The Sanitation Decision Support tool

Results of the Sanitation Decision Support Tool. The tool was created by WASTE (www.waste.nl) and the Akvo Foundation (www.akvo.org), in order to assist people in choosing sanitation technologies. We hope this tool proves useful, any comments can be send to m.t.westra@akvo.org.

Session information
Date: Sun May 16, 2021
Time: 22:40:00

Options chosen

Water supply (one possible)
- none
- fetched / hand-pump / standpipe / tanker
- **connection**

Space availability (one possible)
- **large**
- medium/large
- medium
- small/medium
- small

Flood prone (one possible)
- **not affected**
- frequent (low-lying area)

Groundwater table (one possible)
- shallow
- medium
- **deep**

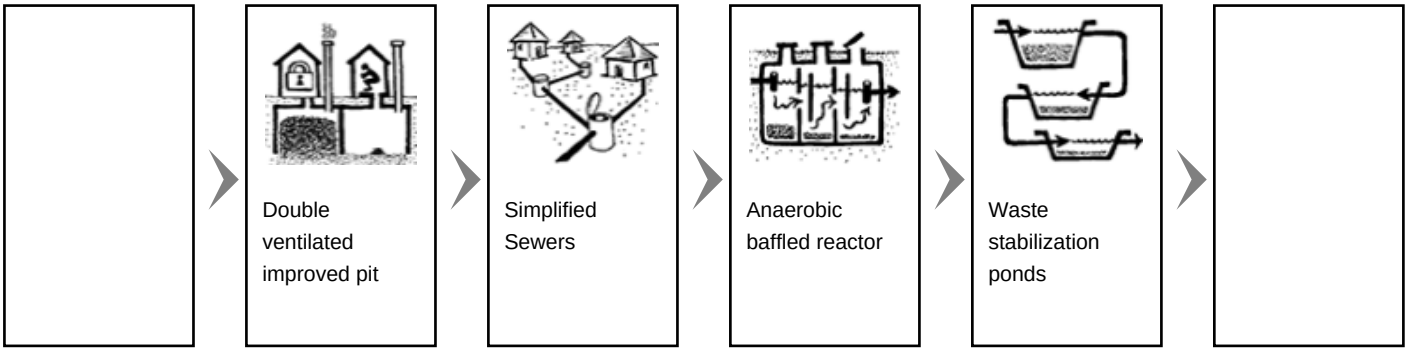
Terrain / Topography / Slope (one possible)
- **flat**
- slope

Vehicular accessibility (one possible)
- no access
- limited / narrow access
- **full access**

Soil type (one possible)
- clayey
- silty
- **sandy / gravelly**
- rocky

Anal cleansing method (more possible)
- water
- **soft paper**
- hard or bulky

Selected technologies



Links to Akvopedia articles

- Double ventilated improved pit:
  http://www.akvo.org/wiki/index.php/Double_Ventilated_Improved_Pit
- Simplified Sewers:
  http://www.akvo.org/wiki/index.php/Simplified_Sewers
- Anaerobic baffled reactor:
  http://www.akvo.org/wiki/index.php/Anaerobic_Baffled_Reactor
- Waste stabilization ponds:
  http://www.akvo.org/wiki/index.php/Waste_Stabilization_Pond

Short descriptions

Double ventilated improved pit

The Double VIP has almost the same design as the Single VIP (S3) with the added advantage of a second pit that allows the technology to be used continuously and allows for safer and easier emptying. By using two pits, one pit can be used while the contents of the second pit rests, drains, reduces in volume, and degrades. When the second pit is almost full (the excreta is 50cm from the top of the pit), it is covered, and the contents of the first pit are removed. Due to the extended resting time (at least 1 year of filling/resting) the material within the pit should be sanitized and humus-like.

Relevant options

At option **Soil type (one possible)** you have selected **sandy / gravelly**. This means that in your situation,Double ventilated improved pit might be a suitable technology. This depends on: **Special attention to soil estability to avoid collapse of superstructure**

Simplified Sewers

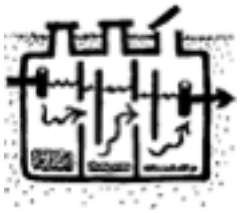
Simplified Sewers describe a sewerage network that is constructed using smaller diameter pipes laid at a shallower depth and at a flatter gradient than conventional sewers. The Simplified Sewer allows for a more flexible design associated with lower costs and a higher number of connected households. Expensive manholes are replaced with simple inspection chambers. Each discharge point is connected to an interceptor tank to prevent settleable solids and trash from entering the sewer. As well, each household should have a grease trap before the sewer connection.

Relevant options

At option **Terrain / Topography / Slope (one possible)** you have selected **flat**. This means that in your situation,Simplified Sewers might be a suitable technology. This depends on: **Requires a**

minimum slope of 0.5 %. If long distances are required, a pumping station might be needed.

Anaerobic baffled reactor



An Anaerobic Baffled Reactor (ABR) is an improved septic tank because of the series of baffles over which the incoming wastewater is forced to flow. The increased contact time with the active biomass (sludge) results in improved treatment.

Relevant options

Waste stabilization ponds

Waste Stabilization Ponds (WSPs) are large, manmade water bodies. The ponds are filled with wastewater that is then treated by naturally occurring processes. The ponds can be used individually, or linked in a series for improved treatment. There are three types of ponds, (1) anaerobic, (2) facultative and (3) aerobic (maturation), each with different treatment and design characteristics. For the most effective treatment, WSPs should be linked in a series of three of more with effluent being transferred from the anaerobic pond to the facultative pond and finally the aerobic pond.

Relevant options