

Low-cost biosand filter



Philippine Center for Water and Sanitation
WASH Coalition Pilipinas
www.itnphil.org.ph



A biosand filter makes water potable

- A biosand filter removes 95.0 to 99.0 percent of organic contaminants, including bacteria, viruses, protozoa, worms, and particles.
- Water that passes through a biosand filter is free of discoloration, odor, and unpleasant taste, and can be used for drinking, food preparation, personal hygiene, and sanitation.
- A biosand filter treats 8 liters or more of water per hour. It is refilled manually and can supply the drinking water needs of a household.
- The biosand filter technology builds upon the centuries old slow sand filtration process.



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How a biosand filter works

1. Contaminated water is poured through the top and passes through sand and gravel.
2. The layer of sand must remain undisturbed by the flow of poured water. Atop the sand layer a cloth is placed, which is weighed down by pebbles.
3. A film of bacteria forms on top of the sand layer, which acts as water disinfectant. Filtration occurs in the lower layers of sand and gravel, which removes contaminants that cause odor, cloudiness, and taste.
4. The filtered water comes through the faucet via the PVC pipe.



How to make a low-cost biosand filter

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Maintenance of a biosand filter

- Maintenance of the biosand filter depends on the quality of the water being filtered.
- Over time, the biosand filter may become clogged with material, causing flow rates to drop. Just stir the top layer of sand to restore optimal flow.



For more information please contact



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