



Improved Stove Initiative

Indoor air pollution (IAP) annually takes the lives of over 1.6 million people with its main victims as women and children. Yet, it is fully preventable and, in fact, just another burden of poverty. Although cleaner fuels, such as kerosene, may eliminate IAP, most people lack access or cannot afford them. A more affordable and accessible solution are improved stoves.



old stove

The women and children in the extremely poor Honduran refugee village, Siete de Abril, fuel their make-shift stoves by burning mostly wood and trash. The resulting smoke (as evidenced by the soot shown in the picture) is the main source of IAP and thus places them at a great risk for health problems, ranging from asthma to lung cancer to death.

To address this life-threatening situation in Siete de Abril, Dr. Shawn Humphrey and his students created an **Improved Stove Initiative** in the Fall of 2007. On our first trip to Honduras in January 2008, we completed research about the need and demand for improved stoves, and educated the community about IAP. Then, to overcome the limitation of the cost of improved stoves, we along with SHH fundraised money so that the stoves could be purchased at a heavily subsidized rate. [Hear about the Carter Grant we received <http://www.youtube.com/watch?v=aIvTRrgefT4>](http://www.youtube.com/watch?v=aIvTRrgefT4)

By the Fall of 2008, dozens of improved stoves had been successfully distributed to families in Siete de Abril. Moreover, IAP emissions tests were taken before and after the installation of improved stove to ensure their effectiveness in decreasing IAP.

In January 2009, we administered a follow-up survey to both individuals who did and did not receive an improved stove. These surveys addressed the issues of uptake, and other constraints that inhibit a successful and wide-spread improved stove program. Perhaps most importantly, these results will guide the future steps and improvements for the Improved Stove Initiative. For instance, since fundraising enough money to provide improved stoves to all families in need is not feasible, we are looking into the possibility of providing microfinance opportunities (perhaps via La Ceiba) to individuals wishing to purchase a stove. Ultimately, our goal remains unchanged—we hope help people improve their own lives by being able to cook and live in a healthier and more efficient environment.



*New improved stove
(permanent model)*

Phase I (January 6- January 13)

- Administered preliminary surveys
- Educated community about IAP

Phase II (Spring 2008)

- 25 households received improved stoves
- Measurements of IAP emissions taken before and after improved stoves installed.
- Completed by the Berkley Air Monitoring Group, ENASA and Students Helping Honduras

Phase III- (January 3-10, 2009)

- Administered follow-up surveys



*Installing (portable)
improved stove*