

## Delivering Sustainable Energy Solutions for Reducing Poverty :

### CRT/N's Experience from Nepal

**Ganesh Ram Shrestha**  
 Executive Director  
**Centre for Rural Technology, Nepal (CRT/N)**

INFORSE-WECF Side Event of UNFCCC COP15, Copenhagen:  
 200 NGOs in Action in Asia & Africa for Sustainable Energy

Monday, 14 December, 2009  
 16:30 - 18:00  
 Bella Center, Niels Bohr Room




The Side Event organised by  
 International Network for Sustainable Energy (INFORSE)  
 Women in Europe for Common Future (WECF)  
 Read more on INFORSE's participation at UNFCCC COP15:  
[http://www.inforse.org/europe/conf09\\_COP15.htm](http://www.inforse.org/europe/conf09_COP15.htm)




## Introduction

- **Establishment**
  - Registered as a national NGO in 1998
  - Initiated as a private sector organisation in 1989
- **Aim**
  - Develop, promote and disseminate environmentally sound and climate friendly appropriate and renewable technologies
- **Operational Modality**
  - Advocacy/lobbying and participation in national policy/program formulation
  - Local capacity building and awareness creation
  - Community based-action research
  - Technology transfer, program implementation and assessments



Centre for Rural Technology, Nepal (CRT/N)

## Delivering Sustainable Energy Solutions: Hydro-based Technologies





- **Improved Water Mill (IWM)**
  - Initiation since 1991, more than 5500 IWM installed benefiting 285,000 families
  - **Short Shaft** IWM going on for Grinding Alternator
  - **Long Shaft** for other end uses (paddy hulling, oil expelling, saw milling etc.) and electrification through induction generator
- **Hydro Home System (Motor dynamo-based)**
- **Hydraulic Ram Pump**




Centre for Rural Technology, Nepal (CRT/N)

## Biomass Technologies

- **Household Improved Cooking Stove (ICS)**
  - Initiation since 1993 and supported by DANIDA from since 1999
  - Mud and metal; about 170,000 promoted development of local capacity and technology transfer
  - Simplified Small Carbon Project -- 1700 ICS linked to Voluntary Carbon Market ( 1.72 t Co2/stove)
- **Institutional ICS**
  - Developed and installed in Maoist Cantonment in 2007
  - Suitable for 50-150 people
- **Briquetting**
  - Production techniques and trainings

Centre for Rural Technology, Nepal (CRT/N)

## Solar Technologies

- **Solar Cookers**
  - Promoted about 500 Solar Cookers including 200 SK 14 parabolic solar cookers for eco-tourism development along trekking routes with support from WISIONS, Germany
- **Solar Dryers**
  - Promotion of Rack Type Solar Dryers with government subsidy
- **Solar Green-houses**
  - Promotion of greenhouses for vegetable production




Centre for Rural Technology, Nepal (CRT/N)

## Technology Beyond the Boarder

- **Bhutan**
  - Support for ICIMOD/UNEP supported "Orientation/Training and Exhibition on Appropriate Technologies" to RSPN in 2003
- **Tibet/China**
  - Support to GTZ Integration for development and promotion of Improved Cooking Stove in the Autonomous Region of Tibet, China
- **Afghanistan**
  - Proposed renewable energy technology transfers through support from UN-Habitat
- **Hindu-kush Himalayan Region**
  - Extension of Improved Water Mills technology (IWM) planned



Centre for Rural Technology, Nepal (CRT/N)

## Carbon Financed Activities

- **Chitwan ICS Carbon Project**
  - Implemented in 3 Villages in June 2007 and completed
  - VER purchased by The Offset Carbon Company (TOCC), UK
- **Terai ICS Carbon Project**
  - 35,000 ICS in 6 Terai districts
  - At validation stage
  - Egluro, UK as Pre-financier
- **CDM Project on Improved Water Mill**
  - A project of AEPIC; CRT/N
  - PIN already approved by DNA,
  - PDD under development
- **Nexus Carbon Development**
  - CRT/N Founding Member. Visit: [www.nexus-c4d.org](http://www.nexus-c4d.org)
  - Go to news on CRT/N at COP 15



 Centre for Rural Technology, Nepal (CRT/N)

## Networking

- **ARECOP supported National ICS Network in Nepal**
  - Since 1995
  - Country Contact Point
  - Capacity building, information exchange and sharing
- **International Network on gender and Energy (ENERGIA), Netherlands supported Gender, Energy and Water Network (GEWNet)**
  - National Focal Point since 2004
  - Major works: Gender mainstreaming, information sharing
- **International Network for Sustainable Energy (INforSE), Denmark**
  - National Focal Point since 2002
  - Major works: Capacity building on sustainable energy
- **South Asia Evidence-based Policy in Development Network, Centre for Poverty Analysis, Sri-lanka**
  - National Steward since 2009
  - Major works: Research based poverty analysis and policy formulation



 Centre for Rural Technology, Nepal (CRT/N)

## International/Regional Membership

- Gender and Water Alliance (GWA), The Netherlands
- The World Conservation Union (IUCN), Switzerland
- Solar Cookers International Association, USA
- Asian Alliance of Appropriate Technology Practitioners (APPROTECH ASIA), Philippines
- World Council of Renewable Energy (WCRE), Germany
- Global Village Energy Partnership (GVEP), USA
- The Mountain Fund, USA
- Partnership for Clean Indoor Air (PCIA), USA



 Centre for Rural Technology, Nepal (CRT/N)

## Observation and Conclusion

- Must have a Global Climate Agreement now that Supports Small Energy Solutions and Technology Transfer
- Must have Policy Framework Support and Commitments for Renewable Energy
- Investment and Grant Financing for Small Scale Efforts must be Supported
- Research and Development, One of the Key Solution
- Support Simplified Small Carbon Initiatives
- Prioritize Community Level Climate Friendly Initiatives
- Renewable Energy Solutions are Cost-effective and Contribute to MDGs including Poverty Reduction
- NGOs/CSOs can Collectively Contribute Towards a Clean and Brighter Future. Let us Act Now !!

 Centre for Rural Technology, Nepal (CRT/N)

