

S1 Text. Additional LSSI Information.

LSSI Ordinal Weights

### Access to Infrastructure

*The type of toilet used by households and the number of households sharing it.*

$$\text{Access to infrastructure} = 0.7 * \text{Type of Toilet} + 0.3 * \text{Sharing toilet}$$

#### Type of Toilet

Classification	Score
Connection to a sewer system	1
Pour flush/squat pan connected to a septic tank or pit	0.75
Pit latrine with a concrete slab	0.5
Traditional pit latrine without a concrete slab	0.25
Open defecation, bucket, bag, etc.	0

#### On-site Sanitation Sharing

$$\text{Sharing toilet} = 0.5 * \text{Households} + 0.5 * \text{Persons}$$

#### Households

1 household (no sharing)	1
2-3 households	0.625
4-5 households	0.125
>5 households	0

#### Persons

1-5 persons	1
6-10 persons	0.67
11-15 persons	0.33
>15 persons	0

#### Containment Safety

$$\text{Containment Safety} = 0.25 * \text{slab/floor stability} + 0.125 * \text{type of walls} + 0.125 * \text{type of roof} + 0.25 * \text{type of lining} * \text{groundwater level} + 0.25 * \text{containment effectiveness}$$

#### Slab/Floor Stability

Overall in good condition and floor is made of concrete	1
---	---

Overall in good condition, but floor is made of sand	0.75
Cracked or broken, but no holes in the floor, and no risk of collapse	0.5
Cracked or broken, with holes in the floor, and no risk of collapse	0.25
Apparent risk of collapse	0

Walls

Masonry (blocks, concrete, etc.)	1
Corrugated iron sheets	0.75
Grass or reeds OR Scrap Metal OR Asbestos cement sheets	0.5
Plastic sheets, sacking, or cloth	0.25
None	0

Roof

Tiles OR Concrete slab OR Corrugated iron or asbestos cement sheets	1
Timber or scrap metal	0.75
Grass or reeds	0.5
Plastic sheets, sacks or cloth	0.25
None	0

Lining

Masonry	1
Tires	0.75
Timber / Wood	0.5
Metal or plastic barrels OR Reeds	0.25
None	0

Groundwater Level

Low Water Table: >3 below ground level	1
Medium Water Table: 1.5-3 m below ground level	0.5
High Water Table: <1.5m below ground level	0

Containment Effectiveness

Liquid never overflows or leaks from the latrine or the ground near the latrine	1
Liquid rarely overflows or leaks from the latrine or the ground near the latrine	0.667
Liquid occasionally overflows or leaks from the latrine or the ground near the latrine	0.333
Liquid often overflows or leaks from the latrine or the ground near the latrine	0

## Hygiene

$$\text{Hygiene} = 0.4 * \text{Hygienic condition} + 0.3 * \text{Soap} + 0.3 * \text{Cover}$$

Hygienic Condition

Clean	1
Presence of dirty water	0.75
Presence of solid waste	0.5
Presence of urine	0.25
Presence of feces or used anal cleansing materials OR Open defecation	0

Soap

Soap available, signs it has been used recently	1
Soap available, but no signs it has been used recently	0.5
No soap available, but signs it has been used recently	0.5
No soap available, no signs of recent use	0

Cover

Tight-fitting lid in place (latrine) OR Water seal toilet (pour flush)	1
Loose fitting lid or cover in place (latrine)	0.5
No cover	0

## Emptying and Transport

Access to emptying services: future intentions for emptying on-site sanitation

Note: Where a latrine is covered over when full and rebuilt, the household is excluded from the calculation of this indicator and this component.

Formal emptying: vacuum truck or trash pump OR Sewer connection	1
Informal Emptying: buckets and other hand tools	0

## Transport Safety

If Local Transport = 0 (Transport = 0)

If Local Transport = 1 (Transport = 0.5 \* Local Transport + 0.5 Neighborhood Transport)

Local Transport

Formal emptying and fecal sludge is taken to WWTP	1
OR Compound latrine will be covered and rebuilt	
Compound empties sludge manually (ie. Buckets) and dumps into a hole in the yard, into a hole near the compound, or dumps in a nearby ditch or drain,	0

Neighborhood Transport

Formal emptying is most frequent in the nearby area (according to nearest <i>chefe de quarteirão</i> )	1
Local dumping of sludge occurs most frequently (according to nearest <i>chefe de quarteirão</i> ).	0

## Disposal

## Quality of Disposal Management

**If Disposal = Taken to WWTP (Final Disposal = 1)**

**If Disposal = Buried in-situ (Final Disposal = Disposal \* Water Table)**

Disposal

Fecal sludge taken to ETAR de Infulene (WWTP)	1
Buried in-situ	0.667

Water Table

Water table >3m deep	1
Water table 1.5-3m deep	0.5
Water table 1.5m or less	0

## Complementary Services

## Water Access

Water available in recipient at the latrine	1
Functioning tap within 1m of the latrine, but no recipient for when the water is not running	0.5
No water available	0

### Solid Waste Management

$$\text{Solid waste} = 0.8 * \text{household solid waste} + 0.2 * \text{neighborhood solid waste}$$

#### Household Solid Waste Management

All solid waste is contained	1
There is some accumulation of solid waste inside the compound, but no large piles	0.5
There is significant accumulation of solid waste inside the compound	0

#### Neighborhood Solid Waste Management

No accumulation of solid waste in the neighborhood	1
Accumulation of solid waste only around public waste skips	0.5
Significant accumulation of solid waste in public spaces	0

### Storm and Grey Water Management

$$\text{Storm and Grey Water Management} = 0.5 * \text{Household Grey Water} + 0.5 * \text{Water Ponding}$$

#### In-house Greywater Management

Discharged to a drain OR Used to water plants inside the compound	1
Poured into the latrine or septic tank	0.5
Dumped on the ground in the street or walkway OR Dumped on the ground inside the compound	0

#### Local Accumulation of Storm Water

After a rain storm standing water remains inside or near the compound for <1 day	1
After a rain storm standing water remains inside or near the compound for 1 day	0.667
After a rain storm standing water remains inside or near the compound for 2 days	0.333
After a rain storm standing water remains inside or near the compound for 3 or more days	0