

A woman with a pink shawl and red top is holding a large green citrus fruit from a tree. The background is a dense green orchard.

FEATURING:

India

Bangladesh

Sri Lanka

Nepal

ECO VILLAGE DEVELOPMENT

**INFORSE SOUTH ASIA NEWSLETTER
INAUGURAL ISSUE ON ECO VILLAGE DEVELOPMENT**



ecovillage

Dear Readers,

Welcome to the Inaugural newsletter for INFORSE South Asia. With the launch of this bi-monthly newsletter, we will share news about our various projects and the work being undertaken by our members. This newsletter will also serve as a platform to share our ideas, opinions and analyses on issues and policies that are of importance to our community. It is befitting that our newsletter is being launched at such a significant time for not only our network but also the global climate change community. With greater understanding regarding the need for locally rooted and innovative solutions to fight climate change, this is a pivotal time for us to assemble together a more diverse set of voices working away from the mainstream gaze.

This is also a significant time for our network. The International Network For Sustainable Energy (INFORSE), is celebrating its silver jubilee, marking 25 years since we were formed on the sidelines of the Rio Earth Summit in 1992. We started as a group of like minded individuals and NGOs working towards the promotion of low carbon energy, with our work spanning across North America, South Asia, Asia Pacific, Latin America, Africa and Europe. Since then, our network has grown to close to 200 NGOs and thought leaders working in sustainable energy and climate resilience all over the world.

INFORSE South Asia (INFORSE-SA) was formed contiguously, in 1992 to serve the areas of India, Bangladesh, Sri Lanka, Nepal, Pakistan, Bhutan, Maldives and Afghanistan. In the 25 years since I've served as the Coordinator of INFORSE South Asia, our membership has grown to include a vibrant community of NGOs and practitioners that has worked tirelessly to promote renewable energy in their countries and especially for those in under served, rural communities.

This inaugural issue features updates on some exciting new projects from INFORSE South Asia's network partners in India, Bangladesh, Nepal and Sri Lanka. Of course, we also hope to welcome new members from the rest of South Asia over the course of the year as well and include their stories as well.

Our main feature story is a piece on the Eco Village Development (EVD) model of climate resilience that is currently being implemented in four countries by our South Asian network. The EVD framework adheres to a bottom-up, grassroots based, innovation driven model of development that supports mitigation and adaptation goals.

With this said, we welcome all our INFORSE South Asia members to participate in this new initiative in the hope that we share, collaborate and grow together through the strength of our network.

Best wishes,

Raymond Myles,

Coordinator, INFORSE-South Asia, and

Secretary General-cum-Chief Executive,

Integrated Sustainable Energy and Ecological Development Association (INSEDA).

31st January, 2018.

eco village

By Kavita Myles

The idea of transforming existing villages into eco villages was first conceived as a solution for achieving climate mitigation and adaptation through low-cost, socio-economic progress for the rural poor. Eco Village Development (EVD) involves the implementation of inexpensive, renewable energy technology and capacity building activities for climate change adaptation and mitigation in villages. This participatory approach pays special attention to women, with their gendered differences in knowledge and the greater impact of climate change on their lives. Importantly, because of its emphasis on low-cost innovative solutions, EVD can also serve as an effective, economical solution with wide applications.

A low-cost, contextual, integrated, development driven response is the key to crafting a future-proof path of growth for South Asia. It is in this context, that the Eco-village development concept in the form being presented in this newsletter was developed by two NGOs, Women's Action For Development (WAFD), a grassroots NGO that works with women and children, and Integrated Sustainable Energy and Ecological Development Association (INSEDA), a socio-technical grassroots NGO in 1997. The first pilot project was developed in 2001-2001.

As of 2018, this Eco Village Development model has also been successfully implemented in a number of villages covering Bangladesh by Grameen Shakti, Sri Lanka by IDEA (Integrated Development Association) and in Nepal by CRT/N (Centre for Rural Technology Nepal). This collaboration between our four countries has been possible through the Eco Village Development Project supported by CISU (Civil Society in Development) in association with INFORSE International, Dansk International Bosætningsservice (DIB) and Climate Action Network South Asia.

The bundle of practices involved in EVD includes mitigation technologies like the small household size biogas plants, improved smokeless cookstoves, solar energy technology, pico-/micro-hydro power for rural electrification, solar drying units, water-lifting technologies like hydraulic ram pumps and adaptation technologies like alternate income generation trainings, organic farming, roof-water harvesting and others. For some of the target communities, these EVD strategies have also helped reduce some of their dependence on climate-sensitive resources such as rainfall and agriculture. Capacity development should also ensure intergenerational equity, which is why the EVD

project aims at creating green niches built on communities of practice. This is being attempted through constant trainings and the establishment of community self help groups that can take these EVD practices forward. It takes a collaborative approach by involving community members deeply in planning and implementation, while also giving them the tools to be resilient while facing climate change.

The primary beneficiaries of this project are grassroots populations living in villages who have very limited access to energy and the informational tools to live a secure life. The rationale of choosing villages as the focal point of this model is that these rural settlements are home to some of the poorest people in South Asia, who are beset with special socio-economic challenges. These populations are also the most vulnerable to climate mediated risks due to a combination of geographical location and endemic economic, informational and social deprivation.

Importantly, because of its emphasis on appropriate technology, EVD is a scalable concept that can eventually be replicated across South Asia and even globally. The stories that follow show just some of the ways this model has improved the lives of many.



Heera- Hybrid Improved Cook Stove



Fishing pond



Solar Street light

ECO VILLAGE DEVELOPMENT ARE ALSO CLIMATE SOLUTION.

BY GUNNAR BOYE OLESEN, INFORSE



Kidney beans from organic farming



Biogas plant



Solar Street Light

Since the start of the South Asian cooperation on Eco Village Development (EVD), we have argued that the EVD solutions are also climate solutions. They reduce emissions and they help the villagers to adapt to climate change. With a new report, launched at the COP23, "*Greenhouse Emission Reduction Potential of Eco-Village Development (EVD) Solutions in South Asia*", we document how much EVD actually can reduce emissions.

The report selects five of the technologies and interventions with the highest expected emission reductions and their emission reduction potentials are estimated and included. The five selected solutions are: improved cookstoves for household use, household biogas plants, solar home systems, solar mini and micro grids, and solar drying.

The result of the analysis is that for an example village, where 100 households take up the selected EVD solutions, emissions can be reduced by 500 - 600 tons of CO₂ equivalents compared with a baseline with continued traditional cooking and light, electricity from kerosene, or power from Indian central power grid that is dominated by coal power.

The most important emission reductions and also co-benefits come from improvements of cooking solutions, where biogas shows the highest reductions, but also high-quality improved cookstoves can give large emission reductions. Second in importance for mitigation is household and village scale power with renewable energy.

Some of the emission reductions described in the report are recognised internationally today and are eligible for support for emission reductions with Clean Development Mechanism (CDM), Gold Standard and other such emissions reductions projects. This is particularly true of CO₂ emission reductions from improved cooking and introduction of solar home systems. The recognised reductions represent about half of those that we have identified in the report. The main reason for the higher reductions identified in our analysis than in CDM methodology is that we include reductions of all greenhouse emissions, including black carbon emissions. This makes a considerable difference for reductions of emissions with improved cooking solutions. Another difference is because we include solutions that are normally not covered by CDM projects, in particular solar dryers.

The report was launched at the COP23 climate conference, and we will in the coming months work further on the issue to produce a White Paper on greenhouse effects of local solutions. We will estimate emission reductions of real villages that are introducing EVD, and include new knowledge of solutions and of the climate effects of black carbon emissions. We plan to launch the White Paper in May 2018.

Link: http://inforse.org/doc/Report_Emission-Reduction-EVD-09-11-2017.pdf

EVD Scaling- up and mainstreaming efforts

BY Dumindu Herath, Project Manager, IDEA, Sri Lanka



ToT in Village development planning (08/12/17-12/12/2017)- Group picture of participants and Resource personnel

SRI LANKA

In Sri Lanka, Integrated Development Association (IDEA) has been the implementing organization for Eco Village Development activities with the aim of mainstreaming the development concept nationally. Pledging to support the Paris Climate change agreement, Sri Lanka launched several Low carbon initiatives under “Sri Lanka NEXT A Bluegreen era” strategic plan. The 10000 Green smart village development programme is one national initiative which blossomed as a result and

which shows similarities with the EVD concept. At this juncture, the EVD concept is not totally new to Sri Lanka. However, there are aspects in EVD which could enhance the National programmes with proven evidence from implementation. The whole idea of mainstreaming/ scaling-up EVD in Sri Lanka lies in sharing experiences and strategically linking the objectives of EVD with National programmes. With this aim, IDEA initiated a round of discussions with the Ministry of Sustainable Development and Wildlife (MSDW) and the Ministry of Mahaweli Development and Environment (MMDE), emphasizing collaborative

actions and synergy of key drivers in green village development in Sri Lanka. As a result IDEA together with MSDW organized a National dialogue in Sustainable Eco Village Development in Sri Lanka, actively involving the MMDE and other key drivers in the process- UNDP, CSR groups...etc. This dialogue paved the way for a good platform for the different

drivers to explore convergence and plan activities in a more synergistic manner. EVD experiences and information on national green smart villages programme were shared in this platform. More EVD material was shared with the ministry as follow-up.

Photo: 5-day ToT in Village development planning for Development officers, Matale-





Village Mapping at Dodamgasyaya, Sri Lanka

EVD demonstrations and knowledge sharing

The EVD experiences have been widely shared at the national scale emphasizing it as a climate solution while EVD demonstrations are further sustained in the selected EVD villages in Matale (Figures 4 and 5). Emphasizing the need for holistic climate action, the Ministry of Mahaweli Development and Environment organized an environment conference and exhibition under the "Sri Lanka NEXT" initiative in October 2017. Under this event, a forum on climate smart initiatives of Sri Lanka was organized by the Climate Change Secretariat of Sri Lanka. This conference highlighted successful interventions both by the government and the NGO sector. EVD too was highlighted at this event where various experiences, successes and lessons learnt were shared in a platform with high profile national stakeholders (Figure 4). EVD activities of IDEA was presented by Mr Dumindu Herath, Project manager of IDEA at this event which drew interest among various development groups.

EVD linkages and Village development planning

Community based village development planning is emphasized as one of the key activities in the EVD concept making it more suited to project communities. In propagating and mainstreaming EVD, promoting village development planning (VDP) remains a key activity. Even the Sri Lankan government has given emphasis to developing VDPs in its national rural development initiatives. 2017 paved the way for the National programme "Gramashakthi People's movement". This was aimed at eradicating poverty in Sri Lanka. Sustainable village development planning was identified as a core activity under this initiative. However, the capacity of planners and development officers at the grassroots currently is not sufficient in VDP. With progressive discussions with the Matale district secretariat, IDEA succeeded in linking the EVD programme with the Gramashakthi initiative at the district level. As a result a five day ToT on community based village development planning was organized in collaboration with the Matale district secretariat (Figures 6 to 11). The target audience were 16 development officers

representing all of Matale district and who were specially selected under the Gramashakthi programme. The trainees were exposed to both theoretical information including Participatory Rural Appraisals (PRAs) as well as a practical VDP demonstration in a selected village. As follow-ups, a ToT training manual- including EVD solutions- is to be handed over to the group of trainers trained under the ToT in January 2018. This is intended to help in developing Village development plans in their respective divisions to be submitted to planning section in the district.

figure 1: 5-day ToT in Village development planning for Development officers, Matale- Second day 09.12.2017.



figure 1

figure 2: "National Dialogue on Sustainable Eco Village Development in Sri Lanka" 31/07/2017.



figure 2

figure 3: EVD information acknowledged and published in the publication "Climate Smart Initiatives of Sri Lanka- Lessons from the Ground" produced by the Climate Change Secretariat, MMDE of Sri Lanka.

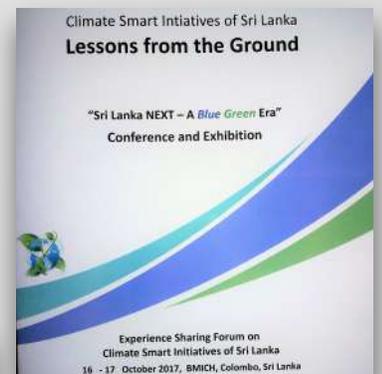


figure 3

For more information, please visit: www.ideasrilanka.org

ECO VILLAGE DEVELOPMENT IN BANGLADESH: WAY FORWARD TO BE CLIMATE RESILIENT

BY MAHMODUL HASAN, GRAMEEN SHAKTI,
BANGLADESH.



Solar street light at Khowarmui village, Bangladesh

When the sun sets, most of the village of Khowamuri gets cloaked by darkness but Nazma Begum can still visit her neighbours and even her father's house 250 meters away guided by the glow of solar street lights. Even in the aftermath of the flood that deluged the village in August 2017, people were able to cross the waterlogged streets at night with relative ease, led by the lights from those solar street lights. In another scene, school children at Uttar Bokchar Primary School (Shudhkhiria village) do not have to bring water from far away distances. This is because they now have safe drinking water that is iron and

arsenic free nearby instead. Moreover, the villagers here also get free water from the solar water pump that was installed here a while ago giving them relief from performing the typical chore of the sand filtration of water heavy with iron content. Another village named Ashulia has set up bamboo-made slurry pits that have given an opportunity to 10 biogas plant owners for the proper management of bio-slurry and allowed them to sell the slurry from the plants and also use it for home gardening.

Under the Eco-Village Development (EVD), these solutions have been installed in all three villages.

These solutions are in addition to the Solar Home System, Biogas Plant and Improved Cook Stove. Under the EVD model, villages have seen the installation of a diverse set of solutions that are environmental friendly, sustainable, climate resilient and mindful of the villagers' requirements. On the other hand, these solutions are also in aligned with Bangladesh's development strategy for climate change mitigation and adaptation.

Solar Street-light in off-grid Khowamuri village: 4 Solar street lights (20 Wp each) have been set up in the off-grid village Khowamuri. This village is located far away from the

main road with no light available in the off-grid village. Some form of electrification and light was essential for safer and smoother movement and security at night for the village members. Considering the need for clean energy access, solar street lights in such unserved areas has been viewed as the most prudent option. In keeping with this, Government of Bangladesh has undertaken a project to set up solar street lights and Solar Home system in the village area under the project "Food for Work and Test Relief". So, EVD solution is in lined with country's development strategies.



Solar water pump at Shudkhura vilage, Bangladesh

Solar Water Pump for clean drinking water at Shudkhira (Bokchor) vilage:

Considering the view of a community based approach and discussion with stakeholders, a solar water pump (2000 liter reserve capacity with a 1.5 KW Solar System) for providing clean drinking water for the vilage school has been installed. The iron content is very high in the drinking water in this area so Deep boring in the tube-well facilitates iron-free water in that area. The primary school in that vilage is using a tube-well which provides water with a high iron-content as well. Moreover, a couple of classrooms had no lights or fans even during the sweltering summer months. Grameen Shakti installed a Solar System with a 1 HP (Horsepower) water pump that provides electricity of about 250 Watt to power a light and fan in the class room. This is how the EVD programme helped create a

model for a community-based schools with clean drinking water as well as light within sustainable frame work.

Upscaling:

Grameen Shakti has applied for the Green Climate Fund based on an Eco-Village Development model in the off-grid areas of Bangladesh. Opportunities were created with a group of similar organizations in Bangladesh so that a comprehensive project based on EVD could be structured for applying to the fund

During the EVD project period, Grameen Shakti has proposed to its alliance for renewable energy sector to work in the Green Climate Fund. Moreover, with its partners Grameen Shakti has started consultations with Bangladesh's national policy framing organization SREDA (Sustainable Renewable Energy Development Authority) on whether there is any chance to scale up the Eco-Village Development Project in

Bangladesh especially in areas without grid electricity.

Grameen Shakti is in discussion with the other EVD partners for probable possibilities to work together for Green Climate Fund in scaling up EVD in South Asia where out of 1.7 billion people, 60% lives in rural areas.

figure 1: Villagers moving at night_Khowamuri Village.

figure 2: making Bamboo-cement made slurry pit at Ashulia vilage.

figure: Student using water from solar pump at Shudhkira vilage.

For more information on EVD Grameen Shakti, please visit : www.gshakti.org



figure 1



figure 2



figure 3



ECO VILLAGE DEVELOPMENT, NEPAL

BY SHOVARA, CRT , NEPAL.

Centre for Rural Technology, Nepal (CRT/N) is a professional non-governmental organization engaged in developing and promoting appropriate rural technologies effective in meeting the basic needs and improving livelihood of rural people. Established in August 1989 under Company Act, CRT/N has been re-registered with Government of Nepal (GoN) under the Social Organization Registration Act 2034 since October 1998. The organization is actively engaged in upgrading traditional technologies as well as developing new technologies with diversified and versatile applications to meet rural needs.

The organization was established with a vision to be a professional/ innovative organization and knowledge

delivering quality services to local communities for improving their livelihood and with a mission to develop, promote and disseminate environmentally sound rural/ appropriate technologies and strengthen capability of rural communities in creating better opportunities through mobilization of local resources to improve their livelihoods conditions.

CRT/N has been implementing Eco Village Development since 2015 in three different villages from Kavrepalanchwok district namely Chaymrangebsesi-2 village, Chyamrangbesi VDC; Ladkhu-Chanaute-2 and 9, Dhunkharka VDC and Sikriyang-9 village, ChalaGaneshsthan VDC.

Please visit the link to watch the Documentary on EVD, Nepal.
<https://www.youtube.com/watch?v=-kNoDg8p94&t=500snic0>



Training on Bee Keeping conducted

Centre for Rural Technology, Nepal (CRT/N) conducted 5 days training on Bee Keeping, which included 3 days theory class and 2 days practical class in collaboration with Bethanchok Rural Municipality of Kavre District from 2-6

January, 2018. About 44 participants attended the training, which includes beneficiaries from EVD village as well as people from adjoining wards. People were trained on modern bee keeping practices, which included management of disease and other pest harmful for bee, increase in honey production process and marketing of honey etc.

For more information on EVD-CRT/N, please visit:
www.crtnepal.org

CASE STORY:

FISH FARMING AS ALTERNATIVE INCOME GENERATING OPPORTUNITY

FROM CRT/N, NEPAL.



Fifty years old Sanukanchhi is a permanent resident of Chyamrangbesi. In addition to taking care of household chores, she is also actively involved in agricultural activities. Her family consists of her husband and three children. The major source of family income is agriculture. However, over the past few years, due to changing climate leading to decline of crop yields and return over investment, she and other members of the village have shifted from traditional agricultural practice to improved agricultural and other income generating opportunities.

CRT/N's EVD team had rounds of discussion with villagers to collaboratively identify several livelihood options that the community could practice within the village

through the efficient use of locally available resources. These options are climate-friendly and provided opportunities for villagers to earn income. Among those options, through tapping the abundant

water available in the village, fish farming was identified as one of the best options. Along with Sanukanchhi, nine other members of the village opted for this. At the same time, World Food Program was initiating a "Food for work" Project with an objective to pursue socio-economic development of the village. Villagers cashed on this support to build 10 ponds for fish farming. EVD project provided all required training for fish farming. In order to promote and expand on the climate-friendly livelihood options as per their need and preferences, the EVD project provided a support of NRs. 5,000 to all 45 households. While many of the households used this amount to install solar photovoltaic systems or to construct plastic tunnel for farming, Sanukanchhi and other three families invested their money on fish farming. All 10 households that constructed fishponds in the village are getting good return on their investment. Sanukanchhi has done a very good job of

managing the pond; as a result, her pond is often used as a demonstration pond. Several government and non-government organizations from the district have already visited her village to see her fishpond.

The pond was constructed about a year ago. It is 5.5 m wide and 2 m high (water level is up to 1.2 m). It costs her about NRs. 30,000 to construct the pond as per the prescribed norms, including equipment cost, material cost and skilled and unskilled labour cost. Initially, about 500 Common carp and Grass carp species of fish worth NRs. 700 were released in the pond. These fish species were new in the village. When fish are ready for harvesting, her family consumes some and sell the rest at local markets. Previously, they would spend about NRs. 25,000 annually on fish and other meat items. After constructing fishpond, she doesn't only save money but has additional income from selling fish. She earns about Rs. 10,000 every year by selling approx. 20 kgs of fish, at the rate of Rs 500 per kg. For fish food and other requirements, she spends about NRs. 1,000 per month. This is the first attempt at fish farming in the village. Therefore, they often invite fish experts for necessary counselling. The initiative that Sanukanchhi took to adapt to the change in climate and to the new environment by using local resources has set an example for everyone. The support from her family members has also been appreciable from the beginning.



photo:Sanukanchhi cleaning fish pond

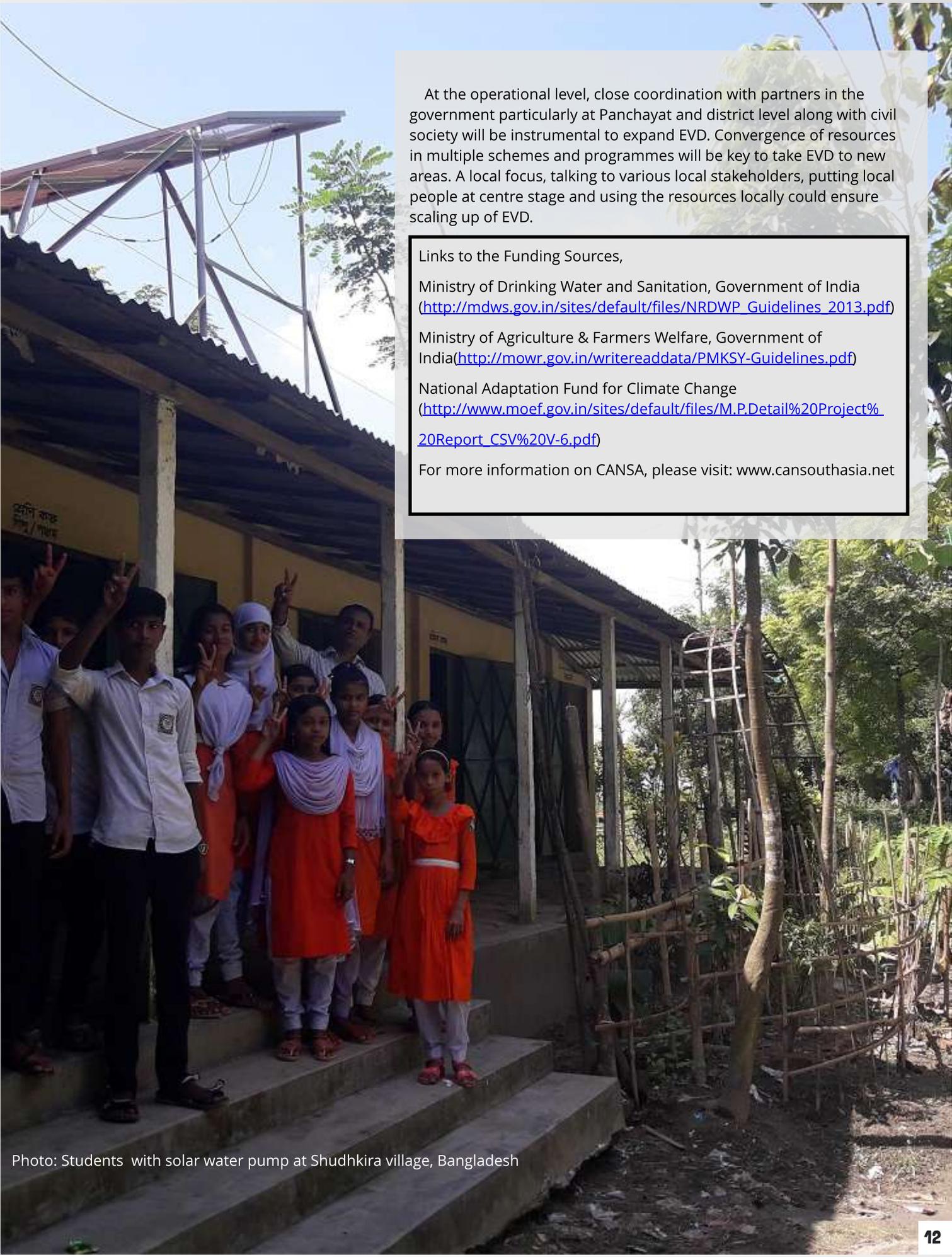
Financing to scale up EVD solutions in India

Santosh Patniak, CANSA.

Adaptation is the bedrock of climate action to safeguard vulnerable populations in India. Eco Village Development solutions promoted at the local level have direct and indirect co-benefits that contribute to adaptation in the long run. Community centric planning and capacity building activities inherent to EVD have a multiplier effect on women. Thus, it is essential that EVD is promoted in the rural areas in a big way to improve energy access, generate income and promote sustainable agriculture and allied practices.

In order to extend EVD to vulnerable communities across India, the involvement of sub national governments and the district government machinery is a pre-requisite. With a mandate to implement policies and schemes, district officials and local self-governance institutions such as the panchayats are key. The various government departments who would have a defining role are those involved in rural development, panchayati raj, agriculture, water resources and energy. Inter-departmental coordination and convergence of resources will be necessary to reach the last mile. The sources of finance to undertake extension activities at district level can be supported by various schemes and programmes under implementation by state and national governments. A list of such schemes are presented below.

State	Programmes/ Schemes/ Project	Funding Source	Components relevant to EVD to scale up
All States	National Rural Drinking Water Programme (NRDWP)	Ministry of Drinking Water and Sanitation, Government of India	Provision of piped water supply to rural households with funds with Gram Panchayat. Provision of solar pumps for remote habitations and habitations with irregular power supply.
All States	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	Ministry of Agriculture & Farmers Welfare, Government of India	Use of appropriate technologies and practices to integrate water source, distribution and efficient use.
All States	Deen Dayal Upadhyaya Grameen Kaushalya Yojana	Ministry of Rural Development, Government of India	A scheme to skill rural youth for job creation and generating livelihood. The scheme could be used to build capacity of rural youth in EVD technologies and approaches thus providing them employment.
Madhya Pradesh	Climate Smart Village project	National Adaptation Fund for Climate Change	The project builds on sustainable rural development concept and adopts intervention that builds adaptive capacity of vulnerable population in Satna, Rajgarh and Sehore district. The interventions promoted are - alternative energy; weather based agriculture practices, water conservation techniques and capacity building in climate change adaptation.
Sikkim	Organic Mission	Government of Sikkim	EVD technologies and processes could be used in sustainable agricultural practices.
Kerala	Haritha Keralam Mission	Government of Kerala	Thrust on organic farming especially vegetables and fruits, water conservation practices makes the mission suitable for scale up of EVD technologies in the state.



At the operational level, close coordination with partners in the government particularly at Panchayat and district level along with civil society will be instrumental to expand EVD. Convergence of resources in multiple schemes and programmes will be key to take EVD to new areas. A local focus, talking to various local stakeholders, putting local people at centre stage and using the resources locally could ensure scaling up of EVD.

Links to the Funding Sources,

Ministry of Drinking Water and Sanitation, Government of India (http://mdws.gov.in/sites/default/files/NRDWP_Guidelines_2013.pdf)

Ministry of Agriculture & Farmers Welfare, Government of India (<http://mowr.gov.in/writereaddata/PMKSY-Guidelines.pdf>)

National Adaptation Fund for Climate Change (http://www.moef.gov.in/sites/default/files/M.P.Detail%20Project%20Report_CSV%20V-6.pdf)

For more information on CANSA, please visit: www.cansouthasia.net

Photo: Students with solar water pump at Shudhkira village, Bangladesh

WOMEN FARMERS IN EVD PROJECT ACHIEVE HOUSEHOLD LEVEL FOOD SECURITY.

A CASE STUDY BY ZAREEN MYLES, WAFD, INDIA.



Women farmers in the Organic farming unit in Uttarakhand, India.

Agriculture census of 2000-2007 shows that there are 121 million farmers in India. Out of which 99 million are the small, marginal and sub-marginal farmers who have less than 2 acres of land. Even though in recent times it has become difficult to eke out a living from farming for these small, marginalised farmers, yet almost 50 % of our population depend on farming. The fall out of this inability to produce enough to sustain their families compelled most young and able men and boys migrate to cities and other regions in search of jobs and livelihood. In this situation, it is the women who are left as the "invisible women farmers".

WAFD and INSEDA have been working since 2011 in Eco Village Development in a group of 6 villages, in the State of Uttarakhand, which lies in the Sub Himalayan region of North

India. Families there, are increasingly getting fragmented as able-bodied men migrate in search of jobs and earning a better livelihood. This has led to the phenomena of "Ghost towns" which have been increasing in the region. Entire families have migrated and left their villages due to growing lack of water and inability to farm their small landholdings in a sustainable manner. A survey by the National Institute for Rural Development and Panchayati Raj has shown that almost 1048 villages have become "Ghost towns". According to this survey, 88% of the rural households in the State reported at least one able-bodied male member between the ages of 20 – 49 years, had migrated and was away from the village for 6 -12 months in a year. It is estimated that at least 70% women work in agriculture in Uttarakhand

villages. At the National level, studies have shown that nearly half of all self employed small farmers are women which is gradually leading to "feminization of agriculture", yet when we say farmer, it is assumed "men farmers." This has to change. There is need for recognition of women farmers as viable and who bring about food security at the household level and also produce surplus.

Coming to our 6 villages, the picture is no different. Almost every household has men who have migrated for jobs. And many have joined the armed forces.

Literacy rates are high with both men and women having studied up to 12th standard, most young men has even complete college education. It is only women above the age of 55 years who may not be literate. Thus, all the young men migrate to cities in the plains or bigger towns to get salaried jobs.



Organic farming units in
Uttarakhand, India

Organic compost basket



Photo: Muni Devi in her Organic farming unit, Uttarakhand, India.

In this scenario, women, young and old are left in the village to take care of their small land holdings and animals if they have any. This leads to increase in their workload as they now single handedly take care of everything from children's schooling, caring for aged parents and farming activities to grow some food for their own consumption.

When we started the EVD project, none of the families in the villages were able to produce the full years requirement of beans, pulses and millets. Gradual climate change was leading to either droughts or too much rain and floods so the crops would wash out or dry. Land and soil quality had deteriorated even though majority of the women did not use chemical fertilizers but practiced what is called "natural farming". Soil tests showed deficiency in important nutrients in the soil which caused the small terraced farm units to have uneven growth and so, less produce.

Women told us that the produces were enough to last them for only around 5-6 months and the rest, they had to buy from the local market. As one of our women said "Fifteen years ago we could grow enough to last us the whole year and we only had to buy salt, sugar, oils and wheat flour from the market. Slowly our production has become less and less". It was the same with vegetables, they could grow some seasonal vegetables, otherwise, either buy it from the market for which they had to spend at least INR 50 / to get enough for just one time in a day. Thus, there were hardly

enough vegetables included in their diets unless they could pick certain greens from the forest during the rainy season.

The project provided the women with regular training in kitchen gardening/ home gardening to grow vegetables throughout the year, as well as to make organic compost and slowly start organic farming. After regular trainings, gradually the women started seeing their small farm units improving and production increasing.

Today there are 410 women who are participating actively in organic farming in their small units. They are able to grow enough beans, pulses, millets and vegetables to last them throughout the year and also have some surplus which they either sell in the local market, so they can have some ready cash in their hands, or they barter with neighbors and relatives by getting those things which they don't have in exchange for their extra produce. They are also cooking fresh vegetables everyday throughout the year as well , so the nutritional status of their children is also improving. Here too they share with their neighbors as well as some of them sell these extra vegetables.

Here's a tabular format of What they grow and how much they have the surplus in kilos which they take to the market now:

Vegetable	Surplus in Kilo
Beans	4710
Pulses	1093

Vegetable	Surplus in Kilo
Millets	349

Today these women are very happy.

Now, the next step for us is to help them increase their yield and form them into a producers co-operative so this surplus can be sold at a better price.

Of course this means many more trainings and exercises such as grading and packagings and the most important of all is "branding" these to get them recognition in the open market.

For more information on INSEDA, please visit: www.inseda.org

<http://www.inseda.org/eco-village-development/>

You can also visit the link to watch the EVD India, Documentary:

<https://www.youtube.com/watch?v=rBWZQf2y5Mo&t=30s>



CLIMATE NEGOTIATIONS AND ECO VILLAGE DEVELOPMENT

BY GUNNAR BOYE OLESEN, INFORSE.



EVD SA Project partners and INFORSE partners at COP 23

At the COP23 climate summit, plans were made for making the Paris Agreement work and for an international “Talanoa” dialogue on climate action ambitions, considering the global target of limiting global warming to manageable levels. Negotiations will continue in 2018 that can be a very important year for climate actions worldwide. The implementation of the Paris Agreement with the system of nationally determined contributions (NDCs) have large potentials to support local climate actions as the Eco-Village Development(EVD). Unfortunately, the guidelines that were discussed during COP23, were far from finalised and only the coming negotiations will determine how implementation of the Paris Agreement can contribute to EVD. The aim is to finalise these negotiations at COP24 in December 2018.

Talanoa Dialogue

At COP23, the countries decided to organise a “Talanoa Dialogue” that will run during 2018 to increase climate ambitions. leading to a high-level dialogue with world leaders during COP24. “Talanoa” is a Fiji word that means an open and inclusive

dialogue that shall lead to wise decisions for the common good. Because the country of Fiji has the current presidency of the climate negotiations, it proposed this name for a dialogue on increased climate ambitions. The dialogue was already agreed in principle 2015, together with the Paris Agreement. The plans for the Talanoa Dialogue are in brief:

-January 2018. Official start. The countries and civil society are invited to cooperate on events to increase climate ambitions during 2018, until COP24.

-2nd April. Deadline for countries and observers (as INFORSE) to present analysis and proposals for the first part of the Talanoa Dialogue

-30th April - 11.May. The countries meet for climate negotiations and will, among others, discuss proposals received

-October. Special report by the IPCC, the international panel of climate researchers, on limiting global warming to 1.5°C.

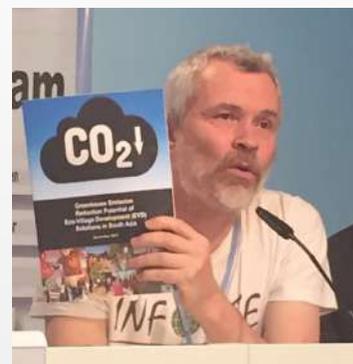
-29th October. Deadline for countries and observers for analysis and proposals for the last part of the dialogue

-November: The presidency (Fiji) will present synthesis of activities so far.

-December: COP24 with dialogue with state leaders and ministers to evaluate the climate actions in the light of the IPCC report, and inform NDCs.

Paris Agreement Work Programme:

A large part of the negotiations during COP23 were about plans and guidelines for implementing the Paris Agreement. These guidelines etc., referred to as the “Paris Rulebook” or officially as the “Paris Agreement Work Programme”, shall be finalised at COP24. Unfortunately, the negotiations did not progress as much as hoped for. For the crucial question on guidelines for NDCs, the countries only agreed on a 180 pages long document that lists the positions of the country groups, and thereby how they disagree. For other questions, such as climate adaptation, financing of developing countries’ climate actions, global stock take of climate actions, etc. the countries also only agreed to documents stating their agreement and disagreements.



Gunnar launching Mitigation Report



EVD SA side Event at COP23





EVD SA Project partners and INFORSE partners after the Side Event at COP 23

The main disagreements are about what the international community can demand from developing countries regarding details of plans of climate action, reporting, transparency etc., and what it can demand from developed countries regarding climate finance, including disclosure of plans for future climate financing, modalities of climate finance, etc. A group of countries including China, India, Bangladesh, Sri Lanka, Iran, and Saudi-Arabia aims at very low requirements for developing countries. Many developed countries aim at minimal requirements for disclosure of plans for their climate financing. Because of the large disagreements during COP23, the countries agreed to organise extra negotiations during 2018, in addition to the normal two weeks of negotiations in May.

EVD and COP23

Eco-Village Development solutions contribute to both development and

climate mitigation, as they reduce the greenhouse emissions, both existing emissions and the emission increases that often comes with development and poverty reduction. They can also contribute to climate adaptation. Thus, INFORSE and INFORSE members, including INSEDA and other EVD partners were active during COP23 to have EVD solutions recognised as climate solutions. We organised a well-attended side-event together with African INFORSE members, and we followed the negotiations.

In relation to EVD, the status of the negotiations is that in the draft guidelines for NDCs is included that climate action should contribute to poverty eradication, while there is no special priority for local solutions versus centralised solutions. Unfortunately, the priority of poverty eradication is in the texts that are not agreed, so it depends on future negotiations, if it will remain, and be in the

final guidelines.

You can read about the Talanoa Dialogue and other agreements during COP23

<http://unfccc.int/resource/docs/2017/cop23/eng/l13.pdf>

You can visit these links for more information:

The proceedings of the COP23 :

<http://www.inforse.org/cop23.php3>

The new edition of the Mitigation Report, which was launched at COP23 :

http://inforse.org/doc/Report_Emission-Reduction-EVD-09-11-2017.pdf

The EVD publication in English:

[http://www.inforse.org/asia/pdf/](http://www.inforse.org/asia/pdf/Pub_EVD-SouthAsia.pdf)

[Pub_EVD-SouthAsia.pdf](http://www.inforse.org/asia/pdf/Pub_EVD-SouthAsia.pdf)

Link to all versions of EVD publication in different languages:

<http://www.inforse.org/asia/>

[Pub_EcoVillageDev_SouthAsia.htm](http://www.inforse.org/asia/)

For Different publications, policy briefs under the EVD project side:

<http://www.inforse.org/asia/EVD.htm>



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Chief Editor:

Raymond Myles, Regional coordinator,
INFORSE -South Asia.

Editors:

Kavita Myles, INSEDA, India.

Limasangla Jamir, INSEDA, India.

Authors:

Dumindu Herath, IDEA, Sri Lanka.

Mahmodul Hasan, Grameen Shakti,
Bangladesh.

Shovana Maharjan, CRT, Nepal.

Santosh Patnaik, CANSA.

Zareen Myles, WAFFD, India.

Gunnar Boye Olessen, INFORSE.

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INSEDA (INTEGRATED SUSTAINABLE ENERGY AND ECOLOGICAL DEVELOPMENT ASSOCIATION)

A-6, WZ, Asalatpur,
Janakpuri, New Delhi-110058
ray.myles06@gmail.com
www.inseda.org



<https://www.facebook.com/inseda.org/>



@inseda_org

EVD SA Project Partners:



