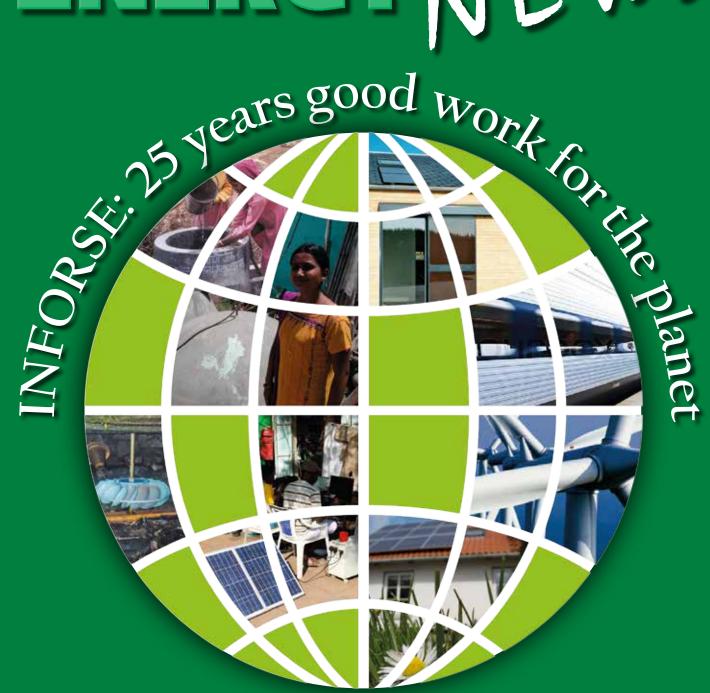
SUSTAINABLE ENERGY NEWS



THEMES: SOUTH ASIA, EAST AFRICA, EASTERN EUROPE

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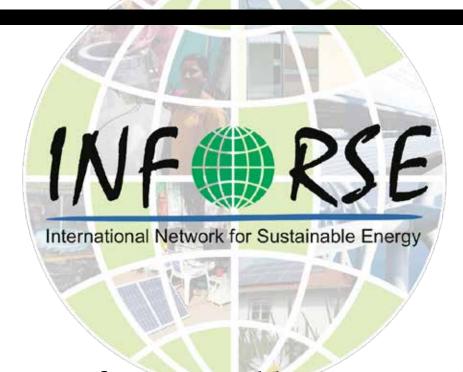
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INFORSE:

International Network for Sustainable Energy

Photo on the front page: INFORSE logo Globe.



25 Years for Sustainable Energy - and Challenges for the Next 25

For a quarter of a century, INFORSE has worked for a transition to sustainable energy: for sustainable use of renewable energy, for energy efficiency, and for energy access. During this time, renewable energy has developed with unprecedented speed, energy efficient solutions have become standard and many millions have gained access to modern energy. Renewable energy sources have developed from niche markets to the solutions of choice in the power sector. Unfortunately, in the mean-time CO₂ emissions have reached record levels. The window of opportunity to limit global climate change below 1.5 - 2'C is gradually closing. If we are to keep a stable climate, the sustainable energy successes of the past 25 years must be followed by much larger successes in the coming 25 years.

While renewable energy today is mega-business, we cannot just leave the development to the business sector and the market. Energy markets have always been influenced by politics. If we really want to move to sustainable energy, we need policies to promote sustainable use of renewable energy and energy efficiency. We need to phase out fossil fuel subsidies and we need to move financing from fossil fuels to sustainable energy. All this will not happen by itself. Countries must embrace targets and plans for 100% renewable energy, development banks must stop financing fossil fuel projects and the civil society must keep on pushing for this.

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INFORSE is a worldwide NGO network formed at the Global Forum of the "Earth Summit" in Rio de Janeiro, Brazil, 1992 INFORSE has Consultative Status to UNFCCC & UN ECOSOC.

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The transition to sustainable energy opens many opportunities for much more decentralised energy supplies, using local renewable energy wherever it is. With community energy solutions, millions can be engaged in the transition, and the benefits of sustainable energy can be reaped locally. If local energy solutions and local involvements are to flourish, it requires legislation that both allows and supports local development. Given the large vested interests in the centralised solutions, it needs an engaged civil society to ensure this transformation.

Also universal energy access is not achieved without policies, investments and sustained public and civil society involvement. With the right financing, many millions could get solar power at lower cost than alternatives. Modern cooking solutions, including use of sustainable biomass, can allow decent cooking conditions throughout the world. In combined eco-village developments, energy access can link with reduced greenhouse emissions and support better livelihoods.

Based on the experience from the first 25 years, we know a lot about the solutions that work. We must strive to make them universally used within the next 25 years.

> On behalf of the INFORSE Coordinators, Gunnar Boye Olesen

> > The articles reflect the views of the authors and of INFORSE, not of the financial supporters

This issue is supported by projects financially supported by CISU, Civil Society in Development. Denmark.







Get Ready to Use the Paris Agreement

186 countries, more than 90% of all countries in the world, have ratified the Paris Agreement. As one country is stepping out of the Paris Agreement, it is even more important that the remaining 190+ countries keep the momentum and start to implement the Agreement.

One important step needed to help deliver the Paris Agreement is the finalisation of a series of guidelines to implement it, known as "The Paris Rulebook". The participating countries have set themselves a deadline for this: COP24 in 2018. Unfortunately, progress has generally been slow so far. Therefore it is crucial to speed up progress when talks resume at COP23. The COP23 must deliver a first (0-version) draft of the rules, in order for the draft to be finalised at COP24.

The Paris Rulebook must guide the increased ambition that is imperative for reaching the objectives of the Paris Agreement and keep global temperature stable. This requires clear and balanced rules, but it also requires that the climate actions are closely linked to sustainable development. In particular to the key development objective of poverty reduction. This linkage should be recognised as a feature or context in the guidelines for the Nationally Determined Contributions

(NDCs). When later global stocktakes are made, one of the questions must be if the climate actions have also helped to reduce poverty.

The Paris Rulebook must sufficiently recognise local solutions that can combine climate action with poverty reduction. This will require that local actions, including poverty reduction, are included in the guidelines for NDCs, in the transparency framework for evaluation of NDCs, and in the global stocktakes. There are also many details that must be considered: for instance, improved biomass use reduces the emissions of black carbon that are also causing global warming, which must be included when calculating effects of climate actions.

It is also important that the Paris Rulebook prescribes *openness and inclusive* processes with stakeholder participation in the development of NDCs, the transparency framework and the global stocktakes.

Given the *key roles of women* in the implementation of many of the local climate solutions, it is important that the guidelines include a systematic integration of gender perspectives.

INFORSE and its members and partners have developed policy briefs with more detailed proposals for the negotiations, see www.inforse.org.

INFORSE at COP23 EXHIBITION & SIDE EVENT PROMOTE LOCAL CLIMATE SOLUTIONS TO END POVERTY POVERTY SEE BACK PAGE



INFORSE Joined New 100% Renewable Energy Platform

INFORSE has joined the 100% Renewable Energy Platform, together with seven other global networks and many national organisations.

Read more on the platform and upcoming activities at www.inforse.org

www.go100re.net



COP23: First Gender Action Plan of the UNFCCC

At COP23, a decision is expected that will mark a milestone in the efforts to integrate gender into international climate policy: the first Gender Action Plan under the UNFCCC. The preparations are well under way and were supported by COP22 in Marrakech that asked its subsidiary body, SBI, to develop this Plan in order to support the implementation of the gender-related decisions and mandates so far adopted in the UNFCCC process.

More: Women and Gender Constituency: www.womengenderclimate.org



Celebrating INFORSE's 25-year anniversary holding the old issues of Sustainable Energy News at the INFORSE-Europe Seminar.

Celebrating INFORSE - 25 Years

Sustainable Energy Seminar in August 2017, the participants celebrated the 25-year anniversary of INFORSE and discussed

At the INFORSE-Europe

in EUROPE

future activities.

At the General Meeting the new Coordinators and Board was elected. The new board members are:

- Henning Bo Madsen (chair) Sustainable Energy (VE), Denmark
- Ursel Beckmann, **Ecoact, Germany**
- Béla Munkácsy, **Environmental Planning** and Educational **Network, Hungary**
- Toni Vidan, Green **Action, Croatia**
- Olexandra Tryboi, **Renewable Energy** Agency, Ukraine

The Seminar took place at Nordic Folkecenter for Renewable Energy in Denmark, August, 2017

Why INFORSE?

For 25 years, INFORSE has promoted sustainable energy, but when INFORSE was formed in 1992, it was also the culmination of a long process.

Movements for renewable energy and energy efficiency started in the 70's. During the 80's, international networking started informally among civil society. At the same time, successes with renewable energy started to emerge with a global windpower market being formed. Also solar heating, biogas and other new biomass uses were succeeding around the world, including improved cookstoves, as the Kenya Ceramic Jiko.

With this in mind, an increasing number of NGOs agreed that renewable energy and energy efficiency should play important roles in future energy systems.

When the world started to prepare for the UN Conference on Environment and Development (UNCED 1992), it was a good time to promote a greater international focus on renewable energy and energy efficiency.

More than 50 NGOs agreed to the document "Sustainable energy development - towards a world strategy" and many NGOs, as well as academia, called for international cooperation on sustainable energy. The ideas reached the preparatory negotiations for UNCED in 1991 with a proposal for an international agency or cooperation on renewable energy and energy efficiency. The proposals were, however, flatly rejected by USA and a few other countries. Following this, the NGOs that had agreed on the need for international co-operation decided to continue in other ways.

When many of the civil society organisations met at the Global Forum in Rio de Janeiro in connection with UNCED, the decision was made to form INFORSE as a network of civil society organisations based on the document that all had agreed to. At the Global Forum, it was also decided to organise INFORSE with a regional structure with regional coordinators.

Series of Activities

Over the following years, the network was developed with a series of activities. INFORSE started organising regional meetings, publishing Sustainable Energy News, initiating civil society cooperation, and promoting sustainable energy at events worldwide.

100% Sustainable Energy

Around the year 2000, a new direction of activities was started in INFORSE: the active promotion of a global transition to sustainable energy. Researchers had already documented how it could be achieved, while official forecasts still included endless growth of fossil fuels.

INFORSE presented these global scenarios for 100% renewable energy in sustainable ways at the UN Commission for Sustainable Development (CSD) in 2001, at the global "Rio+10" in 2002 and on many other occasions. Following the presentation of the global scenario, INFORSE and members made national scenarios for 100% sustainable energy in more than 10 European



International Network for Sustainable Energy

25 years good work for our world







countries. The work still continues with new scenarios and proposals just developed for several Eastern European countries, as described on page 9-11. Recently, INFORSE also joined the 100RE Platform.

Sustainable Energy to Reduce Poverty

From the start, INFORSE had a focus on local, sustainable energy solutions for development, where the purpose primarily is to provide basic energy access for those that lack it. It includes improved cookstoves, biogas, solar dryers and cookers, local electricity from micro hydro, wind, and later solar photovoltaics. This was not primarily to replace fossil fuels, but to provide energy solutions that poor people and people in the villages of the world, can use and can afford. Such solutions should not depend on a continued supply of external energy that not everybody can afford and where the supply in many villages is unstable or non-existent, as LPG for cooking and grid electricity.

Starting in 2005, INFORSE started to document these solutions for South Asia and developed a manual "Sustainable Energy Solutions to Reduce Poverty in South Asia" that is still online.

Later, INFORSE documented and promoted a number of these *successes with local sustainable energy solutions in Africa and in South Asia* in several publications.

Since 2015, the network promotes a combination of solutions as part of the *Eco-Village Development* (EVD) Concept in South Asia.

Recently INFORSE members in West Africa *are* cooperating on promoting higher ambitions in energy efficiency and renewable energy in the project "Accelerating Implementation of Regional Policies on Clean Energy in West Africa (ACE)".

Promoting Sustainable Energy Internationally

From the very beginning, INFORSE brought the voices of civil society to the international negotiations. Beside the continued "Rio-process" after UNCED, INFORSE has followed the process to create the International Renewable Energy Agency (IRENA) and the UNFCCC climate negotiations, as well as the EU climate and energy policies.

INFORSE has consultative civil society status at the UN ECOSOC since 1998, and UNFCCC since 2002.

INFORSE is working on different levels, from promoting ambitious overall targets, to discussions of detailed texts of coming rules and regulations that will promote or hinder local solutions in the North and South.

Civil Society Cooperation

The other main activity of the INFORSE network is fostering cooperation among members. Many members have met via the INFORSE network, have exchanged best practices, and have started projects together. This has lead to a number of achievements, including:

- the Distance Internet Education on Renewable Energy (online) in English, Russian and Slovak,
- an online course on energy efficiency in Russian,
- a guideline for making events greener,
- several publications including collection of success cases from Africa, Asia, and Europe,
- numerous events, and exhibitions, and
- a popular website with many publications, articles, and an online database with 1000+ contacts.

Upcoming Activities

New activities are also in the pipeline including sustainable energy education, local community energy solutions, updating existing educational resources.

INFORSE Regional Coordinators:

East Africa TaTEDO, Tanzania Att: Estomih N. Sawe

West Africa

Enda -Energie. Senegal Att: Secou Sarr, Djimingue Nanasta

East Asia-Pacific ISEP, Japan Att: Tetsunari lida

South Asia INSEDA, India Att: Raymond Myles

Europe

NFORSE-Europe / Sustainable Energy, Denmark Att: Gunnar Boye Olesen

&

Centre for Environmental
Solutions, Belarus
Att. Dzimitry Buronkin

Latin America REJIMA, Argentina Att: Roque Pedace

&

LIMA, Brazil Att: Emilio Lebre la Rovere

Contact Database

Find Your Sustainable Energy Contact or Become a Contact!

INFORSE maintains a database with the 140+ members and 1200+ contacts from around the world. inforse.org/regions.php3

If you want to be included as contact, or update your entry, please use the form (for new contacts) and online system (for updates).



Promoting Implementation of the Paris Agreement in East Africa











By Mary Swai, TATEDO; Emily Arayo and Richard Kimbowa, UCSD; Vincent Lidavalia and Velma Oseka, SusWatch Kenya; Gunnar Boye Olesen, INFORSE.

In Kenya, Tanzania and Uganda, civil-society organisations are working to increase ambitions for East African climate strategies. Many of them are working together in the project *Promoting Implementation of the Paris Agreement in East Africa (PIPA)*.

As part of this, Tanzania Traditional Energy for Development Organization (TaTEDO), Uganda Coalition for Sustainable Development (UCSD), and Sustainable Environmental Development Watch (SusWatch Kenya) are organising national coalitions in their respective countries. The coalitions are campaigning for stronger climate actions than those currently included in the countries' National Determined Contributions (NDCs) to the Paris Agreement, and also for climate actions that reduce poverty and support development.

The PIPA project activities started in the beginning of 2017 with basic analysis of the respective situation in each of the three countries and in the East Africa region. This was quickly followed by meetings to build the national coalitions in the three countries, meetings with national decision-makers and with the East African Community, including the East African Centre for Renewable Energy and Energy Efficiency, which is being established in Kampala, Uganda.

Coalitions in 3 Countries

Coalitions have now been formed in the three countries, to a large extent based on existing networking in INFORSE and SusWatch. This has been followed by capacity-building for civil society on climate change, climate policies, and how climate policies can help local development. PIPA partners are also participating in UNFCCC climate negotiations, which started with intersessionals in Bonn in May 2017 and are now continuing with COP23.

To focus the positions nationally and regionally, *policy briefs* have been developed with recommendations for improving climate strategies in each of the three countries, for the region, and for the international climate negotiations.

In the coming half year, the project partners and coalitions will work with civil society and the three East African governments on proposals for improvements of NDCs. The aim is not only more ambitious NDCs, but also NDCs that better combine climate action with development and poverty reduction.

Likewise, they will work with proposals for longterm Low Emission Development Strategies (LEDS) for the three countries. Close cooperation with civil society in the countries, the government agencies in charge and other national stakeholders are important to maximise success.

The cooperation is, however, not limited to this: the project partners and coalitions will work with regional organisations such as the East African Community and will strengthen regional civil society organisations (CSO) networks including INFORSE East Africa. They also welcome cooperation with all others interested in sustainable, low-carbon developments in East Africa.

Reports, policy briefs, and other materials developed by the partners are available or will be available at the websites of the Partners (See box)

INFORSE is partner to the PIPA project that is coordinated by SustainableEnergy, Denmark and is supported by CISU, Denmark.

In the following pages are highlights of the activities and plans from Kenya, Uganda, and Tanzania.

Read More on the Promoting Implementation of the Paris Agreement in East Africa (PIPA) Project at INFORSE-Africa at www.inforse.org/africa/ East_Africa_PIPA.htm and at the Partners websites:



Uganda Coalition for Sustainable Development (UCSD), Uganda www.ugandacoalition.or.ug



Traditional Energy for Development Organization (TaTEDO), Tanzania www.tatedo,org



Sustainable Environmental Development Watch (SusWatch), Kenya www.suswatchkenya.org/nature/pipa-project



SustainableEnergy (VedvarendeEnergi), Denmark www.ve.dk





International Network for Sustainable Energy www.inforse.org www.inforse.org/africa

The PIPA Project is supported by the Fund for Climate and Environment, CISU - Civil Society in Development, Denmark.



KENYA: Capacity Building and Constructive Dialogues

In Kenya, SusWatch as a network organisation has formed a climate coalition starting with its own network. It has also organised a series of capacity building workshops on climate change and climate actions.

The latest workshop was on the October 4, 2017 in Nairobi. Its aim was to sensitize the participants - from Civil Society Organizations, Media and Academia - on advocacy skills that will enable them to boost their effective engagement with the government on implementation of the Paris Agreement as well as sharing best practices and experience. With the assistance of the PIPA coalition partners in its development, the PIPA National Advocacy Strategy was launched at the event. As an output from the event, a radio programme on the Paris Agreement was broadcast on a national radio station.

Multi-Stakeholder Workshop on COP23 Position

SusWatch participated in a multi-stakeholder meeting on the UNFCCC COP23 held in collaboration with the Kenya Climate Change Working Group (KCCWG) and coordinated by Kenya's Ministry of Environment and Natural Resources' Climate Change Directorate



(CCD) on October 11-13, 2017 in Central Kenya. The participants included representatives of the Ministry of East African Community (EAC), State Department of Livestock, Ministry of Foreign Affairs, Kenya Forestry Service - REDD+ focal point, HIVOS, Kenya Private Sector Alliance (KEPSA), CARITAS, Kenyatta University, and also SusWatch.

The workshop or "write-shop" discussed and elaborated proposals for positions on the issues that will be negotiated internationally during COP23. This includes the Paris Rulebook, but also many other issues that the COP23 subsidiary bodies will discuss (SBI47 and SBSTA47).

After the event, the draft country position was shared in a national consultative meeting before its adoption. In addition, the outcome of the deliberations at the workshop will feed into Kenya's contribution into the EAC's COP23 preparatory deliberations.

▲ The climate capacity-building workshop in Nairobi in October 2017 brought together more than 20 participants from civil society, media, and academia.

UGANDA: A Call to Climate Action from Northern Uganda

In Uganda, the Uganda Coalition for Sustainable Development (UCSD) has initiated a coalition starting with its own network and INFORSE members. The first activities in the coalition were capacity building workshops.

After workshops in the south of Uganda, UCSD decided to organise a workshop in the dry Northern (Lango) region of Uganda that has one of the highest proportion of households most vulnerable to climate change. During this capacity building workshop on climate change, held in the Lira Municipality in the region, CSOs were eager to learn more about how they can contribute to inform the communities they work with on how to demand improved service provision that takes into account the increasing effects of climate change.

Speaking at the workshop, Richard Kimbowa the programme manager for UCSD, encouraged the CSO representatives to continue with the climate change adaptation initiatives as well as the climate change mitigation activities they currently undertake. These include agro-forestry, using energy saving technologies for domestic cooking and lighting such as using bio-gas, using solar panels for lighting, and preserving wetlands and natural forests.

According to Mr. Achak Paul from Lira NGO Forum, CSOs are demanding better advisory and extension services from Government. However, the CSOs need to increase their advocacy activities related to climate change adaptation and mitigation, given the increasing vulnerability amongst communities due to drought, and to water and food scarcity in the Lango region.



Mr. Achak also noted that CSOs should do more to educate the communities about the impacts of climate change on their livelihoods, and about what options they have to offset this challenge.

CSO participants in the workshop *urged the government* to be more responsive to issues of climate change at the local government level by appointing specific officers to be in charge of climate change. This will enable additional specific climate change issues to be addressed.

Nevertheless, there are currently some *good practices* to respond to climate change in the region. For example, in Otuke district, a local government regulation was enacted to preserve the Shea nut tree, which is a vulnerable species according to the IUCN Red List and that has been rapidly depleted as its wood is good for making charcoal. This tree has since been protected and is slowly re-generating in areas where it had been felled.

Participants at the training workshop were from the districts of Alebtong, Otuuke, Apac, Dokolo, Lira, Amwolatar and Oyam.



▲ The workshop brought together more than 20 civil society representatives in Lira, Northern Uganda.



PIPA / EAST AFRICA

Coalition Workshop Participants, 22 August, 2017 in Dar Es Salaam, Tanzania



▼ In rural areas, local solar installations give fast access to electricity with minimal climate impacts, obvious candidates to climate plans.





▲ Improved firewood stove at a household

▲ ▲ Livestock drinking water pumped with power from mini-grid

TANZANIA: Local Solutions are Fundamental for Energy Access in Rural Areas and for Poverty Reduction

While most of the efforts to electrify Tanzania have focused on national grid, as of July 2017 the electricity connection level in rural areas (where more than 73% of Tanzanian population live) was only 16.9% and the majority of it was with stand-alone solar based solutions.

In addition, more than 95% of households in Tanzania use firewood and charcoal as their main source of energy for cooking, where low quality and inefficient technologies dominate its conversation and utilization.

Limited access to sustainable energy solutions has contributed to low productivity in economic activities, poor health and education services, health problems, continued poverty as well as deforestation and land degradation, that both are substantial sources of greenhouse gas (GHG) emissions.

The Role of the PIPA Project

In Tanzania, the PIPA activities are divided between capacity building and campaign activities.

The capacity building activities have included workshops to provide necessary capacity to Civil Society Organisations (CSOs) to be able to better participate in climate advocacy etc.

The campaign activities involve dialogues with targeted stakeholders through bilateral meetings, workshops and consultations. Mass media and social

networks have played a key role. A policy brief with proposals has been shared with targeted ministries and other stakeholders to advocate for changes.

Resulting Successes: CSOs Recognised and Engaged Integrating LEDS in Agenda

As an initial indication of success, CSOs have been recognized and engaged in development of climate policies, strategies and actions including:

- Development of the *Tanzania's Low Emission Development Strategies* (LEDS) (still in draft form),
- Participation in the *validation of the Tanzania NAMA* (mitigation plan) for the transport sector, and
- Participation in the stakeholder consultative workshop for development of Tanzania's Forest Reference Emission Level.

Furthermore, recently the CSOs were granted an opportunity to participate in the *African LEDS partnership (AfLP) annual events* and the second *Africa Mini-grids Community of Practice meeting*, held in Abidjan, Cote d'Ivoire on October 3-5, 2017. The meeting brought together government officials, mini-grid project developers as well as financiers from over ten African countries.

Amongst other things, the meetings contributed to increased knowledge on integration of LEDS into development objectives of each country as stipulated by the African Union's Agenda 2063 (The Future We Want) and the 2030 Agenda for Sustainable Development. Furthermore, it provided opportunities to network, share experiences, and explore collaboration within the AfLP members.



Group photo of the participants of the AfLP event

ASET / EASTERN EUROPE

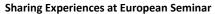


▲ INFORSE-Europe seminar, where the Eastern European scenarios for transition to renewable energy were presented in August 2017.

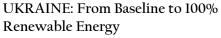
By Olexandra Tryboi, REA, Ukraine; Artashes Sargsyan, Ecoteam, Armenia; Jasmina Said, Eko-svest, Macedonia; Dzimitry Buronkin, CES, Belarus; Natasha Djereq, CEKOR, Serbia.

In five Eastern European countries INFORSE members have not only made scenarios for transition to sustainable energy, but have also involved the larger civil society and have proposed how the countries take the next steps in the transition. NGOs from Armenia, Belarus,

Macedonia, Serbia and Ukraine participated in the Actions for **Sustainable Energy Transition (ASET) project**, with INFORSE-Europe as partner. SustainableEnergy Denmark was coordinator with support provided by CISU, Denmark in 2016-2017.



As part of the project, all partners met at the INFORSE-Europe seminar at the Nordic Folkecenter for Renewable Energy in Denmark in August 2017, where they presented their proposals and discussed the way forward with other INFORSE-Europe members. Scenario development, public presentations and workshops are part of the activities in the five countries.



Within the ASET project, the experts of the NGO "Renewable Energy Agency" (REA) developed three scenarios for the possible development of the energy sector of Ukraine up until 2050. The results were presented at a Conference in Kiev in September, 2017.

Three Scenarios

- The Baseline Scenario represents "continuation of current trends"
- The Climate Action Scenario represents full implementation of climate obligations of Ukraine and even stricter potential obligation of Paris Agreement: -70% of emission reduction in 2050 from 2015 level.
- The High Commitment 100% Renewable Energy Sources (RES) scenario represents "highest possible efforts" towards energy transition to RES with the indicative target of 100% RES in 2050.

Public Presentation

On September 20, 2017 a public presentation of the scenario of Ukrainian energy sector transition towards 100% of renewable energy sources by 2050 was held at the International Conference "Biomass for Energy 2017" in Kiev. The presentation attracted more than 30 people from academia, governmental bodies, NGO and business. The report is now available in Ukrainian and English on the REA and INFORSE-Europe's websites.





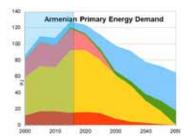


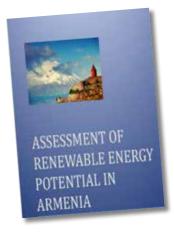




▼ Presentation of the 100% Renewable Energy Scenario for Ukraine on September 20, 2017 in Kiev.







▲ Graph from the Scenario and font page of the publication "Assessment of Renewable Energy Potential in Armenia"

ARMENIA: New Potentials, Recommendations

The NGO "Eco Team Energy and Environmental Consulting" has been implementing the ASET project in Armenia, starting with a thorough collection and analysis of energy data of the country.

Start Up Seminar in Yerevan

The first discussion of project results was in April 2017, where EcoTeam organised an NGO seminar on sustainable energy in Yerevan. At this seminar, EcoTeam and INFORSE-Europe launched the report "Assessment of renewable energy resources potential and level of introduction in Armenia", and presented their first scenario for 100% renewable energy use in Armenia by 2050 in draft. Finally, recommendations on renewable energy transition in Armenia were developed at the seminar and distributed among NGOs for discussion. Among recommendations were: significant increase in the share of electricity and heat from solar and wind energy, restoration of district heating in Yerevan and other large cities with a large input from solar energy, including use of large solar heaters and the introduction of energy forestry. After the seminar, the recommendations were discussed via email among NGOs.

The reports and recommendations were presented to key energy analysts and decision-makers, including:

- Energy Strategy Center of Republic of Armenia
- Energetics and Electrotechnical Institute at the National Polytechnic University of Armenia (NPUA).
- Chairman of State Committee of Science (SAS) of Republic of Armenia that welcomed it as important direction for scientific applications, economic development and innovation activities, particularly its solar photovoltaic section.

Civil Society Forum in the EU Eastern Partnership

The project results were also used internationally for discussions during the Working Group 3 (Environment, climate change and energy security) of the Civil Society Forum in the EU Eastern Partnership, and as inputs for an EU Eastern Partnership sectoral analysis and also for a policy paper.

Final Workshop in Yerevan

The final project workshop will be in Yerevan at the end of October. It will bring together local and national NGOs for presentations and discussions of updated recommendations at national level, results of discussions at the seminar in Denmark and financial aspects of scenarios.



A Photos from the Blue Print by CSOsmeeting and Eko-svest meeting with the Macedonian Prime Minister Zoran Zaev.



MACEDONIA: Scenario and Blueprint

In Macedonia, the NGO *Eko-Svest* has developed a scenario and political proposals for national transition to renewable energy, and discussed it at several workshops and meetings within the ASET Project.

Energy Sector Workshop

Activities started in September 2016, when Eko-svest held a workshop on the energy sector in the framework of the 2016 Conference of the "IPA2CSO Mechanism" to enhance the partnership between civil society organisations, the EU, and the Macedonian government on EU accession preparations. An energy working group was set up in order to discuss possible energy scenarios for Macedonia.

Blueprint of CSOs Workshop

A highlight of the project was a workshop with more than 140 participants from more than 75 civil society organisations (CSOs) in Skopje on July 4-5, 2017 for the "Blueprint by CSOs for urgent democratic reforms".

Eko-svest moderated the work on the topic of environment and the newly included topic of energy. The most active organisations made their inputs, and then the workshop participants generated sets of top priorities for Macedonia, sector by sector. The document was presented to the public in a series of press conferences in July and it was sent to all relevant decision-makers and institutions in Macedonia.

Meeting the Prime Minister

Eco-Svest also had a meeting with the Macedonian Prime Minister Zoran Zaev on July 20, 2017 to discuss the highest priorities in the environmental and energy sectors and to offer solutions. The Prime Minister acknowledged the importance of environmental CSOs as a corrective element in society and encouraged Eko-svest's team to continue work on identifying problems and offering solutions. Eko-svest's team had prepared a position paper on the top priorities in the environmental and energy sectors and delivered it to both the Prime-minister and his councillor.

BELARUS:

National Scenario and City Actions

In Belarus, the NGO Centre for Environmental Solutions (CES) focused project activities on the cities that have signed the EU Covenant of Mayors, but also worked on scenarios for the development of the national energy system and on proposals for decision makers.

Three scenarios were developed to take into account various options for economic development and technology developments. All scenarios start from the current energy supply with 95% fossil fuels.

- The first scenario (the business as usual scenario) continues the existing trends with insignificant economic growth, low growth of renewable energy, continued use of fossil fuels, etc.
- The second scenario shows a high economic growth and continuing use of fossil fuels,
- The third scenario shows the development of the energy system to phase-out of fossil fuel use and development a carbon neutral energy sector by 2050.

Seminars & Workshops

The three scenarios for the development of the energy system were presented to representatives of the Department of Energy Efficiency and the Ministry of

Natural Resources, both at the preparation stage and after the completion of work.

The scenarios and proposals for decision-makers were presented at a seminar on October 19-20, attended by representatives of local authorities from about 20 districts of Belarus, as well as representatives of natural resources inspections, the Ministry of Natural Resources and the Department for Energy Efficiency. The participants worked in groups to apply the scenarios in the preparation of long-term climate and energy plans for the districts of Belarus. The recommendations for Belarus are available online.

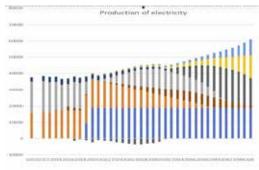


Figure: Production of electricity in the low-carbon scenario. The large-scale introduction of renewable energy (RE) will begin after 2035. It will be difficult to find a niche for RE because of the high production of the nuclear power plant (NPP) and the combined heat and power plants. The entering the NPP will lead to both an increase of the price and a delay in the entry of RE.



▲ Seminar and group work at the workshops, October 19-20, 2017

▲ Presentation of scenarios in Department of Energy Efficiency. Among participants are representatives of Ministry of Natural Resources, Ministry of Housing, Ministry of Economy, Department of Energy Efficiency, Belarus Parliament, and the EU.

SERBIA: 40% Target for Subotica

In Serbia, the *Center for Ecology and Sustainable Development (CEKOR)* focussed on the transition of the town of Subotica in Serbia to renewable energy.

CEKOR presented the first draft of a **Sustainable Energy Strategy for Subotica** at a seminar on May 24, 2017. Together with CEKOR's expert, Dr Ilija Batas Bjelić, several proposals were presented by CEKOR. These proposals, advocated for the Covenant of Mayors' target of reducing emissions by 40% until 2030. During the seminar, CEKOR initiated discussions on several strategic goals such as: reduction of greenhouse gases, reduction of energy prices, increase of renewable energy and savings in households. The seminar gathered together city authorities, representatives of public enterprises and civil organizations, as well as journalists.

Now, a sustainable municipal energy system model of the town of Subotica has been created based on

the available data from the public sector electricity network and heat consumption from district heating plants. However, household, industry and traffic sectors are not being modelled due to lack of input data. Different goals for the future energy systems have been explored in the directions of (1) cost minimization, (2) CO₂ emission constraints, (3) renewable energy share constraints and (4) energy savings constraints.

The results show that sustainable municipal energy system models have a slight increase in the levelized costs of energy over the planning horizon of 30 years, but with the right efforts, realisation of the scenario can bring improvements in environmental protection, increase of green jobs, and increase of energy security.

The next event will be on October 30, when CEKOR is organizing a broader round table with all stakeholders to deliver a final proposal and to sign memo with the authorities on further work on improvement of energy consumption and production in Subotica.



▲ Presentation of the Sustainable Energy Strategy for Subotica on 24 May, 2017.

More on the Sustainable Energy Transition (ASET) Project: INFORSE-Europe: www.inforse.org/europe/ASET.htm
Eko-svest, Macedonia: www.ekosvest.org.mk
CEKOR, Serbia: www.cekor.org; CES, Belarus: www.ecoidea.by
ECO-Team, Armenia: users.freenet.am/~ecoteam
REA, Ukraine: www.rea.org.ua/en;
SustainableEnergy, Denmark: www.sustainableenergy.dk

The Project was supported by CISU, Denmark in 2016-2017.















ECO-VILLAGE DEVELOPMENT / SOUTH ASIA



🛦 Slurry pit at biogas plant, Solar powered water pump, and solar powered street light in Bangladesh. Photos by Grameen Shakti.





Eco-Village Development as Climate Solutions in South Asia

By Mohammad M. Hasan, Grameen Shakti, Bangladesh; Shovana Maharjan, Ganesh Ram Shrestha, CRT-N, Nepal; Limasangla Jamir, INSEDA, Zareen Myles, WAFD, India; Dumindu Herath, IDEA, Sri Lanka









INFORSE members in South Asia are working with INFORSE-South Asia and Climate Action Network South Asia (CANSA) to raise awareness of local climate solutions, including the Eco-Village Development (EVD) Concept.

Following national successes with individual technologies in Bangladesh, India, Nepal, and Sri Lanka, and development of the concept in India, regional promotion of EVD in South Asia began in 2015 by NGOs in the four countries.

The activities are now continuing with dialogues with politicians and planners on how to scale up success, and how to make the local solutions recognised as climate solutions, when they reduce greenhouse emissions and help villagers to adapt to climate

In the following pages are highlights, including publications, activities and plans from Bangladesh, India, Nepal, and Sri Lanka.

Bangladesh: Focus on Off-Grid Villages

Grameen Shakti has introduced the Eco-Village Development (EVD) concept in several villages in Bangladesh.

Some of the solutions are *solar powered water pumps* for clean drinking water, solar powered street lights to reduce use of kerosene and improve security in off-grid villages, and low cost slurry pits made from bamboo for better slurry management at biogas plants.

To scale up development, the concept should be disseminated in many other villages and networks should

Grameen Shakti has started discussions in Bangladesh on the necessary steps both within civil society and at governmental level to promote the EVD concept, as a step towards achieving the goals of the Paris Agreement through more ambitious Nationally Determined Contributions (NDC) and the UN Sustainable Development Goals (SDGs).

1024 Off-Grid Villages - 5-50 EVD/SDG villages

The Sustainable Renewable Development Authority (SREDA) and the Rural Electrification Board (REB) have signed an agreement for 1024 off-grid villages to be electrified by renewable energy technologies.

This initiative could be a kick start for sustainable village development. Therefore, Mr. Sohel Ahmed, Managing Director, Grameen Shakti has proposed commencing the EVD concept in these villages as a pilot project.

The proposal was discussed in a panel session titled "Context of SDG Village with 100% RE" within the national conference on "Achieving SDGs: Potentials of Renewable Energy in Bangladesh" held on 5 October, 2017, where the speakers have focused on sustainable development in the villages in the form of EVD Villages/SDG Villages. Mr. Sohel has elaborately discussed the implementation of the EVD Concept in Bangladesh as well as in South Asia.



Eco-Village Development (EVD) Projects in South Asia:

The Project titled "Evidence Based, Low Carbon, Pro-Poor Advocacy on Sustainable Eco-Village Development (EVD)" in 2015-17, continued with a new Project to scale up EVD in 2017-18.

The Projects are supported by the Fund for Climate and Environment, CISU - Civil Society in Development, Denmark.

ECO-VILLAGE DEVELOPMENT / SOUTH ASIA



▲ Improved water mill, village plan, improved cook stove with chimney, and solar PV panel providing electricity in Nepal. Photos by CRT, Nepal.

Finally, Mr. Siddique Zobair, Member, SREDA has mentioned that they would choose 5-10 villages from those 1024 off-grid villages to pilot the EVD/SDG Concept. This will be in collaboration with Bangladesh Solar and Renewable Energy Association, and the state-owned Infrastructure Development Company Limited (IDCOL) with partners including Grameen Shakti and foreign developing partners. Discussions have started on how to work together.

Approaching the Green Climate Fund

Grameen Shakti has submitted a Green Climate Fund (GCF) Project Concept Note on renewable energy based on climate resilient Eco-Village Development in off-grid areas of Bangladesh to the Ministry of Planning, to be included in the Country Program. Grameen

Shakti has proposed implementing this concept in 50 villages that are in off-grid areas.

UN Asia Summit and NDC Implementation

The EVD Concept was also promoted at the 1st UN Asia-Pacific Ministerial Summit on the Environment in Bangkok in September 5-8, 2017. The event was jointly organized by the Economic and Social Commission for Asia and the Pacific (ESCAP) and UN Environment. Mr M. Hasan from Grameen Shakti attended both the governmental sessions and the civil society forum.

In the coming months, Grameen Shakti will work on how to best fit the EVD concept in the NDC implementation in Bangladesh. In connection with this, several government officials, consultants, researchers and media will visit the village sites.

Nepal: Integrated Approach

In Nepal, the Eco-Village Development (EVD) activities were implemented by the Centre for Rural Technology (CRT-N) in three villages. The results have shown how integration and implementation of low cost, local, climate friendly technologies significantly changed people's lives and supported GHG reductions at the local level.

Several renewable energy technologies and climate friendly practices, selected by villagers themselves after a needs assessment survey and dialogue, have been adopted by 108 houses.

Technologies

Some of the *mitigation technologies* are *improved* water *mills, improved cook stoves, solar lighting, and* bio-composting.

The adaptation technologies include plastic tunnel for off seasonal vegetable cropping, wastewater management, micro irrigation, and rainwater harvesting. These helped villagers to be able to optimise their use of available ressources, including water, in a situation with weather and climate changes such as increase in temperatures and more erratic rainfall.

Livelihood Improvement

As a result of using these technologies, there is a significant improvement in the rural livelihood with increases in income, but also increased awareness of climate change and thereby better understanding of the weather changes experienced.

In addition, the improvements also reduce greenhouse emissions by the local farmers, for instance from cooking. Emission reductions can be viable development options, even in a sector of small farmers that contributes the least to climate change, but is most affected.

Scale Up Necessary

The results from two years of EVD activities of CRT have already demonstrated their positive impact on people and environment from local level and are well recognized by local government in Nepal.

Using this experience, the *government should consider scaling up the EVD concept and bring it into national agenda*, including national commitments like the NDC to the Paris Agreement and related climate policies, strategies and frameworks.

Eco-Village Development

Eco-Village Development (EVD) is an integrated approach that combines village-level planning and a portfolio of local solutions that are low-carbon, environment friendly, and economically sustainable, thus reducing poverty.

While each solution in isolation, such as an improved cook stove, a family biogas plant, a solar home system, or a solar drier, has relatively small impact on CO₂ emissions, when millions of households use them, the total reductions are significant.

EVD serves well as a key tool towards meeting the Sustainable Development Goals (SDGs) and the National Determined Contributions of the Countries (NDCs) to the Paris Agreement, as well as National Adaptation and Rural Development Plans.

www.crtnepal.org www.gshakti.org www.ideasrilanka.org www.inseda.org www.cansouthasia.net www.dib.dk www.inforse.org

See Publications, Policy Briefs, Event Proceedings at the Project's and at the Partners' web site: www.ecovillagedevelopment.net & www.inforse.org/asia/EVD.htm



















IECO-VILLAGE DEVELOPMENT/SOUTH ASIA







▲ Smokless cookstove, Heera. Training session. Self help groups' monthly meeting in India. Photos by INSEDA and WAFD.



India: Eco-Village Successes

Starting in 2011, WAFD and INSEDA have introduced Eco Village Development (EVD) as a means to tackle the threats of Climate Change for the small-time women farmers in the region of Uttarakand. These successful experiences have been the starting point to the EVD cooperation project since 2015.

The EVD planning started with an asssment of resources and needs. Women were organized into groups and through a dialogue, simple affordable sustainable technologies were chosen and successfully introduced.

Read about some of their success in the boxes on this page.

CSR Funding

Recently, the success stories of these farmers have resulted in four new CSR (Corporate Social Responsibility) projects on EVD in two districts of Uttarakand, which will be implemented very soon.

Next Steps are:

- Developing a technical training manual for trainers, civil societies, development officials etc including details of EVD technologies. With this manual, we intend to train more "Agents of Change" on EVD.
- Expanding the initiative to other villages in the Tehri District, following the request by the chief development officer of the District.
- Initiating more CSR funded projects on EVD.

Expand EVD into a Movement in India

India, with nearly six hundred thousand villages, need more organizations like the current EVD partners to make EVD a part of rural development.

With this in mind, INSEDA is looking for ways to urge the development officials to incorporate EVD in their Local Development Framework as well as to partner with civil society organisation to expand EVD activities and make EVD into a movement in India.



"Previously, because of the changing farming cycle and unpredictable weather, we were unable to even grow enough staple food to last a year. We had to buy food from the market, and needed money for that. Now because of the trainings from EVD project, we grow enough "for our annual needs and sell the extra produce, earning an income of up to Rs. 40,000 p.a. says Roshni Devi and her husband from village Maun. - Roshni Devi is one among 350 women who now have converted their small subsistence farms into organic farm units in the five EVD villages. The sizes of these farm units vary from half an acre to two acres.

Uma Tadiyal says "I now collect firewood only once a week and not daily as I did earlier. I cook two things and get warm water at the same time. During winter, the room stays warm as the cook stove retains heat for at least 2-3 hours after the fire goes off. 'It is connected to a solar panel that charges my phone". There is also an LED bulb that lights the kitchen while cooking and a small fan that pushes smoke up the chimney, "My house stays clean, also this cook stove does not emit smoke out into the atmosphere. I am really happy to be associated with the EVD project as I have gained so much from it" - 15 Heera hybrid smokeless cookstove were installed in the EVD villages and Uma Tadyal's is one among them.





Bimla that started to use a simple solar dryer with EVD assistance says, "I am very happy that I can make Turmeric powder and Chilli powder which I sell it to the villagers. I earn about Rs. 6000 per season with it". - Earlier because of inconsistent sunshine, it was impossible to dry any vegetables properly and hygienically. Three solar dryers were installed in the EVD villages.

ECO-VILLAGE DEVELOPMENT / SOUTH ASIA



▲ Dr. Sunimal Jayathunga, Director, Climate Change Secretariat of Sri Lanka and Mr Leel Randeni from MMDE speaking at the National Dialogue on Sustainable Eco Village Development in Sri Lanka on July 31, 2017

▲"Lessons from the Ground" Report and Mr. Dumindu Herath (IDEA) at the experience sharing Forum on Climate Smart Initiatives of Sri Lanka. October 16, 2017

Sri Lanka: Scale Up and Mainstream

In Sri Lanka, the NGO and EVD partner IDEA has been taking steps to reach national stakeholders and key players in the efforts of mainstreaming and scaling-up EVD as a climate solution.

Dialogues with Ministries - Creating Platform

Several discussions and meetings with senior officials from Ministry of Sustainable Development and wild-life (MSDW) and Ministry of Mahaweli Development and Environment (MMDE) have taken place with progressive responses. IDEA's collaboration with the Ministry of Sustainable Development and wildlife to co-organize the "National Dialogue on Sustainable Eco Village Development in Sri Lanka" could be identified as one of the achievements in terms of progression of EVD in Sri Lanka.

Moreover, this Dialogue facilitated active involvement of key actors and stakeholders at national level including the Director of Climate Change Secretariat of Sri Lanka, MMDE who contributed as a resource person in the dialogue.

This Dialogue helped to identify key players and actors in EVD and similar interventions within MSDW, MMDE, UNDP, CSR groups, etc.

The Dialogue also paved the way in *creating a plat-form* to initiate synergy of similar programmes implemented by governmental and non-governmental stakeholders. The Secretary of MSDW, Mr. Meegasmulla and other officials highlighted the importance of such a dialogue and the collaboration of different actors in the field in achieving goals and commitments in terms of Sustainable Development and Paris Agreements on Climate Change.

▼ Workshop of "Gramashakthi Peoples Movement" in Matala District on September 22, 2017.



District Level Planning and Collaborations

At district level, IDEA has started to collaborate with the Matale District on another national programme, which was initiated in 2017, aimed towards eradicating of poverty, "Gramashakthi Peoples Movement".

IDEA's role will be in building capacity on Community-based Sustainable Village Development Planning (VDP) of development officials who would later work as trainers in VDP. These trainers will then enhance capacity of other officials who would carry out the planning in their respective villages and produce plans that will be submitted to district and divisional planners.

IDEA raised awareness of Climate Change, SDGs and shared experiences, lessons of EVD and village planning at the inception workshop, organized by the Matale District secretariat.

National Level - Climate Smart

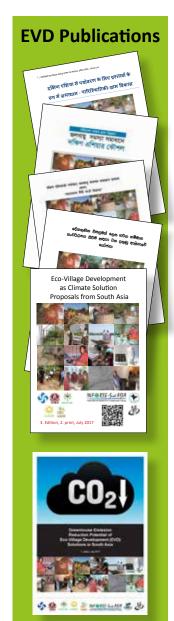
EVD information, outcomes and lessons were shared and presented at national level at the experience sharing "Forum on Climate Smart Initiatives of Sri Lanka". Mr. Dumindu Herath from IDEA was invited as a speaker at the Technical Session on Mitigation, where he presented experiences of EVD implemented by IDEA as a climate smart initiative. The EVD information has been published in the publication "Climate Smart Initiatives of Sri Lanka - Lessons from the Ground" produced by the Climate Change Secretariat, MMDE of Sri Lanka.

Village level and Capacity Building

While efforts on EVD advocacy is being undertaken, EVD solutions on the ground are being maintained through capacity building and other inputs in the three EVD villages in Sri Lanka's Matale District.

▼ Community-based sustainable village development planning in Sri Lanka.





▲ The 60-page Joint EVD publication
"Eco-Village Development as Climate
Solution - Proposals from South Asia"
are available in English as well as in
Nepali, Bangla, Hindi, and Sinhala.
Download from: www.inforse.org/asia/
Pub_EcoVillageDev_SouthAsia.htm

▲ New Report: "Greenhouse-Emission Reduction Potential of Eco-Village Development Solution". Download from: www.inforse.org/asia/EVD.htm





BONN 2017

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Proposing stronger NDCs, LEDS & Paris Rulebook for poverty reduction and local village development

Thurs., 9 Nov. 16:45-18:15 Room 4, Bonn Zone



South Asia / EVD:

- · Zareen Myles, WAFD, India
- · Shovana Maharjan, CRT/Nepal
- Dumindu Herath, IDEA, Sri Lanka
- Mohammad M. Hasan, Grameen Shakti, Bangladesh
- Gunnar Boye Olesen, INFORSE
- Santosh Patnaik, CANSA
- Kavita Myles, INSEDA, India

East Africa / PIPA:

- · Velma Oseko, Suswatch Kenya
- Mary Swai, TATEDO, Tanzania
- Richard Kimbowa, UCSD, Uganda
- Stephen Kinguyu, Ministry of Environment of Kenya

www.inforse.org/cop23.php3



INFORSE is a world-wide network of 145 non-governmental organizations in 60 countries

INFORSE was established in 1992 at the UN "Earth Summit" in Rio de Janeiro to promote a transition to efficient and sustainable use of renewable energy.

The organisations work with renewable energy and sustainable development to improve environment and to reduce poverty through advocacy as well as by raising awareness.

Lobby United Nations

INFORSE has NGO consultative status with the UN ECOSOC since 1998, and with the UNFCCC since 2002. It has sent delegations to many of the Climate COP-meetings as observers as well as organized official side events and exhibitions.

Lobby European Union

INFORSE-Europe is registered in the EU lobby register and has a permanent seat at the EU Ecodesign Directives' consultations.

Communication

The communication is facilitated by a newsletter, a database of more than 1000 relevant contacts, and NGO seminars.

Projects

INFORSE's member organizations often work together to achieve progress through policy advocacy, to build capacity through exchanges of information and of services, and through cooperation projects. These include in the last 10 years:

- "Southern Voices on Climate Change", an NGO capacity-building program.
- Low-Carbon, Pro-Poor Development Strategies in Africa and South Asia.
- Eco-Village Developments as Climate Solutions in South Asia.
- Social participation in local energy planning in Poland.
- Local sustainable energy planning and advice center in Belarus.

- 100% renewable-energy scenarios for the EU, for Denmark, Baltic Countries, Romania, Bulgaria, Hungary etc.
- Cool Products Campaign for the EU EcoDesign Directive.
- NGO cooperation projects in Belarus, Estonia, Latvia, Lithuania, Romania, Hungary, Slovakia, Poland, Russia, Ukraine and Denmark. Activities included development of sustainable energy plans, campaigns, exhibitions, and study tours.
- EU and sustainable energy information and debates in Denmark
- Creation of a network of NGOs and researchers on low carbon scenarios.
- Educational programs e.g., SPARE, DIERET, and a database of school materials.
- Compiling documentations of successful cases and of a renewable-technology manual for South Asia.

Supporters have included the EU, DANIDA, SIDA, the Nordic Council of Ministers, AirClim, ECOS, Swiss Fund, and the Danish Europa-Nævnet.

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