SOLAR CONCENTRATOR EVOLUTION IN INDIA AND WAY AHEAD

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About Ashram - Geographically Speaking
Brief background on myself and how I came in touch with and joined Ashram
Fuelwood Crisis - Our Fragile Ecological Environment.

Two billion people need fuelwood for cooking. 80% of the fuelwood is used in Third World countries.

Half of the logged trees, goes for cooking. Trees are cut faster than they can be replenished.
Solar Box Cooker
SK-14 Solar Cooker
Indoor Community Solar Cooker
Indoor Solar Cooker
Indoor Solar Cooking
Cooking at Night with stored Solar Energy
Development of Solar Steam Cooking System (pair mode) for Institutional cooking

2 reflectors on single focus

1 receiver

header pipe

receiver
Solar cooking vessels steam direct injection, jacketed for steam/ thermic fluid
Solar Cooker with 106 Concentrators for 30,000 meals per day

Solar Steam Cooking System for 15,000 people (was till June 09 World’s largest)

Tirumala Tirupati Devasthanams (TTD), Andhra Pradesh, India
World’s Largest Solar Cooker

From 30th July 2009

Worlds’s Largest
Now is Shirdi Temple that cook
50,000 meals per day
World’s Highest Solar Cooker

10 Concentrators to cook for 500 people for Indian Army in Ladakh
Kitchen before/after Solar
Sangi Industries, Hyderabad for their industrial canteen to cook for 500 workers.

Rishi Samskruti Vidya Kendra near Bangalroe to cook for 500 students

Sri Saibaba Santhan Shirdi to cook for 3000 people per day
Solar in food processing industry
Solar Bakery
Drinking water from Sea Water
Solar Waste Water Evaporation System
Solar Thermic Fluid System that enables making chapti and frying and also storage of energy at night and next morning at Vankuva School.
Wood Fired steam generated in boiler replaced with Solar Steam
Cooling with heat of SUN
Solar Air Conditioning/ Chilling
Solar Crematorium
Scheffler dishes of 60m² each for 3 MW Power Generation at Brahma Kumari’s, Abu with metal storage
New development large solar concentrators of 60 m2
Solar Thermal application
for
Process Heating in rubber Industries
Arun Dish - 160 m² Fresnel dish for Milk Pasteurisation at Latur
Joshi-Panse EnerSun CLF Automatic System

Automatic rice Cooker cooks with hot water not steam
Enersun Process Heating Set-up
At Chemical Plant Site at Mahad
Storage enabling cooking at night..
Testing of Flat foil Concentrator with micro-mirrors with nano-technology
A little village in the sun

By A. D. Rangarajan

TIRUPATI, JAN. 6. Here is a bright little village in Andhra Pradesh that is all solar and smoke-free—the first of its kind in the country.

Bysanivaripalle, 125 km north-west of Tirupati, has 36 families. Their main means of livelihood is sericulture. The eco-conscious residents of the electrified village went in for the first biogas plant in the region two decades ago. The officials of the Non-Conventional Energy Development Corporation of Andhra Pradesh (NEDCAP) did not need to put in much effort to motivate them to go solar.

Intersol, an Austrian non-governmental organisation, sponsored the provision of “Sk-14” cookers here last year. Gadhiya Solar, a Valsad-based environmental body that imports, supplies and installs them, executed the job. It is the single largest cluster of cookers that Gadhiya Solar has installed anywhere. A group of schoolchildren from Austria visited the village last year to witness the project.

“With 23 biogas plants and 26 solar cookers, we do not have to use a matchstick,” says Sadananda Reddy, a progressive sericulturist who was honoured by the Karnataka Government recently for his top quality cocoons.

Apart from preparing rice, the solar cookers are used to fry chips, roast peanuts and make traditional Andhra sweets. Eyeing sales in the nearby Madanapalle town, a few enterprising people are baking cakes and biscuits too.

The physically challenged local washerman has stopped buying coal; he keeps his traditional iron on the cooker and takes it out burning hot in 10 minutes before he flattens creases into a starchy crisp.

Says Papulamma, who cooks midday meals for 48 children in the village school: “No need to go to the forest anymore to fetch firewood. I cook the meal in less than two hours and avoid coughing, and burning in the eyes.” To counter the harsh sunrays, NEDCAP has provided the women sunglasses.

The village has come in for praise from the developer of the Sk-14 cooker, Dieter Seifert of Germany. In an e-mail message, he says: “There may be places where there are more number of solar cookers, but I have never come across an entire village using just solar cookers and biogas, which makes it a smoke-free village in the real sense.”

COOKERS ALL THE WAY: On a street in Bysanivaripalle in Andhra Pradesh...
SMOKE FREE VILLAGE with 26 K-14 SOLAR COOKERS & 23 Biogas Plants
SK14 for Ironing Clothes
Invited by Bill Clinton to Hongkong Clinton Global Initiative (CGI) meet
President Dr Abdul Kalam seeing his vision of “Providing Urban Amenities in Rural India” (PUARA) being implemented at Ashram farm
Thank You
Video Links on “Muni Seva Ashram”

• YOUTUBE Videos & Links:
  o 14-Min Video: http://www.youtube.com/watch?v=d-c8kXu5-20
  o 7-Min Video: http://www.youtube.com/watch?v=jaSlzvrf0b4
  o Cyclotron Project: http://www.youtube.com/watch?v=O5U6vN-7qWA
  o VTC: http://www.youtube.com/watch?v=irCv8QOV3RM
  o Ashram History: http://www.ijourney.org/story.php?sid=14
  
  o Solar Kitchen (German) http://www.dw-world.de/dw/0,,13263,00.html
  o Solar Kitchen (English) http://www.dw-world.de/dw/0,,13291,00.html
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