SUSTAINABLE ENERGY NEWS

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INFORSE at UN CSD
SPARE Goes Global
EU Energy Policy
Folkecenter in Denmark

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Editorial Address:
Sustainable Energy News
INFORSE-Europe
Gl. Kirkevej 82, DK-8530
Hjortshøj, Denmark.
T: +45-86-227000
F: +45-86-227096
E: ove@inforse.org
W: http://www.inforse.org/

Editors:
Gunnar Boye Olesen
Judit Szoleczky
Niki Fowler (text advice)

Advisory Board:
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Photo on the front page:
"Ms. Waste & Ms. Tricks" Theater play for teenagers to save energy, CLER, France.
See article on page no. 6.
Photo by Judit Szoleczky, INFORSE-Europe, editor

Global Cooperation on Efficiency

Energy efficiency is recognised as a key to sustainable development around the world, in industrialised countries as well as in the developing countries. Now the EU Prime ministers and the EU Commission have even suggested new international cooperation on energy efficiency as part of the new EU energy policy initiatives. Thus, it seems that the political climate has never been better for introducing international cooperation on energy efficiency.

One obvious place to start cooperation would be on energy efficiency standards: more and more products are produced far from where they are used, from electronics to cars. For the producers it is often of little interest to make efficient products that only some of their distant consumers ask for. If producers would have standards and guidelines for their domestic markets similar to their export markets, it would give them a clear signal to become energy-efficient. In addition, it is in the best interests of the larger -exporting countries such as China to increase the energy efficiency of products used domestically. It is even part of Chinese policies to do so.

Of course we cannot expect all countries to adopt the same energy-efficiency standards. Instead we can ask countries to adopt a series of energy-efficiency levels, similar to the A, B, C, D, etc. labelling used in the EU today. One country can then decide to allow equipment or cars with C-level efficiency and better on its market while another country can decide to allow only A-level efficiency. Additionally countries can demand labelling of products, allowing consumers to see which efficiency level a particular product could meet. Once the system is in place for a particular type of products, it should be expanded gradually with new categories of more efficient products.

While the principles of global energy-efficiency standards are simple, the coverage of all energy-consuming products in all countries will be a huge task. Fortunately, less than that is also valuable. The initial focus should be on the products that are traded internationally at the highest volumes. In addition, the cooperation does not have to cover all countries. If a number of key producing and consuming countries take an active part initially, their action will in itself make a huge difference in energy efficiency and in global energy consumption.

Another obvious target for international cooperation is international financing. Some Multilateral Development Banks (MDBs) have tried to focus on energy efficiency, such as the European Bank for Reconstruction and Development (EBRD), which has a special department for energy efficiency.

Unfortunately they have only reached out to encourage development of a tiny fraction of the energy-efficiency potential in the countries with which they work. Loans of 10 millions Euro are of little use for most energy-efficiency projects. Schemes by which MDB loans are distributed via commercial banks have interest rates far above the interests paid by large energy-supply projects for their MDB loans, creating a counter-productive bias in favour of large projects. The countries that govern the MDBs have to tell them to change course. Luckily there are other ways than the traditional investment-banking approach followed by MDBs. In developing countries, micro-financing organisations such as Grameen Shakti have shown how local energy solutions can be successful when introduced with affordable financing. In many well developed economies, energy efficiency in housing is often financed with mortgages for houses, where low interest rates are achieved by combining no or low profits with a large spread of the risk and high credit ratings for the mortgage institutions. The MDBs could learn from such examples and fund organisations that provide low-interest loans for energy efficiency, utilising the relatively low risk of many energy-efficiency investments.

The third obvious target is to integrate energy efficiency into other international cooperation: official development assistance, cooperation on energy strategies and energy investments, etc.

It is time that we as NGOs promote these and other ideas for international cooperation on energy efficiency. If we do not act now, we run the risk of missing the current "window of opportunity" for global energy efficiency in the event that the countries decide that they do not know how to cooperate internationally on this important issue.

Gunnar Boye Olesen
INFORSE Europe

INFORSE at the UN CSD-14

By Gunnar Boye Olesen, INFORSE

CSD14 - Countries Favour Renewables, But..

When UN's Commission for Sustainable Development (CSD) has energy on the agenda, and more than 100 countries take part, including more than 50 ministers, it could lead to impressive results in global cooperation for sustainable energy. The CSD14, held at the UN in New York, during the period of May 1-12, 2006, did not come so far. The session reviewed energy, climate, industry, and air pollution. This "review" will be the basis for the energy "policy session" of CSD, which is to be CSD15 in May, 2007.

At the CSD14 it became clear that renewable energy and energy efficiency have almost unanimous support. The developing countries increasingly see these solutions as protections against high oil prices. Because of that, the case for strong international cooperation for sustainable energy has never been better.

Clean fossil fuels, including clean coal, was also supported by the large majority of the countries. Clean coal is increasingly including carbon capture and storage (where it a few years ago was mostly a question of scrubbers).

Nuclear was not discussed a lot. A few countries, including India, supported it in their speeches, while the International Atomic Energy Agency organised a nuclear-positive side-event and several NGOs organised side-events highlighting the problems of nuclear power. The industry lobby was promoting its mantra "keep all energy options open", including nuclear power and the other unsustainable technologies. The strong industry lobby got its message into the chairman's summary from the meeting with the wording "energy from all sources will be needed".

The countries were very reluctant to discuss sustainability problems of energy sources, from nuclear, to fossil fuels, to large hydro. This is clearly unacceptable. Glossing over or ignoring environmental consequences of energy use is one of the root causes of many of the energy-related problems that we face today. Troublesome issues associated with the different forms of energy were highlighted by NGOs in many side-events at CSD14.

Among the problems discussed were how coal mining, oil extraction and large hydro-power ruin ecosystems as well as the life of local people.

Side-Event: INFORSE-HELIO

The INFORSE Vision2050 for transition to sustainable energy was presented at a side-event to CSD that was organised by INFORSE and Helio-International. *See: www.inforse.org*

On the photo (from left to right): Laura Williamson, (Helio) Gunnar Boye Olesen (INFORSE) Edgar Blaustein (French Ministry), and Ibrahim Togola (Mali FC)

Side-Event: Women - Nuclear Energy is Not the Solution

In one of the side-events on problems with nuclear power, the experience of women were highlighted. Women in general are more critical of nuclear power than men. With the Chernobyl accident, this resulted in thousands of women taking action throughout Europe and the world. Some are still active today, as were most of the panellists at the side-event, including Anna Golubovska-Onisimova from MAMA-86 in Kiev. This organisation continues to help mothers to protect themselves better from radiation and to work for alternatives to nuclear power. The side-event was organised by Women in Europe for a Common Future (WECF). *Read Chernobyl-website and -publication http://www.genanet.de/index.php?id=433&L=1 .*

The CSD Matrix

For each CSD-theme, a "matrix" is made with practical examples of solutions to the problems discussed. The themes in the matrix for CSD14 and 15 are energy access, renewable energy, advanced and cleaner technologies, energy efficiency, industrial development, air pollution, and climate change. Most of the solutions that are currently in the matrix are with major governmental involvement. NGOs can also propose solutions; and maybe we should do that more frequently.

See more at: www.un.org/esa/sustdev/csd/csd14/documents/matrixCSD14.pdf .

UN Energy & Nuclear
INFORSE's Deep Concern

At a side-event at CSD14, the new UN-Energy group presented itself. In one of its first publications, "Assessing Policy Options for Increasing the Use of Renewable Energy for Sustainable Development", the authors propose a nuclear power plant for Ghana, to be operational by 2025.

This strange proposal is the result of assumptions of very cheap nuclear power including, among others, unrealistically low operating costs.

The INFORSE network is deeply concerned that UN organisations are promoting nuclear power in developing countries, and that it is being done by disseminating unrealistic positive data for nuclear power in countries where few people, if any, have the capacity to evaluate them.

Read about UN-Energy and its publications at http://esa.un.org/un-energy/ .

At CSD, NGOs comprise one of 9 major groups; inside the NGO group, the CURES network played a prominent role. INFORSE took part of CURES activities.

Read the CSD14 Chair's summary as well as statements made at the official sessions, including NGO statements, at: http://www.un.org/esa/sustdev/csd/csd14/review.htm . Read about INFORSE activities and other NGO activities at www.inforse.org.

INFORSE-Europe News

Sustainable Energy Seminar Solta Island, Croatia, September 3-8, 2006

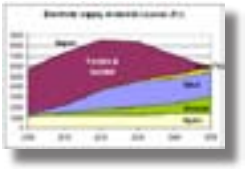
It is time to register for this year's European sustainable-energy seminar for NGOs and local groups.

The seminar's main target group is people involved in NGOs and local groups in Europe that are active on sustainable energy, who would like to combine practical work on sustainable-energy demonstration models with discussions on energy policy and on visions for sustainable-energy developments.

The participation fee of 150 EUR includes food and simple accommodations. Limited support for travel and participation is available for participants from Eastern Europe, including South East European countries.

Application: www.inforse.org/europe/seminar06_solta.htm

Photo from the 2005 South-East European Energy Seminar on the Solta island



Sustainable Energy Visions for Lithuania and Croatia

INFORSE-Europe is now starting to work on visions for sustainable energy for Lithuania and Croatia together with INFORSE members from the respective nations. The visions are expected to be ready in the fall and will follow INFORSE's Vision2050 for a transition to sustainable energy by 2050.

More info: www.inforse.org/europe/Vision2050.htm

EU Update

By Gunnar Boye Olesen, INFORSE-Europe

Read more and see sources at www.inforse.org/europe

EU Energy Policy

For the first time, energy was on the top of the agenda, at the EU prime ministers' meeting of March 24-25, 2006. The prime ministers called for an Energy Policy for Europe with the objectives of security of supply, competitiveness and environmental sustainability. The main elements they proposed were:

- Development of a common external energy-policy approach;
- Diversification of energy resources and supply routes;
- Plans for common energy-crisis management;
- Completing the opening of the internal electricity and gas markets by 2007;
- Promoting internal energy markets to neighbouring countries;
- Rapid development of storage and infrastructure, in particular of gas and electricity interconnections. Financing requirements should be met mainly by the enterprises involved;
- Reviewing the legal framework to speed up the permissions for energy investment projects;
- Adopting an ambitious and realistic Action Plan on Energy Efficiency;
- Continuing the development of renewable energies towards the existing targets (2010) and continuing the development in a cost-efficient manner thereafter. They proposed to consider a target of 15% renewable energy by 2015, a target of 8% biofuels in transport by 2015, and a strategy to reduce the EU's dependency on energy imports;
- Implementing the Biomass Action Plan.

INFORSE-Europe and others have criticised the summit conclusions for their lack of focus on sustainable energy solutions, in particular regarding the proposed new external energy policy. Nonetheless, the proposal of a new target for renewable energy is a positive sign, even though it is well below the target of 25% by 2020 suggested by INFORSE-Europe and others.

The prime ministers promised to have energy on the agenda again at their spring 2007 summit.

EU High-Level Group Supports Dynamic Efficiency

The EU Commission's high-level group on competitiveness, energy and the environment that was launched this spring, just released its first report on June 2. The report concentrates mostly on ways of improving the internal energy markets, but it also addresses EU emissions trading and energy efficiency. It recommends that EU introduce dynamically improving efficiency standards, so finally the Commission has realized that this is needed to keep pace with the technological development.

Energy-Efficiency Watch

EU and national parliamentarians have launched an energy-efficiency watch. This new body will facilitate exchanges of knowledge of best practices. It will monitor closely the actions and results proposed in the EU Energy Efficiency Action Plan and the upcoming National Energy Efficiency Action Plans.

More information: www.eufores.org .

Energy Ministers Promote Biomass

At the EU energy ministers' meeting of June 8-9, they agreed a number of proposals for increased and better use of biomass energy. Most importantly, they asked the EU Commission to:

- Bring forward proposals to encourage use of biomass for heating and cooling. This follows a call from the European Parliament earlier this year for a Directive on the issue;
- Establish efficiency- and emission criteria for biomass installations, using the Eco-Design Directive, in particular for household biomass boilers;
- Simplify procedures for bio-energies in the EU Common Agricultural Policy and assess the extension of the Energy Crops Scheme to all EU countries;
- Explore the issue of simple and cost-effective measures to guarantee that biofuels are produced in a sustainable way, including certification.

Solar Thermal Technology Platform Launched

In May a new platform for European research on solar thermal energy was launched. It will promote research in solar thermal energy and will provide a focus for this research. The platform will help the solar thermal industry in the coming 7th framework programme for EU research, which starts in 2007.

Information: www.esttp.org.

Sustainability Criteria for Biofuels Needed

INFORSE-Europe and other NGOs are working on criteria for biofuels and other biomass that receive public financial support (such as tax reductions) and that contribute to targets, such as the EU target of 5.75% renewable energy in transport. The main elements of INFORSE-Europe's criteria are:

- The biomass source must be renewed.
- The Biomass production must have a substantial positive energy balance. The energy output should be at least twice the energy input.
- The biomass energy production must not lead to increased pollution, including increase of agricultural pollution
- To avoid spreading GMOs , bio-energy crops should not include GMO plants.
- Biomass energy production must not lead to decrease of biodiversity, compared with the land-use that it replaces.
- Biomass energy production must not contribute negatively to the livelihood of local people using the land or of neighbours to the land used for biomass for energy. Potentially affected people should be involved in decision-making and in certification schemes.

To ensure that the criteria are followed, a certification system for biomass must be established. Probably it is necessary to put an immediate stop to support for imported biofuels from unsustainable production until the suggested certification is in place. One exemption from certification, however, should be granted for biomass used locally, as rigid demand for certification could be an obstacle to small producers serving local markets.

The criteria are now being discussed with other NGOs. They will be suggested to the EU Commission during the current public consultation on biomass (deadline July 10).

Read full text on www.inforse.org/europe

Unsustainable Biofuels - Indonesia

The most productive biofuel plant on earth, the oil palm, is promoted vigorously in Indonesia and in some other wet tropical countries. This is done to the extent that oil palm plantations are replacing rainforest and, in some cases, also the food production of local people. The clearing of the remaining rainforest leads to large CO_2 emissions and further endangers many species, including the orangutan. Demand for biofuels in the EU countries is one argument that is used to support investment in these destructive plantations. *More at www.inforse.org.*

The European Sustainable Energy Policy Seminar brought together more than 50 people in Bruxelles on March 29, 2006. The seminar was organised by INFORSE-Europe in cooperation with EREF and EUFORES.
Presentations are now online at www.inforse.org/europe.

Photos from the event: (from top to down and from left to right): Thomas B. Johansson, (Lund University), Claude Turmes (EU Parliamentarian) and Fabrizio Barbaso (EU); Pete West, and Gunnar Boye Olesen (INFORSE-Europe); Dörte Fouquet (EREF) and Domenico Rossetti Valdalbero (EU); Marc Timmer (EUFORES), Jane Amilhat (EU), and Matthias Duwe (CAN).

New record in PV

2005 was a new record year for solar electricity with 645 MW installed in the EU and 1793 MW worldwide. For EU, this was 18% above the 2004 level. Germany was the clear leader with 603 MW installed, followed by Spain (20 MW), France (6 MW) and Italy (5 MW). Germany is also the global leader in PV. Now EU has 1793 MW of PV capacity, of which more than 1/3 was installed last year. The installations could have been larger if it had not been for the limited production of purified silicium.

Read more at the "Photovoltaic Energy Barometer": see www.eufores.org.

Nuclear Phase-out in Spain

At the end of May, the Spanish President Zapatero confirmed his and his Party's commitment to phase out nuclear energy in Spain. They will draw up a plan for closing all Spanish nuclear power stations, starting with the closure of the oldest nuclear power plant, Santa María de Garoña in Burgos, Spain.
Information: Ecologistas en Accion http://www.ecologistasenaccion.org/rubrique.php3?id_rubrique=38/

Spain Approves National Solar Thermal Obligation

Spain has now enacted some of the most progressive solar legislation in the world. In March the Spanish government approved the new Building Code, which goes far beyond the minimal level of the EC Directive on the Energy Performance of Buildings. It includes an obligation to cover 30% to 70% of the Domestic Hot Water (DHW) demand with solar thermal energy. This applies to all new buildings and to buildings under renovation. Moreover, large buildings in the tertiary sector will be obliged to install PV systems. The solar obligations are expected to enter into force in October 2006.

Information: European Solar Thermal Industry Federation, www.estif.org.

SPARE Goes Global

By Dag A. Høystad, and Yngvild Lorentzen, SPARE

The school educational programme SPARE has developed a new strategy and is inviting partners in new countries. The first phase of its globalisation is an international school competition on energy efficiency and renewable energy.

In April 2006, INFORSE-Europe and SPARE held a school energy-education workshop for Eastern Europe, Caucasus, and Central Asia. The three-day event in St. Petersburg, Russia, summarised previous experiences and developed strategies for future expansion of the NGOs' activities in the field of energy education.

The SPARE educational program is designed and promoted by NGOs for secondary-school education in countries where energy and environment are not on the schools' ordinary agendas. It is used by thousands of schools in elective courses, in club activities or by integrating parts of it into the teaching of other subjects. The educational program highlights practical tasks and challenges the pupils to take measures for real energy-saving in schools and at home.

Competition

A way to attract interest for the activities is to hold school competitions. The workshop participants selected the winners of the first year's international competition. In Russia, the selection of winners has gone through several steps. In the most active places, local competitions were held to nominate participants for the seven super-regional finals, which in turn nominated candidates for the All-Russian competition. Five works from each of the 13 participating countries were submitted to the international SPARE competition. The invitation for next year's competition is available, and organisations that want to coordinate national competitions in new countries are welcome to join in these activities.

SPARE Schools

After ten years of active development, a new generation of educational materials on energy is to be produced. It will keep dissemination costs low through the use of short posters/handouts that highlight crucial points in sustainable energy development. As before, teacher training will be one of the main strategies to spread energy education. Finally, SPARE will now develop a system for individual schools to join in and register as SPARE school.

Photos from the SPARE-INFORSE workshop, in St Petersburg, and the winners of the first year's competition

What is SPARE ?

"School Project for Application of Resources and Energy" (SPARE) is an energy-education project launched by the Norwegian Society for the Conservation of Nature (FoE Norway) in 1996.
SPARE is mainly spread in the CIS countries: Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, Ukraine, and Poland.

FoE Norway is member of INFORSE-Europe. In 2006, some of the SPARE activities became part of INFORSE-Europe network activities.

See previous articles in Sustainable Energy News No. 29, 2000 on activities in Estonia, Latvia, Lithuania, Poland, Hungary, Czech Republic, and Russia in 1996-99.

INFORSE school resource database: www.inforse.org/europe/schools/spare.htm

More information:
SPARE, FoE Norway,
Ph: +47 66901508,
fax: +47 66901509,
e-mail: spare@naturvern.no,
http://www.spareworld.org

ESEEF School Project and Conference in Budapest, April 2006

By Judit Szoleczky, INFORSE-Europe, editor

The International Conference on Energy and Education, April 6-7, 2006, Budapest, Hungary was organised by the European Sustainable Energy Education Forum (ESEEF) within the framework of an ALTENER Project. Among the partners of the Project are INFORSE-Europe member organisations such as OVE from Denmark and CLER from France.

Read more at http://www.inforse.org/europe/conf_edu_Budapest06.htm, with links to the INFORSE-Europe school resource database, and the web site of the project: www.school4energy.net

Central Asia-European Forum, Kyrgyzstan

By Andrey Konechenkov, REA, member of the board of INFORSE-Europe, and editor of the Green Energy magazine, Ukraine.

On May 25 -27, 2006, INFORSE was actively represented on the Central Asia European International Forum on Climate Change in Bishkek, the capital of Kyrgyzstan.

Though the Forum was the first event of its kind in the region, it managed to bring together over 100 participants from politics, business, science, international donors, and many non-governmental organizations not only from Kyrgyz republic but also from Uzbekistan, Kazakhstan, Tajikistan, Ukraine and Russia. The event specially focused on practical solutions of urgent legal, financial and organizational problems of Central Asia energy markets.

INFORSE-DIERET

From INFORSE, Andrey Konechenkov from the Ukrainian Renewable Energy Agency (REA) and Dag Høystad from FoE Norway and SPARE participated in the Forum. A new opportunity attracted much interest: the Russian version of the distance education course on renewable energy (DIERET) developed by INFORSE and translated by REA.

UNISON - New INFORSE member

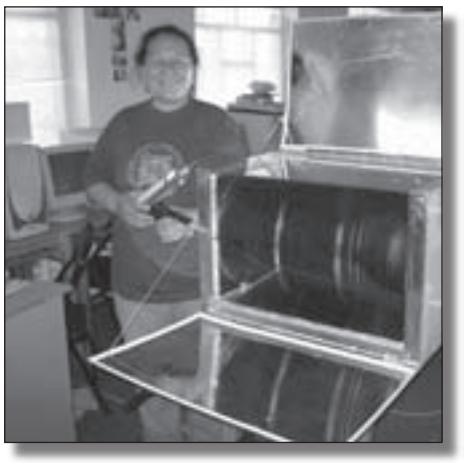
The event was organized by the Civic Foundation UNISON, which is an independent non-profit environmental organization founded in 2002, and a new member of INFORSE. The organization's mission is to improve the environmental situation in the Kyrgyz Republic and to restore harmony between man and nature by promoting energy efficiency and renewables in the region. UNISON has already realized some successful projects devoted to energy-efficiency policy promotion in the country, including Slovak-Kyrgyz partnership projects in establishing energy service companies and energy certification of buildings.

More information:
UNISON, Kyrgyzstan
E-mail: unison@elcat.kg
http://www.unison.kg.

The photos shows some of the elements of the conference, which made it lively:
- A French theatre play for teenagers on markets and schools made by a CLER member organisation.
The play "Ms. Waste and Ms. Tricks" shows, in a humorous lively way, how we can change our behavior, and save energy (left above)
- Poster exhibitions on the results of school competitions, and
- Solar installations at the Gödöllö University, near Budapest.

Low-Cost Solar Heaters - Kyrgyzstan

By Dag A. Høystad, FoE Norway and Anna Kirilenko, Biom, Kyrgyzstan



Based on materials available on the local market, a Kyrgyz environmental NGO, Biom has developed new low-cost collectors.

The first of 20 planned workshops for village people take place in June 2006.

Two types of collectors were developed:

- A batch heater based on a 60-l barrel used for engine oil. Materials on the market cost around 30 USD.
- A self-circulation system with a 2-m^2 flat-panel collector made from polycarbonate plastic.

Considerable effort has been made to design efficient and durable collectors based on available and cheap materials. The next challenge is to find suitable materials for solar cookers.

The project "Solar Energy in Kyrgyzstan" has produced a number of publications to promote simple solar systems for hot water, including building manuals for the two collectors. The project is supported by GEF small grants and Norges Naturvernforbund (FoE-Norway).

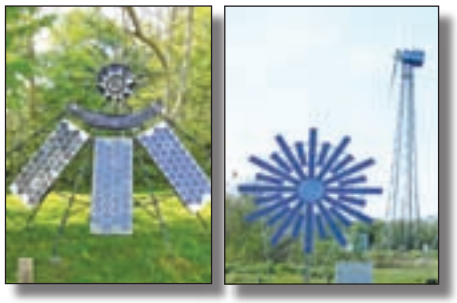
Contact: Biom, Biskek, Kyrgyzstan. E-mail: annakir7@netmail.kg

One Week at the Folkecenter in Denmark

Featuring INFORSE member organisations

"The days were passing quickly in the centre, which seemed to me to be teeming with life and bustling with activity"

By Abigáil Tascón García, Spain Trainee at INFORSE-Europe Secretariat (Denmark, Spring 2006), ARGO, EU Leonardo Framework



Last Sunday I grabbed my backpack and took the train to Ydby (Thy) in the northwest of Denmark. I was ready to take the one-week course organized at the Nordic Folkecenter for Renewable Energy. The way through Thy's countryside looked like a big patchwork of yellow rapeseed fields and green meadows blended with windmills in the background. I wondered about the things I was about to see. The course turned out to be more practical than I had thought it would. During the previous months, I had read about renewable energy, and now I had it at hand. All the different types of technologies and models that I found in theory in the books were standing there, enclosed in 8 hectares of land and surrounded by the scenic view of the Skibsted fjord!

Once I arrived there, my first contact was with the trainees at the centre, Katie from Canada and Ben and Maxime from France. The Folkecenter is a research-oriented institution and welcomes trainees, who experiment and work on different topics. They explained to me their current projects on H_2 production, biogas, and cataloguing small-scale wind turbines.
On the first day of the course, we joined the rest of participants. The group mainly consisted of people coming from various states in the USA. The U.S. group was on a study trip coordinated by Youth For Understanding (YFU).

Jane Kruse, the information & training manager, welcomed and guided us through the installations, where we could examine, among others, an array of different solar water-heating collector types, as well as various solar architecture styles ranging from stand-alone PV modules to PV cells integrated into windows and blinds. Two laboratories obtain plant oil and H_2 to be used as fuel for transportation, and of course the exhibition cars were there. We also saw a greenhouse, which they called Biodome, where water, heat and nutrients are recycled. Later on we attended to a lecture on wind power given by the director of the centre, Preben Maegaard.

During the next days we went on a trip through Thy, evaluating various renewables-based installations. Thus, we had the chance to talk directly with the workers and owners of the facilities (biogas farm, straw bale and woodchip-based district-heating plants, wave energy and wind-power testing sites, etc). I had always wanted to go up onto a wind turbine and, out of the blue, I was climbing up the 40-meter tower of the windmill that Folkecenter owns in Hanstholm. We also went up Tvind's impressive windmill, but this one was the easygoing version, with a lift!

The days were passing quickly in the centre, which seemed to me to be teeming with life and bustling with activity. Apparently, though, it is just a shadow of what it was in the years before the current government cancelled the funding for research and development of renewable energies. Despite the difficulties, Jane and Preben keep up hope in the project and run the Folkecenter with other income sources, mainly coming from the electricity levy given to inform the public about energy savings. They disseminate information and provide advice to those interested in an alternative energy future. Thus, the Folkecenter combines theory with practice and is a perfect way showing tools how sustainable societies can be built up.

The U.S. group on a study trip at the Folkecenter coordinated by Youth For Understanding

What is Folkecenter?

Training, demonstration, testing and development centre for renewable energy and other environmental technologies.
The Folkecenter was established in 1983 and is member of INFORSE.
The Folkecenter spreads information and offers courses to concerned citizens, trainees, and political decision-makers.

What Can Visitors Find?

Testing facility and exhibition of different technologies:

- wind turbines and windmill blades.
- solar water heating,
- plant oil to supply cars running on pure plant oil (i.e. rapeseed).
- hydrogen plant and filling station.
- greenhouse with aquaculture, green wastewater treatment based on biological systems.
- wave energy,
- small-scale biogas plant
- passive solar architecture, straw bale house, different insulation materials, PV cells in windows.

Practical Courses: "Do-it-yourself" solar heating systems, car conversion to run on plant oil.
Conference Facility: Octagonal assembly hall seating up to 200 people.

More information:
Nordic Folkecenter for Renewable Energy, 7760 Hurup, Thy, Denmark.
T: +45 9795 6600;
F: +45 9795 6565,
E: info@folkecenter.dk
W: www.folkecenter.net

Read previous articles at www.inforse.org/europe/success/SU_trainingcenters.htm

Better Sustainable Energy Solutions to Reduce Poverty

From April 18 to 22, 2006, organisations in INFORSE-South Asia met in New Delhi to discuss sustainable energy solutions to reduce poverty and to improve life and livelihood of the rural poor. The participants presented many good examples of how sustainable energy solutions already contribute to healthier cooking facilities, better light, communication, and income options. Here are a few of the many solutions that the participants presented:

- Self-help groups in villages in India make it possible for rural people to invest in solar dryers, biogas, etc. Often the self-help groups particularly empower rural women.
- Cooperatives make it possible for villages to invest in a common solution such as micro-hydro to electrify a village.
- Trade associations of potters raise the quality of improved cook-stoves made from clay with training, quality control, etc.
- The micro-financing concepts of Grameen Shakti make it possible for many people to get light and communication from PV such as solar home systems.

The organisations in INFORSE-South Asia are now collecting success stories in manuals on sustainable energy for poverty reduction. The manuals will be published later this year. The organisations will also present them at seminars in India, Nepal, Sri Lanka and Bangladesh. Further, NGOs can use these seminars as starting points for promotion of solutions that have been successes in other parts of South Asia.

Read more about the manuals as they are finished at www.inforse.org/asia .

INFORSE-South Asia Regional Meeting

On April 21, 2006, the INFORSE-South Asian region held a regional INFORSE meeting in New Delhi, with representatives of INFORSE members from India, Sri Lanka, Bangladesh, and Nepal. The participants found the prospects very good for increased NGO activities in sustainable energy; they agreed to continue cooperation and to increase it if possible. Raymond Myles was re-elected as regional coordinator.

After the seminar several participants visited practical projects in villages of Rajasthan where Social Action for Human Resource Development (SOHARD) and WAFD/INSEDA's Eco-Village Development (EVD) project are active.

Top: Villagers on top of their underground biogas plant that provide cooking gas for two families.

Middle: Roof-top PV and small TV set that it powers

Bottom: Children club involved in the EVD project, and Jatropha plants for local oil production in demonstration garden managed by the children

Biogas Center in Kazakhstan

See: http://www.inforse.org/europe/kz_biogas.htm and http://www.ecomuseum.freenet.kz/bgprlazplam.shtml .

Following a project period of more than two years, the biogas promotion project *"Azur Flame"* in Kazakhstan finished this March 2006.

The results include a number of biogas information materials in Russian, increased knowledge in Kazakhstan on biogas via training and seminars, a large Central Asian conference on renewable energy, feasibility studies for large biogas plants, and a fund for investment in biogas and other solutions that will reduce methane emissions.

The partners, INFORSE-Europe; Ecomuseum in Karaganda, Kazakhstan; Bioenergy Group, Southern Danish University; and Renewable Energy Agency, Kiev are continuing cooperation, but, at the moment, without the support from EU's Europeaid that supported "Azur Flame".

An Exciting Opportunity - Small Hydro Power

Addressing Rural Energy Poverty in the South

By Timothy Byakola, CDI, Uganda, INFORSE Regional Coordinator.

The Concept Here is a Simple One!

The subject of hydropower has become highly contentious as global focus continues to shift towards the need for cleaner and environmentally more benign technologies.

In many developing countries, a growing gap is emerging that is making small hydro power (SHP) schemes extremely attractive for residences, farms, village-based cottage industries, schools and health facilities.

With increasing prices for petroleum fuels and for electricity, exciting new opportunities have opened up for the use of small-scale water turbines to produce electricity directly for rural remote users.

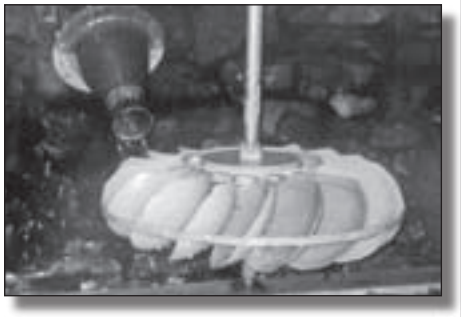
The electricity sector's slowly growing acceptance of independent power producers in many developing countries has brought further opportunities for the private sector to get involved in generating electricity.

Let's take the simplest example - The Pico Hydro

Developed primarily in the remote areas of India, Vietnam and Nepal, this simple technology is capable of producing 200W to 5 kW of electricity by harnessing the energy of small streams, irrigation canals and waterfalls.

The technology is easy and cost-effective for rural households. To bring this closer to home, low head 200 W pico hydro systems typically require around 1.5 m head and 35 1/s flow with a 200 W system costing between $ 150 - 250 plus another $ 200 to complete installation. Nigeria has the case of the Evboro 11 Small Hydro Power plant, which is a Pico (< 5 kW) project developed by a village-trained electrician who sells his power to the communities around the dam.

All the materials that were used in building the project were sourced locally and the project uses local people in the maintenance of the dam.



300 Million Enjoy it in China

China is another example of development through SHP, with a commendable exploitation of its small hydro power potential. Over 300 million people in China now enjoy the benefits of electrification through SHP. By the end of 2002, over 42,221 SHP installations had been built with a total installed capacity of over 28,489 MW. These installations produce annually a total of 94.7 billion kWh of SHP and this is growing each year. Stop and compare this with Uganda's total installed capacity of large hydro, which is just a paltry 230 MW!!

To promote global understanding of China's experiences in SHP development, the International Network on Small Hydropower (IN-SHP), the International Center on Small Hydro Power (IC-SHP), International Centre for Hydropower (ICH), the United Nations Industrial Development Organization (UNIDO), and the China International Center for Economic and Technical Exchanges organized an International Course on Small Hydro Power Development, in Hangzhou, China from the 18th of April to the 29th of May, 2006.

In total, 108 participants from 52 countries and 8 international organizations attended the course, sharing their own views and experiences on hydropower development. The delegates discussed a variety of issues related to hydropower development and were given insights into some interesting new technology developments like the updraft-free exit-flow turbine and a software package for designing small hydro stations locally. Further, presentations were made on each country's status regarding SHP and the policy framework prevailing in the countries. Many participants from developing countries expressed concern over the slow progress in achieving the necessary reforms in the power sector.

Photo from the international course on small hydro power in China.

More information:
Climate and Development Initiatives, Uganda. Ph: +256-41-342-685,
Email: acs@starcom.co.ug
www.inforse.org/africa/CDI.htm, and
www.inshp.org/main.asp

Lessons from Chernobyl

20 years after the Chernobyl nuclear disaster, participants in the Chernobyl + 20 conference, April 23-25 in Kiev, discussed the situation. While the full overall health impact of the Chernobyl disaster may never be known, as "The Other Report On Chernobyl (TORCH)" prepared for this conference indicates, at a minimum some 30,000-60,000 fatal cancers can be expected worldwide. More than 6,000 thyroid cancer cases have been diagnosed so far in Belarus, Ukraine and Russia, and more are anticipated. The conference called for a phase-out of nuclear power and for the further use of the large potentials for renewable energy and energy efficiency that could meet energy demands, including in Ukraine, where the conference took place.
Info: http://www.ch20.org/ .

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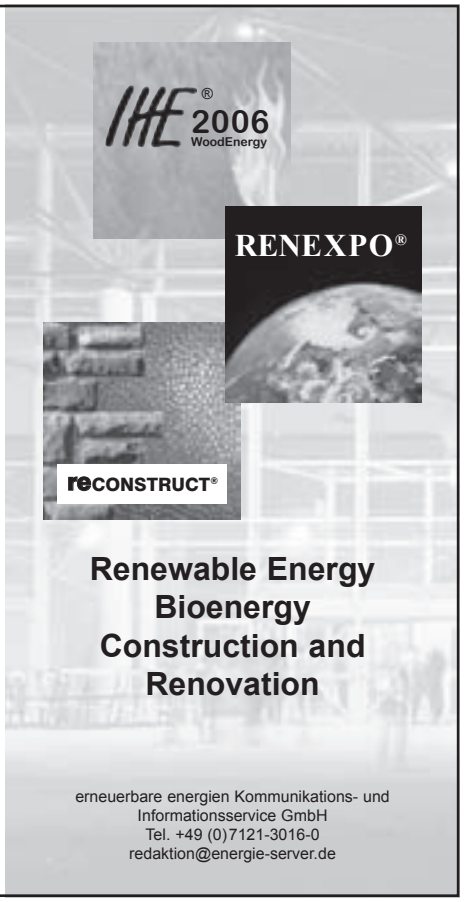
Further Information: **www.renexpo.com**



The INFORSE member organization Solar Cookers International, together with Spanish organization Fundació Terra, is organizing the 2006 international solar cookers conference to be held in Granada, Spain from 12-15 July, 2006. This is the 6th international solar cookers conference, and the first in 6 years.

The conference will bring together solar-cooker promoters and enthusiasts to share experiences, dissemination strategies, and recent advancements in solar cooking, solar water pasteurization, and related solar food processing applications. The role of solar cookers in achieving United Nations Millennium Development Goals (MDGs) will also be discussed.

Several conference sessions will be open to the public, as will exhibits and workshops.

Many INFORSE member organizations will participate.

Contact: Kevin Porter, SCI, and Marta Pahissa, Fundació Terra, Tel: +34 93 601 16 36, e-mail: solar@terra.org, kevin@solarcookers.org.

www.solarcookers.org
www.solarconference.net

About Fundació Terra
Founded in 1994, the nonprofit organization Fundació Terra works to improve societal responsibility towards the environment, to promote energy efficiency and renewable energy technologies, and to acquire or manage natural heritage sites for purposes of preservation.
Visit its Web site: www.ecoterra.org.

About Solar Cookers International
Founded in 1987, the nonprofit organization Solar Cookers International works to spread knowledge of and tools for solar cooking and solar water pasteurization worldwide to benefit people and the environment.
Visit its Web site: www.solarcookers.org.

Sustainable Energy NGO Seminar

Solta Island, Croatia
September 3-8, 2006
Organised by INFORSE-Europe and FoE Croatia
See article on page No. 4.
Contact and registration: www.inforse.org/europe/seminar06_solta.htm

ISES Summer Workshop

August 11-19, 2006
Freiburg, Germany
An intensive training workshop on solar and low energy housing with examples from Europe for temperate and cold climates. Plenary lectures, personal tutoring in the use of planning tools and a team design studio exercise.
Information and registration: www.ises.org/freiburg 2006.

International Forum of NGOs "Civil G8-2006",

July 3-4. 2006
Moscow, Russia
Final NGO forum before the G8 meeting in Skt. Petersburg, July 16.
Contact and information: www.civilg8.ru

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