



Water, sanitation and hygiene in Sheno, Oromia

Baseline survey factsheet

In September 2014, a baseline survey for the One WASH Plus programme was undertaken in Sheno town, Oromia and some of the surrounding satellite villages (the survey included Lay Kombolcha, Mogoro, Itisa and Injifano, Zango and Adadi Mato 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 service levels are low in terms of continuity and quantity.

Water supplies in the selected satellite villages (mainly from hand-pumps) are more reliable but also with scope for improvement.

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 and water facilities and all could improve quality and sustainability of facilities.

Sheno is the main town in Kimbibit woreda of Oromia which has an estimated urban population of 16,534 according to CSA population projections (to July 2014). Hamusgabeya, one of the satellite villages is also included. After restructuring, the municipality covers two kebeles with a much higher population (total 33,081). The current population of the satellite villages is estimated by Salomon as 9,800 people.

Most of the urban population is engaged in some form of informal or formal business or trade according to the baseline survey with an average annual household income of 10,842 Birr. Most households in Sheno town have a monthly income below 500 Birr (52%), 21% 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.

Public institutions in the town include eight schools, a health facility, and the prison. In the satellite villages there are six schools and a health clinic.

5% of households in Sheno town and 6% in the surrounding rural areas indicated that at least one household member had suffered from diarrhoeal disease over the last two weeks.

Water services

The main type of supply for town households in the dry season is piped water to the yard/plot (72%) while standposts also serve many (24%). In the nearby kebeles, most households collect water from protected communal wells with handpumps (72%).

	Total	Rural	Urban
Piped water into dwelling	1%	0%	1%
Piped water to yard/plot	49%	0%	72%
Public tap or standpipe (public fountain)	21%	15%	24%
Communal protected dug well / tubewell or borehole with handpump	23%	72%	1%
Rain water	2%	6%	0%
Unprotected spring	2%	6%	0%
Communal unprotected dugwell	1%	0%	1%
Private unprotected dugwell	1%	0%	1%
Tanker truck	1%	0%	1%

Water Infrastructure

Sheno has a piped water supply system managed by Sheno town water supply and sewerage utility.

Number of sources	3
Number of reservoirs	2
Total storage capacity (m3)	200
Number of household connections	2078
Number of public standpipes	11
Number of commercial connections	102
Institutional connections: schools (12), Health (2), Other public connections (6), Industrial connections (n.a.), Other connections (0)	20

There are no alternative water supplies within the town. In the satellite villages, wells with handpumps are the most common sources. In Hamusgabeya, there is a piped system with 4 standposts.

Borehole with handpump	25
Hand dug well with handpump	8
Hand dug well without handpump	1
Tap(s) - connected to deep well with limited distribution	2
Tap(s) - connected to piped scheme	5

Functionality of infrastructure and service levels

The town system functions sub-optimally, particularly because of problems with the power supply to the boreholes. Supply is intermittent with standposts functioning just over half the days in the year (on average 53% of days). Almost half of users of public standposts have to walk more than 500 metres where queues are often long (62% of water points with typically queues of more than 10 people).

Despite the intermittent service, measured microbial water quality was found to be satisfactory in the town (five of seven samples were of low risk with E. coli up to 10 MPN/100ml and highest 13.6) and water quality was perceived acceptable by users. Most of the water points sampled in the satellite villages were of higher risk (E. coli greater than 10 MPN/100 ml in four of five samples).

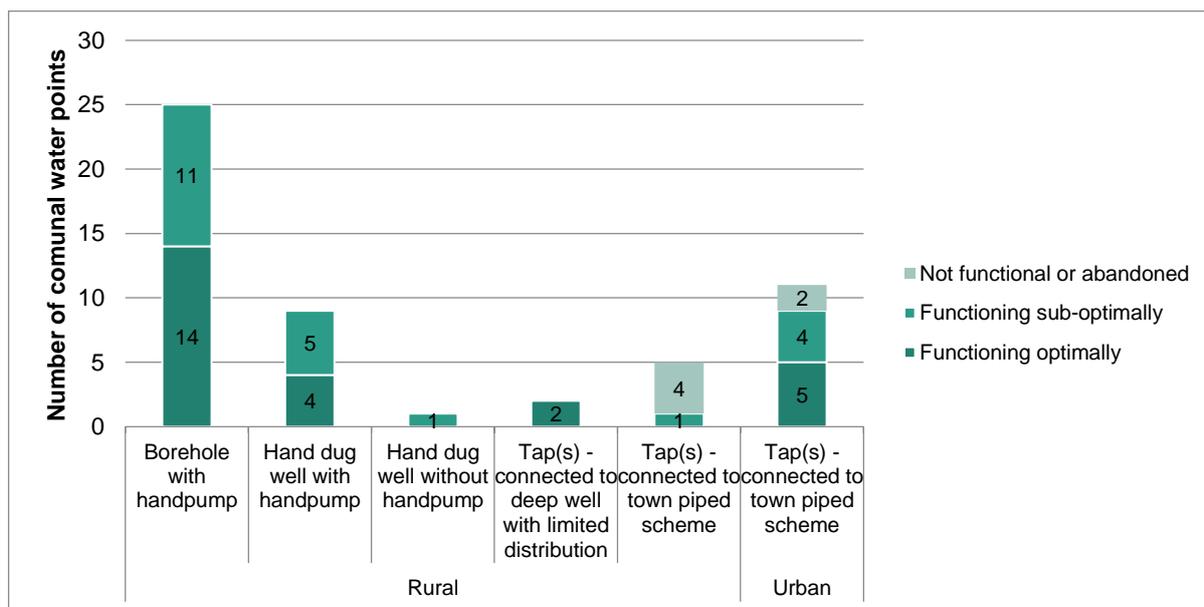


Photo: Salomon Lda.

Services accessed by households are less reliable in the town, with significant queuing delays and only 42% households were estimated to access the required 20 litres per capita per day (lpcd).

Table 4 Water points: key service indicators	Rural	Urban
Average % days per year that the water point is functional	80%	53%
Average % households using water point living within 500m	72%	54%
Proportion of water points without queues of less than 10 people	93%	38%
Proportion of water points with perceived acceptable quality	89%	90%
Water points with low microbial contam. (E.coli <10 MPN/100 ml)	25%	100%
Average sanitary inspection score	51%	80%

Table 5 Water service level accessed by households	Rural	Urban
Reliability (source available year-round and breakdowns < 3 days)	49%	39%
Spend less than 30 minutes on a round trip to fetch water	91%	78%
Queues for 30 minutes or less	67%	48%
Odour, colour, taste perceived acceptable	94%	94%
At least 15 litres per person in rural areas and 20 in urban areas	57%	42%

User satisfaction is consequently lowest with respect to reliability and quantity. In the satellite villages, reliability and quantity of supply are also assessed to be problematic although satisfaction levels were higher.

Table 6 User satisfaction with water services	Rural	Urban
Satisfied with reliability	83%	67%
Satisfied with distance	96%	84%
Satisfied with time	94%	78%
Satisfied with quality	87%	99%
Satisfied with quantity	87%	66%

Sanitation and hygiene

76% of Sheno residents have some form of latrine or toilet, although only 47% of households have an improved facility (e.g. with slab) and the remaining 24% are without any facility and rely on open defecation. In rural areas, 69% of households rely on open defecation and most latrines were existing are unimproved (29% have a basic latrine without slab).

Table 7 Household access to sanitation	Total	Rural	Urban
Flush toilet to septic tank	2%	0%	3%
Ventilated improved pit latrine (VIP)	1%	0%	1%
Pit latrine with slab	30%	2%	43%
Private latrine / toilet owned by neighbour	3%	0%	4%
Pit latrine without slab	26%	29%	25%
Bush/ open defecation	38%	69%	24%
Other unimproved sanitation facility	1%	0%	1%

Level of service provided and user satisfaction

Although 76% of households use latrines or toilets in Sheno town, only 24% use latrines which are clean and without flies. Only 1% of households have ever had their latrines emptied.

Table 8 Sanitation service level accessed by households	Rural	Urban
Latrine with wall and door	7%	31%
Latrine is clean without many flies	20%	24%
Latrine separates user from faeces	7%	46%
Human waste is collected	0%	1%

Table 9 User satisfaction with sanitation services	Rural	Urban
Satisfied with privacy	49%	79%
Satisfied with cleanliness	57%	74%
Satisfied with comfort	51%	76%
Satisfied with safety	51%	78%

In Sheno town, 78% of households expressed satisfaction with the safety of their sanitation services, while this was only 51% in the satellite villages. The proportion of households that expressed satisfaction with the comfort of their sanitation services was 76% in the town and only 51% in the satellite villages.

Handwashing practices

41% 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 49% and, in rural areas, it is 23%.

20% 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 25% and in rural areas, 9%.

Liquid waste management

The Municipality is responsible for liquid waste management but there is no liquid waste collection, transportation or treatment facility in Sheno. The Municipality occasionally arrange to bring a vacuum truck from Addis Ababa for use mainly by businesses.

Solid waste management

In the town, waste from 28% households is collected and taken away on a regular basis while 30% of households burn their wastes within or outside their compound. A further 29% and 9% of households use a pit or pile garbage outside or within their compound respectively, while composting is less common (4%). There is one micro enterprise in solid waste management. This enterprise has 3 staff and some 80 clients. Waste is collected and dumped at an official dumping site for which households pay 10 Birr per service.

Institutional WASH

Some schools and health institutions lack sanitation and water facilities (two out of eight urban schools lack sanitation and one satellite village school lacks water) but most have facilities that could be improved in terms of quality and sustainability.

Table 10 Institutional sanitation

	Rural		Urban		
	Health facility	Schools	Health facility	Other	Schools
Number of institutions	1	6	1	1	8
with latrines with walls and doors	0	4	1	1	3
with latrines that are clean	0	1	0	0	1
with latrines separating faeces from user	0	3	1	1	6
where human waste is collected	0	0	1	0	3
with ALL of the above	0	0	0	0	0
with menstrual disposal	0	0	0	0	2
with separate facilities for males and females	0	3	1	1	4
with all males reported to use the facilities	0	1	0	1	3
with all females reported to use the facilities	0	1	0	1	3

Out of the eight schools, only three had latrines with walls and doors, only three have some collection to empty pits and only one had clean latrines. None of the public facilities met all criteria for privacy, cleanliness and

collection. The picture is similar for rural schools.

Conclusions

- Coverage of the town water supply system is high, with 97% of urban residents having access to an improved source (the most common type of access is piped water to the yard or plot) but the water supply system functions sub-optimally with water points operating on only 53% days for example;
- Only 42% urban households use at least 20 lpcd water;
- Despite the intermittent service, measured microbial water quality (*E. coli*) was found to be satisfactory in the town and water quality was perceived acceptable by users;
- Water supplies in the selected satellite villages (mainly from handpumps) are more reliable but also with scope for improvement;
- Coverage with latrine facilities is lower than water supplies in both urban and rural areas, with open defecation practised by 24% households in the town and 69% households in satellite villages;
- Some schools and health institutions lack sanitation and water facilities (2 out of 8 urban schools lack sanitation and 1 satellite village school lacks water) but most have facilities that could be improved in terms of quality and sustainability;
- Solid waste is disposed in a wide range of ways with burning, dumping outside compound, and collection and official dumping all common.



About One WASH Plus

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

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Planned One WASH Plus interventions in Sheno

Plans being developed under the One WASH Plus project include supporting the town to improve operations of existing boreholes, development of new boreholes to augment supply, and three new reservoirs to provide service to areas lacking water supply as well satellite villages. It is planned to connect the satellite villages, Adadi Mato, Chimisse and Road Authority to the Sheno system. In nearby Hamusgabeya, a new borehole and reservoir will improve that water supply system, with plans to connect to Adadi by gravity.

A sanitation master plan will be developed for the town with facilities improved at public institutions (schools, health centres and prison) and households, and new solutions found 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.