



# Rotary Club of Tapachula Centenario

Integrated Solar Cooking class  
conducted by Rotary Club volunteers  
from Mexico and Fresno

Matching Grant # 74748

March 5-9, 2012

# Tapachula Centenario



- Banner welcoming students to class

# Tapachula Centenario



- The Drum and Bugle Corps initiate the events on the first day

# Tapachula Centenario



- Students registered daily for a 5-day solar cooking workshop

# Tapachula Centenario



- We expected 20 for our class, but the turnout was 91 students

# Tapachula Centenario



- Tapachula's Planetarium, site of workshop



- Rotary Instructors from Tapachula, Torreon, Oaxaca and Salina Cruz

# Tapachula Centenario



- Building one type of energy- and fuel-efficient rocket stove design from mud and dry grass

# Tapachula Centenario



- Local television news covered the solar cooking event



# Tapachula Centenario



- One-piece rocket stove with wind skirt made from mud and dry grass

# Tapachula Centenario



- 16-brick portable rocket stove in use

# Tapachula Centenario

- Rocket stove used to cook tortillas on a comal



# Tapachula Centenario

Completed rocket stoves of various designs

Rocket stove  
16 brick design



Rocket stove  
5 gallon can



Rocket stove  
One-piece mud  
and dry grass



# Tapachula Centenario



- Raw cardboard prior to being prepared with the CookIt design

# Tapachula Centenario



- Cardboard cut with CookIt design, but awaiting foiling, CookIts can be folded flat for easy transport

# Tapachula Centenario



Cookits being lined with aluminum foil

# Tapachula Centenario



- Cooking with free solar energy with finished Cooklts



# Tapachula Centenario



- Instructor describing building and using a heat-retained cooker, of which the hay basket is an example

# Tapachula Centenario



Two pillows for hay baskets stuffed with dry grass, crumpled newspaper, or other insulators

Pillows inside basket to insulate hot pots, food continues cooking after heating in rocket stove or solar cooker first



# Tapachula Centenario



- Preparing meat for solar cooking after thoroughly washing hands

# Tapachula Centenario



- Part of the food preparation for solar cooking
- Eggs are cooked without water

# Tapachula Centenario



- Foods prepared for solar cooking



# Tapachula Centenario



- Various foods being placed in black pots, which absorb solar energy and become hot

# Tapachula Centenario

Solar cooked dishes ready to eat



# Tapachula Centenario



- Solar cooked pineapple upside down cake



# Tapachula Centenario



- Students enjoying solar cooked meals from their own solar cookers

# Tapachula Centenario



- Instructors from Tapachula, Torreon, and America;
- Gina Matsui Santana, far right, is the president of the Tapachula Centenario Rotary Club

# Tapachula Centenario



- Instructional staff from various parts of Mexico whose commitment has made this a sustainable program

# Tapachula Centenario



- Instructors awarding diplomas at the end of the 5-day workshop



# Tapachula Centenario



- Some of the graduates in alternative energy technology, including our youngest student at 10 years of age, Gildardo Gonzalez



## **TAPACHULA CENTENARIO WORKSHOP MARCH 5-9, 2012**

### **ROTARY CLUBS OF FRESNO AND TAPACHULA CENTENARIO, MEXICO**

The 5 day Integrated Solar Cooker workshop was to have 20 participants but 91 signed in daily at the Planetario Colegio de Bachilleres Tapachula to be taught how to make solar cookers, rocket stoves, haybaskets, and the use of the WAPI to benefit their health, nutrition and economics in the lives of impoverished women and families living in small communities. A father brought his 10 year old son. Many class members were social workers, teachers or teachers in training. Future workshops after returning home..

The credit for a very well organized workshop belongs to the leadership of President Eva Georgina Matsui Santana and her 15 committed members of the Rotary Club of Tapachula Centenario. All members took responsibility and participated during the five day event.

The first workshops in Mexico were imitated in 2001. Today Rotary Integrated Solar Cooker Projects are sustainable because there are experienced teams of Rotary members from various cities: Torreón, Salina Cruz, and Oaxaca qualified to teach this Appropriate Technology.

The initiation of the project began Monday morning, March 5th, with the 25 member Naval Drum/Trumpet Corps and its Commander wishing the project success and assigned 3 Navy-members from the Naval base to participate and be instructors at the base. Staff from the Fire Department were asked to do the same as part of their preparedness program. Workshops are planned for these sites.

Hands were washed and daily sessions began at 9AM preparing food for the solar cookers, tortillas were brought in and everyone had a taste of what was cooked. Meat, chicken, veggies, rice, black beans, cakes, and flan were the choices of the day. We finished the days activities about 2PM. The day sessions were divided to cover four components of the project: making and using solar cookers, haybaskets, rocket stove, and using a WAPI (temperature indicator) where unclean drinking water is pasteurized, and made drinkable. Many families have unclean drinking water and must purchase 5gallon plastic jugs for household use which is expensive.

Matching Grants offer Rotary Clubs of Mexico a partner with International clubs such as the Fresno Rotary Club which has completed 10 grants throughout Mexico. Today such Rotary members as Dr. Bricia Cruz with Herminio from Oaxaca are experts in building rocket stoves; Dr, Irma Martinez and her husband Sergio appear at technical schools, television studios, and do solar cooking workshops in rural communities; Teresa and husband Delfino are experts in the field of building haybaskets which are sometimes called "Fireless cookers", a form of thermos capable of cooking with residual heat, or simply keeping food or drinks hot or cold

# Tapachula Centenario

The last function of any class is to assess the instructors, material learned, and the workshop in general. Here are student's responses:

- ☀ Teaching a community introduces new concepts of uniting for a cleaner environment and protects natural resources
- ☀ Class was a good mix of theory and hands-on learning with many benefits of saving time and household costs
- ☀ This kind of workshop promotes sustainable development and unites communities because human activities impact the environment
- ☀ Benefits new communities which lack wood, because solar energy is freely available
- ☀ Materials to build rocket stoves and solar cookers are plentiful, inexpensive, and locally available- thus protecting natural resources
- ☀ Technology is easy to learn and employs the unemployed