

# AMANACER: THE CORNELL SOLAR OVEN TEAM

## Project Description

### The Problem



- 2 billion people do not have access to clean cooking fuel and cook daily with wood or biomass.
- Cooking with wood causes respiratory problems.
- Buying firewood is expensive and gathering it can be difficult.
- Burning wood contributes to deforestation.

### The Solar Box Cooker



- Cannot not fry food
- Pasteurizes water
- Reaches 160°C

- Insulated box with reflector and double-paned glass top
- Powered entirely by the sun
- Cooks rice, beans, chicken, eggs and cake
- Toasts coffee and corn

### Partner Community

Sabana Grande is a small village in northern Nicaragua. Most families practice subsistence agriculture and have very little cash income. Everyone in the community uses an open wood-burning stove for the majority of their cooking. About a dozen families have solar cookers that they use to supplement the fire.



### Project Goals

Work collaboratively with *Las Mujeres Solares de Totogalpa* to:

- Test cooker designs and characterize their performance
- Design a more effective, economical, durable and versatile solar cooker
- Find ways for cookers to be used in small businesses to generate additional family income

### Partner Organizations:

**Grupo Fenix** promotes renewable energy in Nicaragua through education and cooperative research. It was established in 1996 by students and Professor Susan Kinne at the National Engineering University (UNI) in Managua, Nicaragua.



**Las Mujeres Solares de Totogalpa** is a group of women from Sabana Grande and surrounding areas who have been building, using and promoting solar cookers and dryers since 1999.



Amanacer and Las Mujeres Solares, March 2007



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[http://eswserver.cee.cornell.edu/esw/project\\_pages/SolarOvens/](http://eswserver.cee.cornell.edu/esw/project_pages/SolarOvens/)



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