



# Water, sanitation and hygiene in Welenchiti, Oromia

## Baseline survey factsheet

In October 2014, a baseline survey for the One WASH Plus programme was undertaken in Welenchiti town, Oromia and some of the surrounding satellite villages (the survey included Tiri Bireti, Digalu Wanga and Tadacha kebeles). 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 high but the system functions sub-optimally and services levels are low in terms of continuity, quality and quantity.

Coverage in the selected satellite villages (mainly from piped supplies) is also high but with similar service level concerns.

Coverage with latrine facilities is lower than water supplies in both urban and rural areas, with open defecation common especially in the satellite villages.

Some schools and health institutions lack sanitation facilities and all need to improve quality and sustainability of facilities.

**Welenchiti is the principal town in Boset woreda of Oromia located in the Rift Valley and along the busy Addis Ababa-Djibouti road. The newly reconstructed railway will also pass through the town. The woreda has an estimated urban population of 21,269 (fraction of CSA population projections to July 2014; woreda total urban population 37,142). The town has two kebeles (named 01 and 02).**

Urban livelihoods are diverse with around a third (36%) still dependent on farming, informal or formal business and trade sustaining a further third (34%) and day labouring and formal employment also significant. According to the baseline survey the average annual household income is 10,885 Birr. Of the 49 households in Welenchiti town that provided data on their income, 39% reported a monthly income below 500 Birr, 35% between 500 and 1,000 Birr and 27% over 1,000 Birr.

The main source of livelihood of households in the surrounding satellite villages is farming (98% households). Of the 35 rural households that provided data on their income, 23% reported a monthly income below 500 Birr, 34% between 500 and 1,000 Birr and 43% over 1,000 Birr.

Public institutions in the town include seven schools, a health facility, and the prison. In the satellite villages there are a further three schools and two health facilities.

10% of households in Welenchiti town and 10% in the surrounding rural areas indicated that at least one household member had suffered from diarrhoeal disease over the last two weeks.

# Water services

Nearly all households in the town are served by the piped water supply system with 47% citing piped water to yard/ plot as their main source in the dry season and 52% using public standpipes. In the neighbouring kebeles, most households collect water from public standpipes (98%).

	Total	Rural	Urban
Piped water to yard/plot	32%	2%	47%
Public tap or standpipe (public fountain)	67%	98%	52%
Rain water	1%	0%	1%

## Water infrastructure

Welenchiti town has a piped water supply system which is managed by the town water supply and sewerage services. The system comprises six boreholes, three reservoirs, pipelines, public standposts and a large number of household and commercial connections

Number of sources	6
Number of reservoirs	3
Total storage capacity (m3)	200
Number of household connections	1673
Number of public standpipes	38
Number of commercial connections	189
Institutional connections: schools (9), Health (1), Other public connections (13), Industrial connections (0.), Other connections (8)	

In the satellite villages, motorised deep wells and water points connected to the multi-woreda (Gimbichu - Fantale) water supply system serve some villages while others are connected to the Welenchiti town system.

Tap(s) - connected to deep well with limited distribution	2
Tap(s) connected to spring with limited distribution	1
Tap(s) - connected to piped scheme	1

## Functionality of infrastructure and service levels

Although there are many connections and public standpipes, functionality is a concern. Less than half the public water points were functioning optimally at the time of the survey. Supply is intermittent in the town with standposts functioning just over half the days in the year (on average 52% of days). Many users of public standposts have to walk more than 500 metres (67% are within 500 m) where queues are often long (only 8% of water points with typically queues less than 10 people). Only around half of households said they use 20 litres per capita per day (lpcd).

Measured microbial water quality also raises concerns about water quality in the town with three of five samples exceeding low risk E. coli levels of 10 MPN/100ml. Water quality was, however, perceived as acceptable by users. Fluoride contamination levels, although not surveyed in baseline, are also known to be high in the area.

In the satellite villages service levels are similar to the town with many water points not reliable, many users travelling further than 500 m and only around half of the households using the norm of 15 lpcd.

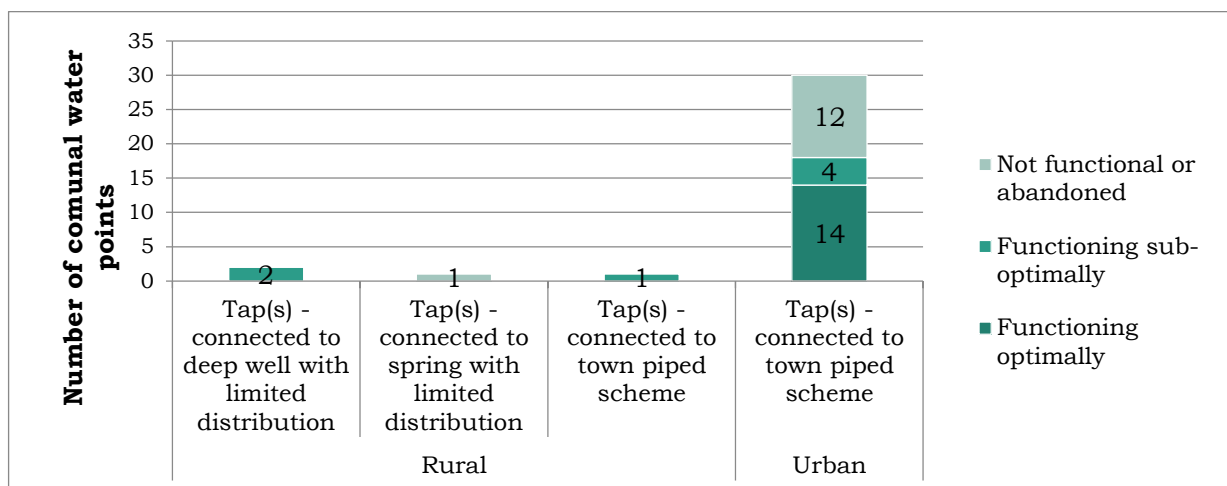


Photo: IRC

	Rural	Urban
Reliability (source available year-round and breakdowns < 3 days)	4%	1%
Spend less than 30 minutes on a round trip to fetch water	50%	58%
Queues for 30 minutes or less	4%	7.5%
Odour, colour, taste perceived acceptable	98%	100%
At least 15 litres per person in rural areas and 20 in urban areas	51%	56%

User satisfaction scores are low for all aspects of service, with the exception of water quality, which is perceived to be satisfactory. In both the town and satellite villages alike, aspects such as reliability, distance, time to collect water and quantity of supply are all around 20-45% with most users not being satisfied.

	Rural	Urban
Average % days per year that the water point is functional	58%	52%
Average % households using water point living within 500m	50%	67%
Proportion of water points without queues of less than 10 people	0%	8%
Water points with low microbial contam. (E.coli <10 MPN/100 ml)	100%	100%
Average proportion of water points with low or intermediate risk (E.	100%	40%

Three of the four water points sampled for water quality testing had low risk supplies (E. coli less than 10 MPN/100 ml).

	Rural	Urban
Satisfied with reliability	31%	19%
Satisfied with distance	39%	46%
Satisfied with time	25%	29%
Satisfied with quality	96%	99%
Satisfied with quantity	33%	27%

# Sanitation and hygiene

84% of Welenchiti residents have a latrine, although only 35% of households have an improved facility (e.g. with slab) and a small minority (8%) rely on open defecation. In rural areas, less households (57%) have a latrine and these are mainly unimproved and a much greater number of households (37%) practise open defecation.

Table 7 Household access to sanitation	Total	Rural	Urban
Pit latrine with slab	28%	14%	35%
Other improved sanitation facility	1%	2%	0%
Public latrine	1%	0%	1%
Use in school latrines	1%	2%	0%
Private latrine / toilet owned by neighbour	3%	0%	5%
Flush/pour flush to elsewhere	1%	2%	0%
Other unimproved sanitation facility	1%	0%	1%
Pit latrine without slab	47%	43%	49%
Bush/ open defecation	18%	37%	8%

## Level of service provided and user satisfaction

While many households in Welenchiti town have a latrine, these are often without adequate privacy or dirty and none had had their latrine emptied. There is a similar situation in the satellite villages.

Table 8 Sanitation service level accessed by households	Rural	Urban
Latrine with wall and door	6.2%	21%
Latrine is clean without many flies	19%	19%
Latrine separates user from faeces	29%	36%
Human waste is collected	0%	0%

Table 9 User satisfaction with sanitation services	Rural	Urban
Satisfied with privacy	39%	50%
Satisfied with cleanliness	45%	41%
Satisfied with comfort	43%	47%
Satisfied with safety	45%	48%

Satisfaction levels (proportion of households satisfied) with sanitation were in the range 40-50% in both urban and rural areas alike for various indicators.

## Handwashing practices

40% of households reported that they practice handwashing at all six critical moments (before eating, after defecation, before preparing food, before feeding a baby, after cleaning a baby, after touching something dirty). In urban areas, the proportion is 48% and, in rural areas, it is 24%.

And only 6% of interviewees washed their hands with water and soap or ash when asked to show how they do it. In urban areas, the proportion was 4% and in rural areas, 10%.

## Liquid waste management

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

## Solid waste management

In the town, 9% of households indicated that their solid waste is collected and taken away on a regular basis, while most of the households in the rural areas dump their solid waste in pits or garbage piles (63%) or burn it (20%). In the rural areas households mainly dispose of their solid waste by dumping it in a pit or garbage pile (43%) or in their garden or compost pile (37%).

There is one micro enterprise involved in solid waste management in the town. This enterprise has three staff members and some 475 clients. The collected waste is burned.

# Institutional WASH

With the exception of one health facility in the village of Fato, all public institutions had access to the piped scheme as the main source of their water supply. Although all rural schools have sanitation facilities, only four of the seven schools have sanitation facilities that separate users from faeces.

Table 10 Institutional sanitation

	Rural		Urban		
	Health facility	Schools	Health facility	Prison	Schools
Number of institutions	2	3	1	1	7
with latrines with walls and doors	1	3	1	0	2
with latrines that are clean	0	1	0	0	0
with latrines separating faeces from user	1	3	1	0	4
where human waste is collected	0	0	0	0	1
with ALL of the above	0	0	0	0	0
with menstrual disposal	0	1	1	0	1
with separate facilities for males and females	1	2	0	0	3
with all males reported to use the facilities	1	3	1	0	2
with all females reported to use the facilities	1	2	1	0	3

Both town and satellite village school sanitation facilities could be improved in terms of privacy, cleanliness (only one rural school had clean toilets) and sustainability (only one town school had pits emptied). Only one town and village school provided facilities for

menstrual waste disposal. One of the urban health facilities also lacks sanitation and existing facilities at other sites were also found not to be clean.

## Conclusions

- Coverage of the town water supply system is high, with 99% of urban residents having access to an improved source (public taps and piped water to the yard or plot provide about half the supply each) but the water supply system functions sub-optimally with water points operating around half of the time and only 56% urban households use at least 20 lpcd water;
- Measured microbial water quality (E. coli) was unsafe for most of the samples taken in the town;
- Water services in the surrounding kebeles are similar to those in the town, again with very high levels of coverage but scope for improvement in service levels (only 51% of rural households using 15 lpcd);
- Coverage with latrine facilities is lower than water supplies in both urban and rural areas and facilities are often basic. Open defecation was practised by 8% of households in the town and 37% of households in satellite villages;
- Some schools and health institutions lack sanitation facilities and the rest have facilities that could be improved in terms of quality and sustainability.



## Planned One WASH Plus interventions in Welenchiti

Plans being developed under the One WASH Plus programme include supporting the town to improve operations of existing boreholes, the development of new boreholes to augment supply, around 30 kilometres of new pipelines and new and upgraded reservoirs. These will also facilitate the blending of water to manage high fluoride levels which present a health risk. It is planned to connect the satellite villages Feto, Dengalu Wanga and Dengore Tyio (with an 14,500 estimated population) to the town system or develop independent supplies.

A sanitation master plan will be developed for the town with facilities improved at public institutions (schools, health centres, prison) and places, and new solutions for solid and liquid waste disposal.

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

## About One WASH Plus

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

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