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VITA TECHNICAL BULLETIN

51059-BK

POUR-FLUSH LATRINE

This Technical Bulletin explains how to build a pour-flush latrine. This is a simple latrine that disposes of human wastes and improves sanitation. Storing wastes in a single place produces a cleaner home and water.

The directions are clear and simple. You will need land, labor, and some materials and tools to build this latrine.

This Technical Bulletin uses photographs supplied by the United States International Communications Agency in Columbia. The directions were written by VITA Volunteer Daniel S. Kuennen, with VITA Editor David Jarmul.

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VOLUNTEERS IN TECHNICAL ASSISTANCE

POUR-FLUSH LATRINE

The steps to building the pour-flush latrine are simple and easy to follow.

Most of the materials needed to build it are easy to obtain. You will have to purchase several items. You will need the following.

Materials

- * Pour-flush toilet
- * Metal connection pipe, at least 5-6 ft long
- * Corrugated metal, for the roof
- * Wood, several long pieces
- * Log, short but wide

- * Bucket
- * Water, several bucketfuls
- * Bamboo, for the sides, front and back
- * Cement or concrete
- * Burlap or palm leaves
- * Small stones and wood pieces
- * Hinges, metal or leather--for the door
- * Nails
- * 4 long screws
- * Wire

Tools

- * Hammer
- * Screwdriver
- * Saw
- * Digging tools

The latrine must be built at least 50 feet (15 meters) from the water you use for drinking and bathing, but should be built near your house.

A pour-flush latrine can help keep your family healthy.

Human wastes cause sickness. A latrine is healthier than using bushes, fields, or roads.

Human wastes placed near a stream or ditch may mix

with the water. Diseases in the wastes may then make the water dirty and unsafe.

People who drink this water may become very sick.

A pour-flush latrine means cleaner water and a healthier family.

These are pour-flush toilets for latrines.

This is the back of a pour-flush toilet. The wastes go into the big bowl on top. They are then flushed with water through the pipe opening here in the back.

Build the latrine near your house. But be sure to place it at least 50 feet (15 meters) from the water you use for drinking and washing.

Mark on the ground the location for the latrine pit. Measure a square that is 4 feet by 4 feet (a little more than one square meter). Place stakes at each corner.

Dig all the ground within this square border. Then remove the four stakes at the corners.

Dig the latrine pit within the square border.

Remove loose soil from the pit. Dig down two

to three feet deep (a little less than one meter).

Stop digging after you have gone down two to three feet. Now you must test how much water the soil can absorb (how fast the water sinks into the soil).

Dig a small hole in the pit. Pour in a bucket of water. Measure the time it takes for the soil to absorb the water.

All the water must be absorbed in two minutes. If it is not, the soil is not right for a latrine.

The finished pit should be at least 6 feet (2 meters) deep. Do not let the pit collapse while digging.

Use wood to support the pit walls.

The next step is to clear an area for the toilet and the latrine house. Do this near the pit.

Cut a log that is about one foot (30 cm.) long. The diameter of the log should be slightly larger than the base of the pour-flush toilet.

Dig a hole two to three feet (about one meter) from the pit.

Place the log in the hole.

Use poles to pack soil firmly around the log.

Place the toilet on the log.

Attach the toilet to the log. Use a screwdriver to put screws in the four holes at the bottom of the toilet. Screw the toilet tightly to the log.

This is the connection Pipe. It goes from the toilet to the pit.

Dig a long, shallow hole between the toilet and the pit. Put the pipe in this hole. Now connect the large end of the pipe to the back of the toilet.

Mix cement or concrete.

Make supports for the toilet and the pipe.
Put stones around the bottom of the toilet.
Hammer support stakes on each side of the pipe.

Put the cement or concrete around the bottom of the toilet. Cover the stones. Let the cement or concrete dry for three or four days.

Now begin making the latrine house around the toilet.
Dig a hole at each of the house's four corners.

Make notches at the top of each of four bamboo posts. Then place these posts upright in each of the four corner holes for the latrine house.

Note how the toilet is inside the four upright posts. The pipe goes from the back of the toilet to the pit. The pit is outside the latrine house.

Cut and attach the bamboo pieces for the roof. The cross members fit inside the notches.

Note how the roof will slope down to one side.

Attach the bamboo pieces for the middle of the roof.

Measure, cut, and split bamboo for the walls of the latrine house.

Nail these bamboo pieces to the corner posts to make the walls.

Loop a long piece of metal wire around each nail. This gives added strength.

Here's a look at the inside of the bamboo wall.

Finish building the wall. Leave space for air

between the top of the wall and the roof.

Measure, cut, and nail the corrugated metal roof. The roof should hang over both the front and back.

Attach a door to the corner post. Use a metal or leather hinge.

The latrine house is now finished. The pit is outside the house.

Cover the pit with long pieces of wood. The wood prevents people from falling into the pit. Put burlap or palm leaves on top of the wood. This reduces flies and odor.

The toilet is now ready for use! Bring a bucket of water when you come to use the latrine.

Pour the bucket of water into the toilet after each use. The water flushes the human wastes into the pit. You will also need water to clean the toilet.

This man is very proud of his new pour-flush latrine. He is helping keep his home clean and his family healthy.

VITA Technical Bulletins offer do-it-yourself

technology information on a wide variety of subjects.

The Bulletins are idea generators intended not so much to provide a definitive answer as to guide the user's thinking and planning. Premises are sound and testing results are provided, if available.

Evaluations and comments based on each user's experience are requested. Results are incorporated into subsequent editions, thus providing additional guidelines for adaptation and use in a greater variety of conditions.

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