



Solar Household Energy, Inc.

Solar Cooking for Human Development and Environmental Relief

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SOME BIG SOLAR COOKING PROJECTS IN ASIA

December 2011

In 2009, China led the world with over 1.4 million solar thermal cookers.¹ India has developed solar thermal institutional systems which cook for thousands of people.²



Photo credit: Jim Lindsay, Sunfire. This is a 'butterfly' parabolic solar cooker comparable in design to the majority of those in Tibet

The Clean Development Mechanism (CDM) has registered eight solar cooker projects in China since 2009.³⁻¹⁰ A total of 207,000 parabolic cookers have been distributed, serving 848,000 people.¹¹⁻¹⁸ CDM has already issued Certified Emission Reduction (CER) credits for two of these projects.^{3,4} The other six are too recent to be receiving credits yet.⁵⁻¹⁰

In 2005, GTZ, the German international assistance organization, did a survey of household fuel consumption in the Tibet Autonomous Region, (TAR). It found that families spent a large part of their income and time obtaining fuel.¹⁹ At altitudes above 3700 meters, the daily fuel is one or two bags of yak dung collected most days by the women in 3 to 9 hour forays throughout the dry season.²⁰ At lower altitudes, very poor women carried wood from distant mountain valleys, walking up to 10 hours a day during the collecting season.²¹ Others bought wood delivered by tractors.²²

GTZ reported that by 2007, 70,000 solar cookers were in use in the TAR.²³ By 2009, around 50,000 cast iron solar cookers were sold annually.²⁴ 100 shops making concrete solar cookers were found in Qinhai Province and a new factory was operating in Lhasa.²⁵ Regular use of solar cookers reduced consumption of wood and yak dung by half.¹⁹

In India, CDM registered a Gold Standard project in 2006.^{26,27} Gadhia Solar company created institutional kitchens with arrays of large parabolic solar concentrators to generate steam.²⁷ Such an installation at Mt. Abu, Rajasthan, can produce meals for 38,500 pilgrims per day.²⁸

These are well documented examples of solar thermal cooking projects. Elsewhere, large quantities of solar cookers have been distributed in camps for Bhutanese refugees in Nepal,²⁹ in Aceh, Indonesia after the 2004 tsunami,³⁰ and in many other countries in Asia.³¹ However, precise documentation on these projects is elusive.



Photo credit: Hindu Photo Archives.³² The Tirumala Temple in Tirupathi, India, provides meals to over 40,000 devotees a day. Scheffler solar concentrators on its canteen roof save 50,000 litres of diesel a year.³³

Endnotes

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