

An introduction to pit latrines

Introduction

Any discussion of on-site sanitation must start with pit latrines. This is because they are one of the oldest forms of formal sanitation in the world and for many they are still the best. This note introduces the types of pit latrines that are commonly used in low-income communities and the factors that will help determine which type is most suitable for any given circumstance. Detailed information about particular designs is presented in further notes in this series.



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The advantages of a pit latrine

Pit latrines have a number of advantages:

- They are simple to build.
- They are easy and safe to use, operate and maintain.
- Local materials and technologies can be used to build them.
- They are versatile and can be constructed to suit a wide range of physical and human environments.
- Designs are easy to copy.
- They are the cheapest technology for the safe disposal of human excreta and can be improved incrementally over time.

So when selecting a form of on-site sanitation for a low-income community, pit latrines should always be the first option to consider as usually one type or another will be the most appropriate choice for most households.

So why don't some people like pit latrines?

The widespread use of pit latrines means that inevitably some people will complain about them. Common complaints are that they smell, attract flies, harbour mosquitoes and are unsafe to use.

Nearly always the causes of these problems can be attributed to either poor design, construction, operation or maintenance. Like any building, a pit latrine will only work properly if it is designed to suit a particular situation; is constructed using appropriate materials and to a good standard; and is properly operated and maintained.

This and other notes in this series helps you do just that: to choose the most appropriate pit latrine design, to build it to a high standard using local materials; and to operate the toilet in the right way so that it doesn't cause you any trouble.

Choosing the correct design

There are many different designs of pit latrine so choosing the right one can be difficult, especially if you have not chosen one before. [This diagram](#) is a guide to the selection of a design that will most likely best suit your situation. It also provides cross references to other notes that give you more information about individual types of design.

What if I can't find a suitable one?

Sometimes the environment you are working in is so difficult that none of the options suggested in the diagram will be appropriate. Try consulting note 25 that covers the design of pit latrines for special situations such as when it is difficult to dig a deep pit or in regions where the climate is very cold.

If you still haven't found a suitable pit latrine option, after consulting note 25, it probably means that some other sanitation choice is more appropriate.

The WHO publication [A Guide to the Development of On-site Sanitation](#) provides more ideas for non-pit latrine options.

Design details

Having chosen the latrine that best fits your needs you will need to consider the details. Some features are common to all designs, such as nature of the superstructure (the building which houses the toilet). Other features are particular to individual designs. Note that the WEDC series does not present you with a step-by-step approach to construction, but it does provide you with guidance which will help you build a viable and sustainable latrine.

Latrine slabs

Providing sanitation for all is a major global challenge involving many complex issues. The user of a latrine however, will have more local concerns such as the condition of the latrine slab.

Notes 9 – 12 highlight the design, manufacture and maintenance features that help to improve the safety and comfort of users.

Latrines for emergencies

There are special considerations to take account of when providing latrines in emergency and disaster situations. For a comprehensive guide, refer to the WEDC publication [Excreta Disposal in Emergencies.](#)

In conclusion

Pit latrines, in their many forms, are still the most likely sanitary solution for low-income families in both rural and urban areas. Their simplicity and low-cost, and the possibility of improving them incrementally over time makes them an ideal choice.

Design, build and maintain a pit latrine well and it can provide many years of trouble-free service.

About this note

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