# SUSTAIRA ERERGY LEWS Newsletter for INFORSE Inc.



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# **INFORSE**

International Network for Sustainable Energy (INFORSE)

is a worldwide NGO network formed at the Global Forum in Rio de Janeiro, Brazil, 1992.

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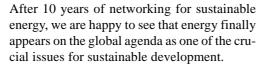


# Photo on the front page:

JU-WA Solar Pump in Namibia. See article on pages 10-11 on Namibia.

Photo: REINNAM, Namibia





The World Summit for Sustainable Development in Johannesburg will recognise sustainable energy supply – and use – as part of sustainable development. This can be an important step towards the crucial transition of the world's unsustainable energy systems to sustainable ones, based on renewable energy and increased energy efficiency.

On the other hand, the Summit will only be an important step forward for a transition to sustainable energy if it does more than simply recognize the value of sustainable energy. It must set clear targets and start the processes of change from the current unsustainable energy systems. It should:

- set targets for phase-out of energy subsidies that are incompatible with sustainable development.
- set targets for providing sustainable energy services to the poor.
- set targets for increasing renewable energy use, excluding large hydro and waste incineration.
- start international co-operation to reach the targets, such as an action programme to give the poor access to sustainable energy sources, as well as an International Fund for Sustainable Energy.

In INFORSE, there is no doubt about our goals of providing sustainable energy to the two billion poor that lack it today, and of phasing out coal, oil, and gas use as well as nuclear energy use. These goals are technically possible and not necessarily costly.



The "Tree of Life Made Up of the Leaves of HOPE" at the Global Forum in 1992

When we presented our proposal 10 years ago in the preparations to the Rio conference, they were in general not included in the official papers. On the other hand, we got a lot of support for the proposals from NGOs around the world. Later, when the network was started, we facilitated NGOs' exchange of experience on practical solutions and on successes based on sustainable energy. And we continued to lobby for sustainable energy in official processes. We also continued to stress the need to include local, experienced NGOs in developing activities for the poor. Now, 10 years later, some of our proposals are better reflected in the official papers (the WSSD Plan of Implementation) than in 1992, even though they are still far from our goals.

After the Summit, there must follow the transformation of the Summit's decisions into activities on the ground. The real success comes from increases of practical activities leading to increased use of renewable energy, a decrease in the number of people without access to adequate energy supply, etc. An important condition for this is that international co-operation and loans must start to support sustainable instead of unsustainable energy. Since 1992, the World Bank loans for fossil fuel development were 15 times higher than for renewable energy and energy efficiency; such unsustainable practices must be changed. National policy must also set the framework right by phasing out harmful subsidies, then using part of the savings for poverty alleviation and for sustainable energy development. When these conditions are in place, NGOs and other local agents can make the changes happen at a much faster pace than we have seen in the decade from the Rio Summit to this year's summit in Johannesburg.

We hope that we and many others can strengthen the work and co-operation for sustainable energy that will take place in the coming decade, building on the experience since Rio, and on the decisions of the Johannesburg Summit.

Gunnar Boye Olesen

Editor and INFORSE Co-ordinator for Europe

# **Johannesburg Proposals**

# Officially: "Energy for Sustainable Development"

Preparations for the World Summit for Sustainable Development (WSSD) in Johannesburg give a prominent place to energy in the "Plan of Implementation for the World Summit on Sustainable Development".

Unfortunately, the proposals and proposed targets are far too limited to match the needed actions for sustainable development in energy, - but they are a step in the right direction.

# **Poverty Eradication**

Improved access to reliable and affordable energy is an important part of reaching the "Millenium Development Goals" in the "Plan of Implementation".

The goals include halving of the proportion of people in poverty by 2015. Proposals under discussion for this purpose includes an action programme to promote increased use of renewables as well as of cleaner liquid and gaseous fuels, along with enhanced energy efficiency.

The proposed means include:

- development of national energy policies to create the necessary framework conditions,
- enhancement of international and regional cooperation to improve access to energy as an integral part of poverty reduction programs,
- financial and technical assistance from developed countries to provide the poor with access to energy.

# **Changing Unsustainable Patterns**

Among the many energy-related proposals in the "Plan of Implementation", there is already agreement on:

- Incorporating energy efficiency considerations into policies of major energy consuming sectors and infrastructures, such as transport and the public sector.
- Promoting energy efficiency and conservation, renewable energy, advanced energy technologies, including advanced and cleaner fossil fuel technologies. The problem with these paragraphs is that "advanced energy technologies" can include nuclear power and fossil fuel technologies. Without division between the different technologies, the proposal might not contribute much to sustainable development.
- Increasing safety and liability in transport of nuclear waste.

- Supporting renewable energy for small island development states.
- Supporting Africa's effort to provide 35% of the African population with access to energy within 20 years.

Still under discussion:

- · Targets for renewable energy;
- National policies to phase out energy subsidies that inhibit sustainable development. The proposal states that developed countries should lead the way until 2007.

# NGOs Propose: "Sustainable Energy Development"

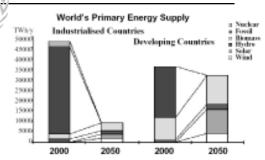
Sustainable development requires a major transition to renewable energy and to efficient energy use. To show how it could be done, INFORSE has developed a Sustainable Energy Vision 2050, based on a Global Renewable Energy Scenario<sup>1</sup>.

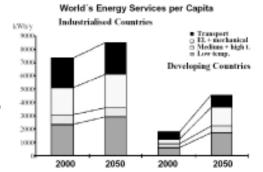
It shows how nuclear and fossil fuels could be replaced with renewable energy, based on existing technologies. Scenarios for Denmark and Germany show the possible development in more details. An important conclusion of a Danish scenario is that sustainable development will have about the same costs as continuation of the unsustainable energy system, - at least for the first 30 years, when 70% of the CO<sub>2</sub> reduction would occur.

If this transition is made, and if unsustainable forest cutting is stopped, CO<sub>2</sub> emissions will be reduced to levels that have been estimated to limit the global climate change to an average of 1'C in the 21st century. This would probably avoid most of the dangerous climate change. It will also eliminate future energy crises.

# **Energy Access for the Poor**

INFORSE supports a programme to provide access to energy by 2012 to the two billion that lack it today. The programme should address the need for proper energy for cooking, light, water pumping, health clinics, schools, and small businesses. It must combine national funds, such as savings from phase-outs of energy subsidies, with loans from international development banks and assistance from developed countries. Such a programme would reduce the severe problem of smoke from cooking that is harming many people in developing countries, in particular women and children. It would also give many people opportunities for better light in the





Graphs from the Sustainable Energy Vision 2050

night, which would allow them to study and to generate extra income. Read more at www.greenpeace.org or www.choosepositive-energy.org.

# **International Structures Needed**

There is no UN agency or coordinator in charge of energy for sustainable development. To implement the WSSD decisions on sustainable energy, there is a need for:

- a global fund or agency for sustainable energy, such as the proposed International Fund for Sustainable Energy (ISEF), that could also assist the countries in phasing out subsidies, or an International Renewable Energy Agency (IRENA).
- increased promotion of sustainable energy by UN agencies such as UNDP and UNEP.
- radical change in energy lending, both by the World Bank and by other Multilateral Development Banks, from fossil-fuel projects to energy-efficiency and renewable-energy projects.
- change the International Atomic Energy Agency to stop its promotion of nuclear power.

To promote truly sustainable development in energy, the follow-up of the WSSD must include this.

Read more about the INFORSE proposals at www.inforse.org/projects.php3, about ISEF at www.gracelinks.org/ IRENA at http://www.eurosolar.org/

1 Prof. Bent Sørensen and Peter Meibom, Roskilde University Center, Institute 2, Energy & Environment Group, Denmark 1998. (See also article on: mmf.ruc.dk/energy/downloads.htm.)



# Rio'92 & The Challenge for Sustainable Developments



# A Major Outcome: Agenda 21

A major and all-important outcome of the Rio Earth Summit of 1992, particularly of Agenda 21, has been the enumeration of the steps to plan environmentally sustainable development that links the need to preserve humanity's environmental assets for future generations all over the globe. Agenda 21 contained more than 2,500 recommendations, addressing various global issues including poverty, pollution, and sustainability.

# What Changed after a Decade?

This is a pertinent question and the answers will vary widely, depending upon perceptions of society and the dedication of governments that are assisted by well-meaning and sincere NGOs.

In spite of some noticeable progress and success stories in a number of pockets, both in rural & urban habitats, millions of the total human population of 6.2 billion around the globe are still caught in a vicious cycle of poverty, population growth, hunger, and disease.

Over 300 million people around the globe live in absolute poverty. Further, around the world, water levels are dropping, and climates are changing. The only solace is that there is today a great deal of awareness of where Agenda 21 has taken us so far and what further steps are to be taken at an accelerated pace based on sustainability requirements.



Chula training to women by AIWC in India

# Continuous Stress on Environment - Urbanisation

In India, nearly 28% of the total population of over a billion (i.e., 285 million) live in urban areas, and this percentage is rising. It is noted that this will have serious implications for sustainability, unless attention is bestowed on rural growth, just outside the urban centres.

In the decade since Rio, a number of new factors bearing on sustainable urbanisation have emerged, including the following:

- Liberalisation of economy and accelerated pace of industrialisation.
- Increase of housing facilities, although the infrastructure sectors like water, power, etc., have not kept pace.
- Growth in the informal sector, which has suffered without proper housing facilities or urban development, resulting in slums.
- An increase in consumption has led to more and more generation of wastes, thereby raising pollution levels, shortages of water, electricity, and transportation facilities.

All of these place a continuous stress on the environment, whose sustainability is getting much more attention now than earlier. Efforts and finances are continuously being earmarked towards ensuring sustainability. Governments are increasingly committing themselves to eradicating poverty and degradation, and to promoting sustainable livelihoods with the participation of people, especially women.

# Essential Networking from the Blocks to... ... the Global Level

INFORSE has always recognised that proper networking is essential among all the countries pursuing the use of renewables to meet their energy requirements. For example, recent surveys in India show that, of the total domestic fuel needs in India, nearly 60% in rural areas and 36% in urban regions are met by burning fuel-wood. Together with dung and agricultural wastes, these energy sources meet 80% of the fuel needs in rural areas.





These traditional fuels are not only available locally but have the advantage of requiring mainly just labour to access them. Over the years, the Government of India's Ministry of Non-Conventional Energy Sources (MNES) has propagated the use of non-conventional energy and has done pioneering work in this direction.

Local micro credit facilities are also being offered for meeting the up-front costs to low-income households. An Integrated Rural Energy Programme (IREP) has been taking up for implementation the utilisation of various energy devices including improved chulhas (wood-stoves) as well as solar cookers and heaters, along with biogas units for cooking energy.

Over 3.2 million family type biogas plants have been set up, versus a potential of nearly 12 million. Similarly, the nmber of the improved wood stoves installed in the country is 34 million against a potential of 120 million. As many as 860 administrative Blocks had been identified for this potential. The Ministry, with the help of NGOs, is encouraging the establishment of Block-level IREP Project cells, so as to ensure enough people's participation therein.

# **INFORSE** as a Catalyst

INFORSE should be congratulated for the facilities that it continuously helps to provide, particularly to the Asian Region.

Many organisations here in India and in other countries look to INFORSE for support. It provides vast dissemination of knowledge through thought-provoking articles and case studies, which continue to raise awareness levels around the world.

Further, in its role as a catalyst, it helps various voluntary organisations, and NGOs to act in their respective territories towards poverty alleviation in a reasonable time frame.

We hope that INFORSE will continue to serve mankind for a long time!

# *Theme: INFORSE 1992-2002*

10 Years of Networking

In 1994, INFORSE launched a campaign entitled, "Sustainable Energy for Social Development – Energy for a Better Life". The campaign was a preparation to the UN Social Summit in 1995, but it was much more than that. It was a campaign to raise awareness about the positive social impacts of making energy consumption more efficient and of using local renewable energy sources. It was based on a series of successes with local renewable energy and with energy-efficiency activities.

"Sustainable
Energy for
Social
Development Energy for
a
Better Life"

By Gunnar Boye Olesen, INFORSE, OVE Denmark

# INFORSE Formed in 1992 In 2002, 135 members

INFORSE was formed on June 4, 1992 at the Global Forum in Rio de Janeiro (held in parallel to the Rio Summit – the UN Conference on Environment and Development), as a network of NGOs.

The start of the network was based on a common strategy entitled, "Sustainable Energy Development – towards a World Strategy", proposing increases in local renewable energy and energy efficiency solutions as well as phase-out of nuclear and fossil energy.

Currently, INFORSE has 135 member NGOs that are supporting the common vision of a "world where energy services, necessary for a just and human centred development, are provided in a sustainable way using renewable energy" (from the INFORSE Charter that all members support).

# **Structure - Seven Regions**

The basic structure in INFORSE is comprised of 7 regions, each with one or two co-ordinators. The co-ordinators are elected by the members of their region.

The international INFORSE activities are guided by the co-ordinators' meetings, while the regions can act independently in regional questions and in specific projects. An international secretariat is in charge of the day-to-day international activities with guidance from the regional co-ordinators.

In countries with many members, one of the members can be appointed as the national focal point. This is currently the case for Nepal, India, and Uganda.

# Secretariat Move in 2002

In 2002, the INFORSE international Secretariat was taken over by the European Region of INFORSE. Now, it is based at the European coordinator in Denmark, hosted by the coordinator's organisation, the "Danish Organisation for Renewable Energy" (OVE).

Throughout the years, INFORSE has followed international negotiations: follow-up of the Rio conference, Convention on Desertification, Convention on Climate Change, and others.

The purpose was always to push for sustainable energy solutions that could support local, social development.

These same solutions could increase economic development and income opportunities in the poorer part of the world, while strengthening local organisations and structures.

In 1998, INFORSE developed a new strategy with focus on:

- facilitating co-operation among members, in particular South-South and North-South. For a period, these activities were supported by a small South-South-North Fund.
- global policy activities, promoting sustainable energy at relevant international processes on behalf of the members.

Following the new strategy, an INFORSE Charter was developed, defining the vision, mission, and overall strategy of INFORSE.



One of the South-North activities was the development of the "Distance Internet Education on Renewable Energy" (DIERET).

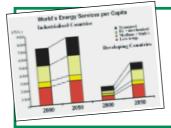
It gives participants the opportunity to study renewable energy via an email course or as a self-study course, via the internet or from a CD. The course has been conducted several times in English. Translation to Russian is planned.

In 1998, the Forum for Energy and Development, which then was the secretariat of INFORSE, initiated a campaign for the use of windpower as at least 20% of the global power mix by 2020, in co-operation with Greenpeace and with the European Wind Energy Association.

In the follow-up, INFORSE's contribution to the campaign included a focus on increasing the use of windpower for

Europe and for the southern part of Latin America (Cono Sur).





In 2001, INFORSE presented a

"Sustainable Energy Vision 2050"

for a global phase-out of nuclear and fossil energy. In addition to development of the global vision, INFORSE assists its members with national as well as local visions and strategies for transition to sustainable energy systems, following the global strategy.

# Influencing the Global Agenda

Since its formation in 1992, INFORSE has worked to influence the global agenda. The purpose was always:

- to push for sustainable energy solutions that could support local social development;
- to promote the important contributions of NGOs, both in policy development and in practical implementation.

INFORSE has been active with policy work, exhibitions, workshops, and press conferences at major UN events, especially those following the Rio Process. INFORSE received consultative status at the UN ECOSOC in 1998, which provides easier access to UN events.

INFORSE participated in, e.g.,

# Climate Convention Conferences (UNFCCC) in Berlin'95, Kyoto'97, Buenos Aires'98

In the UNFCCC process, INFORSE cooperates closely with the Climate Action Network (CAN), in particular with CAN-Europe. In the climate conferences, INFORSE representatives have highlighted the alternatives, e.g., with Windforce10 in Buenos Aires in 1998. \*

# Conference on the Sustainable Development of Small Island Developing States, Barbados, 1994

The INFORSE participation led to increased focus on renewable energy for islands, a Global Conference on Renewable Energy Islands, a renewable energy island secretariat, and a publication about renewable energy on small islands.

# • Social Summit, Copenhagen, 1995

INFORSE participation in the Social Summit was based on the campaign "Sustainable Energy for Social Development". The Social Summit recognized the role of renewable energy in social development, following the proposals of INFORSE and others. \*

# • World Conference on Women, Beijing, 1995

INFORSE participated in the "Woman Summit" in co-operation with All India Women's Conference, and highlighted the theme "Sustainable Energy for Social Development".



Published by the International Network for Sustainable Energy (INterSE



INFORSE Stall at the NGO Parallel event to the United Nations Summit.

# • World Solar Summit, Harare, 1996 In this UNESCO event, INFORSE promoted the recognization of NGOs in the implementation of sustainable energy projects and activities. Unfortunately, the Summit did not lead to the strong global push for renewable energy that was expected by the organizers.

# • Habitat Conference, Istanbul, 1996

The INFORSE participation focused on housing with low energy input and with renewable energy use, in particular for developing countries.

# • UNESCO's 5th Conference on Adult Education, Hamburg, 1997

In this conference, INFORSE played a special role, preparing a theme on adult learning and environment.

# • Rio + 5, UN General Assembly, Special Session, 1997

For the 5-year conference of the Rio Conference (UNCED), INFORSE worked for the inclusion of sustainable energy as a theme in the Rio Process. This was successful in the respect of that the conference included energy for sustainable development in the following part of the Rio Process.

# • Conference to the Convention to Combat Desertification, Dakar, 1998 INFORSE participated in cooperation

INFORSE participated in cooperation with ENDA (Environnement et Développement du Tiers-monde), highlighting the role of renewable energy and energy efficiency to combat desertification. \*

INFORSE prepared input to several UN official and their parallel NGO event. E.g. during the World Solar Summit in Harare, INFORSE published 4 issues of the "NGO Voices" in English and in French.



The official plenary at the World Solar Summit in Harare, Zimbabwe.

# • 9th Meeting in the Commission for Sustainable Development (CSD9), New York, 2001

In this event, INFORSE co-operated with the "NGO Energy & Climate Caucus" to push for renewable energy and energy efficiency as the energy solutions for sustainable development. \*

These efforts were often coordinated with campaigns for sustainable energy, involving INFORSE members as well as relevant external partners.

# **INFORSE** as a Meeting Place

From its start, INFORSE has played a role as a meeting place for NGOs and others interested in co-operation on sustainable energy. Many organisations have found project partners through the network. INFORSE's worldwide sustainable energy contact list provides opportunities for contacts and access to information from all over the world, in particular among NGOs interested in the field.

\* Further information is available on the INFORSE website at www.inforse.org. See electronic copies of Sustainable Energy News before and after the events, as\_well as the reports on Windforce'10, and Renewable Energy in Small Islands.

# SUSTAINAB ENERGY NEWS

- 10 Years



By Judit Szoleczky, editor

Sustainable Energy News has been published since 1992 after INFORSE was formed in Rio, and it became the network's newsletter.

It followed Soft Energy News (1990-1991) and Soft Energy Worldwide (1991-1992), published by OVE, the Danish Organisation for Renewable Energy.

Sustainable Energy News reports quarterly about:

- INFORSE activities, positions
- relevant international processes (UN meetings, etc.) and NGO involvement
- regional news
- publications
- coming events
- technical developments, in technical articles and themes

The aim is to provide news and knowledge to the NGO community and to give voice to NGO opinions for use by decision-makers.

It gives NGOs a means to get news published about their work and their critical opinions, which is often difficult in commercial and governmental magazines.

Because it is the newsletter of INFORSE, SEN has the overall goal of increasing sustainable energy use to improve the environment and to reduce poverty. It is also directed at bringing NGOs into the mainstream processes of decisionmaking and implementation that affect the supply and use of energy at all levels.

# Contact List

A list of contact information for NGOs and others who promote, implement, teach, and/or otherwise support sustainable energy around the world is published annually as part of Sustainable Energy News.

It presently includes about 800 contacts, half of which are located in Europe. It is updated and printed annually, but updates and additions are received year-round.

# 10 years of development

Since the start of Sustainable Energy News, it has grown in circulation, content, and colour. Dedicated inserts provide in-depth coverage of selected critical events; e.g., there were four issues of a special World Solar Summit Newsletter in 1996.

SEN always appears in English. Additional resources have sometimes made it possible to publish special parts in French as well; for instance one theme issue on desertification and two World Solar Summit Newsletters.

# Interactive Information Base

The latest 23 issues of Sustainable Energy News are available one the INFORSE website, in pdf or text format. All issues from 1992 through 2001 of Sustainable Energy News are available on UNDP's "Energy for Sustainable Development Library" CD in a searchable html format. We have found that many of the articles have a long-lasting value, in particular those in the theme issues. The electronic formats make it easier to use information from previous issues.

# Distribution

The newsletter is distributed to INFORSE members and to subscribers at an annual subscription fee of 25 US\$.

In addition, we exchange a number of courtesy subscriptions with publishers of other newsletters and magazines. SEN is distributed without charge to NGOs as far as our resources allow. Due to current financial constraints, we have had to limit the NGO portion of our print distribution to those to whom the Web, and hence our website, is not easily accessible.

The newsletter is also distributed via email in PDF format for subscribers upon request. Similarly, anyone interested can sign up to have an email alert sent to them whenever a new issue is ready and available on the website.



The newsletter activity started on a volunteer basis, and it continues to depend on substantial volunteer contributions by authors and editors. In the period 1992-2001, it was supported financially by the Forum for Energy and Development (FED), a Danish NGO umbrella organisation that received state support.

Theme: INFORSE 1992-2002

In 2002, a new, right-wing liberal government in Denmark stopped the support to FED as well as to many other environmental and developmental initiatives. This action also cut off the support of Sustainable Energy News and of other INFORSE activities. Thus, this year, we are searching actively for new sources of funding, and we are working to increase the number of paid subscriptions.

# Inputs Welcomed

We welcome articles, in particular from NGOs, on sustainable energy developments.

Do not be afraid of your English. All articles will go through a language check. Mistakes will be corrected, and parts that are difficult to understand will be improved in a dialogue with the author.

# **Themes**

Usually, every second or third issue features a 4 to 8 - page section devoted to a single theme, giving an overview of the special topic and providing pointers to further information. Themes in past issues of SEN include the following:

Poverty #35′01; School #33'01; #29′00; Women #32'01; Climate Change # 19'97, #22'98, Input to COP3 Kyoto; Int'l Development Financing #20 '98; GEF # 21'98; Desertification # 23'98, #27'99 Input to COP2, Dakar Senegal, 1998 and COP3 Recife, Brazil; ECO demo Centers #24'99; Adult **Education** # 15, 16, 17.

# **INFORSE Members and Regions**

# The INFORSE regions have their own activities on the regional level, and take part in the global INFORSE activities.

All regions have their own organised meetings to bring together members, exchange insights from their experiences, develop joint activities, and elect coordinators. They have also taken part in regional political processes, developed their own projects, and assisted members. In the following paragraphs, we describe some examples of regional activities.

The **European region** is involved in the Pan-European "Environment for Europe" process across the old "iron curtain".

In this process, it co-ordinates the Energy & Climate Issue Group of the NGO network, European ECO-Forum.

The region also follows the energy policy developments of the European Union. To bring together NGOs from all over Europe, it organizes Pan-European sustainable-energy seminars, seven in total since 1992. It has published a "Guideline for Estimation of Renewable Energy Potentials" and a collection of "Sustainable-Energy Success Stories" from Central and Eastern Europe. Both are available on the region's website.

The **South Asian region** has facilitated NGO involvement in the development of the World Bank's "Study on Environmental Issues in the Indian Power Sector", and in its follow-up. It has also been involved

# **New Support for INFORSE-Europe Activities**

This July new INFORSE-Europe activities started with support of the Danish Open Air Council. The activities will be supported for one year and will include:

- New rounds of the Distance Internet Education on Renewable Energy (DIERET)
  course.
- Sustainable energy scenarios for Slovakia, as well as for parts of Hungary and Romania.
- Assistance for members in following and applying the results of the "Environment for Europe" process as well as the European Union Energy Policy.
- A mobile exhibition on sustainable energy in Romania.

in the advisory panel to the World Energy Assessment, organised by UNDP and others. It is active in capacity-building of NGOs in renewable-energy technologies, and the co-ordinator has made visits to many members that do not have easy access to communication. The region and its members have worked on promotion and transfer of a number of renewable-energy technologies such as low-cost biogas plants and solar cookers as well as micro and pico hydro-power.

The Latin American region has been active in organising multiple roundtables/conferences for renewable energy in Brazil and Argentina. These events have given important pushes for large-scale renewable-energy use in these countries.

The **West African region** is promoting sustainable-energy solutions that are part of the efforts to prevent desertification.

This is done by supporting the activities of the members and in negotiations following the UN Convention to Combat Desertification (UNCCD). The region has also followed the activities of National Solar Committees in several countries and of the African Solar Committee (these committees are follow-up of the World Solar Summit, 1998).



Participants of the INFORSE-Europe seminar and meeting in 2001 in Denmark.

# **INFORSE - Europe**

Albania: Albanian Ecological Club; Armenia: Ecoteam NGO; Belarus: Alliance, Belaja Rus, BD-IAE - International Academy of Ecology; Belgium: APERE - Association for the Promotion of Renewable Energy, Brabant Ecology; Bulgaria: Za Zemiata - For the Earth; Croatia: ZAZ - Green Action Zagreb; Czech Republic: Center for Energy and Transportation; Denmark: NOAH - FOE Denmark, Folkecenter for Renewable Energy, OVE - The Danish Organization for Renewable Energy; Estonia: Re-En Center TAASEN; Finland: Technology for Life; France: CLER - Committee for Renewable Energy, GERES - Renewable Energy and Environment Group, HELIO International, Relations North-South; Georgia: Georgia Green Movements, FOE Georgia Energy Brigades; Germany: Artefact, EUZ Energy & Environment Center in Deister, Braamwisch Eco-Housing Project; Hungary: ETK-Nature Conservation Club, Tree of Life, EKA - Energy & Environment foundation, Energy Club Hungary, Central European Folk Academy; Latvia: CCB SPARS - Coalition Clean Baltic; Lithuania: Atgaja Community FOE; Netherlands: ENERGIA, Foundation EDP -Energy Development & Planning; Poland: Ecobaltic Foundation, GAP Foundation, PKE-ICAP - Information Center for Air Protection, PKE - Polish Ecological Club; Romania: ARIN, Danube Delta Friends, Prietenii Pamintului Earth Friends FOE Romania, Terra Mileniul III - CANCEE; Russia: GAIA Apatity Energy Center; Slovakia: FAE - Foundation for Alternative Energy, Slovenia: Slovenian E-Forum; Spain: Ecologists in Action, Grup de Cientifics i Tecnics per un Futur No Nuclear; Switzerland: Eco-Center Langenbruck; Ukraine: Future Age Energy, Rivne Environmental Brotherhood; United Kingdom: British PV Association, CAT - Centre for Alternative Technology, ISES-UK, The Greenhouse Trust.

# **Coordinators:**

# **Eastern Europe:**

FAE Slovakia att. Emil Bedi (92-93 PKE, Poland att. Adam Gula)

# Western Europe

OVE, Denmark, att. Gunnar Boye Olesen





Jempers.

# **INFORSE-Africa**

### **Eastern Africa**

Kenya: FWD - Foundation for Woodstove Dissemination / AFREPREN, Kenya Volunteer Development Service; Namibia: Renewable Energy Information Network of Namibia, Nigeria: Eco-Conscious Developments; Uganda: CDI - Climate and Development Initiatives, Integrated Environmental Defence, Integrated Rural Development Initiatives, JEEP - Point Energy & Environment Project; Zimbabwe: BUN - Biomass Users Network.

### Western Africa

Burkina Faso: ANAR - Association Nationale d'Action Rurale, Burundi: CADIC; Congo: Corps Voluntaire Congolais au Developpement; Gambia: Islamic Relief Association; Ghana: EDA - Environment and Development Association; Guinea: AGUIPER - Association Guinea pour la Promotion des Energies Renouvelables, Guinea-Bissau: GUITEC - Guinee Technology, Environment Development; Mali: Afritec, GRAT - Groupement de Recherches et d'Applications Techniques; Mali - Folkecenter for Renewable Energy, Mauritania: Terre Vivante; Senegal: Aajac Colufifa, AGSF - Amicale des Groupements du Secteur de Foundioungne, ASES-MAS - Association Senegalaise pour l'Energie Solaire, CPDER - Centre de Promotion et de Diffusion des Energies Renouvelables, ENDA - Environnement et Developpement du Tiers Monde - Energie, Femme Energie et Environment, FID - Fondation Internationale Pour Le Developpement, GJAP - Groupement des Jeunes Artisans de Pout, USE - Union pour la Solidarite et l'Entraide, URAPD - Union Regionale des Associations Paysannes de Diourbel, Sierra Leone: Sustainable Technology Development Group.

# **Coordinators:**

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Western Africa

ENDA-Energy Senegal, att. Youba Sokona, Secou Sarr, Masse Lo.











# **INFORSE- Asia**

### Eastern Asia and Pacific:

Indonesia: GENI Yayasan Gemi Nastiti, Energy & Environment Department; Japan: Decentralized Energy Network, FOE-Japan Energy Pioneers; Malaysia: CETDEM - Centre for Environment Technology and Development Malaysia; Philippines: Approtech Asia, Haribon Foundation for the Conservation of Natural Resources, PCATT - Philippine Center for Appropriate Technology & Training; South Korea: Green Korea United; Thailand: ATA - Appropriate Technology Association, SENT - Sustainable Energy Network for Thailand

# **South Asia**

India: AFPRO - Action for Food Prodution, Aga Khan Rural Support Program, Choice Premises, AIWC -All India Women's Conference, Rural Energy Dept., Development Alternatives, TARA - Technology and Action for Rural Advancement, Grama Siri, INSEDA - Integrated Sustainable Energy and Ecological Development Association, Joseph Institute for Rural Development, Ladakh Ecological Development Group, Malanadu Development Society, Nayudamma Centre for Development, NERD - New Clean Energy Development Society, Rural Communes, Ryan Foundation, SCRIA - Social Centre for Rural Initiative & Advancement, St. Xavier's Social Service Society, West Utkal Agriculture Centre, WAFD - Women's Action for Development; Nepal: CRT - Centre for Rural Technology, Community Awareness Development Centre, South Asia Partnership Nepal, Pakistan: Pakistan Society of Agricultural Engineers, SOUL - Stand Organize Unite Lead, Sri Lanka: Centre for Women and Development.

# **Coordinators:**

### South Asia

INSEDA India, att. Raymond Myles (92-96: AFPRO India, att. Raymond Myles) Nepal focal Point: CRT, att. Ganesh Shresta

Eastern Asia & Pacific SENT from '99 (92-97: PCATT, att Benjamin Gertes, (98: ATA Thailand) India Focal Point: AIWC, att. Lalita Balakrishnan









# **Coordinators:**

# South America - Portuguese LIMA, Brazil.

(92 -97: IED Brazil) Att Emilio la Rovere South America - Spanish REJIMA, Argentina (92-97: REDES Uruguay att. Martin Prieto) **North America:** (92-96:EAF, USA)









# **INFORSE- Americas**

### **South America**

Argentine: CETAAR - Centro de Estudios Sobre Technologias Apropiadas de la Argentina, Pereyra Project Goup, REJIMA Red. de Jovenes Investigadores del Medio Ambiente; Belize: BEST - Belize Enterprise for Sustainable Technology; Brazil: APAEB - Associação dos Pequenos Agricultores do Município de Valente, COOVIVA, Federacio Nacional dos Trabahadores nas Industria Urbanas - CUT, FTV - Fundação Teotônio Vilela, GAMBA -Grupo Ambientalista da Bahia, IDER - Instituto de Desenvolvimento Sustentável e Energias Renováveis, IED - Instituto de Ecologia e Desenvolvimente, REBRAF - Instituto Rede Brasileira Agroflorestal, <u>LIMA - Laboratório Interdisciplinar de Meio Ambiente</u>, PSA - Projeto Saúde e Alegria, Sociedade Civil Mamirauá; Chile: TEKHNE - Center for Experimentation & Training in Appropriate Technology; Uruguay: CEUTA - Centro de Estudios Uruguayo De Tecnologias Apropiadas, REDES - Red De Ecologia Social FOE; Venezuela: CENDA -Centro de Desarollo y Ambiente, IUI-FRP - Instituto Universitario de Technologia.

### North America

Canada: Greengrass Institute; USA: ACEEE, EDF Environmental Defense Fund, UCS Union of Concerned Scientists



# **Proactive Move in Namibia**

By Robert Schultz, who has been project coordinator for REINNAM since 1999 in Namibia.

Renewable energy and energy efficiency are receiving increased recognition and support in Namibia. REINNAM, an INFORSE member organization, takes an active part.

# Achievements in National Policy

Namibia's progressive constitution enshrines the protection of its environment and sustainable usage of its natural resources. The White Paper on Energy Policy (1998) commits government to promoting the introduction and usage of renewable energy resources. It recognizes that stand-alone and other renewable energy services could provide a least-cost solution to satisfy the basic energy needs of Namibia. However, the widespread application of these technologies is currently hindered by technical, institutional, financial, and social barriers. This is the predicament in many developing countries.

Namibia has adopted a proactive attitude towards these problems. Some of its achievements include:

- the Electricity Act (2000), which makes provision for the introduction of regional electricity distributors and independent power producers, and
- the Rural Electricity Distribution Master Plan (2000), which commits annual resources toward rural electrification both on- and off-grid, along with numerous awareness campaigns and studies that analyse problems and offer solutions.
- Several projects initiated by the Government, e.g., a loan scheme for solar home systems, a national biogas plan, a wind energy project, and annual energy-efficiency awareness campaigns.

# Loan Scheme to Solar Homes

A loan scheme and revolving fund for the purchase of solar home systems of 50W, 100 W, and 250W systems.

The implementation period, 1996-2004, includes 5 phases. The project operates on a total budget of US\$ 0.4 million.

Funding was received from the German and Norwegian agencies for development cooperation (GTZ and NORAD). The terms of the funding specify a 10% deposit, a 5% interest rate, and a 5-year payback period. The loan also includes installation of each system by a trained solar technician, transport, and insurance for 5 years. As of January, 2001, project personnel had installed 456 systems and had trained 100 technicians. Theft, a serious barrier to the greater use of solar energy technologies, has claimed fewer than 10 systems, which clearly reflects the advantages of an ownership approach.

# **National Biogas Program**

This programme was launched in June 2000 and is jointly administered by the Ministry of Mines and Energy (MME) and by the Ministry of Agriculture, Water, and Rural Development. Through funding from the Indian government, ten biogas household-size digesters (3 - 5m³) were installed throughout the country and are currently being monitored.



Almost 500 solar collectors have been installed in Namibia with a help of a loan scheme



The JUWA solar water pump in Namibia is a great solution in the driest African country south of the Sahara.

# 3 MW Wind Energy Project

The national electricity utility, NamPower, applied for the construction of a 3MW wind park (with future expansion to 20MW) at the coastal town of Luderitz. Unfortunately, electricity costs would be about double the current costs of imported power from South Africa. Due to this, the Electricity Control Board of Namibia has not granted a license yet. The environmental impact assessment shows that typical annual savings from a 19.2 MW facility, displacing Eskom imports, which are 88% coal-fired, would be: 59.8 million litres of water, enough supply for 8,200 residents per year;

- 23.9 million kg of coal;
- 52.2 million kg CO<sub>2</sub>.
- 6.41 million kg of ash;
- 0.38 million kg SO

# Awareness Campaigns, Studies & Further Initiatives

Through the Ministry of Mines and Energy, a wide range of awareness campaigns are being conducted, including:

- "Energize let's optimize", an energy efficiency campaign, targeting mostly electricity and petrol consumption.
- Solar Water Heater (SWH) campaigns via radio, newspapers, magazines, competition, workshops, shows, and presentations. They aim to realise the market potential of up to 100,000 SWH over 15 years, which would save domestic consumers 30% - 40% on their electricity bills.
- "HomePower", a solar electrification campaign for rural households.

In addition, the Ministry has commissioned a wide range of studies, specifically to level the playing field between renewables and conventional energy resources. These studies include:

- Assessment of solar and wind resources.
- Macro-economic analysis of solar water heating.
- Socio-economic impact assessment of rural electrification.
- Establishment of a Renewable Energy and Energy Efficiency (REEE) Institute for Namibia.
- Namibian JUWA Solar Water Pump Performance Testing.

The Ministry also serves as official custodian and supporter of numerous energy initiatives, e.g.

- 2 solar villages completed in 2000 with a combined PV capacity of 14,6 kW.
- Study, manufacture, and promotion of wood-fuel efficient stoves and of solar stoves.
- Desert research station and surrounding communities to act as pilot minigrid.
- Group for the Advancement of the Rational Use of Energy in Namibia (GARUEN), a research and development initiative hosted at the Polytechnic of Namibia.

The above examples serve to illustrate the extent of Namibia's high-level financial and moral support for renewable energy as well as for energy efficiency.

The country is acutely aware of its high dependency on imported electricity and fossil fuels, which currently sustain the economy.

Several renewable energy and development-related NGOs work in close cooperation with each other and with the government.

# If We Don't, Who Will?

The shift from this dependence to a self-sufficient, sustainable energy future, using some of Namibia's most abundant natural, clean energy resources, is certainly not an easy one.

But, at least we are putting money where our mouth is. After all, if we don't, who will?

# About Namibia

Namibia, the driest African country south of the Sahara, has a population density of less than two people per km² and one of the highest population growth rates in the world. This creates a unique challenge when it comes to energy provision. Commercial energy (fuels and electricity) purchases currently account for 15% of GDP.

The economy's energy intensity has risen by 25% in the period from 1991 to 1996. Diesel consumption doubled between 1990 and 1998. When we include petrol, paraffin, and aviation fuels, Namibia's overall liquid fuel consumption amounts to over 60% of its total energy use. Over the same period, urban electricity consumption increased by nearly 70%.

All commercial energy resources based on fossil fuels are imported. About half of Namibia's electricity supply comes from South Africa.

Given the aridity of the country, water pumping, after mining and municipalities, is Namibia's third most energy intensive sector.

Although Namibia has a strong commercial energy sector that is capable of sup-

porting the country's commerce, industry, and service sectors, electricity is supplied to only 16% of the population, which is primarily based in urban areas. Over 90% of rural households rely on fuel-wood for cooking and heating.

Where does Namibia stand in terms of renewable energy, stand-alone energy generation, and energy efficiency?

Namibia is well endowed with largely underdeveloped or ill-managed renewable energy resources, such as solar, wind, and biomass energy.

Namibia has one of the highest solar potentials in the world, with some 3,300 hours of sunshine per year, which give it a potential average annual global solar radiation value exceeding 6 kWh/m<sup>2</sup>.

Along some parts of the Namibian coast, average wind speeds range between 6 and 8 m/s. Biomass, specifically wood, is very unevenly distributed, ranging from extreme scarcity to relative abundance. Some parts of Namibia are severely bushencroached, while other are prone to desertification.



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REINNAM, Renewable Energy Information Network of Namibia, is a non-profit organisation dedicated to the greater implementation of renewable energy and energy efficiency along with generally enhanced energy awareness in Namibia. The project has been in operation since 1997. It is jointly hosted by the Desert Research Foundation of Namibia and the Polytechnic of Namibia.



# A Solar Designer in Nepal

# How necessity made me a designer of sustainable devices?



By Sanu Kaji Shrestha, Nepal

# I thought I can use solar energy...

In 1995, due to some disturbances in the neighbouring country, there were heavy shortages of cooking gas

and kerosene oil in Kathmandu. I faced a lot of problems in getting these supplies. There were no other alternatives for cooking in my house, because I didn't have an electric hotplate. I had to queue up at the supply depots on sunny days.

While I was waiting to pick up supplies at the depot, I thought, why can't I use solar energy for cooking rather than waiting three/four days at the depot?

I discussed this with my family members and decided to bring a solar parabolic cooker from the Center for Rural Technology in Kathmandu. Then, I started cooking.

# I Started to think Sustainable

When using a solar parabolic cooker, I started thinking about some sustainable ways to avoid over-dependence on others for cooking gas and kerosene. Here is some of my thinking:

- Can we use solar energy in daily life?
- · Can we minimize energy cost at home?
- Can we really protect the forest from degrading?
- Can we efficiently use an available type of energy at home?
- Can we efficiently manage unproductive stuff (trash) at home?
- Can we think of reusing and recycling unproductive stuff for purposes of making energy-saving devices?
- Can we change our traditional cooking habits?
- Can we set up a sustainable kitchen at home?
- Can we make our locality pollution free?

In Nepal, 83 % of the population is without electricity. The rural households use 85% of the total energy consumed, 75% of which is fuelled by fuel wood.

I started research work as a hobby in designing and developing different varieties of low-cost, low-tech devices by reusing and recycling the idle stuff at home for:

- Maximizing use of solar energy in daily life,
- Creating awareness of efficient use of available energy and reducing its costs at home.
- Protecting the forests from further degradation,
- Encouraging people to reuse and recycle unproductive stuff,
- Showing impacts of traditional cooking habits in the training workshop and their cost implications,
- Encouraging people to set up a sustainable kitchen in an ecological way to have nutritious and delicious food by applying appropriate and sustainable technology, and
- Making people more conscious of environment and health.

So far, in my house, I have been able to reduce the energy cost by 40 %. But it should be more than 50 % if the house were built in such a design that the devices could be fixed for efficient use.

# Solar Water Pasteurizers Make Water Drinkable

I have been trying to create awareness among the school children on the use of the solar energy.

My grandson (see photo) is very much interested in this type of creativity.

I hope this photo will encourage the children in energysaving activities.

I am also creating awareness among the trekking industries with this photo.

This device was designed in such a way that you can pasteur-



ize the water either in a plastic or an aluminum bottle and also warm up the bread available at the trekking routes. We can not drink water in Nepal without boiling. So this device can equip the trekkers for pasteurizing the water for drinking, and it can warm the bread while they are walking. It can be easily fixed on the backpack. When you take rest on the route, you just hang it on the wall or tree facing towards the sun. It will work more effectively.

# 40% of Fuelwood Saved with Solar Destillation of Alcohol!

Apart from cooking, I would also like to draw your attention to the fact that every household in the hills and mountains in Nepal is doing some sort of alcohol processing. This processing takes about 40 % of their total consumption of fuel wood, which ultimately destroys the forests. In view of this worsening situation in these areas, I started my research work in making local whisky in a solar cooker.

The following photo shows the types of pots we use in making whisky and the top photo indicates the processing techniques demonstrating at a training workshop to the participants.



Sanu Kaji Shrestha has exhibited his devices at many workshops.

In 2001, he was a guest researcher at the Folkecenter for Renewable Energy, Denmark. He has been a consultant in studies on utilization of solar cookers and solar dryers in Nepal in 2001. He holds a B.A. in Economics. He is 57 years old and became a pensionist after he worked 20 years at the World Bank's Kathmandu office as assistant disbursement officer.

In 2002, he joined an NGO, FoST Foundation for Sustainable Technologies.

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# **PV Powering Cuban Schools**



By Mario Alberto Arrastía Avila, Physics Teacher at the Pedagogical University of Havana, CUBA, and Head of the Energy and Environmental Education Group.

1,944 remote schools got PV systems installed to be able to access the new information technology.

# **Driving Force**

Education plays a key role in the Cuban strategy for sustainable development. The achievements of the Cuban educational system are well known worldwide. A few years ago, the country ranked first among Latin American countries in excellence of elementary education, according to a survey carried out in the Latin-American subcontinent by the UNESCO Quality Laboratory.

In 1999, a new educational program was supported by the Cuban Ministry of Education. The aim of the program is to provide every school with the appropriate audio-visual teaching aids (TV sets, videos, and computers) to improve the quality of education. Among the activities that this technology will support are those designed to teach the advantages of renewable energy sources and to create environmental awareness.

In Cuba, the right to access to a suitable education is guaranteed for everyone. For this reason, the educational system reaches any place, no matter how remote it is, even mountainous sites. One of the problems faced during the implementation of the program was that some primary schools in the countryside had no sources of electrical power.





# **Remote Schools with PV**

The authorities realized that many schools could be powered by conventional energy, but that up to one thousand schools, many of them with fewer than ten or twenty pupils, would still be unable to benefit from this advanced educational program.

A decision was rapidly taken. In those places in which it was unlikely that the school could connect with the national grid, which reaches a bit more than 95% of the Cuban population, photovoltaic systems would be installed to supply the school with enough electricity to cover their needs to run the computers, videos, and TV sets for a number of hours every day.

This program has proceeded with the support of Ecosol Solar, a division of Copextel S.A., the enterprise that supplied at cost the PV systems and the know-how. On the other hand, Cubasolar, the Cuban NGO for the promotion of renewable energy sources and of environmental awareness, shared the work of the installation process with Ecosol Solar.

After a few months, the PV systems were installed in 1,944 schools in the countryside, which can now receive the benefits not only of the educational television, but also of access to the new information technologies, because Computing has been introduced as a compulsory subject in all levels of education.

By means of this project, thousands of learners and teachers now have access not only to TV lessons on various subjects, but also to other new sources of valuable information about history, science, technology, energy, and the environment, which will help to create a general and integral culture.







The photos show PV systems installed at different schools in Cuba.

# **Latest News:**

Recently, in the summer of 2002, Luis Berriz, president of Cubasolar, together with Mario A. A. Avila inaugurated a Laboratory for Solar Energy Education at Volodia Educational Center, in Havana City, Cuba. This major step was supported by Germany and by the German NGO KaRen.

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# The Green Greenhouse, Johannesburg

New Green Center opens in Johannesburg. Just in time to visit during the Johannesburg Summit!

In Joubert Park in the Gauteng area in Johannesburg, the Green House Project (GHP) is developing a center for local sustainable development. The center is located in old greenhouses and in other houses made for gardening in a corner of the park. The purpose of the center is to provide information and resources for environmentally benign and social just development.

The first phase of the development of the center has just been finished. A building is renovated and converted into a resource center for sustainable development and its surroundings are converted into a demonstration garden. The center includes demonstration of water- and energy-saving solutions, permaculture, natural surface treatments, and rainwater collection, as well as meeting rooms and offices. The conversion of the building is in itself a demonstration of how existing buildings can be re-used and transformed into environmentally benign buildings. An old roof with asbestos has been removed and other building materials have been recycled (earth, steel, etc.).

For the entire project, there is a master plan incorporating green solutions at all levels, transforming the visions of the project into physical constructions.

Each building or area will reflect a theme, with some of the

many sustainable solutions that are particularly relevant for people in South Africa. Together, the themes will form a collage for sustainable development. This collage-strategy also facilitates the development of the center in several phases.

Experiences gained from one phase can be applied to the following phases. In this way, the center can evolve continuously and can reflect the project's continued research and development in environmental solutions.



Photo: One of the Victorian greenhouses, which is integrated in the project.

GHP is a project of Earthlife Africa, conducted in co-operation with OVE, The Danish Organisation for Renewable Energy. The area and buildings were donated by the Johannesburg City and the project is supported by the Danish Environmental Assistance Program.

More information: e-mail: ghouse@earthlife.org.za ph.+ 27-(0)11 403-6056, www.earthlife.org.za.

# **INFORSE** in Dams & Development Forum

A new forum about dam development. INFORSE is represented

Following the work of the World Commission on Dams (WCD), a Dams and Development Forum (DDF) has been formed. This forum will give inputs to UNEP's new two-year Dams and Development Project (DDP), which will follow up on the World Commission on Dams.

INFORSE was represented at the first

DDP meeting on July 8-9, 2002, by Francisco Eduardo Mendes from LIMA, the Latin American INFORSE coordinator in Brazil.

Read more on DDF and DDP at www.unep-dams.org or contact Francisco at the e-mail: femendes@plantae.lima.coppe.ufrj.br.



# **INFORSE Secretariat Moved to Eco-Village**

**New Inspiring Location** 

Secretariat in May, 2002, it is now located in a Danish Eco-Village in Hjortshoej, in an office and exhibition building, together with INFORSE-Europe and the Sustainable Energy News editorial office.

Though limited in space, the new office opens up the possibility of including a temporary volunteer, e.g. for development of INFORSE co-operation projects.

The eco-village is also an inspiring surrounding for the Secretariat.

New address: Following the changes of the INFORSE Gl. Kirkevej 56, DK-8530 Hjortshøj ph: +45 86227000, fax:+45 86227096 ove@inforse.org www.inforse.org





# To be Part of the Logic of the Territory

# A view on the future development of renewable energy

By Emmanuel Poussard, CLER, France

Renewable energy has always benefitted from a good image in the eyes of the general public. Thanks to the significant volume of work performed in the last 10 years, political decision-makers have been convinced of its importance as a local development tool.

Today, the crunch issue has shifted from the utility or viability of renewable energies to the search for the means for their implementation. Several wind-energy projects that have met with strong opposition in the heart of France are an illustration of this shift. A cooperative approach from the outset, involving all actors (individuals, farmers, businesses, elected officials, etc.), would have created true local support and acceptance of these wind-energy projects.

The CLER (Comité de Liaison Energies Renouvelables) is a national network in France gathering non-profit organisation members and professionals in support of renewable energy.

The CLER emphasises the importance of local involvement so that, in years to come, through the creation of local trade networks and social acceptance, all renewable-energy projects become part of the logic of the territory.

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> Photo: Neg-Micon

# **Publications**

# **Sustainable Energy News**

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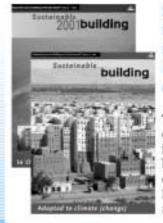
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# **INFORSE** in Brief

INFORSE is a global network of independent non-governmental organisations working for sustainable energy solutions to reduce poverty and protect the environment. It was formed at the Global Forum in Rio de Janeiro, Brazil, in 1992. Currently the network has about 150 members.

INFORSE's common vision is to develop a world where energy services, necessary for a just and human centred development, are provided in a sustainable way using renewable energy. This implies phase out of nuclear and fossil energy consumption, and increased reliance on local solutions.

INFORSE is open to membership for independent non-governmental, non-profit organizations. Membership is free of charge. Activities include meetings workshops, campaigns, and projects. INFORSE lobbies for and develop projects to promote sustainable energy solutions.

INFORSE participated in several UN events and their parallel NGO Forums including: Conferences of the UN Climate Convention, Combating Desertification, and follow-up of the Rio Conference. INFORSE has Consultative Status to the UN.

INFORSE publishes this quarterly newsletter "Sustainable Energy News" and the annual "Contact List" including 800 addresses of organizations in the field.

Focal Points: