# Highlights of Manual on Renewable Energy Technologies for Sustainable Energy Solutions to Reduce Poverty in South Asia

Presented by: Moon Shrestha Network Program Coordinator Centre for Rural Technology Nepal (CRT/N) Energy Supply and Consumption pattern of a country is a vital indicator of the degree of development

Achieve food and water security
Sustainable livelihood of the poor
Provide sustainable health services
Capacity building through information sharing

Communication services

Upgrading knowledge and skill

Imparting appropriate education .....

# Inappropriate energy supply and consumption will lead to....

Global Warming

- Acid rain
- Resource depletion
- Environmental pollution
- Escalation in energy price
- Loss of biodiversity
- Land degradation
- Soil erosion
- Deforestation
- Health hazards....

## About Technical manual

#### Four Chapters Chapter 1: Introduction Chapter 2: Choosing right RET Solution Chapter 3: Sustainable Energy Technologies Chapter 4: Local Organizations managing sustainable energy Financial Manual

#### **Choosing Right RET Solutions**

#### Step

Input

Discussion of local Problems and Resources

Status of Energy Balance and Local Energy Consumption

> Future Energy Balance (Business as Usual)

Calculating economic benefits, environment and economic consequences of the technologies

Choosing the best mix of technologies

Elaboration of an Action Plan

Dissemination of the Plan

Knowledge of area, people, financial resources

Local figure

Forecast for energy consumption

Data for investment, maintenance, fuel consumption

Discussion and calculation

Knowledge (dev. of tech, eco. feasibility, level of information, financial resources

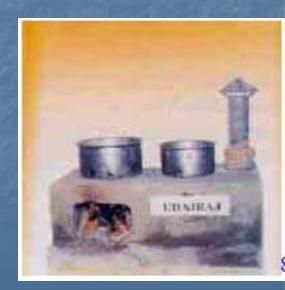
### Sustainable Energy Technologies

Cooking Devices
Electricity and Mechanical Devices
Others

# Cooking Devices - Stoves

Anagi
Udairaj
Laxmi
Improved Cook Stoves
Honeycomb/Beehive Briquettes





### Cooking Devices - Biogas Technologies

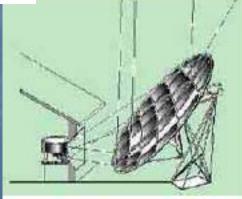
Floating Gas Holder Biogas Plant
Fixed Dome Biogas Plant
Flexible Bag Biogas Plant

# Cooking Devices – Solar Cooker

Box type solar cooker
Solar baking unit
Community solar cooker

 Community colar cooker (Scheffler)





### **Electricity and Mechanical Devices**

#### Solar Photovoltaic Systems

- Solar Lantern
- Solar Home System
- Solar Street Light
- Solar Tracking Devices
- Solar Photovoltaic Refrigerator
- Micro Hydro System
- Biomass Based Power Generation
- Windmills for electricity and Pumping
- Animate energy
   Treadle Pump
- Electricity conservation



### Others

Drying Solar Water Heater Solar Distillation Solar Disinfection and **Purification of Water** Passive cooling and heating of Rooms Bio diesel Electravan Fuel wood plantation



# Thank you for your Attention