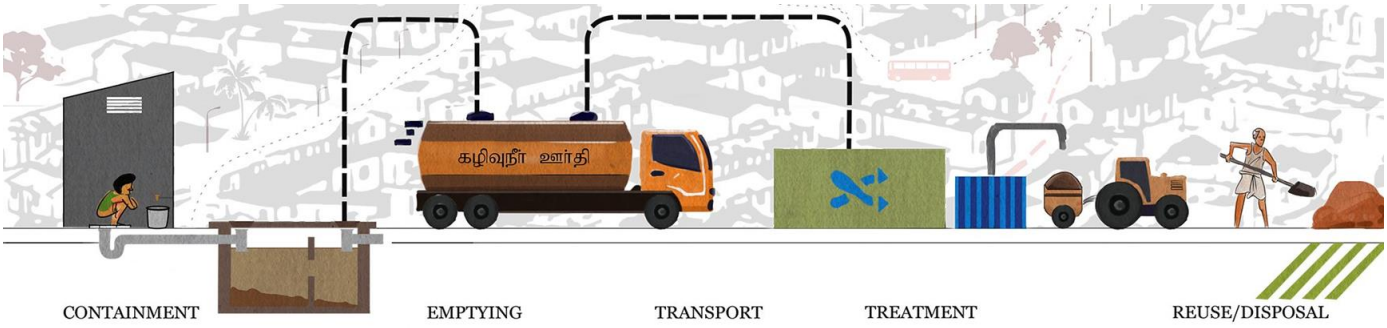
Standard Desludging Procedure

➢ Outline of the Desludging process



The process is apparently divided into four main parts in which several activities are included in each part.

Key Part	Key Component	Key Activities
❖ Part-1	Desludging	1. Desludging Equipment. 2. Desludging Team. 3. Desludging procedures and on-site Sludge transport. 4. Safety and hygiene Measures.
❖ Part-2	Off-line Sludge Transport	1. Operation of central Sludge Treatment site.
❖ Part-3	On-Site Sludge treatment	1. Construction of on-site Sludge treatment areas. 2. Operation of on-site Sludge Treatment areas.
❖ Part-4	Data recording	1. Recorded keeping (At all steps).

➢ Desludging Teams.

1 desludging team includes 5 volunteers. They are responsible for carrying required materials for the desludging procedure on site and sending the sludge to FSTPs through pumping or by vacu tugs depending on the distance from that latrine/septic tank.

➢ Equipment For 1 Desludging Team

- 1 Desludging pump, hose pipe, Foot valve and strainer
- 1 Plastic Tank (1000 L)
- 1 Vacu Truck
- 5 pairs Boots
- 5 Pairs heavy duty rubber Hand gloves
- 5 Pairs safety glasses
- 1 Face mask/person/day
- 1 Plastic Bucket

➢ Labour (Per pump)

- 1 Pump operator
- 4 Labour Four handling the pump and Hose pipe

➢ Desludging procedures and on-site Sludge Transport

- The training on the desludging procedures should be provided to the desludging Teams as well as the people who are involve in the desludging process.
- If there is no access hatch in cover to allow access for the desludging pump, the team will continue by breaking the mortar seal.
- The end of the hose pipe for the desludging pump with the strainer is placed inside the pit.
- Priming of the pump may be required.
- Water can be added to the pit if necessary to increase the liquidity of the sludge for easy pumping.
- 1 Tank are please inside the transfer tank / Vacu tug and the end of the hose pipe from the pump is placed in the latrine pit.
- Once the tank are full, They are transported in the transfer tank / Vacu tug to either the on-site sludge treatment area, if one is available, or to the road side where they will be collected for off-site disposal.
- Latrines will be de-sludged until ¼ of the contents are remaining, The final ¼ of the latrine contents will be left in the latrine, Since this part of the sludge contains bacteria which are active in digesting and decomposing the sludge, This bacteria should be removed so that the sludge digestion process can continue as the latrine use continues.
- No Chlorine or Lime should be added to the contents remaining inside the pit, in order not to kill the active bacteria.
- After re-fixing of the cover, Lime is added around the latrine pit over any area where sludge has spilled into the ground.
- At the end of day the Tank / Vacu tug thoroughly cleaned with water and 1% Chlorine solution.

Safety and Hygiene Measures

- The safety and hygiene measures should be applied at all steps of the desludging process, extra-care should be placed when there is a risk of outbreak of acute watery diarrhoea (AWD).
- Every person working on desludging should receive training on hygiene and on standard operating procedures for desludging, This should cover the principles of transmission and prevention of Fecal-Related diseases.
- Two sets of working cloths will be provided for each worker, which should be dedicated to be used only during the desludging process should be removed before the workers return home.
- Clothes used during desludging should be soaked for 10 minutes in 0.05% Chlorine solution [If bleaching powder-35% is used, 16g or 1 table spoons per 100 litre of water is used to make 0.05%solution, If HTH -65 -70 % strength is used, 7g or ½ table spoon per 100 litre of water is used to make 0.05% solution] before being washed with water and laundry soap a proper location at each camp and the on-site sludge Treatment area should be defined by the desludging supervisor.
- After removing their clothing workers must take a shower before putting on their home clothes.
- Workers should wash their hand with 0.05% Chlorine solution before eating.
- All direct contact with sludge must be avoided unless the worker is wearing gloves,

❖ **All workers should be provided with**

- 1 Bar body soap per month.
- 1 Bar laundry soap per month.
- 1 Bottle household bleach.

➢ Construction of on-site Sludge Treatment Area

There are many different methods of sludge treatment and WASH agencies are encouraged to share their experience with each other. This section covers the method piloted by BRAC in camps, but other methods are also applicable, If the land is available, site selection should be done according to the following criteria.

❖ **Depth to water table:-**

- Base of the sludge treatment pit should be minimum 1 ft above the water table
- Information area should be minimum 3 ft above the water table

❖ **Topography :-**

- Land should be level to facilitate construction

❖ **Soil conditions :-**

- Sandy soil is preferable to enhance information.

- **Proximity to households :-**
    - The distance to the households should be maximised, However Given the crowded nature of the sites and the urgency of the desludging process, It may be necessary to construct the sludge treatment area relatively close to the residential area.

- **Record Keeping :-**

  WASH actor or camp manager should keep records and should share with BRAC sludge management team.
    - Records of which latrines have been emptied and the date
    - Number of latrine pit emptied.

- **BRAC sludge Transportation team will maintain the following records :-**

    - Detailed information of every pit/tank desludged with GPS ID/location.
    - Volume of sludge collected/transported.
    - Volume of sludge stored/treated in FSTP.