COP29 Baku Azerbaijan

UNFCCC COP29 SIDE EVENT Blue Zone:
20/11 2024 11:30-13:00, SE Room 2

Local Climate Solutions towards 100% Renewables - Gender Matters

Online Database of Local climate solutions in Nepal, Bangladesh, India, Sri Lanka

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Integrated Sustainable Energy and Ecological Development Association
INSEDA & INFORSE South Asia, INDIA

Eco-Village Development - NGO South Asia Cooperation Project Supported by CISU, Denmark

About INSEDA

- INSEDA is an **NGO Registered in 1995, w**orking in **India and South Asia**
- **INSEDA** has an **observer status** at **UNFCCC since 2015**.
- INSEDA is **one of the Founder members** of **INFORSE**
- Hosting the **Regional Secretariat of the INFORSE-SA** since 1995.
- **Innovation** of **low carbon, bamboo-based affordable green technologies**
- Designed and developed 3 **kinds of biogas plants** (Deenbandhu, Grameen Bandhu and High-rate Bi-phasic)
- **Innovated** Climate-Friendly, **Eco Village Development** (EVD) model **as** effective **Mitigation & Adaptation** solution
- **Transferred technologies** to different countries - **Cameroon and Uganda**
- Implementing **carbon credit projects** in India **under Gold Standard**

UNFCCC Conference

International training on EVD conducted by INSEDA

Low carbon, Climate Resilient Eco-Village Development in South Asia Since 2015

Rolled out NextGen EVD project in July 2020 for village-based, local, low-carbon development **in four South Asian countries :**

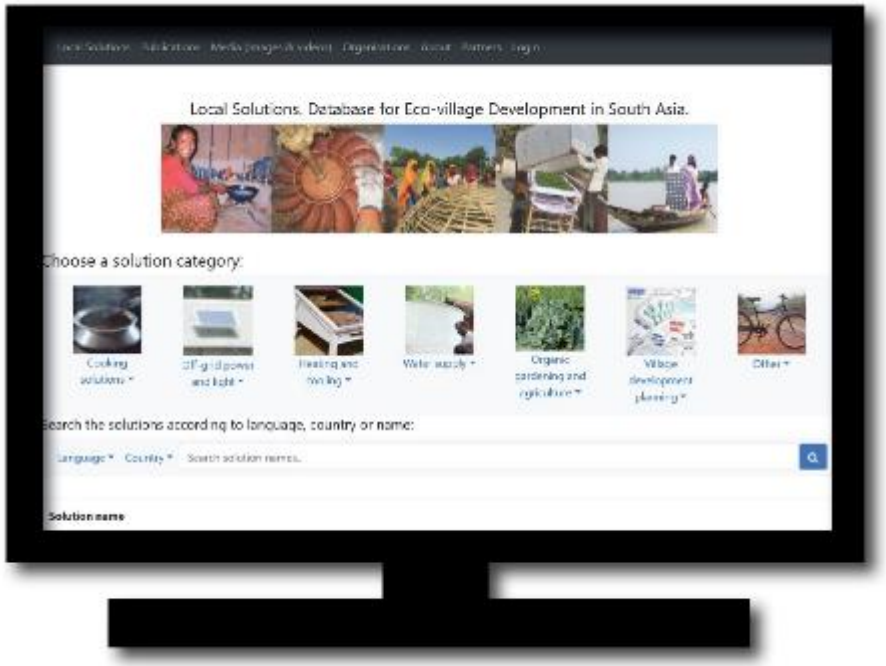
- **INSEDA** – India
- **CRT** - Nepal
- **Grameen Shakti** – Bangladesh
- **IDEA** – Sri Lanka
- **INFORSE-South Asia -** Regional
- **CANSA** – Regional

- **With programme management support by DIB Denmark and**
- **Technical Support by INFORSE**

EVD consists of a package

- of **eco-friendly, low carbon, green technologies** *within villages*,
- which can be **easily implemented** and replicated
- that **helps** in **mitigation of climate impact** or adaptation of new solutions to **build climate resilience**
- **focuses** on local people, especially the **poor, marginalized**, **women** and weaker sections of local community

Support by CISU, Denmark



ONLINE DATABASE:
50+ Local Climate Solutions
Eco-Village Development

WWW.INFORSE.ORG/evd

The Local Solutions Database for Eco-Village Development in South Asia

Local Solutions - Publications - Media - Organisations

Local Solutions - Database for Eco-village Development in South Asia

Cooking solutions ▾ | Off-grid power and light ▾ | Heating and cooling ▾ | Water supply ▾ | Gardening and agriculture ▾ | Village planning ▾ | Other ▾

Or choose All categories:

All Categories

Local Solutions - Publications - Media - Organisations

Publications - Database for Eco-village Development in South Asia

Choose a publication category:

Book Periodical Article Policy Other

Search in publication names:

Language ▾ Search media names..

The Local Solutions Database for Eco-Village Development in South Asia

Local Solutions - Publications - Media - Organisations

Number of media in the database: 198

Choose a media category:

Photos Graphics External videos

Or choose an interval or search in media names:

Interval: Search media names.. Leaving this field empty results in 50 random media.

EVD Solutions in India – INSEDA, India


Bamboo reinforced Biogas – Gremmenbandu

Bamboo reinforced Rainwater Harvesting


Solar Poly Green House – Bamboo frame


Solar Tunnel Dryer – Bamboo frame

Bamboo house/ shelter

Bamboo Compost Basket

Vermi-compost

Organic Kitchen Garden


Solar Street light and lantern


Day-night Solar cooker with battery



HEERA Hybrid and JWALA Improved Cookstove

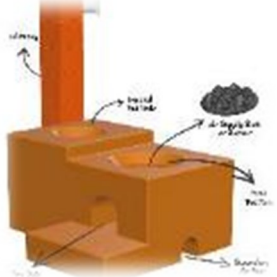
Energy plantation, horticulture, bamboo, household forestry

EVD Solutions in Nepal - Centre for Rural Technology, Nepal

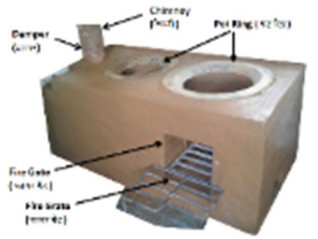
Hydraulic Ram Pump (Hydram)

Improved Water Mill (IWM)

SF2 Solar Water pumps



Matribhumi Improved Cook Stove (M-ICS)



Improved Institutional Cook Stove

Cabinet Solar Dryer

Rooftop Rainwater Harvesting

Vermi composting

Homebiogas

Greenhouse Tunnel with drip irrigation

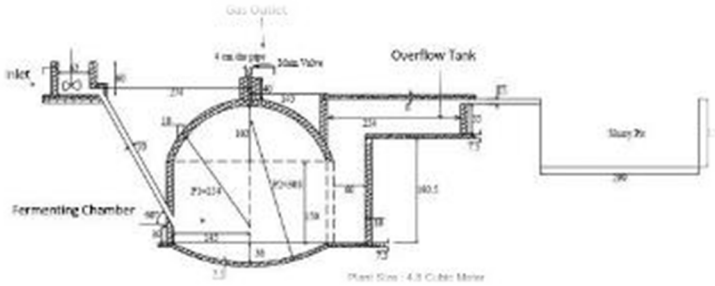
High-value Tree plantation

Induction Cook Stove

Renewable water lifting system

EVD Solutions in Bangladesh - Grameen Shakti, Bangladesh

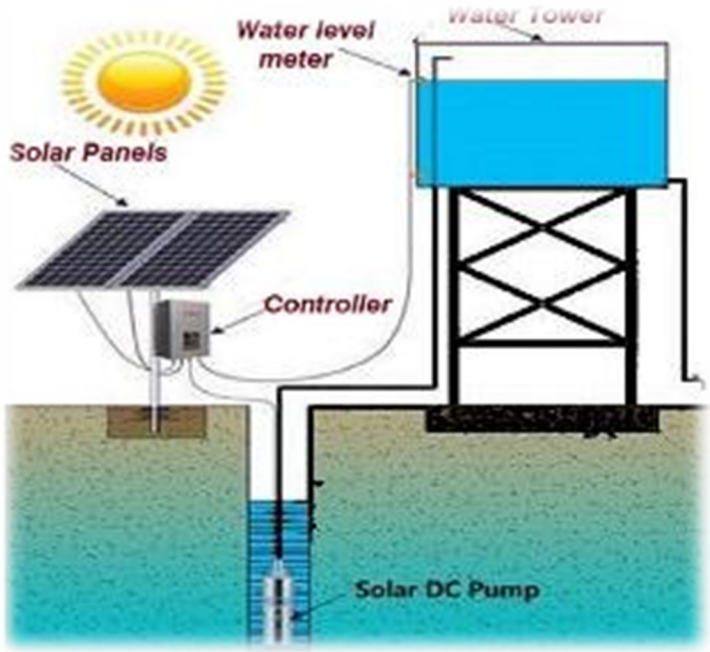
Grameen Shakti



Household Biogas Plant

Solar Home System

Bamboo reinforced Slurry Pit



Solar water pump

Solar Street Light

Retained Heat Cooker

Improved cookstove (single Burner, with chimney)

Rainwater Harvesting System

Kitchen garden

Solar System for village shop

EVD Solutions in Sri Lanka – IDEA, Sri Lanka

Anagi- Improved Biomass Stove

Movable and sunken type institutional stove

Roof rainwater harvesting.

Non portable Bio-mass dryer

Improved Kitchens

Movable Institutional Biomass stove with Chimney

Mushroom cultivation

Composting

Home gardening and sustainable paddy farming

Improvement in brickmaking

EVD Model - an integrated development approach to help reducing emissions and to provide social benefits

Huge potential to reduce GHG emissions using local solutions as 60% to 80% population is in rural areas in four countries

Improved Cookstove –150 million families in India can save

- **100 Mt** firewood and **150 M t CO_2** per year

Biogas - 75 m BGP (2cum) from 300 million bovine population

- Can save at least **200 Mt of firewood** and **300 M t CO_2 Per year**

Rooftop rainwater harvesting

- 150 m families in India **can save 1.5 b cum water**

Solar Home System

- the 6 m SHSs have reduced GHG emissions by 10 M **t CO_2 per year**.

Induction cookstoves

- 25% (1.5 m) households in Nepal can use electric cooking by 2030, saving GHG

Anagi cookstove

- There is potential of installation of at least 1.5 m anagi stoves in Sri Lanka

Environment and Social Impact

- **Increased climate resilience, mitigation and adaptation**
- **Reduction of GHG emissions and pollution.**
- **Conservation of water and soil.**
- **Improved soil health .**
- **Carbon sequestration.**
- **Enhanced income of poor communities.**
- **Clean kitchen Improved health of women and children and reduced drudgery.**

Bamboo plantation helps in:

- **Drawdown CO2**
- **Environment restoration**
- **Soil rejuvenation**
- **Reforestation and erosion control**
- **Moisture conservation**
- **Adding source of income for farmers and women**
- **Improves the local and surrounding environment**

EVD Solutions as climate change mitigation and adaptation

Biogas

- Helps in **mitigation** - **firewood eliminated** and **adaptation** as wood availability is becoming **scarce**.
- Slurry adds humous and **improved soil health and quality** thus adapting to climate change by reducing use of chemical fertiliser
- **Adaptation** - Families **are not dependent on energy supply for cooking from outside** and will not get impacted in case of extreme climate event.

Improved Cookstoves

- Reduction in use of firewood - **mitigation** (saves CO_2) and **adaptation** - as **wood** availability is becoming **scarce**.

Rooftop Rainwater Harvesting

- Helps in **adaptation** in the scenario of **water scarcity** to some extent due climate change event.
- **Saving in energy** in water pumping

Solar tunnel dryer

- Helps in climate change **adaptation** by providing **additional income** with better quality produce while utilising solar energy
- Reduces the wastage of crops by drying perishable items

Bamboo compost basket

- Manure helps in **soil rejuvenation**, Reduced use of chemical fertilizer

Other EVD solutions	Emission reduction and climate resilience
Solar streetlight/ lanterns	• Reduced use of dry batteries
Vermi compost	• Reduced use of chemical fertiliser
Poly Green House - SHG	• Reduces chances of crop damage in extreme climate event • Off season crops can be grown • Less use of insecticide/ pesticides • Increased yield means less energy consumption • Less water consumption
Plantations (Energy +horti)	• Works as carbon sink • Conserves soil and moisture
Greenhouse nursery	• Less chances of crop damage • Less use of insecticide/ pesticides • Increased yield means less energy consumption in crop production • Less water consumption
Bamboo Bus Shelter	• Less use of brick which is environmentally harmful as topsoil is baked using coal and wood in making bricks

Thank you

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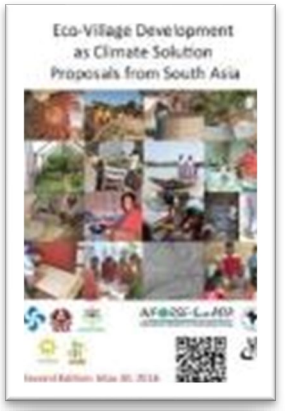
Relevant websites:
www.inforse.org/asia/EVD.htm
www.ecovillagedevelopment.net
www.inforse.org/asia/Pub_EcoVillageDev_TOT_Manual_SouthAsia.htm

Eco-Village Development (EVD) Catalogue of Local Climate Solutions: www.inforse.org/evd
Proceedings: www.inforse.org/cop29.php

Publications under partnership project

Eco-Village Development as Climate Solution Proposals from South Asia



White Paper: Mitigation and Adaptation with Eco-Village Development (EVD) Solutions.

Describes calculation for CO2 reduction through various EVD solutions

The calculations can be used in NDCs

Socio-Technical Manual
Training of Trainers Manual on
Eco-Village Development in South Asia

Available in English and four South Asian languages - Hindi, Bangla, Nepali, Sinhala.