COMPOST-BASED SANITATION

in Post-Earthquake Haiti
in Urban and Rural Locations

Dry Toilet 2012, Tampere, Finland

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CompostSanitation.com

Mother Nature tells us to cover odorous organic material.

We bury our dead because rotting corpses smell.

Human excrement smells until we bury it.

Humans use pit latrines to bury their excrement.

Science has now shown us a new way to “bury” organic material.

Instead of burying with dirt, we can bury with carbon materials derived from plants.

When we use a carbon-based "cover material," we spark the growth of heat producing bacteria.

The resulting organic mass, called a compost pile, destroys human disease organisms.

Researchers include Gotaas, (1956 W.H.O.); Feachem, et al. (1980 World Bank). Franceys, R. et al. (1992 W.H.O.) and others.

This is the essence of “sanitation,” which is the promotion of public health.

“Composting”
by definition,
is a process that is
controlled,
aerobic,
and produces
internal biological HEAT.

Most “composting” toilets do not compost, as no heat is generated. They dessicate, dehydrate, and decompose the toilet material.

How Do We Create Hot Compost Sanitation Systems?

- Simply:
- 1) COLLECTION
- 2) COVERING
- 3) COMPOSTING

“Collection” Toilets collect toilet materials before they come in contact with the environment.

Here, a 20 liter receptacle under the toilet seat collects the toilet material (feces, urine and paper).

Urine separation is not necessary.

The contents are covered with the carbon-based material, which acts as a biofilter to prevent odor. The receptacle is easily removable.

This is a 60 liter receptacle. This is about the maximum size that can be easily handled without machinery.

The toilets are inexpensive to construct.

They can collect toilet material in almost any location, indoors or out.

They can be in a separate building.

This toilet utilizes a chute through the floor.

60 liter drums collect the toilet material underneath the stalls

One drum is being filled while an empty one waits to replace it.

Hand washing stations are located at every toilet stall.

The collected material is composted nearby. It is always covered.

Sugar cane bagasse, a waste product in Haiti, is a good carbon based cover material.

Sawdust is another waste product free for the hauling.

The toilet contents are added to a depression in the compost pile.

The toilet material is covered with clean bagasse. No flies, no odor.

High temperatures are consistent and prolonged. This is 60 degrees C.

After 6 months, temperatures were still at 55C. Only 3 days at this temperature is required for pathogen elimination.

Food scraps are also added to the compost bins. A variety of organic materials can be recycled using this system.

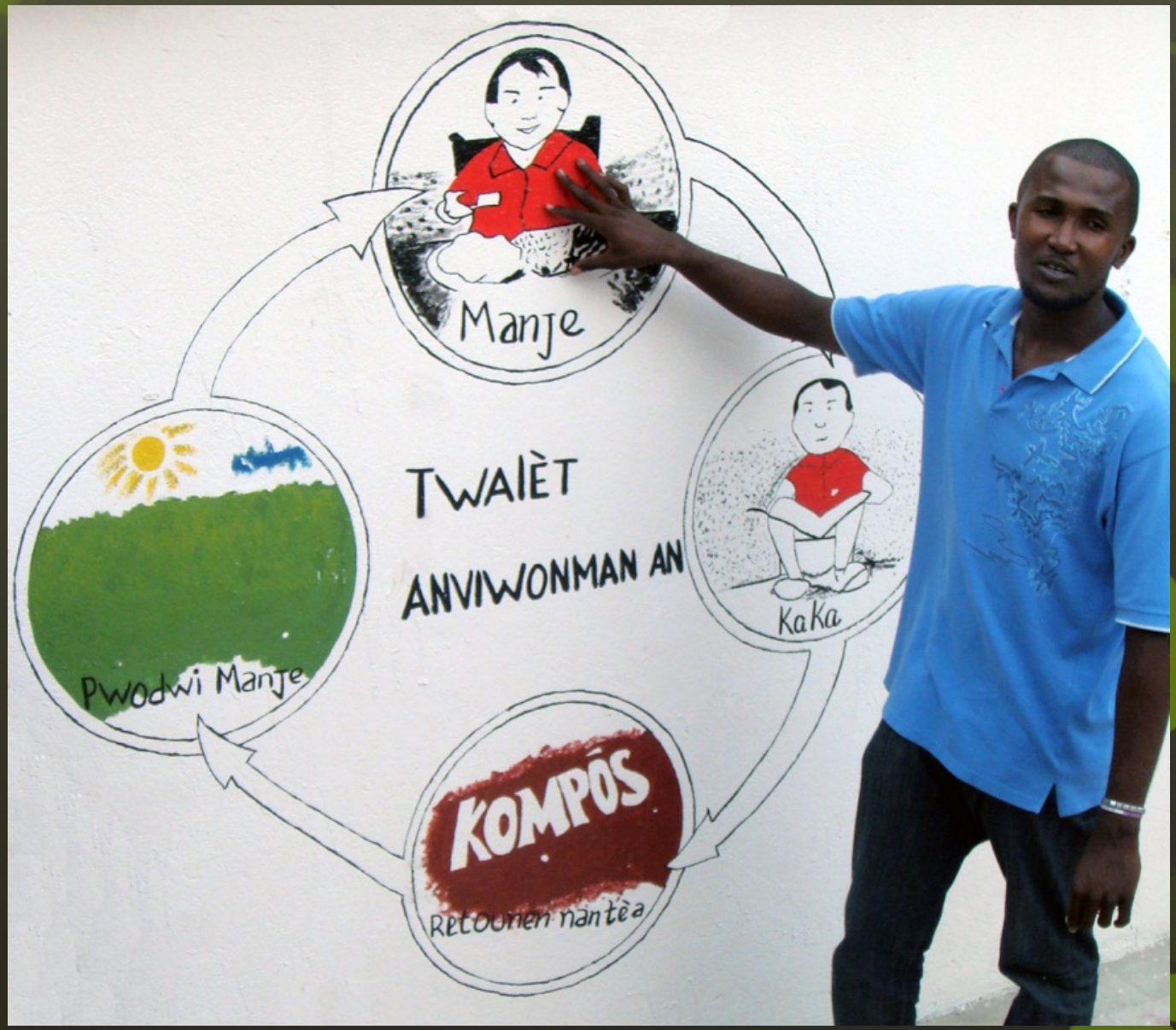
After a year of aging, the finished compost is suitable for food gardens.

Public education helps to improve acceptance of this revolutionary sanitation system.

The toilet stalls are painted with ecological messages.

Instructions are posted inside each toilet.

The toilets are recycling toilets.
There is no waste, no pollution, no disposal.



Questions?

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