

**Fair Low/Zero Carbon & 100% RE Strategies,
South & North Countries, Villages,
including Women Initiatives**

**UNFCCC COP21 Side Event, Paris, France
December 3, 2015**



UNFCCC SIDE EVENT
December 3rd, 2015

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

INFORSE



ECO-VILLAGE DEVELOPMENT SOLUTIONS: A KEY PART OF CLIMATE & DEVELOPMENT

Eco-Village Development
as Climate Solution
Proposals from South Asia



Kavita Myles
INSEDA
INFORSE-South Asia

Presentations are available at the UNFCCC web site and at INFORSE:

www.inforse.org/europe/conf15_COP21.htm

A PRO-POOR & PRO-WOMEN, LOW-CARBON APPROACH TO DEVELOPMENT

An integrated approach to development with both adaptation and mitigation technologies.



A bottom-up process that focuses on the poor in rural communities



Community involvement especially, focused on women, for planning and implementation.



Small and micro level actions used as an effective tool to address climate change.



Low-cost and low-carbon, environmentally friendly



Demonstration based eco village technologies for awareness building.



Needs based solutions.

SOME RENEWABLE ENERGY TECHNOLOGIES



Solar Dryer



Compost Basket



Greenhouse

Solar Cooker



Organic gardening



Biogas



GENDER INCLUSIVENESS

- Women are the primary stakeholders
- Self Help groups mobilize women and girls
- Women included in consultations
- Income generation activities for women
- Capacity building activities like training in building, upkeep and maintenance.



COMMUNITY LED, NEEDS DRIVEN



Community involvement for
design and needs assessment



Organization of Self Help groups
for constant feedback
mechanism

INCOME GENERATION AND CAPACITY BUILDING



Solar dried produce for sale



Organic produce in markets

Women being taught how to build components for biogas



Women learning bamboo
Basket weaving

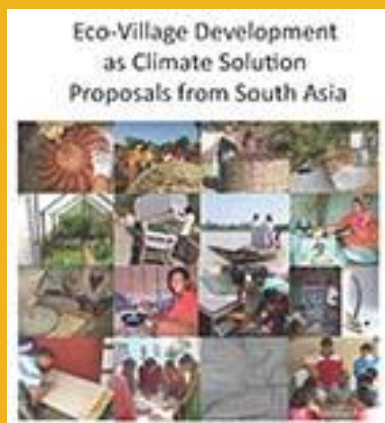


A REPLICABLE CONCEPT



1. **Successfully replicated across a range of different geographies**
2. **By using locally available resources, the concept can be easily diffused to other countries as well.**
3. **Using simple technologies allows local women and men to understand their use and also assist in their building.**
4. **These are need-based technologies based on locally available skills.**

THANK YOU



Eco-Village Development as Climate Solution, Proposals from South Asia

First Edition of Publication:

www.inforse.org/asia/pdf/Pub_EVD-SouthAsia.pdf

For more information, please visit:

www.inforse.org/asia/EVD.htm

www.inseda.org & www.insedaasia.org

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Integrating Eco-Village Development Solutions into Local Developments in Sri Lanka



by **Namiz Musafer**, Integrated Development Association (IDEA),
Kandy, Sri Lanka

Presentations are available at the UNFCCC's web site and at
INFORSE: www.inforse.org/europe/conf15_COP21.htm

Rationale

- Implementing on ground, 25 yr
- ICS, Hydro, Biogas, Brick kilns, Bakeries
- Award – Taking energy to people
- Mobilized & capacitated
- Isolated & scattered



Eco Village Development

- Mainstreamed development
- Democratic process- Baseline, PRA
- Village profile, SHs, priorities
- Collective synergized plan, V/DDP
- Sharing, direct implementation



Our Interventions

- Demonstrations
- Dialogues – villages, national SHs
- Visibility & Knowledge products
- Consensus at SH platform, take to decision makers
- Integrate to policy and practice



Advocacy

- Multiple tier (V, D/L, D,P, N)
- Link with research
- Collaborate with strong institutions
- Target, Message and communication
- Formal and informal



Challenges & Future

- Policy environment
- Technologies : Multiple, scale
- Finances, Affordability
- Short horizon – Sustainability
- Environmental : Pest -Human conflict



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For more information, please visit:
EVD Project: www.inforse.org/asia/EVD.htm

IDEA: www.ideasrilanka.org



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Eco-village Developments: **Extending Successful Local Energy Solutions**



GRAMEEN SHAKTI

**Mohammad Mahmudul Hasan
Manager**

Presentations are available at the UNFCCC web site and at INFORSE:
www.inforse.org/europe/conf15_COP21.htm

Bangladesh: Access to clean energy

- Bangladesh is one of the most vulnerable countries to climate change.
- Around 38% of the 160 million population has no access to the grid electricity and 85% people still depend on biomass for cooking and heating.
- *“Targeting “Energy for All by 2021”, the achievement:*

**Installed
Solar Home
Systems**

**4 Million
Approx. 150 MW**

**Constructed
Biogas
Plants**

Over 50,000

**Installed
Improved
Cooking Stoves**

Over 1.5 Million

Grameen Shakti and Eco-Village Development (EVD)

- Grameen Shakti (GS) was established in 1996 for empowering the rural people with access to **green energy for generating income, reducing poverty and improving the quality of life.**

Solar
Energy



Biogas



Improved
cooking
stove



Grameen
Technology
Center



Solar Powered Villages Khowamuri and Shudhkhira: *Changing of life*

- Dirty fuel Kerosene has been replaced by Solar Home System and indoor air pollution has been reduced.



Solar Powered Clustered Houses at Kuakata costal area: Dream light for Climate Refugee

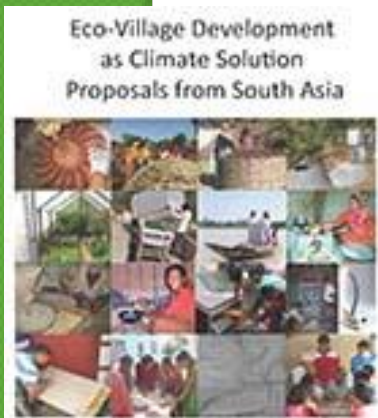
- Orka Palli, a small village of 80 families who have been migrated here due to natural disasters.
- Preparation for probable disaster is now easy in this area for the Solar Home System.



Contribution of Solar Home system in Eco-Village Development

- In the line of EVD approach for sustainable development, Solar Home System installed in the villages of Bangladesh has contributed in
 - Changing peoples' livelihood
 - Facilitating children education
 - Better environment
 - Reducing women's burden
 - Income generation

Solar Home System has great contribution in forwarding the path of sustainability for the villagers.



For more information, on the EVD Project, please visit:

www.inforse.org/asia/EVD.htm

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Eco-Village Development (EVD) Solutions for Reconstruction of EVD Project Villages in Nepal

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



OUTLINE OF PRESENTATION

1. Brief Introduction
2. Post Earthquake Scenario
3. Major Issues & Challenges
4. Reconstruction Efforts in EVD Villages
5. Way Forward
6. Advocacy for EVD concept
7. Solutions for Eco-Village Development
8. EVD Concept Contribution to existing national & international initiatives

BRIEF INTRODUCTION

- ▶ The Centre for Rural Technology, Nepal (CRT/N)
 - ▶ Established in August 1989 and operational since last 26 years
- ▶ Aim
 - ▶ Develop, promote and disseminate environmentally sound rural/appropriate technologies to enhance rural livelihood
- ▶ Thematic Areas
 - ▶ Technological innovation & marketing, livelihood enhancement, capacity building, indoor air pollution, climate change, gender mainstreaming and social inclusion

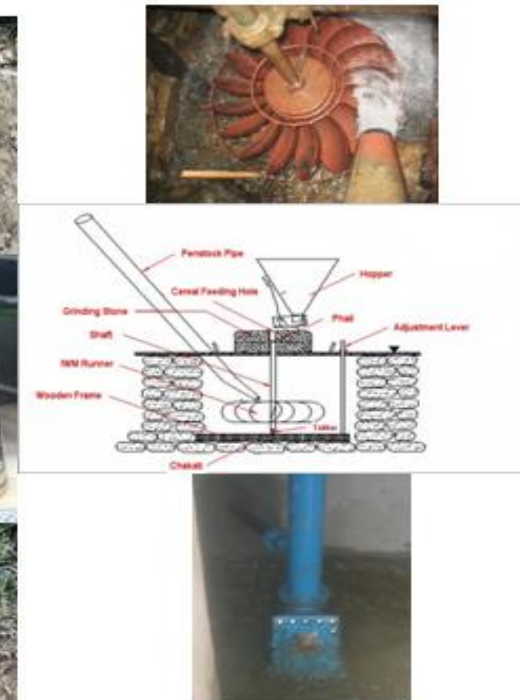
For more info visit: www.crtnepal.org

Promoted Technologies

Biomass based



Hydro based

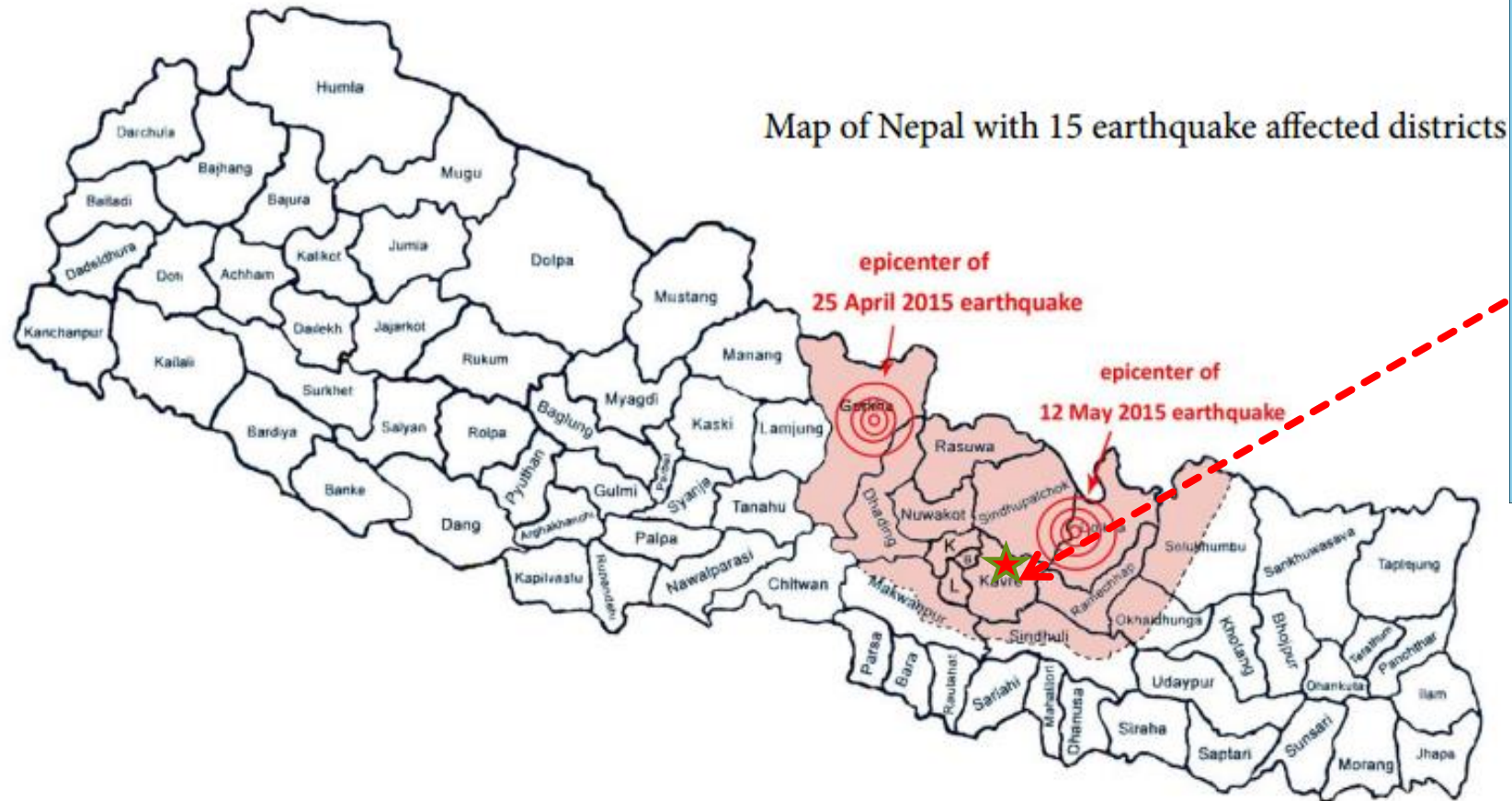


Solar based



MASSIVE EARTHQUAKE HIT NEPAL AND IN EVD PROJECT VILLAGES

MASSIVE EARTHQUAKE STRUCK NEPAL ON APRIL 25, 2015 AND MAY 12, 2015



POST EARTHQUAKE SCENARIO



In Nepal

- About 22,220 people have been injured and approximately 9,000 people have been killed
- Over 100,000 people have been displaced
- 500,000 private residences were completely destroyed

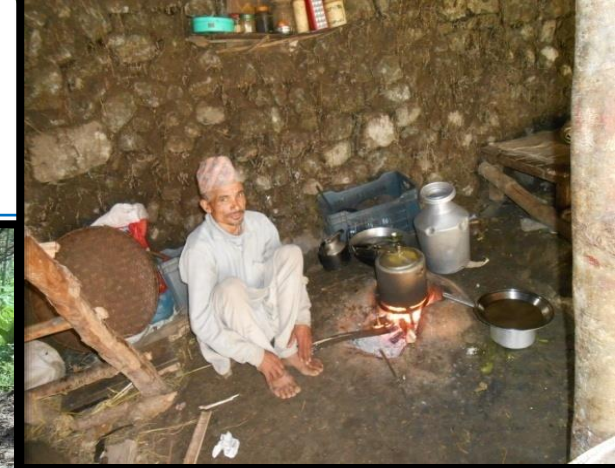


In EVD project villages

- 615 people were affected by disaster killing one person
- 80 out of 108 households and rural infrastructures were destroyed
- Large scale of foodstuff was lost
- Livestock were buried under the rubbles

MAJOR ISSUES / CHALLENGES IN VILLAGES

- ▶ Food security and agro-based livelihood is at stake
- ▶ Massive damage / destruction of homes / shelters and local infrastructures
- ▶ Poor access to technology, water, energy, sanitation to support livelihood
- ▶ Loss of employment and income generating opportunities
- ▶ Risk of poverty looming over families
- ▶ Climate change and environmental damage



RECONSTRUCTION EFFORTS AFTER EARTHQUAKE IN EVD VILLAGES



Bio-char pit to produce organic fertilizer



Cowshed Management



Vegetable cultivation in plastic house



CRT/N Ben 2 Portable Improved Cook Stove



Kitchen garden management

WAY FORWARD:

- ▶ Raising public awareness, participation in EVD solutions and access to information among earthquake victims
- ▶ Capacity building, trainings and institutional strengthening to make optimum utilization of available resources and services
- ▶ Increase access to renewable energy and livelihood solutions other economic options, specially integrating with agricultural production and agro-enterprise development
- ▶ Support villages in developing short and medium term plan and advocate local government to endorse the plan
- ▶ Disaster reduction and risk management at local and national level: Policy and Practices
- ▶ Advocate EVD Concept
- ▶ Promote south-south cooperation on fighting climate change, poverty, reduction and technology transfer specially among South Asia Partners
- ▶ Reconstruction / rehabilitation of houses , shelters and local infraturesa



ADVOCACY FOR EVD CONCEPT

Promoting EVD
concept for
reconstruction of rural
villages

Advocate Integrating
EVD solution for
reconstruction of
rural homes
/infrastructure and
livelihood

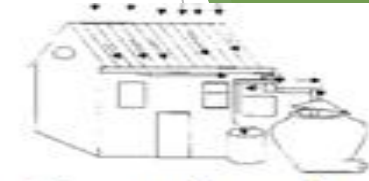


Supporting actors:
Media, civil
societies and
stakeholders

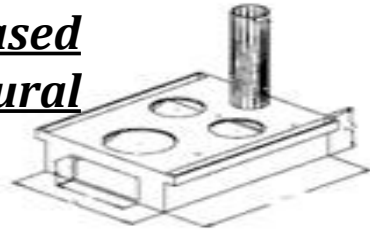


HOW WE ENVISAGE ECO-VILLAGE

Eco-village in Nepal will integrate RETs to develop agro-based enterprises for enhancing rural livelihood



Rain water harvesting



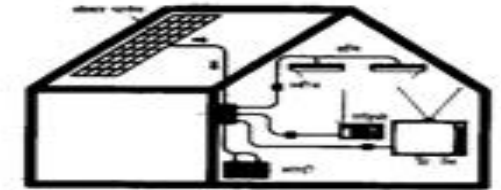
Improved Cook Stove



Biogas



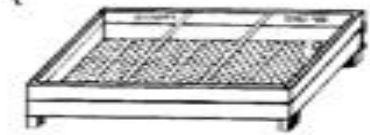
Pico-, Micro-Hydro



Solar PV



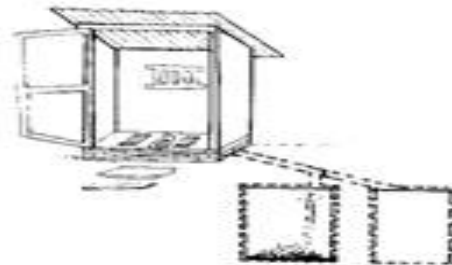
Community Center as knowledge and capacity building center



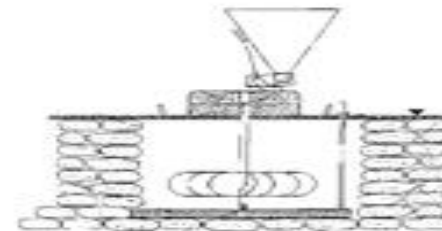
Solar Dryer



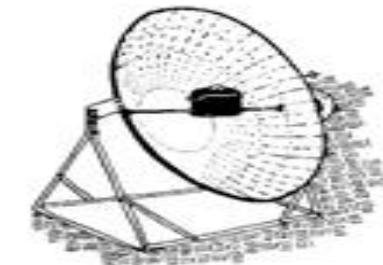
Hydraulic Ram Pump (Hydam)



Improved Water seal toilets



Improved Water Mill



Solar Parabolic Cooker

RECONSTRUCTING AGRO-BASED ENTERPRISES



Drip Irrigation



Sprinkler for micro-irrigation



Cultivation of high value crops



Vermi-Compost



Plastic house



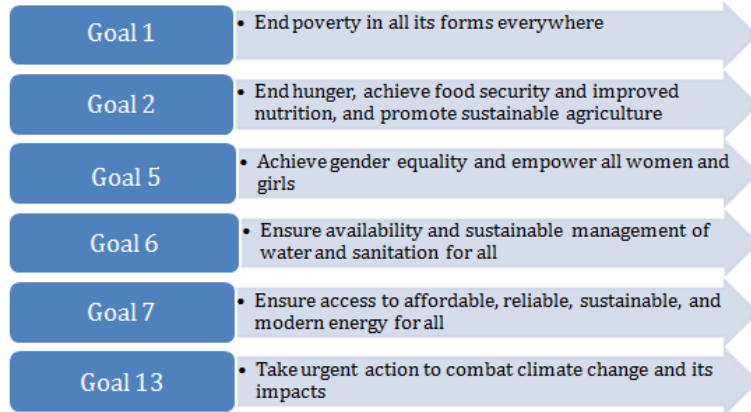
Composting

11

REPLICATING EVD CONCEPT CAN CONTRIBUTE TO ADDRESS CLIMATE CHANGE AND ENERGY DEVELOPMENT IN NEPAL

SUSTAINABLE DEVELOPMENT GOALS (SDG)

- SDG comprises 17 goals with 169 targets covering a broad range of sustainable development issues.
- Development of hamlets integrating EVD concept can contribute to achieving targets of



Center for Rural Technology, Nepal

WEE-Nepal: Energy Access through Women's Economic Empowerment

Potential of linkage to EVD Solutions

Environment Friendly Local Governance Framework (EFLG)

Local Adaptation Plans for Action (LAPA)



Center for Rural Technology, Nepal

Alternative Energy Promotion Center (AEPC)

SUSTAINABLE ENERGY FOR ALL



- providing universal access to modern energy services;
- doubling the share of renewable energy in the global energy mix.

Saving our planet, lifting people out of poverty, advancing economic growth – these are one and the same fight.
- United Nations Secretary-General Ban Ki-moon



Center for Rural Technology, Nepal

Thank you for Your Kind Attention



Contact Details:

Centre for Rural Technology, Nepal (CRT/N)

Bhanimandal, Lalitpur

G.P.O. Box 3628, Kathmandu, Nepal.

Tel.: +977-1-5000083/5547627

Email: info@crtnepal.org

Web: www.crtnepal.org