

Dissemination of solar cooking process in Portugal and Chile during last two years

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Portugal:
Algarve and Alentejo are regions of tourism in Portugal with a large potential for solar applications in general. However, the potentialities for solar cooking process in particular are not yet well known. So, the dissemination activity of solar cooking is important as well the inclusion of disciplines focusing solar cooking process in the programmes of the courses of schools of technology and of hostelry. Moreover domestic and industrial solar cooking process examples must be implemented with success to become in a short time well multiplied.

Chile:
Aculeo Lake, Chile, just in 33 degrees south latitude is a region for summer tourism in the Metropolitan area of Santiago, the Chilean capital. Sunny days are common during summertime's. This paper shows the development of a little subside program, from GEF PNUD UE, that works in the transfer of solar cookers and solar ovens to little familiar enterprises, that make solar food in the side of principal road.

Portugal and Chile has similar conditions for solar cooking, like a result from a network development the technologies used are similar and the situation and methodology are different.

Experiences and dissemination in Portugal
The intensive use of solar cookers by the author, professor Celestino Rodrigues Ruivo, began after his participation in the Solar Cookers Conference in Granada-Spain, July 2006, becoming an important advocate for solar cooking in Portugal.

Ruivo learned to solar cook using the cardboard solar CookKit. He has since made and used several solar cookers, most of them low cost apparatus using recycled materials.

The intensive solar food processing during the last two years became useful for the right development and optimization of different types of solar cookers.

In the summer 2006, several meals have been cooked in panel cookers made of cardboard with an adhesive reflective foil, a black pot and common plastic bag. In these first experiences, the main critical problem detected was the fusion of the plastic bag. The experiences continued during autumn and winter time but with difficulty due the low efficiency of the apparatus. Another critical point observed was the fact that cardboard is not water resistant.

During the second year of experiences the results were much better. More efficient solar panel cookers were developed using sheets of polypropylene and using recycled windows of cloth washing machines.



Experiences and dissemination of solar cooking in Chile: Solar food micro enterprises
In Chile, the Canelo Corporation has for almost 20 years been disseminating various models of solar cookers and ovens in development programs funded by competitive resources of the state, international cooperation, U.E. or UN program funds for development [UNDP]. The important thing about these models is that they are able to replace 100% of the firewood for cooking and heating and water pasteurisation in the days of sunshine, which is higher than 300 per year.

During 2007 2008, Canelo de Nos, with the technical assistance, models of stoves and ovens created by the engineer Pedro Serrano, has developed a solar program subsidized by GEF / UNDP, during the program has developed a technology transfer solar toward families who live at one side of the main road leading to Lake Aculeo, a tourist place near a capital of Chile. Solar cookers draw attention of tourists, tourist who tends to the ecological and gives preference to this kind of food business. The meals were produced with solar energy are highly diversified, from dough, bread or corn cakes sewn up, chicken or meat in general. That is, apart from energy, firewood economy, and environmental impacts of solar stoves and ovens, these are a good ally for business.

