



# Solid waste management in Jijiga, Somali Region

## Baseline survey factsheet

In January 2016, a baseline survey for the ONE WASH Plus programme was undertaken in Jijiga, Somali Region. This factsheet presents a summary of the key findings relating to solid waste management services received by households and available at public institutions.

### Key findings

Solid waste collection and management is becoming more and more important in Jijiga

Practices in the two selected kebeles (kebele 7 and 8) are very low and its coverage is minimal.

There are only two solid waste collectors in addition to the Sanitation and Beautification Agency

Solid waste of Kebele 07 is collected by Dhammays Sanitation and Beautification Association while Kebele 08 managed by City Administration Sanitation and Beautification Agency

**Jijiga, the capital city of Ethiopia's Somali National Region State has a population of 125,876 according to the last census. According to the major, the current population is much higher and amongst other services, that is putting solid waste management systems under strain.**

In total, there are 20 urban and 10 rural Kebeles in Jijiga. The ONE WASH Plus Programme is planning interventions in five of these kebeles: kebele 7, 8, 9, 12 and 13. For this baseline study, 2 kebeles were selected on the basis that they are a main focus for these interventions. Kebele 7 and kebele 8 have a population of 14,123 and 8,725 respectively.



Photo 1: Unauthorised dump site in Kebele 19 (Feb 2016)

The majority of households in the two study kebeles had a shop or small business (48% households). Other important livelihoods in the kebeles are employment (27%) and day-labor (19%). The average annual household incomes reported by these households was ETB 45,010 (equivalent to USD 2,065).

# Household solid waste practices

## Solid waste generation

On average, waste generation from households is estimated at 3.92 kg per household per day (about 0.49 kg per person per day) according to City Administration Sanitation and Beautification Agency. Based on this, total household waste generation volumes in Kebele 07 and 08 would be 6.96 and 4.28 tons per day respectively.

According to households in the study kebeles, the largest fraction of their solid waste consists of plastic bottles and bags, followed by papers and carton, and organic materials (food scraps, vegetable and fruit residues).

The local authority has noticed that immigration from surrounding rural kebeles, with people looking for jobs, has had an impact on the amount of solid waste generated. Furthermore, the recent increase in business activities in the city is likely to increase solid waste generation.

## Solid waste management

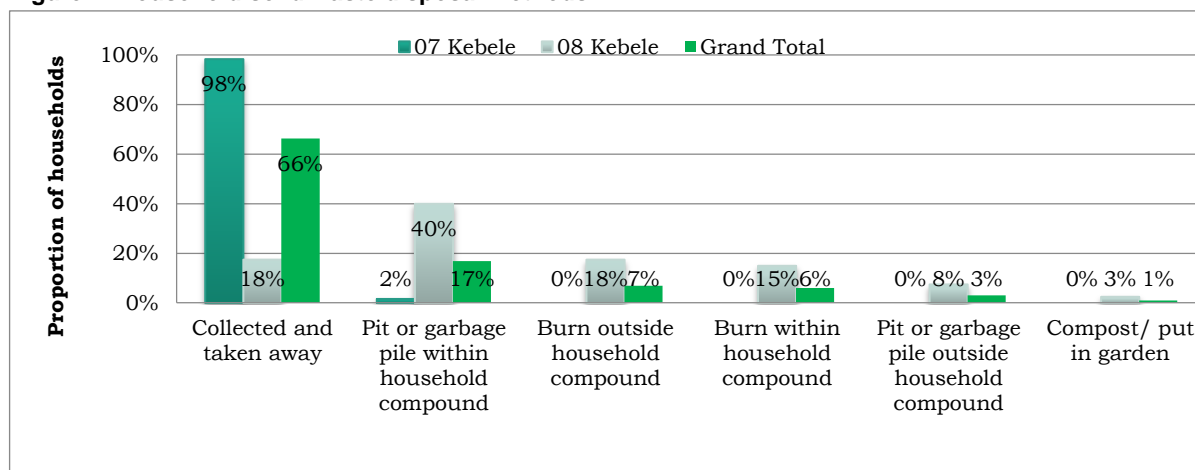
Women were found to be responsible for solid waste management within the household, with

83% of the interviewed households indicating that this was the task of adult female household members and 17% mentioning that girls under 17 years old were mainly responsible.

The majority of households (75%) reported to store their solid waste in an open container, while most other households keep solid waste in the compound.

According to the head of the City’s Sanitation and Beautification Agency, less than 50% of households in Jijiga have access to waste collection and transport services. In kebele 7 the majority of households (98%) reported that their solid waste was collected and taken away by a private sanitation and beautification association. The remaining two percent reported to use a pit or garbage pile within household compound. In Kebele 8, only 18% reported that their solid waste was collected. The majority of households in kebele 8 (40%) reported that they dump their solid waste in a garbage pile or pile within the household compound. See figure 1.

Figure 1: Household solid waste disposal methods



# Solid waste collection services

The City’s Sanitation and Beautification Agency collects solid waste from the main roads, market places and the central part of the city. In addition to the S&B Agency there are two private Sanitation and Beautification Associations providing services for few parts of Kebeles with very limited capacity:

- Hope Sanitation Beautification Association provide waste collection and transportation for Kebeles 03, 04, 05, 06
- Dhammays Sanitation and Beautification Association provide waste collection and transportation for Kebeles 01, 07, 12 and 20.

Just over half of households from kebele 7, served by Dhammays Sanitation and Beautification Association, reported that their solid waste was collected at regular basis, while none of the households from kebele 8, partially served by the city’s Sanitation and Beautification Agency reported regular collection of solid waste. Where in kebele 7 the majority of households reported that solid waste was collected on weekly basis, most households from kebele 8 with collection reported that it was collected every two weeks.

**Table 1: Association status**

Name of S&B Association	City admin S&B Agency	Dhammays S&B Association	Hope S&B Association
Number of staff	24 (+80 to 85 temporary staff)	53	26
Number of residential client		4000	2000
Number of institutional clients		15	30
Number of commercial clients		477	535

## Payment for solid waste collection

All households (in kebele 7) served by Dhammays Sanitation Beautification

association reported that they are paying for solid waste collection services. None of the households in Kebele 8 (served by the City’s Sanitation and Beautification Agency) reported to pay for their solid waste collection and transportation service. The Jijiga City Administration Sanitation and Beautification Agency confirmed that indeed households do not pay for its solid waste collection and transportation services provided by the Agency.

The Dhammays S&B Association, active in kebele 7, charges ETB 50 per month per residential households, ETB 1000 for commercial clients and ETB 900 for institutional clients (schools, clinics etc). In 07 Kebele, 41% of respondents report that they are paying ETB 12.50 per week, 55 percent are paying ETB 25 per two weeks and 5 percent of respondents are paying ETB 50 birr per month. Hope S&B Association reported to charge ETB 40 per household per month and ETB 700 per commercial client and ETB 600 per institutional client per month.



Photo 2: Dhammays S&B Association

## User satisfaction

In both kebele 7 and 8 the vast majority (95%) of households who make use of waste collection services expressed to be satisfied with the solid waste collection methods, costs, frequency and the level of service provided.

# Solid waste management

Lack of financial and logistical resources and human capacity were raised as important issues for both the city administration S&B Agency as well as for the S&B Associations.

Hope S&B Association has had to reduce its staff size, as revenues were not as high as expected. Based on the number of clients and the tariffs set for waste collection services, the annual revenues of Hope S&B Association should amount to about ETB 5,670,000. However, actual 2015 revenues amounted to less than a tenth of that (about ETB 500,000).

The Dhammays S&B Association has been established relatively recently, in December 2015, so at the time of writing of this factsheet there was no clarity yet on its revenues and expenditure. It has access to only three rental trucks and three push carts.

Low awareness about solid waste management amongst potential clients (residents, business entities) was also considered an important challenge.

A challenge that the Associations face in addition is the lack of access to loans.

The safe disposal of the collected solid waste is also a challenge that the S&B Agency and the Associations face.



Photo 3: Solid waste collection push cart provided for Hope by the city S&B Agency



Photo 4: City S&B Agency skip truck



Photos 5-6: Unauthorised dumping on open ground and in drains in Kebele 7.

# Solid waste disposal

Much of the collected waste is dumped in public areas, dry streams and in the city drainage.

A big open dumpsite is found east south of the city. This is managed and controlled by the city's Sanitation and Beautification Agency. The agency is responsible for maintaining the access road and levelling the incoming waste. However, road maintenance and waste levelling is limited because of budget constraints.

The open dumpsite has been in use for a long time. The dumpsite occupies more than 3 ha of suburban flat land and is located approximately 7-8 kilometres from the municipal centre. Due to the fact that there is no construction or excavation to accommodate the waste disposal, the area is not safe from flooding. It is a typical open, uncontrolled dumpsite with little attention given to adverse environmental impacts.

Households that do not have access to (and / or do not make use of) waste collection services, dispose of their solid waste by dumping or burning it within their compound or by dumping it at illegal dumping site, in storm drains, open public areas or on the side of roads.

In the Jijiga City Administration there are a lot of illegal dumpsites, especially in the peripheral kebeles. This has a negative impact on human health and environment.

On both official and illegal dumpsite, informal waste pickers are searching for important recyclable materials (metals) and scattered waste attracts dogs and rodents.



Photos 7-12: Different locations of unauthorised dumping across the city

# Conclusions

- Only a part of the population of Jijiga city currently enjoy solid waste collection services.
- Households who do benefit from solid waste collection services are generally satisfied with these services.
- Sanitation and Beautification Associations have major capacity and financial challenges. They appear to be limited in raising revenues, nor do they have easy access to credit.
- All citizens are affected by the bad solid waste disposal practices and illegal dumping.



## Planned 1WASH+ interventions in Jijiga

The approaches being developed under the ONEWASH Plus Programme cover improvements to water, sanitation and hygiene infrastructure and services.

In Jijiga, the emphasis is on improving solid waste management services. UNICEF will support the Sanitation and Beautification agency and associations to acquire new infrastructure such as push carts, skips, skip trucks, plastic crushing machines and garbage bins. World Vision is also providing protective equipment to ensure local associations work safely, as well as ensuring proper disposal facilities are in place at schools including menstrual hygiene management.

## About ONE WASH Plus

This factsheet was produced by the IRC/Hoarec consortium providing independent monitoring and knowledge management services to the ONE WASH Plus Programme. The ONEWASH Plus Programme is jointly implemented by the Government of Ethiopia and UNICEF to support the One WASH National Programme. Funding is provided by UKaid.