A Solar Cooking Success Story in a Darfuri Refugee Camp

A recent evaluation of solar cooker use in one Darfuri refugee camp shows significant improvements in families’ lives thanks to the acceptance and use of solar cookers. The Iridimi refugee camp, a camp of over 17,000 Darfur refugees in Chad, now has 15,000 CooKits, an affordable, simple solar cooker developed by Solar Cookers International. The report, “Solar Cooker Project Evaluation: Iridimi Refugee Camp, Chad,” prepared by Brie Loskota, a program evaluator and the associate director for the Center for Religion and Civic Culture at the University of Southern California, in October 2007 describes and quantifies the benefits to the refugees.

As in most of Africa, meals at the Iridimi Camp were usually prepared over a three stone fire, requiring fuel wood to cook, heat water, or make tea. Each family in the camp receives one bundle of fuel wood per month, an insufficient amount for preparing the month’s meals. For additional wood, families would either trade food rations for wood, or leave the camp to gather wood on their own, exposing themselves to attack by local bandits or the Janjaweed militia. The CooKits were first introduced to the Iridimi camp in 2005 to decrease the need for fuel wood and to increase the safety of the women who leave the camp in search of wood. One zone chief even noted that “There is more happiness, less violence, less insecurity, and I now eat three times per day [as a result of the solar cookers].”

A five day evaluation of 121 people showed that everyone uses their solar cooker each day. In fact, 60% of respondents use the CooKit twice a day, and 10% use it three times a day. They prepare all of their traditional dishes in the solar cookers, including rice, beans, meat, millet, and porridge, among others. Combining their solar cooker with a fuel efficient stove has allowed most women to stop using the three stone fire to prepare their meals. The result is that 53% of people no longer leave the camp at all to gather wood. Before the introduction of the CooKit, the refugee group surveyed averaged a total of 446 individual forays outside of the camp per week to gather fuel wood. Now, that number has fallen to 63, an 86% drop. The following graph shows the drastic reduction in the number of refugees who leave the camp at least twice a week, while showing the increase in those who now never leave the camp to collect fuel wood.
The women themselves recognize several advantages to the use of solar cookers, including improved security, improved relations with neighbors, increased free time to do other things, and decreased health problems as a result of reducing the presence of smoke and ash. Many families ask only for additional solar cookers to prepare more dishes at once.

Although solar cooking is slower than other methods and can be limited by the weather, a 100% daily use rate demonstrates how important and successful this technology is to these refugees. Solar cooking has allowed families to reduce their dependence on scarce fuel wood and improve their safety and health, while providing a low cost, low maintenance sustainable way to prepare their daily meals.