



# Solar Thermal Energy Situation In Nigeria:

- Due to global environmental concern and the supplement to the unsteady electricity supply in Nigeria, the need for solar thermal energy enhancement cannot be overemphasised.
- In Nigeria about 80% of domestic energy needs are met through burning fuelwood.
- Awareness campaigns, demonstration projects and capacity building / skill acquisition programmes on solar thermal systems would go a long-way in transforming the continent economically, socially, and environmentally.
- Solar thermal energy used are community based; such as community based solar water heating, **Renewable Energy Integrated Rural model village etc.**
- large scale solar drying and cooking applications etc.

# Experiences of your institution concerning solar thermal energy:/ Experiências da vossa instituição em matéria de energia solar térmica/ Expériences de votre institution en matière d'énergie solaire thermique

- **Short Background on solar thermal energy**
- The Sokoto Energy has vast experience in solar thermal activities, since 1983 Conducting Research development and training activities.
- **Activities/Trainings? Target groups Research**
- In addition to academic trainings, SERC/UDUS constructed many pilot projects across the country and conducted training programmes in different categories.
- Annual ECN/NYSC Training programmes on fabrication, installation and maintenance of renewable energy systems.
- Training of unemployed graduates for entrepreneurship in collaboration with the National Directorate for Employment N.D.E. etc.
- **Production of technologies or components**
- **Products are produced locally using available material .**



# Experiences of your institution concerning solar thermal energy:/ Experiências da vossa instituição em matéria de energia solar térmica/ Expériences de votre institution en matière d'énergie solaire thermique

-Is there a national production of solar collectors or overall solar thermal systems? If yes, please mention the company./Are there significant imports of solar thermal systems or components? If Yes, from which countries/ Are there statistics available on the total installed number of systems or m<sup>2</sup> of collector area in your country? If Yes, please provide data

- The solar collectors are only produced by the research institutions. At the moment there is no registered company manufacturing and installing solar thermal systems.
- Solar thermal systems are mainly imported from Us, Germany, China, India, Japan , Pakistan etc.
- At the moment there is no official record of the current installed capacities in Nigeria.

Existing key barriers for solar thermal energy/ Menciona 3 principais barreiras existentes para a energia solar térmica/ Cite trois principaux obstacles pour l'énergie solaire thermique

1. Inadequate funds for Research Projects and cutting age research facilities.
2. Insufficient continuous Personal Development (CPD) activities for manpower training.
3. Lack of public awareness, incentives to Industries, micro credit schemes and Entrepreneurs for the commercializing the developed energy systems

# Needs and expectations / Necessidades e expectativas/ Besoins et attentes

- **What are needs and expectations of your institution on a ECOWAS solar thermal program?/**
- Our needs and expectation for the ECOWAS solar thermal energy capacity building and demonstration program is to boost skilled manpower for the design, installation and maintenances of solar thermal products; These will deal with issue of maintenance and local technical infrastructure development.
- **Expectations to ministries of energy?/ Expectations to ministries of housing/urban**
- There is need to come up with standard quality control and warranties; thus making institutional and regulatory framework feasible
- **planning/buildings?/ Expectations to chambers of architects?/**  
There need for national policy on the use and installation of basic renewable energy systems for both domestic and public buildings.
- **What needed for dissemination of solar thermal energy broadly?/**
- Serious sensitisation programmes and joint activities training programmes between research centres/ institutions and relevant RE industries.

# SERC Pilot Projects: Solar Hay Dryer & 1,000ltrs Community Solar Water Heater

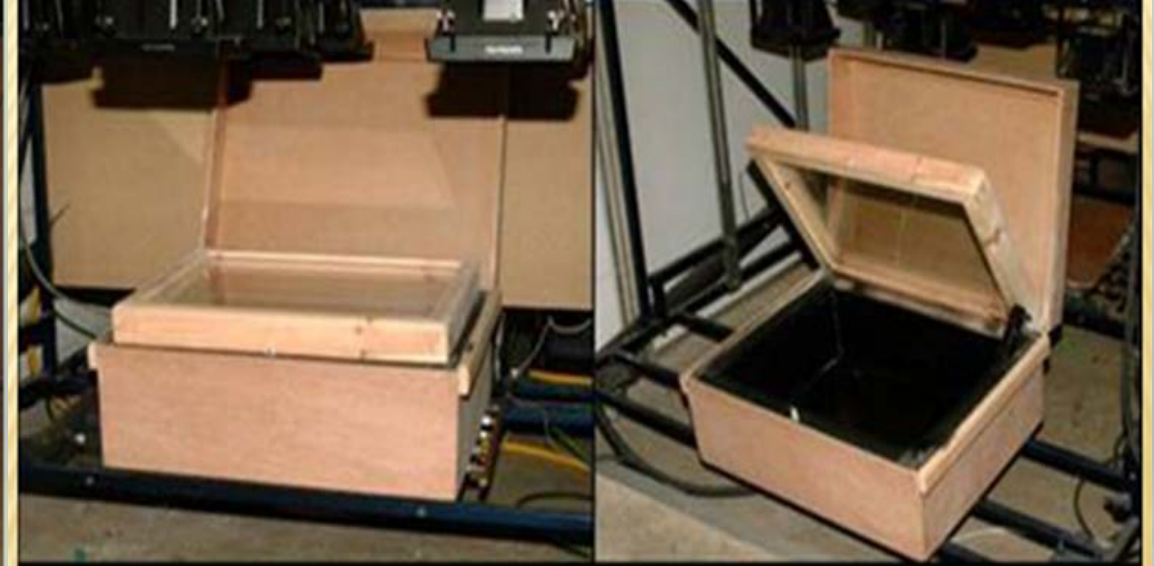


A 2-Tonne Dryer at NAPRI,  
Zaria, constructed by SERC





# Dual Operated Solar Cooking and Drying System & Box-type Solar Cooker



Simple Rectangular box solar cooker (Garba 2003)



# SERC/UDUS Renewable Energy Integrated Model Rural Village at Danjawa





# Solar Thermal Systems on Exhibition stands

