Solar Household Energy, Inc.
Solar Cooking for Human Development and Environmental Relief

SOME LARGE-SCALE SOLAR COOKING PROJECTS IN ASIA

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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]

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]

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, but other less documented examples also exist. 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]

Endnotes

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