



Issue 119 October 4, 2013 | Focus on Cookstoves and Consumers

This issue contains 2013 reports and articles that discuss consumer behaviors and preferences in the selection and adoption of cookstoves. Resources in this issue include a WASHplus report that discusses an innovative methodology to assess consumer preferences called Trials of Improved Practices or TIPS. The WASHplus application of the TIPS method uses “elicitation questions”—semi-structured questions that have been developed to identify barriers and motivators to change. Other studies discuss willingness-to-pay surveys as an essential part of a social marketing strategy for cookstoves in southern Africa as well as cookstove activities in China, Kenya, and Zambia.

WASHplus REPORTS

- **Understanding Consumer Preference and Willingness to Pay for Improved Cookstoves in Bangladesh**, 2013. J Rosenbaum, WASHplus. ([Link, pdf](#))

This study uses qualitative and quantitative methods that draw from social marketing and social science to explore consumer perceptions of five of the most promising improved cookstoves potentially available for distribution in Bangladesh. The study complements other efforts by a range of stakeholders to strengthen market-based approaches and consumer choice for improving household air quality and reducing the environmental impacts associated with dependence on biomass fuels.

ARTICLES/REPORTS, Alphabetical by Title

- **The Applicability of “Willingness to Pay” for the Diffusion of Energy-Efficient Domestic Stove Technologies in the Southern African Market**, 2013. M Maré. ([Link, pdf](#))

The intention of this paper is to prove that the use of choice experiments incorporating willingness to pay surveys as part of a social marketing strategy are a necessary adjunct to achieve the implementation of energy efficient stove technologies on a wide enough basis to make significant contributions to the achievement of the Millennium Development Goals and to sustainability goals. A willingness to pay survey conducted in the Mamelodi East region of Gauteng, South Africa, suggests that this approach, targeted at poorer people, predominantly women, can be successful.

- **Development of a Fuel Efficient Cookstove through a Participatory Bottom-Up Approach**. *Energy, Sustainability and Society*, 3(16) 2013. V Honkalaskar. ([Link, pdf](#))

This paper presents a bottom-up approach that was successfully implemented to

develop a fuel-efficient cookstove in a tribal village that has resulted in a substantial reduction in firewood consumption. The approach ensured people's participation at multiple stages of the process that started from project selection by capturing people's needs/desires and studying the existing cooking practice to understand its importance in the local context.

- **Gender Differences in Preferences, Intra-Household Externalities, and Low Demand for Improved Cookstoves**, 2013. G Miller. ([Link](#))

This paper examines whether an intra-household externality prevents adoption of a technology, in this case improved cookstoves, and the implications for population health and the environment. Motivated by a model of intra-household decision making, the experiment markets stoves to husbands or wives in turn at randomly varying prices. It finds that women—who bear disproportionate cooking costs—have stronger preference for healthier stoves, but lack the authority to make purchases. Findings suggest that if women cannot make independent choices about household resource use, public policy may not be able to exploit gender differences in preferences to promote technology adoption absent broader social change.

- **Generating Consumer Demand for Clean Cookstoves in Base-of-Pyramid Markets**. *The Solution Economy*, May 2013. K O'Dell. ([Link](#))

This article addresses the challenge of marketing clean cookstoves to low-income segments around the world. With approximately two-thirds of the biomass-using population yet to adopt a clean cookstove, the potential market for these products is large. Meaningful adoption, however, has remained elusive despite 30 years of efforts by donor agencies and charitable organizations to push clean cookstoves into rural households to mitigate the debilitating health and environmental impacts of traditional cooking. Drawing from examples of other socially beneficial consumer durable goods that have been sold to base-of-pyramid populations, this article highlights principal takeaways for donor agencies and charitable organizations to enhance market-based approaches around demand stimulation for clean cookstoves.

- **Implications of Charcoal Briquette Produced by Local Communities on Livelihoods and Environment in Nairobi, Kenya**. *Intl Jnl Renew Energy Devel*, 2(1) 2013. M Njenga. ([Full text](#))

The high costs of cooking fuel results in poor households burning unhealthy materials such as plastic waste. Further, poor households are opting to cook foods that take a short time to prepare irrespective of their nutritional value. This article presents experiences with community self-help groups producing charcoal fuel briquettes from charcoal dust in poorer neighborhoods of Nairobi for home use and sale. Households that produced charcoal fuel briquettes for their own use and those that bought them saved 70 percent and 30 percent of money spent on cooking energy, respectively. The charcoal fuel briquettes have been found to be environmentally beneficial since they produce less smoke and increase total cooking energy by more than 15 percent, thereby saving an equivalent volume of trees that would be cut down for charcoal.

- **Improved Cook Stove Adoption and Impact Assessment: A Proposed Methodology**. *Energy Policy*, Aug 2013. K Troncoso. ([Abstract](#))

Until now, the success of improved cook stoves (ICS) implementation programs has usually been measured by the number of ICS distributed. While research has been conducted to determine the improved health effects of using an ICS, these studies are

expensive and time consuming. Moreover, no evaluations show the impact of the technology on the user's lives. This study seeks to fill this gap. The most relevant variables that explain adoption and impact were identified and two qualitative indexes were proposed: The adoption index considers the use of the new technology, the level of satisfaction, and the conditions of the stove. The impact index considers the changes in cooking practices and life quality brought about by the ICS. The indexes show the differences between the program results and the user's perceptions of each technology.

- **Using Social Marketing Tools to Increase Fuel-Efficient Stove Adoption for Conservation of the Golden Snub-Nosed Monkey, Gansu Province, China.**

Conservation Evidence, 32-36. A De Wan. ([Full text, pdf](#))

The Campaign to Protect the Sichuan Golden Snub-Nosed Monkey in the Yuhe Nature Reserve, Gansu Province, China, was initiated in 2008 in an effort to inspire communities to protect forest habitat in the reserve and quickly adopt fuel-efficient stoves. Results of this study show significant increases in knowledge, attitudes, and interpersonal communication pre and post campaign. Post-campaign (within 1 year) results concluded 28 percent and 43.1 percent of those surveyed within 1 year and 2.5 years, respectively, adopted the technology. For those households that adopted fuel-efficient stoves, consumption and gathering time were reduced by approximately 40 percent. Finally, preliminary research suggests that adoption of fuel-efficient stoves also leads to a reduction in forest destruction.

- **Why Aren't Clean Cookstoves Taking Off?** *Thomson Reuters Foundation*, Aug 2013. E Berger. ([Blog post](#))

When researchers from the Stockholm Environment Institute (SEI) went to Lusaka, Zambia, to see why people were still choosing inefficient, hazardous charcoal stoves over cleaner options, they realized much of the problem could be solved by one simple action: listening carefully. Aaron Atteridge, a research fellow with SEI and one of the Lusaka study's authors, emphasizes the need to "create a product that people are going to accept more reasonably on their own terms."

WASHplus Weeklies will highlight topics such as Urban WASH, Indoor Air Pollution, Innovation, Household Water Treatment and Storage, Hand Washing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus Knowledge Resources Specialist, at dacampbell@fhi360.org.



About WASHplus - WASHplus, a five-year project funded through USAID's Bureau for Global Health, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and indoor air pollution (IAP). WASHplus uses at-scale, targeted as well as integrated approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.