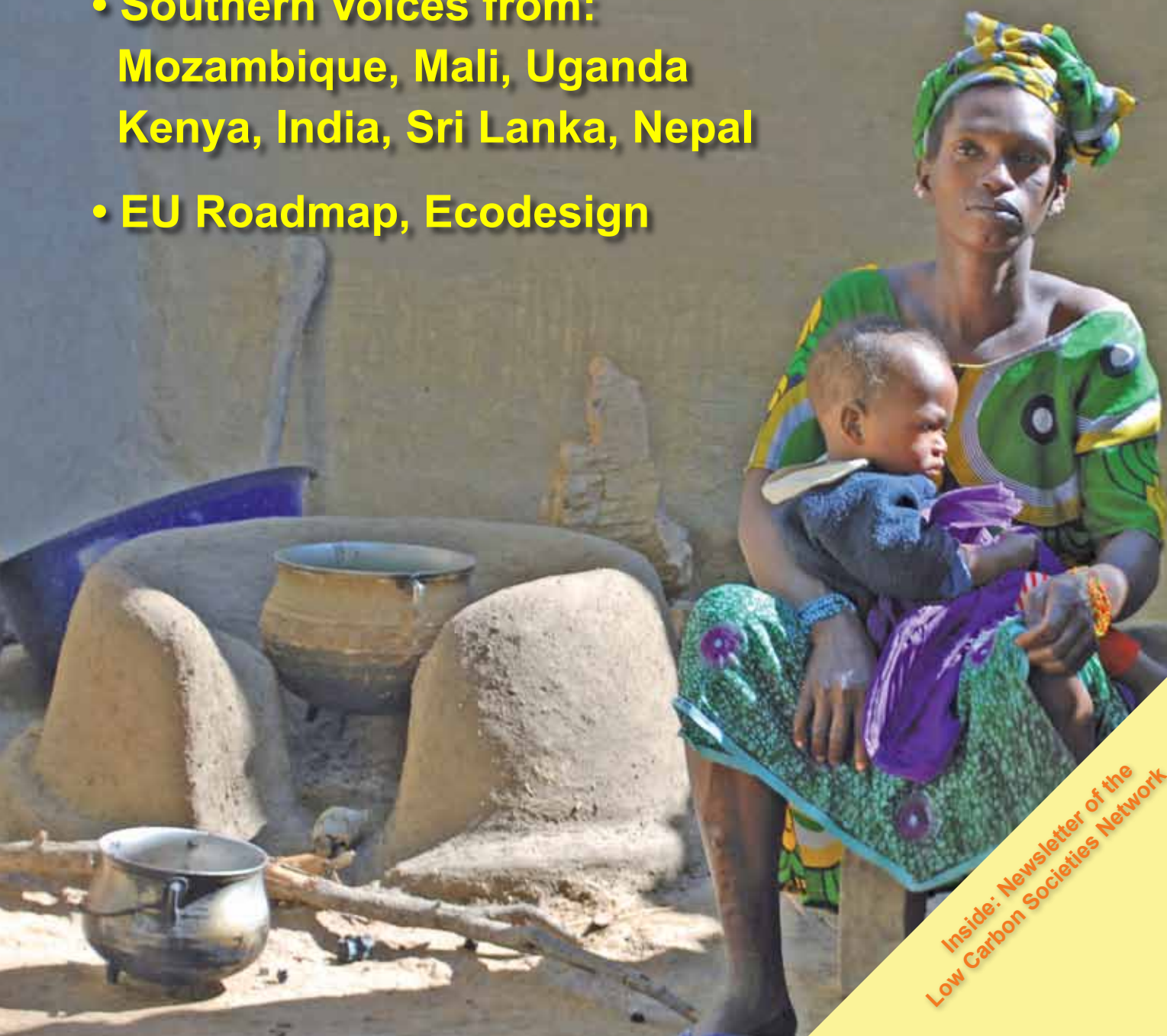


SUSTAINABLE ENERGY NEWS

Newsletter for **INFORSE** International Network for Sustainable Energy

No. 72, November 2011

- **INFORSE at COP17 - Crucial for Africa**
Side Event and Exhibition
- **Southern Voices from:**
Mozambique, Mali, Uganda
Kenya, India, Sri Lanka, Nepal
- **EU Roadmap, Ecodesign**



Inside: Newsletter of the
Low Carbon Societies Network

Sustainable Energy News

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Read more: www.ve.dk

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Photo on front page:
Improved stove by MFC-Nyetaa
and SustainableEnergy, Mali
See article on page # 6.
Photo made by Finn Tobiesen,
SustainableEnergy, Denmark.

The Need for Global Climate Negotiations & Local Actions



Since the Climate COP15 in Copenhagen, *man-made climate change has increased*, as have global emissions. Investments in sustainable alternatives have increased as well, such as investments in renewable energy and energy efficiency. These increasing investments in renewable energy in parallel with the investments in more expensive high-emission fuels, such as tar-sand oil and shale gas, show that the world is really at a cross-road. Plenty of opportunities to invest exist in deriving energy from sun and wind, as well as in saving energy through energy efficiency.

The dirty alternatives are no longer the cheap and easy fossils that have fuelled the world for a century. Further, local renewable solutions are able to meet basic energy needs for the poor. We do not need fossil fuel to combat poverty.

If we compare the dirty and the clean solutions without including climate change and other external effects, there is *little cost difference* between them, but if we count climate change and local benefits, the result is clear.

Unfortunately, *the destruction of climate is "big business as usual"*. The economic and political forces pushing ever greater extraction of dirty fossil fuels are strong.

The latest climate science tells us that the hot spells, storms and other extremes will only *worsen*. That is the overall conclusion of the new report from the Intergovernmental Panel on Climate Change, "Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation".

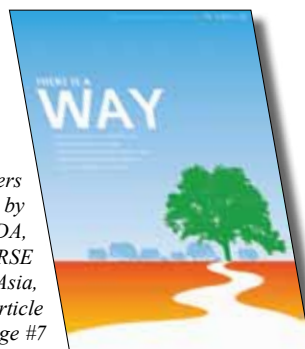
The Report's Summary for Policy Makers, November, 2011, concludes that with continued emission increases, what in the past would have been the hottest day every 20 years is likely to become *the hottest day every second year*, and that this will happen before the end of this century. If we instead start to reduce emissions, the warming will be lessened, such that at least the hottest day every 20 year will "only" become the hottest day every five years.

International climate negotiations have started to recover from the disappointments and mistrust that came out of COP15 in 2009. This allows *new hope* for global climate agreements. Unfortunately some countries are still not willing to enter into meaningful agreements about emission reductions.

Thus, *a possible outcome* is to have a climate agreement among the countries in North and South that are willing to take real action.

Will that be enough to limit man-made climate change to 2 °C or less? Probably not. *Such agreements among the willing can*, however, be the global dimension of climate actions, where local actions in all countries could be the crucial local dimensions.

INFORSE members have promoted the local solutions for decades, and in many cases with success. *We are ready to cooperate* with other local partners on the phase-out of fossil fuels, using local solutions in North and in South, to realise a fast reduction of emissions and to make sustainable energy available for all.



Posters
made by
INSEDA,
INFORSE
South Asia,
See article
on page #7

Gunnar Boye Olesen
Gunnar Boye Olesen

Editor & INFORSE
Regional Coordinator
(Europe)





COP17 - Time for Success or Failure of Global Climate Policy?



Currently we are about to lose our chances for even the smallest international climate agreement that could be in place by the start of 2013, when the Kyoto Protocol's first commitment period ends. This will leave all emissions unregulated on a global level. Will the world leaders allow that? The 17th Conference of Parties (COP17) to the Climate Convention will show it in Durban, South Africa in November 28 - December 9, 2011.

Prior to COP17 the latest negotiations took place in Panama on October 1-7. The spirit of cooperation was good and progress was made on a number of issues, but breakthroughs were missing.

The proposal for a Climate Technology Centre and a related Climate Technology Network was advanced and could be agreed at COP17, even though much of the text is still in brackets. The Centre should be hosted at an existing institution to be chosen in 2012. The funding could in the beginning come from existing sources and later from a Green Climate Fund; but the text with these proposals is also in brackets. Unfortunately, the text is unclear about what climate technologies to support: no specific technology is mentioned or excluded, and in this case nuclear power could be supported equally to for instance renewable energy.

Regarding the measuring, reporting, and verification (MRV) of reductions in countries not covered by the Kyoto Protocol commitments and by international financing, progress was made to reach common definitions.

There were also improved negotiation texts on adaptation, on forest-related issues (REDD+), and on financing, even though financing is still a major unresolved issue.

On reductions of emissions from shipping and aviation little progress was made, and the same was the case for a second commitment period of the Kyoto Protocol. The new text on a shared vision (for global climate policies) is not very focussed.

With this *lack of focus* the negotiations risk distraction from the need for a fast peaking of global emissions, preferably by 2015.

This leaves a *number of opportunities and risks* for COP17. It could lead to the adoption of a second commitment period of the Kyoto Protocol for willing countries (including many European countries inside and outside the EU and Australia), a Climate Technology Centre and Network, and general agreements in other fields. It could also lead to a stand-still or partial break-down of the negotiations.

While nobody expects the global agreement hoped for at COP15 in Copenhagen, COP17 can give the step forward that COP15 and COP16 could not deliver. It is very much up to the world leaders.

They need to overcome the many barriers, big and small, that have held back progress for the last 3 to 4 years, and to commit to greenhouse-gas reductions that will turn the growth in emissions into global reductions by 2015.

W: www.inforse.org , W: www.unfccc.int



INFORSE

INFORSE - HELIO - SSNC Side Event

Date: December 2, 2011

Time: 16:45 - 18:15

Room: Indwe River

See more: [Back Page](#)



Rio + 20

June 20-22, 2012

Twenty years after the ground-breaking UN Conference on Environment and Development (UNCED) in Rio de Janeiro, UN is planning the Rio+20 conference to take stock of sustainable development and to push it further. INFORSE was established at the Rio conference in 1992, and the network plans to participate in Rio+20 also.

W: www.uncsd2012.org

W: www.inforse.org/europe/Conf_rio20_12.htm



2012 - Year of Sustainable Energy for All

2012 will be the UN International Year of Sustainable Energy for All.

UN Organisations, IRENA, NGOs such as Practical Action and others are working together under the leadership of the UN Secretary General to raise awareness of the importance of increasing access to energy, energy efficiency, and renewable energy.

W: www.sustainableenergyforall.org



INFORSE at Southern Voices Programme 2011-12

The Programme is to increase the capacity of southern NGOs to advocate for climate action in their own countries and internationally. The partners are CARE-Denmark, IBIS, DanChurchAid, 92-Group, SustainableEnergy/INFORSE, 92-Goup, CAN and IIED. It is funded by DANIDA. You can read the "Southern Voices" from INFORSE Africa and INFORSE South Asia in this issue of the newsletter.

W: www.climatecapacity.org

W: www.inforse.org/africa/

W: www.inforse.org/asia/



Aviation Emissions: Countries for More Climate Change

Several countries opposed to extend the EU emission-trading scheme to cover civil aviation in and out of EU, which will start inside EU in 2012.

26 countries were against including: Uganda, South Africa, Mexico and Japan, Brazil, India, Russia, and China. (ICAO's meeting on 02.11.2011, Montreal)

The countries in this way opposed the only economic stimulus measure available to reduce emissions of international aviation and drive innovation towards a more energy-efficiency in this sector.

W: www.businessgreen.com



IRENA Centre Opened, Bonn

The International Renewable Energy Agency opened its Innovation and Technology Centre (IITC) in Bonn, Germany. INFORSE as observer to IRENA participated in the opening with Ursel Beckmann (Chair of INFORSE-Europe) and Gunnar Boye Olesen (coordinator).

W: www.irena.org

Climate COP17 - Very Crucial to the Future of Africa



By Timothy Byakola,
CDI, Uganda

The 17th conference of parties (COP17) meeting on climate change will be held in Durban, South Africa.

This meeting is very crucial to the future of Africans.

Science says that Africa's geophysical characteristics make it liable to warm by a catastrophic 150% of the global average. There is already very substantial warming in Africa. According to the World Meteorological Organisation (WMO), in a study produced this year on what happened in 2010 around the world, temperatures in Africa last year were 1.29 °C above the long-term average. The sub-Saharan area was over 2 °C warmer, which was the largest warming ever outside of the polar region. East Africa, which had never had warming above 1 °C of their long-term average, has had it for eight years in a row, contributing to the ongoing disastrous drought.

Africa is also home to some of the poorest countries of the world with the least developed overall capacities to deal with the economic and social challenges of climate change. For many of these countries, local energy and agriculture still entirely depend on rain. These sectors are highly vulnerable to droughts and floods. But unfortunately, the continent lacks the technological systems and industrial capacities to enable it to cope with these disruptive patterns.

In rural Kenya about 77% of the poor population still rely on traditional biomass (wood-energy) used in an inefficient and unhealthy fashion. The figures are even higher for Tanzania at 88%. But with increasing incidences of drought related to climate variability this very key sector is itself increasingly threatened.

Sub-Saharan Africa has one of the highest rates of population growth. A larger population means a larger demand for everything, and most urgently, for energy. (Debating the merits and demerits of population is beyond the scope of this article.) As may be observed from the figures in the table below, many Sub-Saharan countries are not investing enough resources to match the climate-adaptive needs of a quickly increasing poor population on the continent.



Solar lanterns
with LED.



Solar
water
heater and
solar cells at a
clinic in Uganda.

| | Annual Population Growth % | Annual Rural Electrification Rate % |
|----------|----------------------------|-------------------------------------|
| Eritrea | 3.1 | 5 |
| Ethiopia | 2.2 | 2 |
| Kenya | 2.6 | 5 |
| Tanzania | 2.9 | 2 |
| Uganda | 3.2 | 4 |

Africa has huge potential for renewable energy. It is estimated that geothermal power alone, just in Kenya, could meet all the power needs of East Africa, with a geothermal power capacity of 10,000 MW of small, medium and large-scale installations combined. As African countries go to Durban for COP17, a central pillar of discussion should be **increasing domestic capacity, including acquiring the needed financing and technology to increase the resilience** of such key African sectors as energy, infrastructure and agriculture.

Africa must avoid very specifically the pitfall of past negotiating sessions by which, together with the slightly richer developing countries like Brazil, it has focussed for many years on access to high-end climate technologies and neglected the more urgent matter of obtaining more basic help for its large, suffering poor population.

African negotiators need to ask some key questions. For instance, while East Africa has over 100 million people, most of whom are rural, why is it that few small-scale renewables have surpassed the 100,000 installations or beneficiaries mark in East Africa?

The negotiators must make helping Africa's poorest their highest priority in the negotiations; evidence indicates that they have not done this in the past. As an example, let's look at national budget allocation to the renewable sector as a gauge of priority and national commitment.

| Public Investment in Renewables | | |
|----------------------------------|---------|---------|
| % of Fiscal Year National Budget | | |
| | 2010/11 | 2009/10 |
| Tanzania | - | 2.16 |
| Kenya (small scale) | 1.67 | 1.96 |
| Uganda | - | 0.04 |

As seen above, national budget allocation is dismal to renewable energies, like cheaper solar lanterns that poor rural women in Uganda could use to run a small clinics, businesses etc. Yet a local income to these women would be a major step in building their climate-adaptive capacity.

So, yes, talk of adequate climate financing is important. Equally necessary, however, is a **discussion of the critical factors required to help Africa's millions out of poverty.** At the COP17, unfortunately, this must be driven by Africans themselves.



focussed for many years on access to high-end climate technologies and neglected the more urgent matter of obtaining more basic help for its large, suffering poor population.



Climate and
Development
Initiatives
(CDI)
Uganda.

NGO established to advocate for relevant policy changes on climate change and sustainable energy issues in Africa. CDI has been involved in many national and regional capacity building projects

As regional coordinator of INFORSE - East Africa, CDI participates actively in the Southern Voices Programme, raising awareness and building NGO capacity in the INFORSE network on climate advocacy.

W: www.inforse.org/africa/CDI.htm

Local Energy and Development Centres Decreasing Poverty in Mozambique



By Hamid Taybo,
director ADEL-Sofala,
Mozambique.

Over 80% of the Mozambican population depends exclusively on biomass for cooking. The lack of information and accessible technology keep the communities in this situation. The result is severe economical, environmental and health related impacts, local as well as national. To address these problems, the Local Energy and Development centres (CLEDs) have been established.

Local Ownership and Decentralization

During the last 5 years 8 CLEDs have been established in 8 districts in the Province of Sofala in northern Mozambique.

The establishment of the centres has been initiated by ADEL-Sofala in a partnership with the Danish NGO SustainableEnergy. The centres are organised and run by members of the communities. The centres are working as combined information, training, and community centres with a focus on local energy solutions and local economic development. An integrated part of the centres is an "energy shop" where the local communities can buy energy products with a focus on improved stoves and PV products to produce electricity.

At the centres, communities are trained in production of improved stoves that use biomass energy, savings and credit groups, micro maintenance of, among others, PV systems, and promotion of education for development.

The strengthening of local capacity is carried out by activists who are part of communities. During the last five years more than 60,000 people have been trained in several topics including in the local finance methodology "ASCA" (Accumulating Savings and Credit Association).

More than 200.000 USD has been saved in communities where the vast majority has a daily income below 1 USD. The saving mechanism has been linked to buying energy products that previously were not available to these communities.



Production of Improved Stoves

Economically, socially, and technically, sustainability of the centres has been crucial. In this sense, one of the main focuses is the production of improved stoves for firewood and charcoal.

Traditionally charcoal stoves are made of metal while firewood is used in the traditional three-stone fires.

The *improved firewood stoves* are 100% ceramic and are produced exclusively for the rural market. The products are made at the centres using clay from the area.

The *improved charcoal stoves* are serving the needs of the urban population. In addition to a ceramic part, these stoves have a metal part that is made by local artisans in the urban areas.

All of the products are made by members of the local communities.

The *improved stoves* are **50% more efficient than the old ones**.

The sale of the stoves brings in alternative income for more than 50 people, and the impact on end-users' consumption of wood and charcoal has been significant.

In total 28.0000 stoves have been produced, and the *ambition is to make a radical change in the use of traditional stoves* in Mozambique.



Photos by
ADEL-Sofala



From Local to National

The approach behind the centres has caught the interest of communities in other provinces of Mozambique.

People from the centres are now involved in empowering associations in other provinces.

These associations increase the confidence of the local communities and open their eyes to the importance of coming together to address the challenges now facing the population of Mozambique.



ADEL - Sofala Mozambique

NGO promoting economic development and poverty reduction in the Sofala province of Northern Mozambique. It disseminates sustainable energy solutions actively within its region and is involved in training, technical assistance, management of natural resources, promotion of income-generating activities. It also facilitates micro-financing.

ADEL-Sofala is member of
INFORSE

The establishment of the Centers started in 2006. It is part of a project together with SustainableEnergy (VedvarendeEnergi), Denmark, supported by DANIDA.

W: www.adelsofala.org.mz

W: www.ve.dk

Jatropha Biofuel in Mali



by Pierre Dembele,
Mali Folkecenter

Decentralised Jatropha biofuel rural electrification project: the Case of the Garalo Project A New Paradigm of Energy for Sustainable Development

The objective of this project by Mali Folkecenter (MFC) is to reduce poverty of the village population and to help "green" the planet. The Project involves setting up and operating village electricity systems with Jatropha-fuelled generators for 10,000 people in the Commune of Garalo, Mali. It has three main components: the Jatropha plantation, the Jatropha oil production facility, and the electricity production/ distribution component.

The Jatropha plantations are made up of small parcels of land ranging between 0.5 and 5 hectares. Around 70% of the Jatropha plantations intercrop with other crops such as sunflowers, peanuts, and beans. Farmers in each village work together in Jatropha producers' village committees to organise & manage key activities at the village level, e.g., seed collection and transport. More than 326 farmers are involved.

The oil production facility has two mechanical presses. Each has a capacity of 140 kg/hour.

The electricity production system consists of a power plant made up of 3 x 100kW diesel-generating sets.

The engines have been modified to run on pure Jatropha oil, pure diesel, or any combination of the two fuels. From the power station the electricity is distributed via a low-voltage distribution system providing 380V 3-phase and 230V single phase at 50Hz to approximately 400 customers serving more than 10,000 people. The total size of the grid is 13 km.

The Garalo project clearly shows that properly designed biofuel projects have the potential to **stimulate the local economy** through provision of new income sources and jobs. It provides **access to modern energy services** and other byproducts like **organic fertiliser** as the residues from the Jatropha press is used as fertilizer. It also provides a stable income to farmers who traditionally rely on cotton as cash crop. It shows that biofuel projects can and should benefit the local population first in order to be sustainable.



Jatropha
plant.
Photo by
Kresten Sørensen.



Jatropha
oil presser.
Photo by Finn Tobiesen.



The three generator sets in the power
plant of Garalo, Mali.
Photo by Mali Folkecenter.

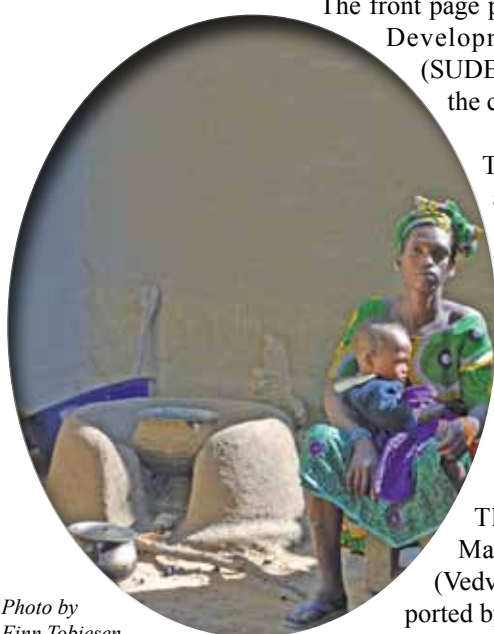


Photo by
Finn Tobiesen.

The front page picture is from the project Sustainable Development and Environmental Protection (SUDEP) in three rural communities south of the capital Bamako in Mali.

The aim of the project is to stop unsustainable tree cutting and trade with wood in the communities. One of the activities have been campaigns for construction of energy efficient cookstoves, as the one on the picture. They reduce wood consumption for cooking with 25-50%.

At least 450 efficient cookstoves have been made in the area due to the project activities.

The project is a cooperation between Mali Folkecenter and SustainableEnergy (VedvarendeEnergi) in Denmark and is supported by DANIDA.



**Mali Folkecenter
(MFC)**

MFC is an NGO that is active in environmental protection along with provision of clean renewable energy services to meet the needs of rural and un-served areas. MFC also participates in energy & environment policy work with the Malian government. Its three main programs are Local Economic Development; Good Governance and Decentralisation; and Environment, Energy and Climate Change.

MFC is a member of INFORSE and an active partner in the Southern Voices Programme.

W: www.malifolkecenter.org
W: www.infose.org/africa

A Vehicle for Cooperation: INFORSE Regional Workshop, November 1-2, 2011, New Delhi, India

INFORSE-South ASIA
International Network for Sustainable Energy



by Raymond Myles, INSEDA, INFORSE South Asia Coordinator

The INFORSE Regional Workshop of Southern Voices on Climate Change project was held in November, 2011 in New Delhi.

At the workshop, the 27 participants compared experiences related to renewable energy and other environmentally friendly solutions that are implemented by INFORSE members and that are contributing to climate-change mitigation. The participants also formulated recommendations for the climate negotiations. These recommendations will be presented in the side event of INFORSE during the climate negotiation's COP17 at Durban.

The workshop recognized the expertise and strengths of INFORSE members in renewable energy and in the technology transfer related to it. The participants agreed that the critical awareness at the grass-roots level in environment related issues were important. All agreed that interacting with rural people and other end users on the topics of renewable energy and global warming will educate and prepare them for appropriate climate-

change mitigation actions for and by those most acutely affected by climate change.

The strengths of INFORSE - South Asia members are their expertise in renewable-energy promotion and implementation of people-oriented renewable-energy technologies (RETs) at the grass-roots level as well as knowledge and technology transfer related to RE. Thus, it was decided to coordinate more closely among them in those aspects in the future. For this the INFORSE members need promotional materials as tools for capacity-building of grass-roots level NGOs who are directly interacting with the end users, primarily rural people.

The INFORSE South Asia network decided to create a core committee of member NGOs for each of the South Asian countries in which INFORSE national focal points are active (India, Nepal, Sri Lanka) and to work out concrete strategies along with coordinating advocacy and lobbying efforts. It was also agreed to work for more projects in INFORSE and that there should be continuity of the national focal points (NFPs) and the INFORSE regional coordinator (IRC) in the South Asian region for at least a five-year period.

The workshop participants also agreed proposals for climate policies to help the small-scale mitigation in which INFORSE members are experienced. (See box.)



Workshop Conclusions

Local renewable energy solutions can help to mitigate the destructive impacts of climate change. They reduce fossil-fuel use for lighting, cooking, and transport. They also reduce the cutting down of trees, and can replace oil used to fuel electricity generators. Even though they are far from perfect, carbon credits for small-scale renewable energy projects encourage sustainable development. This also includes CDM projects.

On the other hand, a **reform is required for carbon credits** to become good support mechanisms for small-scale renewable energy solutions. The lengthy registration and validation time as well as the steep costs associated with obtaining carbon credits are major impediments.

The process *must be made simpler* for small-scale projects. The uncertainty of the future of carbon trading after the conclusion of the first Kyoto commitment period in 2012 is also a concern.



Posters made by
INSEDA,
INFORSE
South Asia in
the framework
of the Southern
Voices Programme on
Climate Change.

More information:
W: www.inforse.org/asia
www.climatecapacity.org

Sustainable Energy for Climate Mitigation: Cases

As part of the Southern Voice project INFORSE-South Asia and Africa members are collecting sustainable energy cases.

Here are some examples.

More: www.inforse.org/asia, www.inforse.org/africa, www.climatecapacity.org.

Carbon Credits for Household Biogas Plant under the "Gold Standard"

For the past four years, INSEDA (Integrated Sustainable Energy and Ecological Development Association), with the assistance of the Carbon Procurement Unit (CPU) of the German development organisation GTZ International (India), has been involved in the development of a small-scale biogas project to obtain carbon credits.

The project includes around 4,000 household biogas plants in various districts of Kerala and Madhya Pradesh. The project is developed under the Gold Standard VER (Voluntary Emission Reduction). With the project, biogas from household (family size) bio-digesters is utilized for cooking, etc. This leads to reductions in greenhouse gas (GHS) emissions by displacing conventionally used firewood for cooking, reducing deforestation, and leaving more biomass for other purposes such as replacing fossil fuels. In addition, these household biogas plants (bio-digesters) are also reducing the drudgery faced by rural women in the collection of firewood and in cooking, while reducing indoor pollution. The residues (biogas-digested manure in the form of slurry) are used as enriched organic fertilizer.

The project's verification process started in 2008, but it will only be finished by the end of 2011, a very long time for small projects like family-size biogas plants.



Conclusion and Recommendations:

The present carbon-credit mechanisms are not only too cumbersome, but also time-consuming. They are very heavily loaded in favour of external consultants, as they involve detailed documentations, baseline surveys, validation, verification, monitoring, etc. The transaction cost becomes very high and the main project developer does not know until the end whether the carbon-credit project will be approved for registry or not. If the project fails, the project developer has to pay heavily, and a small developer can be bankrupted.

In view of the above, it is recommended that the process be completely revamped to cut down the roles of external consultants, reduce transaction costs, and reduce project registration time. There is also a need for providing some kind of development funds in the form of grants to sustain the NGO project holders, members, and partners until the project is registered.



The Integrated Sustainable Energy and Ecological Development Association (INSEDA) is a

national organisation in India formed by grass-roots NGOs that are involved in the promotion of renewable energy and natural resources development programmes with a focus on biogas development in rural areas.

INSEDA is the regional coordinator of INFORSE South Asia and is an active participant in the Southern Voices Programme, where it has involved members in three workshops and other activities to raise their capacity for climate advocacy.

W: www.inseda.org

W: www.inforse.org/asia

Community Micro Hydro Power in Kenya

The Tungu-Kabiri micro-hydro power project is a good demonstration of the generation of community participation in energy planning through decentralization of the energy supply. It also leads the way in ensuring energy access to poor communities. Moreover it influenced legislation.

The 14-kWe scheme is owned, operated and managed by a community group that has about 150 members. The project started in 1998, and produced first electricity in 2001.

The project was funded by two grants totalling \$ 64,000 from the Small Grants Programme of the UNDP/GEF. Implementation was done through ITDG (now Practical Action), the Ministry of Energy

and the community. The community contributed labour to the project estimated at 30% of total costs. Practical Action continues monitoring the project and providing technical support.

As a result of this project, the Ministry of Energy has set official standards for the micro hydro power sector, capacity has been strengthened to undertake micro hydro feasibility studies; capacity was built to manufacture and repair system components; and two other similar schemes have been started.

Locally the project benefits, among others, a business centre, where the power is supplied during the day. The power is used for welding, hair salon, charging of mobile phones, selling of cold beverages, a video show room and others.



Practical Action
(previously ITDG.)

Practical Action is a UK-based charity with regional offices among others in East Africa, Kenya.

It is member of INFORSE.

W: www.practicalaction.org

Solar Fruit Dryers in India

AIWC started its work with projects for solar dryers to support income generation for poor women in Andhra Pradesh, Kerala, Tamil-Nadu and Delhi. These projects have shown that solar dryers add value to products, and thereby increase the income of the users. AIWC then identified an efficient model and persuaded the Ministry of New and Renewable Energy in India to give a 50 % subsidy on the cost of this type of solar dryer.



Solar Lanterns in India

It costs less to have one common solar charging station for many solar lanterns than to have an individual solar panel for each lantern. Sharing costs makes them more affordable for the poor. Based on this logic, AIWC has helped to establish solar lantern charging stations for, typically, 50 lanterns each. Central charging also delivers a more careful charging and thereby keeps lanterns functioning better.



All India Women's Conference

(AIWC) is the largest organisation for the empowerment

of women in India. Its many other activities include the promotion of local, sustainable energy solutions to reduce poverty and improve the livelihood of women.

AIWC is national focal point of INFORSE and participates in the Southern Voices Programme.

W: www.aiwc.org.in

Innovative Improved Cook Stoves (ICS) in Sri Lanka.

The "Anagi" stove of burned clay has become the Sri Lankan standard stove. It is now produced in a fully commercialized stove production. It is distributed via a marketing infrastructure that supports the production of 300,000 stoves annually without government subsidies.

These stoves save 40% of the time and 30% of the firewood required for use of traditional stoves. They also prevent about 1 million tonnes of CO₂ emissions annually.

The design of the stoves has incorporated concerns about social acceptability to maximize the adoption of the stoves amongst all sections of society. The design allows the use of many different types of biomass fuel, including coconut husks. The NGO IDEA has been an important partner in the successful development of the Anagi stove.

These stoves aren't accepted for CDM (Clean Development Mechanism) projects because the biomass used in the stoves is labelled as a sustainable source, even though the use of the stoves have reduced the demand for wood.



Integrated Development Association (IDEA) is a NGO based in Kandy, Sri Lanka.

It contributes to sustainable development, management of natural resources. In addition to Anagi stoves it promotes kitchen improvements, efficient brick kilns, and other local sustainable energy solutions.

IDEA is the national focal point of INFORSE and participates actively in the Southern Voices Programme.

W: www.ideasrilanka.org

Improved Water Mills Replace Diesel & Electric Mills, Nepal

Since January 2011, the Alternative Energy Promotion Centre has been executing the Improved Water Mill (IWM) Programme with support under its Energy Sector Assistance Programme. CRT/N is the technical service provider. This Programme is a continuation of previous phase implemented since 2003 by CRT/N. The program has been able to improve 6554 watermills (ghattas) as of June, 2011.

The Programme has provided its services to indigenous, dalits and marginalized people in rural areas. From the improvement of the ghattas, people are getting additional benefits from diversified services such as rice-hulling, oil-exPELLing, saw-milling, and the generation of electricity. The Programme also raised the economic and social status of ghatta owners and customers. Mostly women and children are getting direct benefit from reductions of drudgery and savings of time required for agro-processing.

In a specific example, a miller changed a traditional ghatta to a long shaft ghatta that, in addition to the traditional grain mill, had a rice husker and polisher, chiura beater, and saw milling services. Out of a total investment of 200,000 Nepalese Rupees (2,000 €), the miller received a 10%



subsidy and a 50% loan. With this investment, the miller's family income increased from 17,000 NRs to 44,000 NRs per year.



Centre for Rural Technology, Nepal is a NGO that helps to develop and promote appropriate and re-

newable energy technologies effective in improving living standards in rural Nepal. Its expertise spans all appropriate renewable energy technologies for rural use, climate change issues, CDM projects, gender issues, and poverty reduction.

CRT is the national focal point of INFORSE and participates actively in the Southern Voices Programme.

W: www.crtnepal.org

European Transition to Sustainable Energy in 20-30 Years

By Gunnar Boye Olesen, INFORSE

The European countries were the first to use fossil fuels in large scale. Now there are very good reasons why they should be the first to turn away from the fossil fuels. To avoid uncontrollable climate change we only have a few years left to start a global reduction of greenhouse gas emissions, and developed countries must take the lead. With the urgency of the problem, even the 80% reduction proposed by the European Commission for 2050 is not enough. To take the necessary global lead in emission reductions, and to keep European emissions within the region's "fair share" of global emissions, European countries should phase out fossil fuel use within the next 20-30 years, as well as reduce other greenhouse-gas emissions.

While such a transition is a huge task, history has shown that fast changes are possible. Danish windpower, the UK's

shift from coal to gas, Germany's recent solar electric boom all show that fast change can happen. *The challenge ahead* is to make fast energy transitions in all sectors and to continue the development for two to three decades.

INFORSE Scenarios

To show what a fast transition away from fossil fuels can look like, INFORSE-Europe and its members are developing scenarios and visions for transition to sustainable energy within the next 20 to 30 years. We show how to replace fossil fuels and nuclear power with efficient use of renewable energy.

On the energy-efficiency side, the scenarios combine ambitious implementation of European energy efficiency legislation such as the EU Ecodesign directive with energy-efficient renovation of houses and strong energy efficiency in industries.

For renewable energy, they combine local renewable energy sources with some more central solutions such as off-shore windpower.

For transport, they combine electrification with a move from road to rail and to hydrogen vehicles.

The scenarios also include efficient and flexible energy systems with combined heat and power, smart grids, district heating, and innovative storage.

The scenarios further include moderate growth of most of the "energy services", such as heated floorspace, stable industrial production, and a smaller decline in the transport volume in the richer Western countries of the EU.

The decline in the transport volume is included to reduce the excessive transport that happens because road transport does not pay its environmental costs and is therefore too cheap and inefficient.

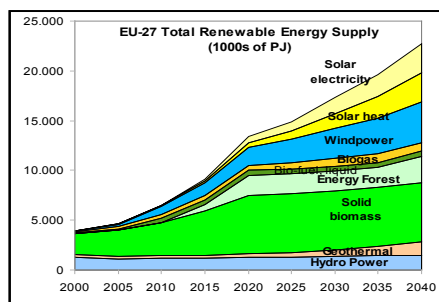
Scenarios developed:

EU-27: For the entire EU, a scenario for 98% reduction of fossil-fuel use by 2040, showing how the present fossil-fuel use and nuclear power can be replaced with renewable energy from the countries. With this scenario there would be no need to import energy, neither biofuel nor electricity.

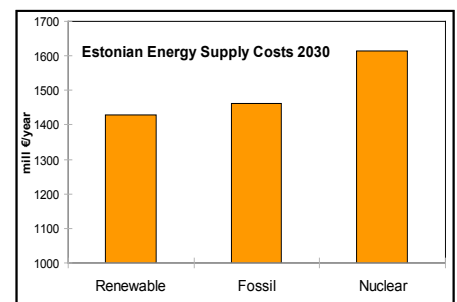
For the UK, Centre for Alternative has developed the ZeroCarbonBritain scenario showing how the country can become 100% renewable by 2030, using the many renewable sources on and around the British Isles, including off-shore windpower. The scenario also shows that land-use can be managed in sustainable ways.

Denmark: Together with the Danish organisation SustainableEnergy, INFORSE-Europe has developed a scenario that will make Denmark 100% renewable by 2030. An economic analysis shows that, depending on assumptions, this scenario will have the same costs or will be cheaper than a fossil-energy alternative.

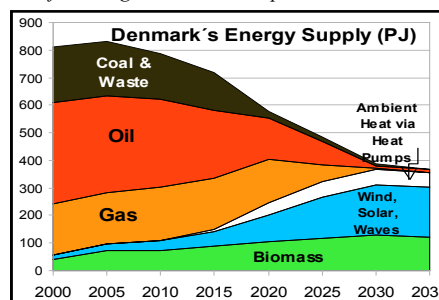
Estonia: Together with Energy Centre TAASEN, INFORSE has developed a scenario for phase-out of fossil fuels no later than 2040. An economical analysis show that by 2030 the renewable alternative will be cheaper than the proposed nuclear power plant and will be slightly cheaper than continued use of the Estonian oil shale, if the CO₂ price is 18€/ton (or more).



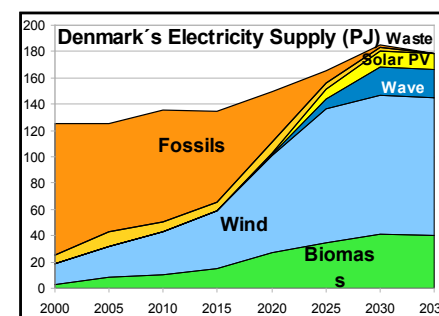
Graph: Increase of renewable energy use in the EU, following INFORSE-Europe's scenario.



Graph: Energy supply costs in 2030 of sustainable energy scenario and alternatives, Estonia.



Graph: Primary energy supply in Denmark. The strong energy efficiency in supply and demand lead to large reductions in primary energy.



Graph: Electricity supply in Denmark. The increase in renewable electricity, electric transport and heat pumps lead to increase in electricity use, in spite of the energy efficiency.

Latvia and Lithuania: INFORSE, together with Latvian Green Movement and Atgaja in Lithuania, have produced scenarios for phase-out of fossil fuels by 2040, without the proposed Lithuania nuclear power plant. Along with windpower and energy efficiency, the plan includes use as energy forests of a smaller part of the fields that were abandoned after the disbanding of the Soviet Union.

Belarus: Together with Minsk Division of the International Association of Ecology, INFORSE has developed a scenario that shows how the country of Belarus can be self-sufficient with renewable energy and without the proposed nuclear power plant.

INFORSE-Europe and members have also developed sustainable energy scenarios for Bulgaria, Romania, Russia, and Ukraine.

Read more at <http://www.inforse.org/europe/Vision2050.htm>.



Roadmaps for Low-Carbon Economies

The leaders of the EU have decided that the EU countries should eliminate between 80% and 95% of their emissions, compared with 1990 levels, by 2050.

Now it is crucial to transform this ambitious target into policies and actions. The EU Commission has taken up the challenge and has prepared a series of Roadmaps for the transition:

- Roadmap for Moving to a Low-carbon Economy in 2050 (the "Climate Roadmap"), published in March 2011;
- Transport White Paper 2011, also published in March 2011;
- Upcoming Energy Roadmap, to be published in December 2011.
- In these Roadmaps, the EU Commission has set the target of 80% greenhouse gas reductions rather than 95%. This leaves some fossil fuel in the transport sector and some emissions from other sectors, but will require almost 100% reduction of emissions from electricity and heat production.

The Climate Roadmap concludes that the optimal way to 80% reduction in 2050 is via 25% reduction in 2020. This is midway between the current 2020 target of 20% reductions and the 30% reductions proposed as the EU's contribution to a global climate agreement.

The upcoming energy roadmap from the EU Commission is expected to include a number of scenarios for phase-out of emissions in the energy sector, including a high-renewables scenario, a nuclear scenario, and a scenario focussing on CCS.

According to a leaked draft of the Energy Roadmap, these scenarios will have almost the same system costs. The most renewable scenario, however, approximately doubles current consumer prices for energy.

We must point out, though, that the calculations in the leaked draft show no evidence that its authors included appropriate "learning rates" (also called "learning curves"). This omission would skew results unrealistically towards higher costs of new technologies. Learning rates/curves in energy-cost calculations quantify historical tendencies of renewable energy technologies, particularly of solar and wind, toward significant cost reductions as functions of rising cumulative installed capacities.

A further omission from the leaked draft seems to be appropriate accounting for reduction of energy consumption as energy efficiency increases. Ultimately, increases of energy prices, which are likely in any case, might not result in much higher energy bills than today due to these omitted balancing factors.

The Commission has been less ambitious than the EU leaders, who have called for up to 95% reductions. When the EU countries' Environmental Ministers met in June 2011, however, they could not agree to increase the 20% reduction target for 2020 to 25%, following the Roadmap, or to 30%. One country, Poland, blocked progress.

Energy-Efficiency Directive

In June 2011, the EU Commission proposed a new Energy-Efficiency Directive to introduce the measures needed to reach 20% energy efficiency by 2020. The EU countries had agreed on this target as part of the "2020 Climate Package" of 2008.

The proposal includes *energy-efficiency renovation requirements* for public buildings (3% per year of buildings above 250 m²), *obligations for energy suppliers* to invest annually in energy efficiency amounts equal to 1.5% of energy sales, *planning of heat supply to support district heating and combined heat and power*, and others.

It shall replace the *Energy Service Directive and the Co-generation Directive*. If the implementation of the Directive by the EU countries does not lead to an increase in energy efficiency of 20% by 2020, then the EU Commission will propose mandatory energy-efficiency targets.

The EU countries are hesitant about some of the requirements, such as the high renovation rate for public buildings, but they have not formally concluded on the issue yet. An agreement could be reached next spring.



Logos of the NGOs (ECOS, EEB, CAN-Europe, Greenpeace, WWF, INFORSE-Europe) play a significant role as progressive, and independent experts challenging the industry's attempts to weaken the proposals.



INFORSE-Europe members discussed EU policies, scenarios as well as education at the Annual European Sustainable Energy INFORSE-Europe Seminar in Hamburg, August 2011.

Proceedings is at: http://www.inforse.org/europe/seminar_2011_Hamburg.htm

See also on scenarios:

<http://www.lowcarbon-societies.eu/>

Ecodesign - Moving Ahead

An increasing number of Ecodesign regulations are limiting the energy use of products on the EU market.

In September 2011 the *60W incandescent light bulb* was phased out; in 2012, *less efficient refrigerators* will be phased out and a new, more efficient class A+++ will be introduced for refrigerators; the *requirements for TVs* that were introduced in 2010 will be strengthened by 20%, while a new label scale will allow consumers to compare the consumption of their TV with other models of the same size. In 2013, new requirements and labels for *air-conditioners* will be introduced. More products are being regulated, including *tumble-driers*, on which an agreement is close, as well as vacuum cleaners and directional lighting. Further, Ecodesign regulation of *boilers and water heaters* is expected in 2012, as the Commission is working hard to finish these important but delayed product groups.

In addition to the products that are already covered or targeted by Ecodesign regulation, the Commission is preparing a work programme for *new product groups* that could be covered. Among them are the energy-related products that do not consume energy themselves, but are causing energy consumption, such as windows and showerheads. The Commission is also evaluating the Ecodesign regulation for possible extension to cover more products that are not energy-related.

The progress of Ecodesign is followed by INFORSE-Europe and by other NGOs in the Coolproducts Campaign; see www.coolproducts.eu.

Contents

Editorial p. 2

- The Need for Global Climate Negotiations and Local Actions

World p. 3

- COP17 - Time for Success or Failure of Global Climate Policy?
- INFORSE at Southern Voices Programme 2011-12
- Aviation Emissions: Countries for More Climate Change
- Rio + 20 June 20-22, 2012
- 2012: Year of Sustainable Energy for All
- IRENA Centre Opened, Bonn

Africa pp. 4-6

- Climate COP17 - Very Crucial to the Future of Africa
- Local Energy and Development Centres Decreasing Poverty in Mozambique
- Jatropa Biofuel in Mali

Asia p. 7

- A Vehicle for Cooperation: INFORSE Regional Workshop, November 1-2, 2011, New Delhi, India

Sustainable Energy for Climate Mitigation: Cases pp. 8-9

- Carbon Credits for Household Biogas Plant under the "Gold Standard"
- Community Micro Hydro Power in Kenya
- Solar Driers and Lanterns in India
- Innovative Improved Cook Stoves (ICS) in Sri Lanka
- Improved Water Mills Replace Diesel & Electric Mills, Nepal

Europe pp. 10-11

- European Transition to Sustainable Energy in 20-30 Years
- EU Policy:
 - Roadmaps for Low-Carbon Economies
 - Energy-Efficiency Directive
 - Ecodesign - Moving Ahead

Back Page p. 12

- INFORSE Side Event and Exhibition at UNFCCC COP17, Durban
- INFORSE
- SustainableEnergy, Denmark

Inside:

Newsletter of the Low Carbon Societies Network, # 8, pp. 1-4

- Final Conference Call, March 2012
- Stakeholder Integration in Remind-D, Germany
- New Scenarios: NegaWatt & WWF
- Proceedings Available, Stakeholder Seminar October 25, 2011



INFORSE - HELIO - SSNC Side Event

Date: December 2, 2011

Time: 16:45 - 18:15

Room: Indwe River



Renewable Energy Policies for Climate Resilience, Sustainable Development and Poverty Reduction

Presentations from Africa and Asia by INFORSE and HELIO Network members - Real-life efforts to use renewable energy and energy efficiency solutions for GHG emission mitigation, development and poverty reduction. - Tools to climate-proof supporting energy policies including results from cases.

- Timothy Byakola, INFORSE-East Africa/CDI, Uganda: (case: decentralizing power policy, legislation, micro-hydro)
- Raymond Myles, INFORSE South Asia/INSEDA, India (case: family biogas with climate mitigation)
- Pierre Dembele, Mali Folkecenter (case: local Jatropa oil)
- Hamid Taybo, Adel-Sofala, Mozambique (case: local renewable energy)
- Secou Sarr, INFORSE-West Africa/ENDA, Senegal (climate mitigation proposals from Africa)
- Usha Nair, AIWC, All India Women Conference (case: solar food dryers to income generation for women)

- Tanay Sidki Uyar, Eurosolar Turkey (experiences and proposals for local renewable energy)
- Gunnar Boye Olesen, INFORSE (summary of proposals, NGO proposals for climate policies)
- Sylvain Defo, Ministère de l'Energie et de l'Eau (Cameroon)
- Tcharabalo Abiyau, Ministère des Mines, de l'énergie et de l'Eau. (Togo)
- Laura Williamson (HELIO International)
- Institut de l'énergie et l'env. de la Francophonie (IEPF)
- Niclas Hällström, Swedish Society for Nature Conservation (SSNC) on Bottom-up RE Revolution: Global Feed-in Tariffs



Southern Voices & CAN-I Side Event

Date: December 6, 2011

Time: 11.30-13.00

Room: Hex River

INFORSE World Future Council



Exhibition

Date: Nov 28 -
Dec 9, 2011

http://www.inforse.org/europe/conf11_COP17.htm



International Network for Sustainable Energy

INFORSE is a global network of 175 independent non-governmental organisations working for sustainable energy solutions to reduce poverty and to protect the environment. It aims at a global transition to sustainable energy. INFORSE regions in Africa, Asia, and Europe are working together on the Southern Voices Programme, and are following the international climate negotiations as well as other international processes. INFORSE was formed in 1992 at the Global NGO-Forum in Rio de Janeiro. INFORSE has civil society observer status at ECOSOC and UNFCCC and as such participates and organises side events at relevant UN conferences. See: www.inforse.org



SustainableEnergy (VedvarendeEnergi) is a Danish NGO that works for an integrated energy- and resource policy for transition to

100% supply of renewable energy and utilisation of local resources. SustainableEnergy was founded in 1975. Until recently the organisation was called "The Danish Organisation for Sustainable Energy" with "OVE" as acronym.

In addition to its national activities, SustainableEnergy is involved in a number of international cooperation projects with Mali Folkecenter, ADEL-Sofala in Mozambique, and others, as well as in the "Southern Voices Capacity Building Programme" coordinated by CARE-Denmark, and supported by DANIDA. See: www.ve.dk