
	Piped water into dwelling	4%
	Piped water to yard/plot	18%
	Public tap or standpipe (public fountain)	1%
	Communal protected dug well / tubewell or borehole with handpump	3%
	Rain water	3%
	Communal unprotected dugwell	1%
	Private unprotected dugwell	1%
	Birka	54%
	Tanker truck	9%
	Cart with small tank/drum	3%
	Don't know	3%

## Water Infrastructure

Kebridehar has a piped water supply system, which is managed by the Kebridehar town water utility.

Table 2 Key features of urban piped water system	
Number of sources	5
Number of reservoirs	4
Total storage capacity (m3)	900
Number of household connections	1000
Number of public standpipes	22
Number of commercial connections	1
Institutional connections: schools (n.a.), Health (n.a.), Other public connections (n.a.), Industrial connections (n.a.), Other connections (n.a.)	

In addition to 1,000 household connections and 22 public standposts, there is a commercial connection to a company that bottles 'mineral' water.

## Functionality of infrastructure and service levels

Functionality of the piped system is a critical issue. Out of the five boreholes that supply the piped system, only two are functioning. The other three have been non-functional for over a year because of technical problems with the source. Also some of the reservoirs are not in service.

Only four of the 22 standposts were functioning at the time of the survey, while the other standposts have been non-functional for the entire year.

Perceived water quality from the functional standposts is acceptable and all of five water samples (one standpost and four birkas) had an E. coli count of less than 10MPN/100ml i.e. present low risk.

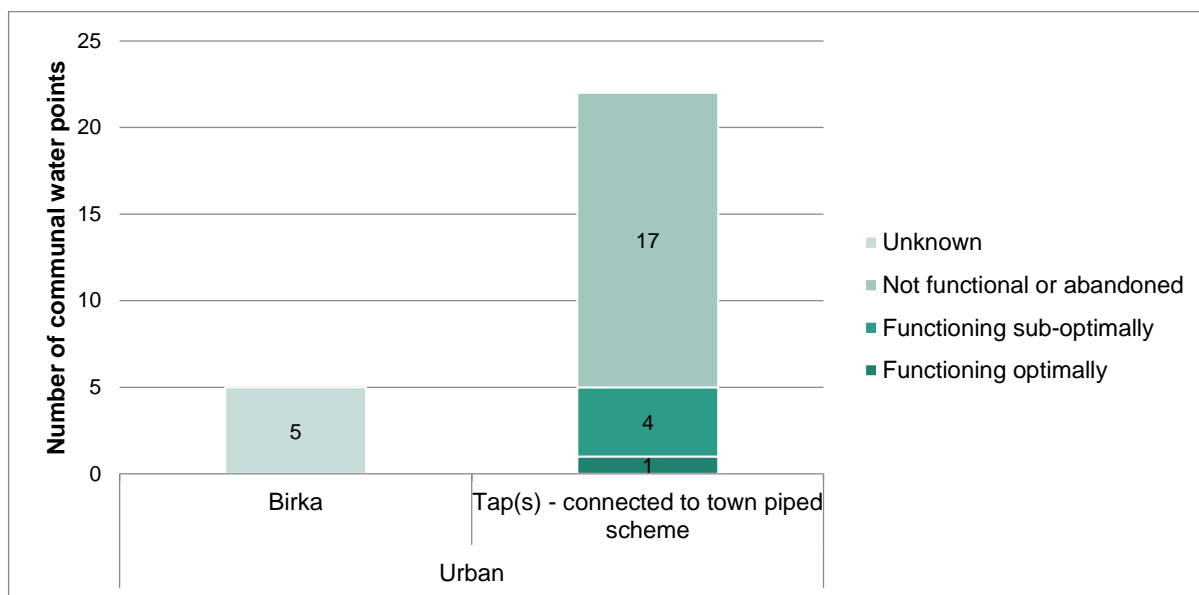


Table 3 Water points: key service indicators	Urban
Average % days per year that the water point is functional	33%
Average % households using water point living within 500m	88%
Proportion of water points without queues of less than 10 people	100%
Proportion of water points with perceived acceptable quality	90%
Water points with low microbial contam. (E.coli <10 MPN/100 ml)	100%
Average sanitary inspection score	

The proportion of households assessed to have reliable water services was low, and user satisfaction was also low on this indicator.

Table 4 Water service level accessed by households	Urban
Reliability (source available year-round and breakdowns < 3 days)	34%
Spend less than 30 minutes on a round trip to fetch water	100%
Queues for 30 minutes or less	75%
Odour, colour, taste perceived acceptable	75%
At least 20 litres per person	38%

Table 5 User satisfaction with water services	Urban
Satisfied with reliability	69%
Satisfied with distance	79%
Satisfied with time	74%
Satisfied with quality	88%
Satisfied with quantity	75%

Water use was found to be low as well, with only around a third of households (38%) using at least 20 litres per capita per day (lpcd).



Photo: Traditional birkas provide additional storage of water

# Sanitation and hygiene

Overall access to sanitation facilities is high in Kebridehar. The majority of households (74%) use improved latrines. Only 3% of households reported to practice open defecation.

Table 6 Household access to sanitation	Urban
Improved latrine	74%
Pit latrine without slab	14%
Private latrine/ toilet owned by neighbour	7%
Public latrine	1%
Bush/ open defecation	3%

preparing food, before feeding a baby, after cleaning a baby, after touching something dirty).

However, only 16% of interviewees washed their hands with water and soap or ash when asked to show how they wash their hands.

## Level of service provided and user satisfaction

Although 74% of households use improved sanitation facilities in Kebridehar town, only 55% of households use latrines which have walls and a door which provide privacy. Additionally, only 3% of households stated that their latrines have ever been emptied.

## Liquid waste management

The Municipality is responsible for liquid waste management. However, there is no liquid waste collection, transportation or treatment facility in Kebridehar.

Table 7 Sanitation service level accessed by households	Urban
Latrine with wall and door	55%
Latrine is clean without many flies	86%
Latrine separates user from faeces	89%
Human waste is collected	3%

## Solid waste management

In the town, waste from 59% of households is collected and taken away on a regular basis, while about a third of households burn their solid waste. Collection is not organised by an informal enterprise with operators using donkey carts or carts and are paid on a daily basis.

Table 8 User satisfaction with sanitation services	Urban
Satisfied with privacy	91%
Satisfied with cleanliness	90%
Satisfied with comfort	82%
Satisfied with safety	92%

Nevertheless, the majority of households expressed satisfaction with their sanitation facilities. 82% and 92% of households expressed satisfaction with the comfort and the safety of their sanitation services respectively.

## Handwashing practices

89% of households reported that they practice handwashing at all six critical moments (before eating, after defecation, before

# Institutional WASH

Kebridahar's hospital has piped water supplies but the two health posts are not connected to piped system. Out of the nine schools, only four have a piped water connection.

**Table 9 Institutional sanitation**

Urban		
	Health facility	Schools
Number of institutions	3	8
with latrines with walls and doors	0	0
with latrines that are clean	0	0
with latrines separating faeces from user	0	0
where human waste is collected	0	0
with ALL of the above	0	0
with menstrual disposal	1	0
with separate facilities for males and females	0	0
with all males reported to use the facilities	0	0
with all females reported to use the facilities	0	0

The other schools and health facilities depend on other arrangements such as water supply from vendors with carts.

None of the schools and health facilities have toilets for the students and patients. Schools

and health facilities burn solid waste within their compound.

## Conclusions

- Coverage of the town piped water supply system is low, with only 23% of urban households being supplied according to the survey;
- The piped water scheme was functioning far from optimally, with only four of 22 standpipes providing water at the time of the survey;
- Only 38% of households use at least 20 lpcd water;
- Coverage with improved sanitation facilities is reasonably high for households although privacy and waste collection could be improved. Only 3% of households report practising open defecation;
- Schools and health institutions all lack sanitation facilities, and most also lack proper water supplies;
- Solid waste is mainly disposed of through collection of the waste and through burning.





## About One WASH Plus

Further information on baseline study findings from Kebridehar and other towns are discussed in the main baseline report. This report is available from UNICEF.

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### Planned One WASH Plus interventions in Kebridehar

**The approach being developed under the One WASH Plus project includes an integrated package of improvements to water, sanitation and hygiene infrastructure and services.**

**Improvements planned to water supplies include phased development of the source of water, pipelines and pumping, storage facilities and distribution network. Rehabilitation of existing boreholes is expected to provide sufficient water supplies. Capital investment costs are estimated at US\$2.4 million.**

**A sanitation master plan has been developed for the town with plans to improve sanitation facilities at public institutions (schools and health facilities), new communal latrines built where households are unable to construct their own in the congested centre of town, and new solutions found for solid and liquid waste collection and disposal including sites for landfill and sludge treatment.**

**Integrated promotion of sanitation and better hygiene practices and improvements in waste management are expected to lead to better living conditions and health improvements.**