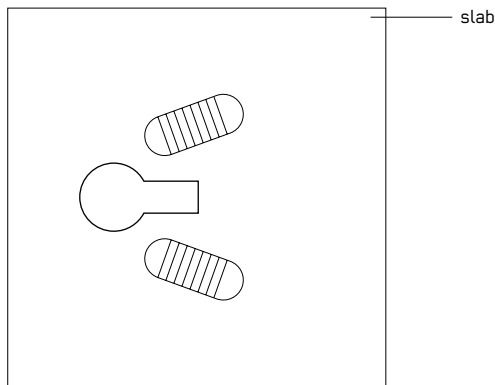
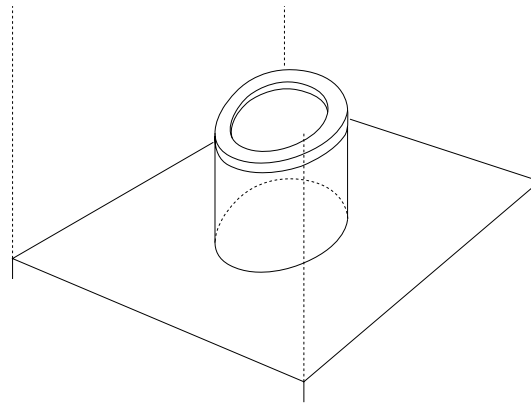


Dry Toilet

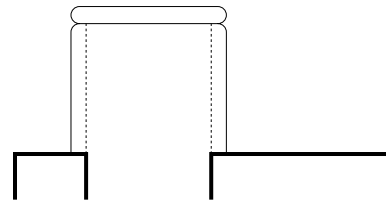
Phase of Emergency	Application Level / Scale	Management Level	Objectives / Key Features
** Acute Response ** Stabilisation ** Recovery	** Household ** Neighbourhood ** City	** Household * Shared * Public	Barrier between user and excreta, No flushwater needed
Space Required	Technical Complexity	Inputs	Outputs
* Little	* Low	● Faeces, ● Urine, (● Anal Cleansing Water), (● Dry Cleansing Materials)	● Excreta, (+ ● Anal Cleansing Water), (+ ● Dry Cleansing Materials)



option 1



option 2



A Dry Toilet is a toilet that operates without flushwater. The dry toilet may be a raised pedestal on which the user can sit, or a squat pan over which the user squats. In both cases, excreta (both urine and faeces) fall through a drop hole.

In this compendium, a Dry Toilet refers specifically to the device over which the user sits or squats. In other literature, a Dry Toilet may refer to a variety of technologies, or combinations of technologies (especially pits or container-based systems).

Design Considerations: The Dry Toilet is usually placed over a pit; if two alternating pits are used (S.5), the pedestal or slab should be designed in such a way that it can be lifted and moved from one pit to the other. The slab or pedestal base should be fitted to the pit so that it is both safe for the user and prevents stormwater from infiltrating the pit (which may cause it to overflow). The hole can be closed with a lid to prevent unwanted intrusion from insects or rodents. This also reduces odours from the pit.

Materials: Pedestals and squatting slabs can be made locally with concrete (provided that sand and cement are available). Fibreglass, porcelain, plastic and stainless-steel versions may also be available. Wooden or metal moulds can be used to produce several units quickly and efficiently. Easy-to-clean surfaces are preferable, especially in public toilets.

Applicability: A Dry Toilet is easy for almost everyone to use though special consideration may need to be made for elderly or disabled users who may have difficulties using the squatting version (X.10). It is especially suitable where water is scarce or not available, or where nutrient-recovery is foreseen. When Dry Toilets are made locally, they can be specially designed to meet the needs of the target users (e.g. smaller sizes for children). Where there is no need to separate urine and faeces, Dry Toilets are often the simplest and physically most comfortable option.

Operation and Maintenance: The sitting or standing surface should be kept clean and dry to prevent pathogen/disease transmission and to limit odours. Cleaning should be done with water and a small amount of detergent. The use of large quantities of chemicals should be avoided as it may affect the functioning of the pit below. There are no mechanical parts; therefore, the dry toilet should not need repairs except in the event that it cracks.

Health and Safety: Squatting is a natural position for many people and so a well-kept squatting slab may be the most acceptable option. Since dry toilets do not have a water seal, odours may be a problem depending on the collection and storage/treatment technology connected to them. Anal cleansing material should be provided, and a Handwashing Facility (U.7) has to be in close proximity.

Costs: Capital and operating costs are low. However, depending on the storage system and the local conditions, sludge emptying and transport may be an important cost factor.

Social Considerations: Although Dry Toilets are a widely accepted solution, it may not be appropriate in each cultural context and needs prior consultation with the users. Behaviour change rarely succeeds. Dry Toilets should

reflect local user preferences (sitter vs. squatter, anal cleansing practices, direction etc.) and should account for the accessibility and safety of all users, including men, women, children, elderly and disabled people (X.10). In Muslim communities, Dry Toilets should be oriented in such a way that users neither face Qiblah (prayer point) nor face directly away from it when using the toilet. There is a frequent problem with users disposing of garbage in the toilet (such as plastic bottles) which should be addressed early on as part of the hygiene promotion activities (X.12) and solid waste management (X.8) as it negatively affects the later desludging of pits.

Strengths and Weaknesses:

- ⊕ Does not require a constant source of water
- ⊕ Can be built and repaired with locally available materials
- ⊕ Low capital and operating costs
- ⊕ Adaptable for all types of users (sitters, squatters, washers, wipers)
- ⊕ Will accept a wide range of anal cleaning materials (such as stones, sticks, leaves etc.)
- ⊖ Odours are normally noticeable (even if the vault or pit used to collect excreta is equipped with a vent pipe)
- ⊖ The excreta pile is visible, except where a deep pit is used
- ⊖ Vectors such as flies are hard to control unless fly traps and appropriate covers are used

→ **References and further reading material for this technology can be found on page 190**