South Asia Panel Presentations

Tuesday, May 1, 2018, 16.45-18.15, Room Berlin, UNFCCC SB48, Bonn, Germany

PROGRAM - South Asia Panel:

• The need for local actions as Eco-Village Development (EVD) solutions in South Asia. Climate Financing by Side-event co-chair, **Santosh Patnaik, CAN South Asia.**

• Successes with EVD in South Asia. **Shovana Maharjan, Centre for Rural Technology Nepal.**

• Launch of 'White Paper' on EVD solutions as climate actions, local mitigation and adaptation. **Gunnar Boye Olesen, INFORSE.**

• Local climate action already supported: Use of voluntary climate credits: success and limits. **Jagdeep Sharma, INSEDA, India.**

• Including local solutions in national climate strategies, including NDCs and LEDS. **Limasangla Jamir, INSEDA, India.**

• Current climate negotiations and local solutions: a South Asian perspective on how the current negotiations can help local climate actions including EVD. **Dumindu Herath, IDEA, Sri Lanka.**

• Government perspective on how climate agreements can help local climate actions. Comment from **Mr. Md. Ziaul Haque, Director, Dep. of Env., Ministry of Env. & Forest, Bangladesh.**

• Government perspective on how climate agreements can help local climate actions. Comment from with **Dr. P. C. Maithani, Advisor, Ministry of New and Renewable Energy, India.**

Short debate

Presentations : http://www.inforse.org/sb48.php3

"PROMOTE LOCAL CLIMATE SOLUTIONS TO END POVERTY"

The Need for Local Actions as Eco-Village Development (EVD) Solutions in South Asia

Side-event –co-chair

Santosh Patnaik,

CAN South Asia

www.ecovillagedevelopment.net

Successes with Eco-Village Development (EVD) in South Asia

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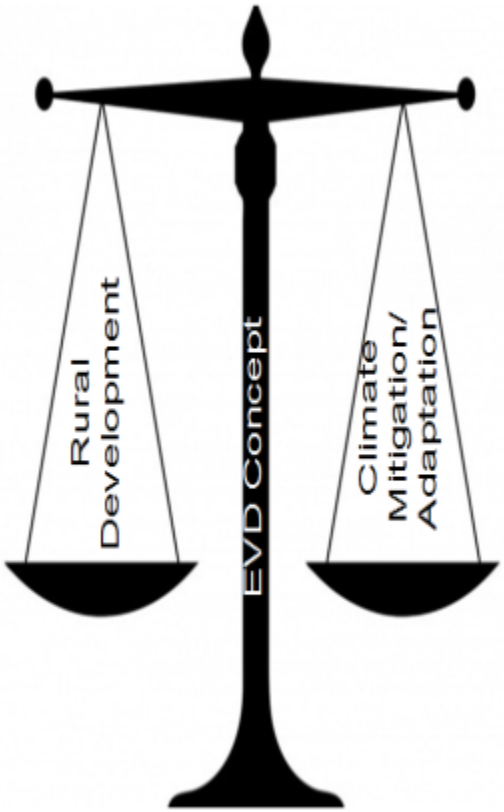
Presented by:

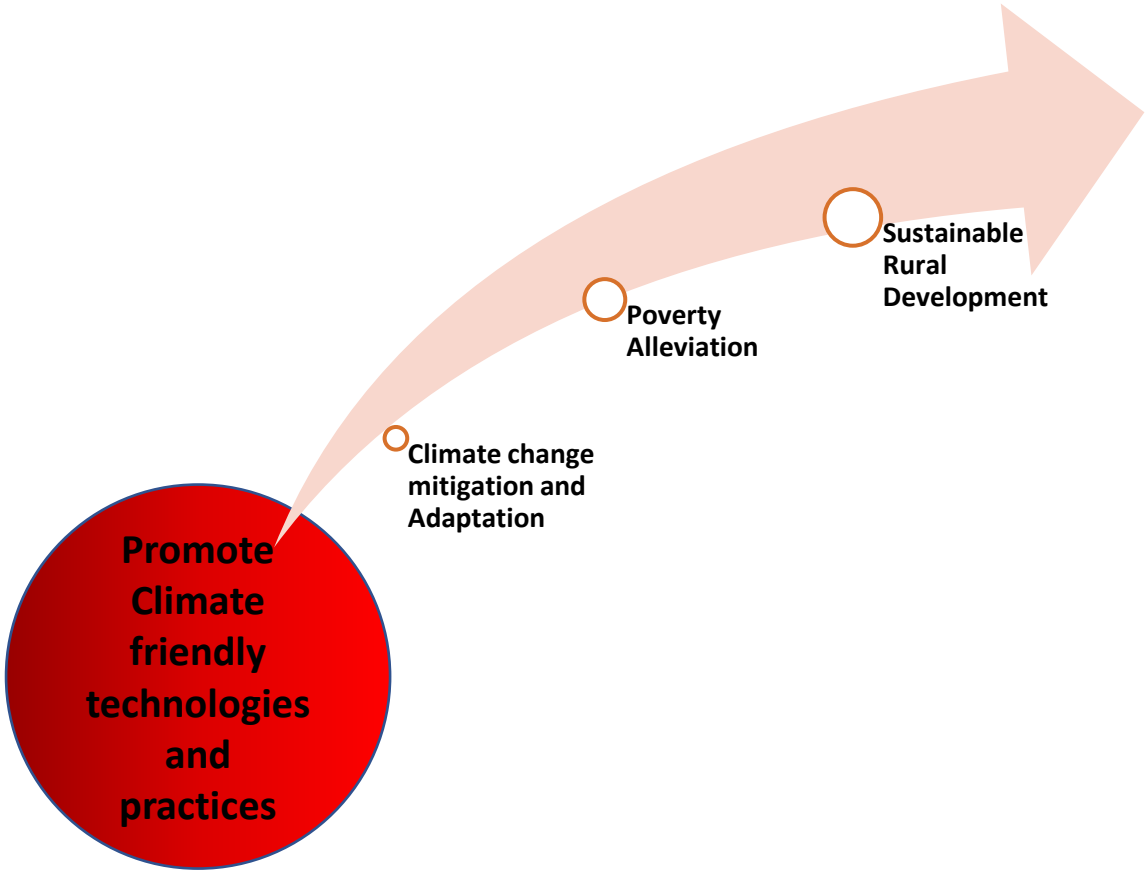
Shovana Maharjan, Project Coordinator

Centre for Rural Technology, Nepal

Background



Objective



Community focused Approaches

- Role of Community
- Participation
- Capacity Development
- Utilization of local resources
- Equitable distribution of responsibilities and opportunities
- Sustainable development

Solar PV Light

Improved cookstove

Improved Water mill

Nepal

Hydraulic Rampump

Plastic Pond

Plastic Poly house

Organic Pesticide

Bee Keeping Training

Solid waste Management

Organic Farming

India

Organic compost basket

Solar Dryer

Solar Dried Food

Roof top rain water harvesting

Heera Hybrid improved cookstove

Mushroom Farming Unit

Organic Farming

Sri Lanka

Organic Farming

Improved cookstoves and Kitchens

Appropriate crops

Improved Industrial stoves

Biomass/ Solar Food dehydration

Mushroom Cultivation

Rainwater Harvesting

Natural Products- Ola leaf

Bangladesh

Solar Water Pumping

Solar Street Light

Solar Home System

Solar Home System

Bio Slurry Management

Kitchen Gardening

Solar Water Pumping

Compost Basket

Thank You

For More Information:
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Centre for Rural Technology, Nepal
Email: shovana@crtnepal.org
Websites: www.crtnepal.org
www.inforse.org/asia/EVD.htm
www.ecovillagedevelopment.net

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Launch of White Paper on Climate Mitigation and Adaption with Eco-Village Development (EVD) Solutions in South Asia

Gunnar Boye Olesen

International Network for Sustainable Energy

INFORSE

International Network for Sustainable Energy

We reviewed 11 of the most popular EVD solutions and analysed 6 (in bold)

1. **Improved Cookstoves, Household**
2. Large ICS for Rural/village industries
3. **Household biogas**
4. **Solar light in homes**
5. Improved water mills
6. **Solar and hydro micro and mini grids**
7. Hydraulic Ram pumps
8. **Organic farming & gardening, composting**
9. Rainwater harvesting
10. **Solar dryer**
11. Greenhouses

Main results from the 6 EVD solutions analysed per household that use the solution

Improved Cookstove (ICS)
Mitigate 1 – 3 ton CO_2e/yr (0-66% CO_2)

Household biogas
Mitig. 1.1 – 4 ton CO_2e/yr (0-70% CO_2)+Adapt.

Solar light in homes
Mitigate 0.34 ton CO_2e/yr (all CO_2)+Adapt.

Solar and hydro micro and mini grids
Mitigate 0.72 ton CO_2e/yr (all CO_2)

Solar dryer
Mitig. 0.5 – 1.1 ton CO_2e/yr (all CO_2)+ Adapt.

Organic farming:
Mitigation + adaptation

Examples for villages

<u>Example, Nepal, realised:</u>
Village, 50 families with 24 household biogas, 45 improved cookstoves:
<u>Mitigate 480 tons CO_2e/yr</u>

<u>Example, Bangladesh, planned:</u>
Village, 70 families with 60 SHS, 56 ICS of high quality, solar pump:
<u>Mitigate 110 tons CO_2e/yr</u>

<u>Example, India, partly realised:</u>
240 ICS, 30 solar dryers:
<u>Mitigate 1000 tons CO_2e/yr</u>

* GACC = Global Alliance on Clean Cookstoves

Important lessons

- Total greenhouse emission reductions (particles, CH_4, etc.) with improved cookstoves and biogas replacing traditional fire are 50% larges than the reductions of CO_2 alone
- This mean that most methodology only include 2/3 the climate mitigation of local cooking solutions
- The high mitigation of biogas is achievable with up to 7% CH_4 loss
- Organic farming with biogas or compost improves soil and reduces chemical fertiliser use. This gives mitigation and adaptation, but several effects are hard to quantify
- There are considerable uncertainty on greenhouse effects of particle emissions and soil improvements

Thank you

Read full report on ww.inforse.org/asia/EVD.htm
www.ecovillagedevelopment.net

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USE OF VOLUNTARY CLIMATE CREDITS: SUCCESS AND LIMITS

CARBON CREDIT FOR HOUSEHOLD BIOGAS PLANTS

GUIDANCE- Engr. Raymond Myles

Presented by- J.K. Sharma, INSEDA, India

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Gold Standard
Climate Security & Sustainable Development

ecovillage
ECO VILLAGE DEVELOPMENT
A Solution to Bridging the Gap Between Climate Intentions and Action

Gold Standard VER (Voluntary Emission Reduction) Project

Small Scale Household Biogas Plants
(Technology approved by MNRE)

THE PROJECT AT A GLANCE

(2007 to 2018)

Type of project	**Gold standard VER (Carbon credit project on small scale biogas plants)**
Partners involved	**INSEDA & other partner NGOs**
Indian States covered	**Kerala, Madhya Pradesh**
Purpose	**Sustainable development through effective utilisation of biogas, clean energy production, Eco- Village dev.**
Scale of project	**6000 households, 1,2,3,4,6 cubic m capacity plants**

BENEFITS INCURRED FROM THE PROJECT

The project supports SDG 7 – Affordable and clean energy

Environmental Benefits
- **Reduced GHG emission(4000 plants save 16000 tons of CO2)**
- **Reduced indoor pollution**
- **Plant manure generation**

Social Benefits
- **Grassroots Stakeholder Participation**
- **Reduced drudgery in women's lives**
- **Health and hygiene**
- **Reduced cooking time, more involvement in other activities**

Economic Benefits
- **Cost effectiveness(300 euro invested/plant,100-150euro climate credits received in 10 years**
- **Employment opportunities**

Gold Standard Cycle for Validation and Verification

VALIDATION AND VERIFICATION CHAIN FOR FIRST PROJECT

2007

Initial dialogue with members and partners
2007

Process of prefeasibility assessment by GSF began
Feb,2009

Positive pre feasibility assessment by GSF
Sep, 2009

Stakeholder meetings sharing revised PDD and the Passport
Oct,2009

Process of validation by DOE started
May 2010

Successful verification completed, report uploaded on GSF website
June 2011

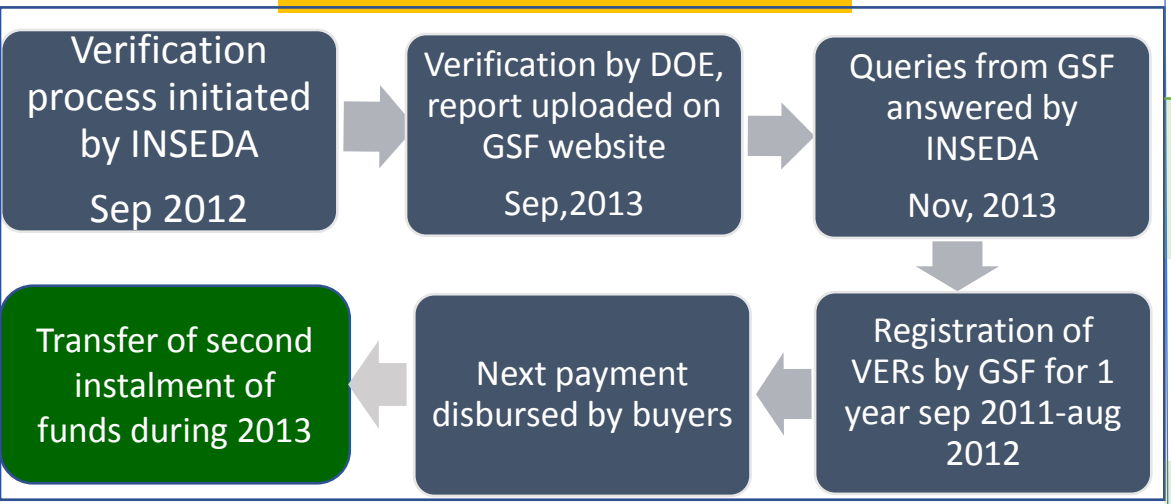
Final letter received from GSF on official registry of project
Sep, 2011

Issue of VER credits for 2 years(nov 2011),transfer of money by buyers to INSEDA bank account
Nov 2012

Transfer of money to stakeholders and partners as share
Nov 2012

2012

SECOND VERIFICATION FOR ISSUANCE OF NEXT ONE YEAR VER BY GSF



Number of verifications done for the first and second projects till 2017 and funds transferred in April 2018

Till date 6 no. of verifications have already been done for the first project and 3 verification done for the second project (@ 1 verification every year)

ANALYSIS DONE ON THE BASIS OF THE STUDY

- **Too cumbersome and time consuming mechanisms(takes as much as 3 to 5 years) used by the CDM Gold standard and other registering bodies of carbon credit projects**
- **If at any stage, the project falls, it leads to bankruptcy, financial loss and loss of credibility among stakeholders.**
- **CC projects heavily loaded with over-documentation, not required so much for registration but more to protect the reputation of registration agencies**
- **Need for expertise and capacity building for NGOs operating at state level and with small stakeholders**
- **Such projects should be backed by good technical organizations with expertise and experience**
- **4000 household biogas plants generated over 20,000 VERs annually. If the support were available, 10,000 plants per year can be built**

RECOMMENDATIONS & CONCLUSION

- The entire process should be revamped **to cut high cost external consultants, reducing transaction costs as well as project registration time by at least one fourth of the present duration**
- There is need to provide some kind of "**development fund**" or "**revolving bridge fund**" as grants from donor groups to be used for capacity building process and to sustain the project holders and other stakeholders until the project is registered
- The registration agencies should be reviewed to **ascertain the proactive role** they can play and become NGO friendly especially **in case of socially relevant carbon credit projects for highly decentralized applications**
- There is a need to **develop** a **methodology** to calculate the **total carbon offset** from the **various green technologies**, like household biogas, improved cook stove, solar tunnel dryer, solar poly green house and organic farming that are integrated within the Ecovillages, so that we can **sell** the **Carbon Credits generated** from **EVD projects**, to meet the **maintenance cost** of such projects after implementation. We have attempted to do **such exercise** in our **"White Paper."**

Based on over 5 years of process oriented involvement in developing its own carbon credit project, INSEDA now has in-house expertise and practical field experience to develop carbon-credit projects for registration by the international certification agencies, both VER and CER, using a step-by-step process-oriented approach.

Thus INSEDA can act in following ways-

1. **As a socio-technical organization for the capacity building of NGOs**
2. **It can provide consultancy to NGOs in developing carbon credit projects**
3. **It can act as a partner organisation in any joint development of carbon-credit projects form inception until registration and issuance of VER/CER credits.**

THANK YOU

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Including local solutions in National Climate Strategies, including NDCs and LEDS.

Presented by

Limasangla Jamir, Sr. Program Officer

Integrated Sustainable Energy and Ecological Development Association (INSEDA)

inseda

Facts and Challenges

- The mountain eco system has become acutely vulnerable for India and Nepal. Hence farming is seeing a downturn.
- Low lying coastal area of India, Sri Lanka and Bangladesh are prone to damage risk
- Uncertainty of Water security
- Food Security is challenged
- Rising temperatures and erratic monsoons has worsen the conditions of undernourishment.
- Small landholders, small time farmers, the landless and women are the most vulnerable to climate damage.

EVD Local Solutions












Inclusion of local solutions of EVD in NDCs

Taking the case of India's NDCs, EVD is directly and indirectly contributing to,

- ***Sustainable Lifestyles*** - EVD encompasses the three pillars of sustainability viz. Environment, Social and Economic through green affordable technologies to adapt and mitigate the environmental damages caused by climate change and the formation of Women's Self help groups and women empowerment groups that empowers them Socially and economically.

- ***Increasing the Share of Non Fossil Fuel Based Electricity*** -Although in a very small scale, EVD contributes to this by utilizing renewable as well as solar energy. Installation of RETs like biogas, solar dryer, wind mill and solar household and street lighting, it has replaced the conventional energy sources like electricity. Thus, lowering the carbon emission.

- ***Enhancing Carbon Sink (Forests)*** - Ornamental tree plantation in Nepal as well as planting of tree saplings in the project are of India.

Contd..

- ***Adaptation*** - adaptation approaches such as Rainwater harvesting tank in water scarce areas that secures water for the family, organic farming, kitchen gardens and Solar Poly Green house for growing household vegetables even during off season, Fish Farming, Multipurpose Hybrid improved cookstove that saves up to 50% of firewood as compared to the traditional cookstove and provides a clean cooking environment and reduces black carbon.
- ***Technology Transfer and Capacity Building*** - EVD takes a collaborative approach by involving the community members right from the planning process to implementation, the solutions offered are need based demands by the community members. These technologies can be replicated in different geographical regions, with appropriate modification. EVD model can be adapted in any parts of the world after proper training and demonstration by adapting the technologies to fit their own needs, if necessary.
- ***Mobilizing Finance*** - Need for domestic and new funds as well as funds from developed countries to scale up and implement the activities .

Thank you!

For more information, please visit:

www.inseda.org

www.ecovillagedevelopment.net

INFORSE-South ASIA
International Network for Sustainable Energy

To read the publications on EVD, please visit www.inforse.org/asia

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South Asian perspective on how the current negotiations can help local climate actions and EVD

Presenter
Dumindu Herath
Integrated Development Association
(IDEA)

www.ideasrilanka.org

Context

South Asia Population -1.8 Billion

Over 60% Rural – 1 Billion

Majority of Poor in Villages

Poverty and Climate change- To be tackled combined

How NDCs, national strategies should line up

- National Needs vs Climate Change Obligations
- Integration of top down and bottom up approaches
- Behavioral changes: how to change lifestyles effortlessly
- Appropriate and achievable development targets- smoother transitions

How NDCs ,national strategies should line up with Local Solutions

Primary Energy- Biomass

Traditional cookstoves

Improved Cookstoves
Improved Kitchens, Biogas stoves, Solar cookers…etc

LPG Stoves

Source:www.outlookindia.com

Local Solutions and Climate negotiations - Recommendations

NDC guidelines: Sustainable development and poverty reduction, Civil society involvement, NDCs reflects on national development priorities

Transparency: Accounting rules - regular updates-black carbon, local solutions specified in APA 3b and 3c

Global stocktake : Non party stakeholder involvement specified in the guidance

THANK YOU

IDEA

www.ideasrilanka.org

www.inforse.org/asia/EVD.htm
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