



Water safety alternatives

An important problem in many communities is that several water sources may not be safe in terms of water quality and also water may be contaminated during transport and storage.

When this is the case we may be able to initiate a process to improve the situation, but this may take time. Hence we may need alternatives that community members may be able to use.

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‘Safe’ water is needed for some uses

What does ‘safe’ water mean for community members. Different views may exist and particularly young children and elderly people may be more affected by bacteriological contamination.

Non polluted water is needed for drinking and cooking (washing vegetables), whereas for other purposes some pollution may no be a problem. Hence we need to ensure a minimum volume of non polluted water of some 5 litres per person per day

Advice about good quality sources

If some systems in a community provide good quality water then it is important that community members are aware of this and can access these sources at least for the 'safe' water they need. If only few of these sources exist it may be necessary to establish a rationing system for these sources to avoid long waiting times.

Rationing of 'safe' water may be needed to avoid long waiting lines

Putting a water tank with multiple taps at a tap stand may reduce waiting time

Water transport and storage is a main risk; people need advice and jerrycans need cleaning!

Rainwater may be an option

Rainwater may be a main source of good quality water

Rainwater may be a good relatively safe water source provided it is properly managed including cleaning of roof and diversion of first flow

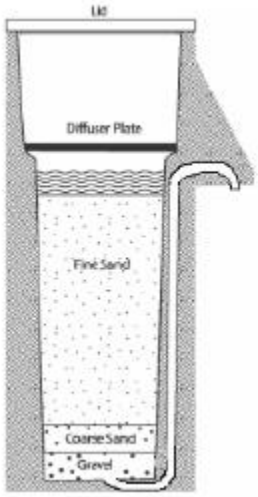
This water should primarily be used for drinking and cooking as this will make it last longer; for other uses water may be obtained from other sources

If you want to be sure about the safety for young children you may apply household water treatment

Explore experience of the community with using rainwater

Reducing turbidity

Water that is turbid (clouded) may be contaminated. Before this can be treated it is important to reduce the cloudiness as much as possible which can be done through straining or sand filtration.



Straining does not make water free from all contamination but facilitates subsequent treatment

These treatments however are usually not sufficient to make the water safe to drink hence further treatment is necessary

Sand filter used in Oromio

Sand filtration is a good option but requires that the water flow is not interrupted to ensure optimum removal of harmful bacteria

Source: HWT stephenson

Water boiling or filter candles

Water boiling is a good option but it requires fire wood that may be costly particularly for poorer families

Boiled water needs to be shaken or a little salt may be added to improve the taste

Household water filters may be another option

Disinfection by chlorine or the sun

Water can be disinfected by chlorine. solution; Waterguard for example is a product used in Ethiopia

Solar disinfection (SODIS) is a good option; it requires putting water (that is not clouded) for more than 6 hours on a sunny location; and on two consecutive days on cloudy days or when ambient temperatures are low maximum diameter 10 cm;