Fact Sheet Household Drinking Water Treatment and Safe Storage

Definition

Household or point of use (POU), drinking water treatment and safe storage provides a means to improve the quality of their water by treating it in the home. Popular treatment technologies include chemical disinfectants, coagulants, ceramic filters, biological sand filters, solar disinfection (SODIS) or ultraviolet disinfection processes, and combined products with both coagulant and disinfectant. This technology is not widely used in Grenada but pitcher water filters are available for home use.

How does the technology/practice contribute to climate change adaptation?

Degradation of water quality is expected to be one of the key impacts of climate change on water resources and water supply. Projected increases in flooding, drought, decreasing water availability, algal blooms, coastal inundation and sea level rise have both direct and indirect effects on drinking water quality.

HWTS increases resilience to water quality degradation by enabling users to improve water quality at the point of use.

It is estimated that there were 18.8 million users of HWTS devices worldwide in 2007, with rapid growth of roughly 25% per year.

The HWTS is useful for Grenada as the changes in rainfall pattern is affecting water quality and quantity in normal times but the technology is perceived to be expense and therefore not widely used.

What are the costs and financial requirements?

Both capital and ongoing costs must be taken into account when considering the appropriateness of an HWTS implementation program for a given community. Some technologies (e.g chemical disinfectants) have few if any capital costs but must be purchased periodically; others (e.g. biosand filters) have relatively large up-front costs with little or no on-going costs.

The costs associated with training and educating users will exceed all costs associated with the HWTS "hardware." One example is solar disinfection (SODIS). In many settings, SODIS can be practiced with negligible costs, either capital or on-going. However, uptake and sustained use cannot be achieved without significant investment in training and education. Regardless of the technology, attempting to implement HWTS programs without a substantial education component is likely to decrease the long-term sustainability and impact. Many HWTS implementation programs are donor-driven, offering partial or complete subsidization of product costs.

Status of the technology in Grenada

This technology is not widely used in Grenada but pitcher water filters are available for home use.