

New Ceramic Water Pot Design

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 and 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 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 are working with the Seattle firm CAD-Based Solutions to redesign the external portions of Hydrologic's Tunsai CWP for the Cambodian market. The ceramic pot will remain the same, but changes in appearance of the receptacle and other exterior components have been proposed 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

In a pilot project, the safe water team sold the Tunsai head-to-head at different price points in the Cambodia marketplace. Full retail price for the original Tunsai is approximately US\$12.50 and for the new Super Tunsai is US\$22. The new CWP has been well received, and PATH is seeking funding to produce another iteration of the Super Tunsai at a lower price by making it smaller and reducing the number of parts.

In addition, PATH is exploring the appeal of the Super Tunsai design in other regions to understand whether the design modifications chosen by Cambodian users may be of interest to those in Bangladesh, Kenya, or other countries.



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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