HydrAid™ BIOSAND FILTER MAINTENANCE

CAWST Centre for Affordable Water and Sanitation Technology

HydrAid
www.HydrAid.org

Key Message: Good maintenance practices of the HydrAid biosand filter will ensure good quality water.

Possible Questions:
- How do you know when you need to maintain the filter?
- What has happened to the flow rate?
- How can we restore the flow rate?

Content:
The flow of the filter will decrease over time because of clogging of the sand layer by sediment in the untreated water. We need perform maintenance when the flow rate of the filter is too slow. How often depends on how dirty the untreated water is.

To restore the flow rate, we:
- Remove the filter lid
- If there is no water present above the diffuser plate, add about 4 litres (1 gallon) of water
- Remove the diffuser plate
- Swirl a stick or spoon quickly around the standing water at least 5 times
- Lightly brush the surface of the sand with a stick or spoon. Do not dig into the sand.
- Scoop out the dirty water with a small container. Do not remove the sand.
- Dump the dirty water outside the house in soak pit or garden
- Repeat the maintenance task until the flow rate has been restored
- Make certain the sand surface is smooth and level
- Replace the diffuser plate
- Refill the filter and set up the water storage container to collect the clean water

The biolayer has been disturbed by the maintenance, but it will re-grow. It is important to continue disinfecting the filtered water.

If you find the flow rate of the filter decreases rapidly, sediment your source water before pouring it into the filter.

You should also monitor the sand level and take care of the sand. Check the standing water level, the sand should be 5cm (2 inches) below the standing water level.

If you are still having problems with your filter after cleaning it, contact the filter manufacturer or your community health worker.

Check for Understanding:
- Show me how to operate and maintain the filter.
- How often do you need to perform maintenance?
- Why is it necessary to continue disinfecting the filtered water after cleaning the filter?