

New Design of the Ceramic Water Pot

Health need

A drink of clean, safe water is nearly always within reach in the industrialized world, but a billion people across the globe struggle for access to this basic commodity. In resource-poor countries families often rely on unimproved surface water and, as a consequence suffer from waterborne diseases. According to the United Nations Children's Fund, 44 percent of the rural population in Cambodia does not have access to a clean water source. Nearly one-tenth of child deaths for those under age five in Cambodia can be attributed to waterborne illnesses.

Technology solution

Ceramic water filters are one of a number of products for household water treatment which have been in use since ancient times. Ceramic water pots (CWPs) consist of a ceramic filter and accompanying receptacle for the filtered water. The typical ceramic filter holds eight to ten liters of water and is suspended inside a plastic receptacle. The receptacle is fitted with a tap and a lid; users pour water into the filter, wait for the water to flow through the filter into the receptacle, and dispense filtered water from the tap. CWPs are used throughout Africa, Asia, and Latin America. While CWPs are effective at water treatment, scale-up and sustainability via market forces have been limited by factors including durability, production quality, product aesthetics, and distribution.

PATH's Safe Water Project and CWP manufacturer Hydrologic redesigned the external portions of Hydrologic's Tunsai CWP for the Cambodian market. The ceramic pot remains the same, but changes in appearance of the receptacle and the addition of a stand were completed to make the CWP more desirable and to encourage sales. In development for over a year, the Super Tunsai has been aesthetically redesigned to align with Cambodian consumer preferences. It remains a simple device that produces clean water in a reasonable amount of time—but it is more attractive than the original Tunsai, easier to ship and store, and priced for the low- to middle-income consumer.

Current status and results

PATH completed a pilot project in Cambodia, combining sales of the Super Tunsai with a microfinance loan. The results were compelling with increased uptake from 6 percent to 43 percent among microfinance institution clients who took out a loan to purchase the improved filter. We were able to show that 80 percent of the buyers continued to use the device and 100 percent repaid their loans. An additional measurement showed that 21 percent of the general population in the pilot area had purchased the new product. The product was profitable, and therefore, self-sustaining for the commercial partners. They are expanding this model to more locations in Cambodia without the need for additional external support. PATH is seeking funding to replicate this sustainable model in other countries and also to design a new lower-cost version of the CWP container to reach even poorer families.



The Super Tunsai, launched in Cambodia in early 2011.

“Give users choices, and make the options not only functional, but also attractive and appealing. Enable users by providing solutions that are convenient, accessible and affordable...”

Tom Clasen, London School of Hygiene and Tropical Medicine

Availability

For more information regarding this project, contact Pat Lennon at plennon@path.org.

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