

11 June, 2022 - 11.30 - 13.00

Room: Berlin









Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe

Welcome by the organisers INFORSE – SusWatch Kenya, - NFRE – SE - Intro & Moderator: Judit Szoleczky, INFORSE

Local Solutions in East Africa / Catalogue:

Mary Swai, TaTEDO, INFORSE-East Africa, Tanzania

100 % Renewables Scenarios - Kenya

Nobert Nyandire SusWatch Kenya

Local Solutions in South Asia: India, Nepal, Bangladesh, Sri Lanka. Eco-Village Development Catalogue & Policy Brief

Sanjiv Nathan, INSEDA, INFORSE-South Asia

Sufficiency - overlooked climate action in Global North

Gunnar Boye Olesen, INFORSE-Europe & SE

INFORSE-East Africa Proposals for getting local Solutions into GST

Richard Kimbowa, UCSD, INFORSE-East Africa

Comments

Stephen Nzioka, Ministry of Energy, Kenya

Dialogue on how to integrate local solutions in GST to strengthen climate action - Questions & Answers

More: https://inforse.org/SB56.php

Thanks to support:





































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Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe

Local Climate Solutions in GST & Eco-Village Development in South Asia - India, Nepal, Bangladesh and Sri Lanka

Sanjiv Nathan

Integrated Sustainable Energy and Ecological Development Association INSEDA, INDIA





































About INSEDA

- INSEDA is an NGO Registered in 1995, working in India and South Asia
- INSEDA has an observer status at UNFCCC since 2015.
- **Dr. Raymond Myles,** President-cum-Chief Executive, INSEDA is one of the **Founder members** of **INFORSE**
- Hosting the **Regional Secretariat of the INFORSE-SA** since 1995
- Dr Myles is the innovator of low carbon, bamboo-based affordable green technologies developed by INSEDA.
- Designed developed three kinds of biogas plants namely,
 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



International training on EVD conducted by INSEDA











UNFCCC Conference





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 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

battery

Day-night Solar cooker with HEERA Hybrid and JWALA Improved Cookstove

Energy plantation, horticulture, bamboo, household forestry



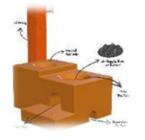


EVD Solutions in Nepal - Centre for Rural Technology, Nepal













Hydraulic Ram Pump (Hydram)

Improved Water Mill (IWM)

SF2 Solar Water pumps

Matribhumi Improved Cook Stove (M-ICS)

Improved Institutional Cook Stove



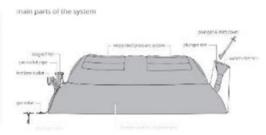




Rooftop Rainwater Harvesting



Vermi composting



Homebiogas









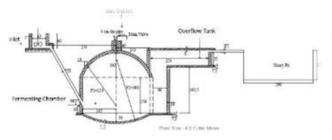
Induction Cook Stovenewable water lifting system





EVD Solutions in Bangladesh - Grameen Shakti, Bangladesh







Solar Home System



Bamboo reinforced Slurry Pit

Household Biogas Plant





Retained Heat Cooker



Solar Street Light







Solar water pump





Kitchen garden







EVD Solutions in Sri Lanka – IDEA, Sri Lanka



Anagi- Improved Biomass Stove



Movable Institutional Biomass stove with Chimney



Movable and sunken type institutional stove



Mushroom cultivation



Roof rainwater harvesting.



Biomass ovens

improvement in brick making



Non portable Bio-mass dryer





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

70% of 1.4 billion population lives in rural India

Improved Cookstove – Potential to save

- 300 Mt firewood per year and
- 340 M t CO₂ per year

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

- Can save 200 million tonnes of wood and
- 300 M t CO₂ Per year

Additional social benefits of ICS and Biogas

- Clean kitchen and improved health of women and children.
- Reduction in drudgery of women in fuelwood collection.
- Reduction in movement in forest areas for wood collection.

Rooftop rainwater harvesting

150 m families can save 1.5 b cum water and save emissions in pumping water

Composting, kitchen garden by 50 m farmers will help in

- reduction in emissions as less chemical fertiliser will be used.
- improves soil health
- soil and water conservation because of plantations
- improving quality of vegetables and fruits from kitchen garden.
- availability of fuelwood near homes.
- increasing income
- increased nutritional inputs for women and children.

Bamboo plantation helps in:

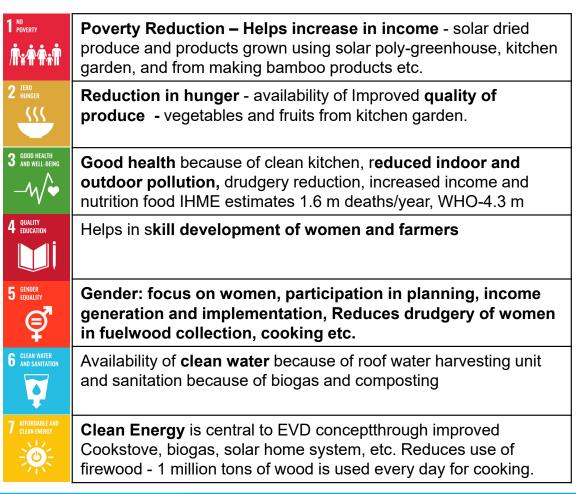
- drawdown CO2
- environment restoration
- soil rejuvenation
- reforestation and erosion control
- moisture conservation
- Adding source of income for farmers and women
- Improves the local and surrounding environment

Impact

- Reduction of GHG emissions.
- Reduced indoor and outdoor pollution.
- Conservation of water and soil.
- Improved soil health.
- Carbon sequestration.
- Enhanced income of poor communities.
- Increased climate resilience.
- Improved health of women and children and reduced drudgery.



EVD projects contributing to 14 SDGs out of 17





Helps in **economic growth** through income generation activities.



The project focuses on **reducing inequality** and involves most vulnerable population



Responsible production through organic manure, Soil and water conservation because of bamboo and fruits/ fuel and fodder tree plantation, Improved soil health.



Climate action – mitigation, adaptation, reduction in movement in forest areas (wood collection), carbon sequestration, GHG reduction, climate resilience.



The EVD concept includes promotion of home forestry and soil and water conservation helps to **halt and reverse land degradation**



The concept involves responsive, inclusive, participatory and representative decision-making at all levels



Work in partnership : participatory planning, project partnership in 4 countries

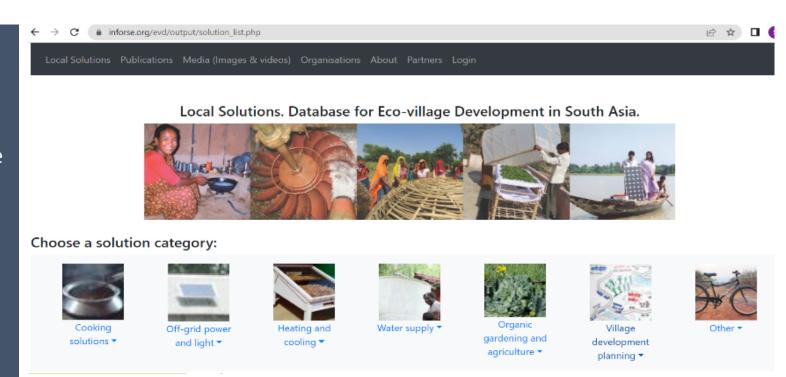




UNFCCC SB56 Side Event - Bonn, Germany - Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe // INFORSE - SUSWATCH - NFRE - SE 11/6 2022, 11:30-13.00 Room: Berlin

Online Catalogue of local solutions from South Asia

- Online catalogue of EVD solutions is developed by project partners in four countries
- The catalogue includes some of the EVD solutions being promoted in South Asia and is available on https://inforse.org/evd/
- The description about the solutions is organised category wise and country wise.
- We look forward for inputs from all the participants on the catalogue



You can share comments and inputs via email at

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POLICY BRIEF to UNFCCC SB56: Enhance climate Ambition and Global Stocktake With **Local Sustainable Energy**

- This paper showcases local energy solutions that are important for climate action, with examples from South Asia
- It proposes that in the Global Stock Take (GST), it is reported
 - to the extent these local solutions are used in each country,
 - how they are included in climate plans and NDCs,
 - and the potential they have for further reductions of emissions in each country.
- It proposes to include Local Solutions in Climate Plans as they contribute to climate action as well as to poverty reduction
- Giving them equal access to funding as centralized and nonrenewable solutions.
- The plans should tailor national climate programs to local solutions, for instance with micro-finance, involving of civil society in implementations etc.
- The paper shares some of the success of local solutions

Policy Brief download from:

https://www.inforse.org/SB56.php

Enhance climate Ambition and Global Stocktake With Local Sustainable Energy

A large number of lacet, sustainable energy solutions are important clima solutions, including them fully in climate plans will make it easier to near Maker ambitions in climate mitigation and adeptation. It is also essential to include the local solutions when assessing progress in elemetr action with the Global Stockhole (SST), in order to get a full picture of the arganess of physics action, as well as the patentials for further actions With this paper, we showcore dood energy solutions that are importan-cieratic ordios, with marrales from South false, but with relevance for many world regions. We also highlight how and why to include them in climate plans and GST.

Include local Solutions in Global Stocktake (GST)

The local solutions are often not included or only partly included in NDCs. This gives the risk that they will not be included in the upcoming GST leaving out on important part of the climate actions that can also reduce poverty and support lacid development.

Therefore, we around that in the GST it is reported to which extent these local solutions are used to each country, how they are included in climate plans and NDCs, and which potential they have for further reductions of

Include Local Solutions in Climate Plans

Mikes the countries are audation almost plans and increasing probitions tant and achievable way is to include local sustainable salutions. They both contribute to climate action and poverty restaction combining targets of access to clean, renewable energy with climate

Therefore, climate place should include policies that support the lass! safutions, giving them equal occurs to funding as controlled and non-renewable solutions. Further, the plans should talker national climate programs to local solutions, for Instance with micro-finance, involving of

Successes with Local Sustainable Energy Solutions

Cooking afficiently
There is a great potential in South Asia and other region burning of finewood to reduce

emissions of CO2 and black carbon. In Inclusions there are around 150 million families using traditional fires for cooking, where improved cookstown can save them a mustily around 900 million tonnes of



commerce. A modern designed efficient two portificies with a chimney can a family save 3 to 4 kg of finewood per day and clean the air in the kitchen. Photo: JMMLA improved Cookstove by MSEDA, Europ.

Biogos to Replace Wood and Dung for cooking Sogan plant converts dung and organic waste into methane gas

nillions are cooking with biogss as a smokeless, high officiency clean fuel in rural areas. The biogas helps in reduction of drudgery among women in collection of feelward and provide cleaner sin in lots tens, which process health of women and children.

is India alone there is a potential of constructing additional 75 million biogas plants of 2 m3 which can save 200 million

tornes of facilished and 300 million forms of CO2 a, as well as reducing black carbon emissions. Photo: <u>Coppopul/goally</u> hingus plant by MSEDA, India

demand in an affordable way in rural areas, providing power for lights & fans, mobile phone charging, and powering Tvb and radios. SHS are also powering around 200,000 rural businesses, light up religious facilities,

The SH5s are beriefting around 24 million peoples, which accounts for 16% of Bangladech's population. Between 1996 to 2022, the SH5s have reduced greenhouse gas (GHG) emissions by approximately 10 million connect of CO2 equivalent and offset nearly 4.4 billion librar kerosen

Photo: Soler home system panel by Grammen Shakti, Bongladish Planning the transition of villages.

Combining the solutions in cooperation with the uses can reduce emissions and provide local development lackading improved Reelhood. This is the main rationale behind the Exo-Village Development (EVD), promoting a basket of solutions that are stapted to each village, guided by participatory development of village

The DVD basket of solutions is expanding with new local technologies. A an example: In Repail, electric induction cook stores is a new way to shift towards clean cooking. With its abundant water resources in Repail, 25%





















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BRIEF











Thank you

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www.inforse.org/asia/EVD.htm

www.ecovillagedevelopment.net

https://www.inforse.org/asia/Publications E

coVillageDevelopment SouthAsia.htm

EVD Catalogue <u>www.inforse.org/evd</u>

Proceedings: www.inforse.org/SB56.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

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

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









Policy Briefs – Positions to UNFCCC



