

## Simple, low-cost improvements for latrines

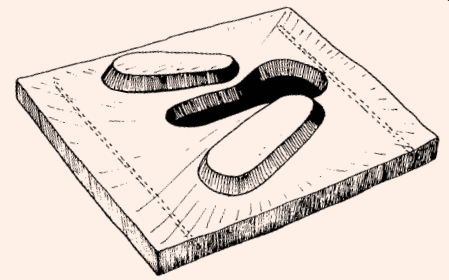
LATRINES are commonly made with reinforced concrete slabs, as shown on page 13. However, this method uses a lot of cement and can be too expensive for many. This means that people

### Sanplats

These are small slabs of concrete which are placed over the hole of an existing latrine, resting on a floor made of logs and clay.

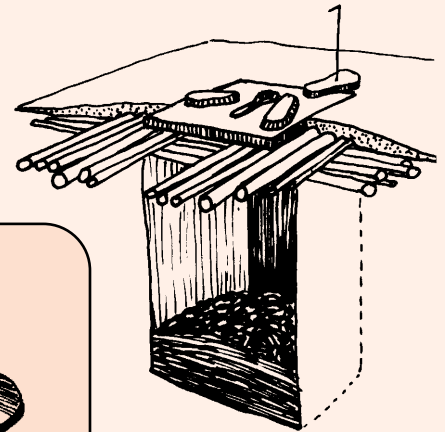
**1** Make a small concrete squatting slab 600mm x 600mm x 40mm thick, using a mix of cement (1 part), sand (2 parts) and small stones (1.5 parts). Make the top of the slab smooth and sloping towards the squat hole. The slab can be un-reinforced because during use it is supported by the clay and logs. However, it is best to use a small bar or some thick wires in the slab at each end of the squat hole to prevent the slab cracking.

**2** Add footrests. They should be about 350mm long, 150mm wide, 20mm high and shaped as shown above. Cut out the squat hole with sides sloping inwards to support a removable concrete cover.



Line the squat hole with wet paper and then cast a lid inside it to make a good cover.

**3** Keep the slab and lid wet for at least a week so the concrete becomes strong. Place the sanplat over the hole of an existing latrine, making the top level with a clay floor. Make sure people replace the lid when it is not in use.

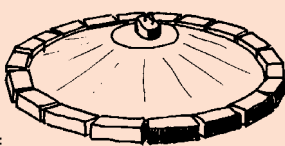


### Domed concrete slabs

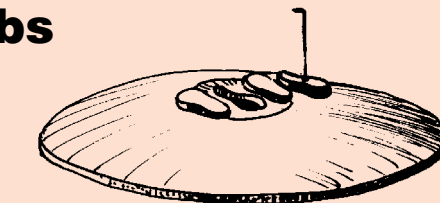
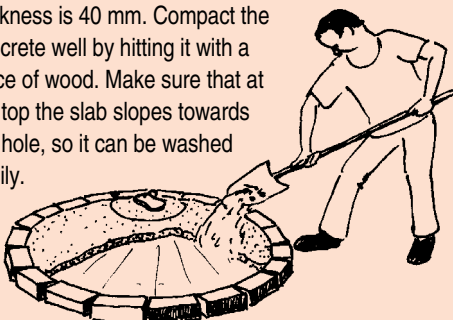
Unlike the traditional concrete slabs, these are not reinforced and are much thinner. They gain strength instead from their domed shape.

**1** Lay bricks side by side on a flat piece of ground so that their ends form a circle with a diameter of 1.5m.

**2** Compact (by treading on it) a pile of damp sand inside the circle so only the top 40mm of each brick is showing, and the centre of the pile of sand is 100mm higher than the level of sand by the bricks. You can rotate a shaped piece of wood to get a good shape. Cover the sand with wet paper. Add an oiled wooden mould for the squat hole.



**3** Mix concrete (same mix as for the sanplat above) and lay it on the sand so that the thickness is 40 mm. Compact the concrete well by hitting it with a piece of wood. Make sure that at the top the slab slopes towards the hole, so it can be washed easily.



**4** As the slab hardens, add footrests and make the slab as smooth as possible using a metal trowel. As soon as the surface hardens, cover the slab with sand and keep this wet for at least a week. Then you can roll the slab to the latrine site. Make a lid for the squat hole.



**5** You can use the slab over a 1.1m diameter unlined pit, but there is a danger that the sides might collapse, so it is better to have a pit with a lining at the top to match the diameter of the slab.



either do not build latrines or build them with mud floors which are hard to clean. Here are two methods of building latrine covers which are easy to keep clean but which use much less cement. Eight sanplats, for example, can be made from one bag of cement.

The key to success is to use new cement and clean sand and to compact the concrete well before trying to get the smoothest surface possible.