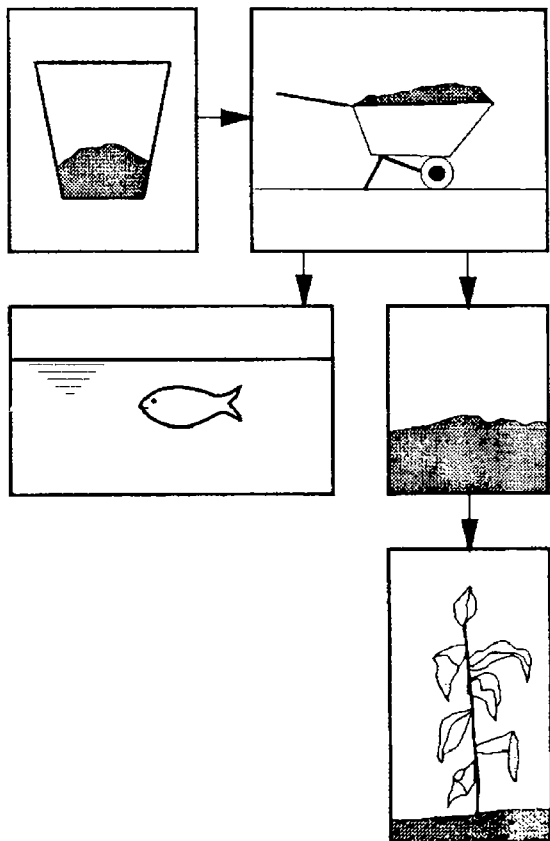


# Cartage

In some countries, excreta are stored in the home and must be removed regularly for disposal (this is referred to as cartage). After being taken away, the excreta are often used as fertilizer for crops or for fish farming (see Figure 1).

Cartage systems for the disposal of human excreta, especially if poorly planned and uncontrolled, present a very severe health risk to those who use them, those who transport the excreta, and through exposure to crops fertilized with raw excreta. Cartage is not recommended as an excreta disposal option. Where it is practised, every effort should be made to minimize the public health risk and to promote alternative, more hygienic, methods of excreta disposal.



**Figure 1. Cartage of excreta**

### Fact Sheet 3.3

The cartage or carrying of excreta has the following disadvantages :

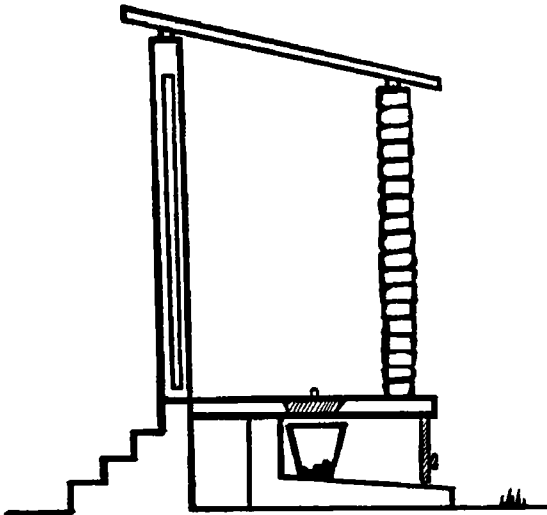
- With excreta in open buckets, flies are a problem.
- Odours emanate from the uncovered excreta.
- There are health risks to the people taking the excreta away from the house for disposal, either in buckets, in a cart, or using a tanker and pump which may involve handling pipes and other equipment contaminated with excreta.
- There are health risks from food crops fertilized with raw excreta.
- Cartage of excreta is expensive.

The only advantage of excreta disposal by cartage is the availability of excreta for preparation as a fertilizer.

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### *Storage of excreta in the home*

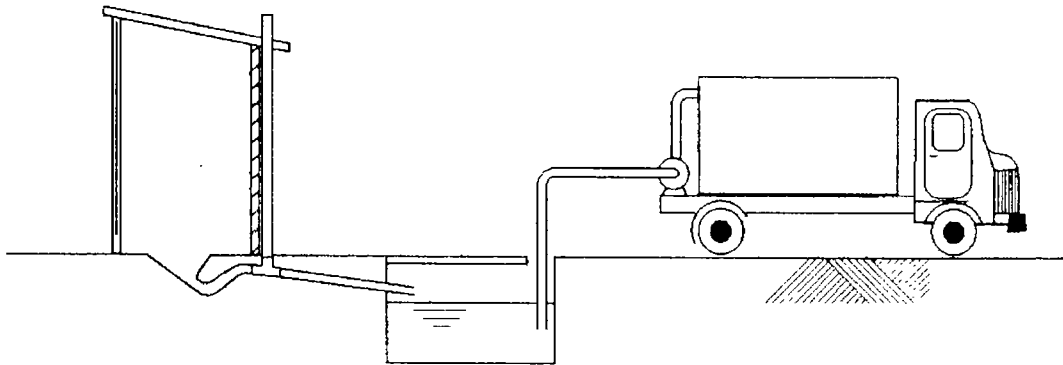
Latrines which allow the storage of excreta generally use a bucket or tank which can then be emptied. One type which is commonly used is the bucket latrine (see Figure 2).



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**Figure 2. Bucket latrine**

In some countries, vault latrines store the excreta and water used for flushing in a tank below the house. The tank must be regularly pumped out by tanker and the excreta and water mixture, or sewage, must be disposed of (see Figure 3).



**Figure 3. Vault latrine being pumped out by tanker**

### *Reducing the public health risks of cartage*

Latrines using the cartage system are often a major risk to public health. In areas where there is a demand for excreta for use as fertilizer, cartage may be favoured locally. Because of the high public health risk associated with cartage, it cannot be recommended as an excreta disposal option. The public health risks can, however, be reduced in the following ways :

- Covers should be made for buckets containing excreta to stop flies getting to the excreta.
- Every time a bucket latrine is used, the fresh excreta should be covered with a small quantity of sawdust, ash, dry horse or cow dung, or dry soil to stop odours and to keep flies away.
- Protective clothing, for example gloves, should be used by people collecting buckets filled with excreta or operating tankers and pumps used to remove excreta from vaults.
- The excreta must be disposed of safely ; either buried in the ground in a special area or treated in a sewage treatment plant or lagoon system. Fact Sheet 3.11 describes sewage treatment plant and lagoons.