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Photo on the front page:
What shall I say to my daughters? Please read the editorial and the Theme: Gender & Energy

Photo montage based on a photo made by Casper Balslev.

What shall I say to my daughters ?

How to explain an unequal world? How will the world look in 2050?

As a mother, I need to answer the questions of my daughters. I need to explain how the world looks. And they ask: *"Why is it so?"*

And I try to explain: Well, the world does not look like what I would like it to be. There are people in this world who are very poor. And people who cause a lot of pollution, harming nature as well as the health of all of us. Living in Europe, you contribute to the pollution by the very ways in which our technologies are used.

Unfortunately, there are few women among our leaders, few involved in the decisions. Just looking at the news on television, you can see they are all men who are signing agreements and sitting around the negotiating tables. *Maybe if there were more women involved in decisions there would be less war, less pollution, and less poverty in this world?*

"Why is it that there are so few women who make these decisions? " -
This is difficult for my daughters to understand! And …watch ! What shall I answer ? Obviously, now I need to tell them that women have fewer opportunities, and that they often bump into an invisible "glass ceiling" if they try to become leaders, - and it hurts.

If I tell them that the glass ceiling is there, they can avoid bumping into it ! But then I should tell them not to be so ambitious, so they might become happier in their private lives.

This is a dilemma…. And even in the most gender-sensitive countries, unwritten rules exist. In the kindergarten, the boys play more with weapons, make more technical constructions, have more physical fights. *Nice brave boys.* But when a girl does the same, we tell her that *a nice girl should not do such things.* And then the girls play with dolls, act out family role plays, and make nice drawings.

Judit Szoleczky
editor

When the boys grow up, they are the ones who make the decisions in favour of wars and "fantastic" but polluting, technical solutions. At least, they are the main supporters of nuclear power (see page 5). The choices for peace and clean, simpler technical solutions are there, but decision-makers - mostly men - have not been rewarded for looking for those. And the women do not have a say.

I do believe that there is need of a change in our way of thinking! We need to tell that when you shoot, people die; when you pollute, people, plants, and animals get ill; and when you get richer, others get poorer. - This is what I tell my children. - But we need to be many to change the status quo. And we need to work on many levels. Education of children is part of this. More gender equity in our society is another part. And the gender perspectives in energy that we cover in this issue is an important part of that.

The world is changing. There are more women than ever before that get education and regular jobs. Cleaner technical solutions like wind and solar energy technology are continuously improved, increasing the opportunities to choose a softer path. There are more and more voices - also from men - for a more sustainable development. And at home the household chores are more equally shared than before, at least in some parts of the world.

But how long time does it take before we see a change to sustainability and equality on a world scale? Or just to make the world so much more sustainable and equal that our children can have better messages for their children than we have for them?
I do not know. *But we should work for it! And sometimes changes come sooner than we think.*

With this issue of Sustainable Energy News, we focus for the second time on women, and sustainable energy. The first time it was in 2001. Since then, there have been continued efforts to bring gender issues - and sustainability - into energy and climate issues. *There is still a lot to do; but we continue.*

Gender Issues Missing in Climate Talks: Action Needs to be Taken

An informal meeting organised by LIFE, GENANET and ENERGIA, took place in Milan December 2003 during the 9th Conference Of Parties (COP9) of the Climate Convention. The 30 participants, from the NGO world, from indigenous people's groups, and from bi-lateral parties, evaluated the COP processes and agreed that gender has been a missing factor in the climate-change negotiations. A consensus emerged that COP organisers and participants need to be pressed to make gender issues much more visible.

The participants agreed that gender, like poverty, is a cross-cutting issue in climate change and that it needs to be recognised as such. In fact, gender and poverty are interrelated and create mutually reinforcing barriers to social change. There is a need to be strident to overcome the uninformed view of many involved in climate-change that climate change is gender-neutral, and real-life examples are needed to make the alternative case clear and convincing.

Five Main Issues & Groups

Five main issues were identified:

- Lack of gender specificity in the criteria related to the climate-change instruments.
- Lack of gender specificity in relation to the vulnerability/adaptation discourse.
- The need for case studies that illustrate how climate change itself and projects, of mitigation as well as of adaptation, affect men and women differently.
- The underlying gender connections between climate-change agreements and other international processes such as the Biodiversity Convention, and health-related treaties on pesticides, etc.
- The lack of participation of women in the whole process.

A number of cross-cutting issues were also identified, including how to tackle the lack of awareness of these problems at the national and local levels.

Subgroups were set up to deal with each of the 5 themes listed above. The subgroup coordinators are: Ulrike Roehr, Anne Pinto, Leanne Wilson, Roselyne van der Heul, Olga Speranskaya, and Stella Lamang.

The meeting also initiated a new network, *"Gender and Climate Change Network"*.

COP10 Event

At COP10 in Argentina, a new meeting was organised as a side-event. The title was "From theory to practice: analysing gender impacts of climate change policies and mechanism" (December 10, 2004). At the event there was a discussion on how instruments to analyse gender issues fit to climate change mechanisms.

Read more about the new network and a report from the side-event at COP10: http://www.gencc.interconnection.org .

Where is the Gender Perspective in the Rio Conventions?

The United Nations Convention on Biodiversity, the UN Framework Convention on Climate Change (UNFCCC), and the UN Convention to Combat Desertification (UNCCD), known as the Rio Conventions, are the three main international legally binding agreements for sustainable development. They represent the legal outcome of the 1992 United Nations Conference on Environment and Development (UNCED).

The agreement signed by heads of state on that occasion, Agenda 21, which identifies the priority action for sustainable development, states clearly that empowerment of women and men is indispensable for sustainable development.

However, throughout the convention texts and implementation mechanisms, the gender perspective of Agenda 21 seems to have been unevenly upheld.

You can read a comparative overview of the level of gender mainstreaming in each of the international instruments relating to the Rio Conventions at Gender Perspectives on the Conventions on Biodiversity, Climate Change, and Desertification, by Yianna Lambrou and Regina Laub (FAO). Downloadable from http://www.gencc.interconnection.org/ .

THEME: Women & Energy

One of the typical picture of a decision making group with only a few women. Photo: Leaders of the EU-25 European Council, "Enlargement day" Dublin 2004.

Photo: Maxwell's, Irish Presidency

Gender is NOT Something to Ignore!

Why gender issues need to be more strongly integrated into renewable energy policies, planning, and projects, to increase sustainable energy access for women

Shortened and edited by the editors of SEN, from ENERGIA's position papers (INFORSE member), and materials provided by Ulrike Röhr from LIFE and GENANET on the nothern perspective.

Empowering women and improving their status are essential to realizing the full potential of economic, political and social development. Empowering women is an important equity- and human-rights goal in itself. Yet, gender disparities continue, despite economic growth highlighted at the Beijing conference in 1995 and at Beijing+5 in June 2000. For instance:

- 70% of the approximately 1.3 billion people living in poverty are women;
- Women have access to a disproportionately small share of credit from formal banking institutions, e.g., only about 10% in Africa;
- Women in general receive much lower average wages than men;
- Globally, women occupy only 10% of all parliamentary seats and only 6% of cabinet positions;
- Throughout the world, women face unequal treatment under the law, and they often face violence and abuse as both girls and women.

Women's key roles and interests in energy consumption and production:

North AND South Perspective:

- Women are the principal consumers and users of household energy and transport, together a major portion of total energy use; they are also purchasers of stoves, automobiles, and other energy-using appliances as well as the selectors of cooking fuels;
- Women are the main actors in determining their household's direct and indirect energy consumption - use of heating, air conditioning, hot water, and electrical appliances; the choice of time of use (and therefore of peak use); household purchases, which may be more or less energy-intensively produced; and the use of household transport;
- Women are victims of environmental pollution due to energy use, particularly vulnerable due to their reproductive roles and household responsibility for cooking; and as victims of high energy prices and expenditures, especially female-headed households that make up a large portion of the poor;
  — Women in the North have been particular victims of exposure to nuclear radiation and, as a consequence of their exposure, suffer higher levels of stress than men following radiation incidents.
  — Women in the South have been victims of unregulated pollution caused by old, improperly maintained equipment exuding pollutants into the air.
- Women are more frequent users of public transport and pedestrian walkways than men;
- Women are the primary educators and formers of their children's future energy conservation and consumption habits;
- Women are effective activists on energy questions in health, environmental, children's, and peace-related organisations and issues, ranging from community education for recycling, to lobbying for sustainable energy, to anti-nuclear protests.

Southern Perspective

Bearing in mind that, in developing countries, energy security is related to health security, food security, and livelihood security because

- Rural women (and their children) are the primary collectors of wood and residue fuels, which account for 80% of all household energy use in many developing countries. Based on FAO estimates, the proportions of rural women affected by fuelwood scarcity range from 60% in Africa, to nearly 80% in Asia, and nearly 40% in Latin America. Time spent in fuel collection in fuel-scarce areas can range from 1 to 5 hours per household per day. Where fuel is commercialised, women's work must pay for purchasing household energy.
- The real rural energy crisis is rural women's time, with women working longer work days than men in providing human energy for survival activities such as fuel and water carrying, cooking, food processing, transport, agriculture, and small enterprises, non-paying work which is largely invisible in national energy accounts and labour force statistics.
- Many income activities of women in the informal sector - often critical to family economic survival - are fuel-intensive, and the viability of these activities is affected by energy prices and availability.
- Energy scarcity impinges on the provision of other basic services, such as water, health, and education. For example, the proportions of rural women affected by water scarcity are estimated to be 55% in Africa, 32% in Asia, and 45% in Latin America, with a median time for collecting water in the dry season of about 1.6 hours per day.
- More than half the world's households cook daily with wood, crop residues, dung, and untreated coal, as a result of which women and children have the highest exposures to indoor air pollution, linked to acute respiratory infections, chronic obstructive lung diseases, low birth weights, sinus headaches, lung cancer, and eye problems.
- Women deal with risky and hazardous environments as gatherers; they move through difficult terrains as porters. Other occupational health hazards for women involved in energy use and production include bone fractures, repetitive-strain injuries, sprains, back disorders, and miscarriages due to fuelwood-load carrying; also, exposure to burns and smoke as well as skin diseases in informal-sector enterprises.
- Physical and psychological violence against women have been reported: rapes while gathering fuelwood around refugee camps in Somalia, facing sniper fire to gather fuel in Sarejevo, and bride suicides related to women's inability to meet their family's wood fuel needs in India.
- There are few women who have access to the education and support systems necessary to negotiate careers in the energy sector, hindering the development of energy policies and technologies better suited to women's needs and wishes.

Northern Perspective

At a first glance, the different roles of men and women in northern society may not seem so clear as it is in the South. A closer look shows that gender is still not something to ignore.

While ever more women join the paid workforce, they continue to shoulder responsibility for household tasks as well as for child care, making them, of necessity, one of the major users of energy within the household.

In the North, more women than men live below the poverty line, suffering from fuel poverty in a colder climate than in the South.

Surveys taken in the North show that:

- *Women have a greater concern for the environment than men.*

- *Women tend to be more favourable than men to "soft" energy measures, i.e., renewable energy and energy conservation.*

- In Japan, women were found to be more inclined than men to turn off lights in rooms not in use, to adjust air-conditioners to moderate temperatures, and to use public transport in preference to cars.
- Considering transport use, a survey in Sweden shows that, among households with roughly equal incomes, women used less energy than men. This finding is not only related to work patterns, but also to leisure activities: women tend to pursue leisure activities that are closer to home than those of men.
- Women scientists within the EU were found to have a strong preference for research in renewable energy and energy conservation.

- *Women reject the use of nuclear energy considerably more firmly than men.*

- In Finland, only 14% of women, compared with 46% of men, support the long-term use of nuclear energy.
- In Germany, 46% of women, compared with only 20% of men, fear that nuclear power stations could become the target of terrorist attacks.
- In Sweden, in the late 1990's, 80% of young women were found to be against the long-term use of nuclear power, and 63% of men had no objection to waste being stored in their own municipality as opposed to 34% of women.
- Women have been leading activists in the anti-nuclear movement Women even established new organisations in this cause, e.g., MAMA -86 in Ukraine and Rainbow Serpent in Japan.

The correlation between gender, level of education, and attitude to nuclear energy is also striking: the more educated women are, the more negative is their attitude toward nuclear energy, while the opposite applies in the case of men, whose attitudes are more positive the higher their level of education.

Bearing in mind that in the North, women have shown a deep concern with energy choices, yet are under-represented in the sector:

- Despite the social changes since the 1960s related to women's emancipation, women and men still do not play equal roles in the public life; men still dominate in political spheres as well as in science and engineering.
- Despite women's increased access to educations in science and engineering, they still are a minority in engineering- and technology-related fields, including energy studies.
- The energy industry is perceived as a male preserve. The sector suffers from the perception that it offers professional careers dominated by 50-year-old males, particularly in the technical areas. For example, the share of women in the technical staff in the energy industry in Germany is around 6%; in decision-making positions, 4 %; and in the top management, less than 1%.

Despite the very small representation of women in decision-making in general, a sign of possible paradigm change is that many women active in the antinuclear and environmental movements managed to put many issues in the political agenda, also successfully contributing to the founding of the Green Parties in Germany and in New Zealand.

Energy companies are beginning to recognise that women bring particular benefits to workplaces, and, hence, that women contribute to more balanced and efficient organisations.

Networking

Due to the under-representation of women, women in the energy sector, like any other minority members, can often feel isolated. Networking has proven valuable to women in the energy sector, both in the North and in the South. Often, networks include working with men who are interested in gender issues.

You can find links to several national networks on the web site of ENERGIA and GENANET.

The term "North" as used above covers the industrialised countries belonging to the OECD Countries, extended to include the Eastern European countries.

*Women represented as stakeholder group at REC 2004 by ENERGIA.,LIFE, WECF. LIFE organised a side event at COP10 together with the newly formed "*Gender and Climate Change Network". *See page 3.*

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Gender - the Forgotten Pillar of International Climate Policy

With the Kyoto Protocol entering into force early next year, international climate policy will become increasingly important for the design of policies and measures in the energy sector.
A focus on "Gender & Energy" is important in shaping the future framework conditions set in this policy field.

By Bernd Brouns (left), and Meike Spitzner (right), senior research fellows at the Wuppertal Institute for Climate, Environment and Energy, Germany

Edited by the editors.

Taking stock: Gender in the Climate Regime

Analysing the two key agreements that constitute the basis of the climate regime reveals that neither the Climate Convention nor the Kyoto Protocol contains wording on the need for active contributions of climate policy (like all policy areas) to the internationally agreed-upon goals of improving gender justice and empowerment of women. A closer look at the decisions adopted at the annual climate conferences (COPs) confirms the impression that the activities and regulations in this policy arena are designed from men's perspective, doing little to ease the climate issues affecting women the most.

Almost 15 years of negotiations have produced no decisions that deal with gender issues. Only one deals with the problems of gender asymmetries, and that one focuses on procedures of participation and not of substance. Adopted at COP7 in 2001 on the initiative of the Moroccan COP President, it *"invites Parties to give active consideration to the nomination of women for elective posts in any body under the Convention or the Kyoto Protocol"* and *"requests the secretariat to maintain information on the gender composition of each body (…) and to bring this information to the attention of the Parties whenever (…) a vacancy occurs"*. As a result, the secretariat includes a reference to this decision in each COP agenda and provides a spreadsheet of the gender composition of bodies to the negotiators. Reminding negotiators with a leaflet in their office mailboxes appears to be the only activity concerning the gender problems in the formulation of climate policy.

This singular weak measure is not really the kind of policy action that was envisioned with the adoption of the Rio Declaration at the World Summit on Environment and Development (1992), and in the Beijing Declaration and Platform for Action at the Fourth World Conference on Women (1995).

The latter calls explicitly for a paradigm change in designing *all* policies and measures, to act upon the international (agreed) consensus that sustainable development is impossible if dimensions of gender justice are not integrated.

It also prescribes the implementation of the following instruments: gender analysis of all programmes, measures, and actions; gender budgeting in all respective areas; generation of knowledge on the linkage of gender and environment; full participation of women in decision-making processes; and actively securing their access to power and resources ("empowerment").

Climate negotiators discussing key issues at the Special Climate Fund's "Chairman"'s desk, 2003, COP9 in Milan, Italy.
Photo: www.iisd.ca/climate/cop9/

It is not only politicians who have ignored gender issues in climate policy, but also most of academia and most NGOs. For this reason, there are hardly any resources available for knowledge generation, competent debate, and exchange on the (inter)national level, and no stable research and no lobbying networks. This has resulted in a lack of gender-balanced concepts and instruments of climate policy.

The handful of literature available, mainly focusing on the impacts of climate change, clearly shows that climate change is very likely to exacerbate the already existing gender inequalities. One of the reasons for this is that, especially in developing countries, the environmental degradation caused by climate change will disproportionately affect women as they are often primary natural resource users and managers. This is so because women (and not men) are given the responsibility for subsistence economy and for the work of caring for others. Therefore, climate change tends to increase women's already unfairly large workload while further limiting their access to natural resources. Another reason is that the poor classes of the population, most of them, women in both the South and the North, are more vulnerable to climate change, as they lack resources to adapt to the impacts.

In comparison to this work on the impacts of climate change, it is evident that there is a lack of gender analysis focusing on the production of climate change. Such expertise exists only in a few areas, e.g., in transport. An important help for gender analysis is the focus on *androcentrism*: production of problems by using as a standard for all the special perspective of middle-aged employed men. Feminist transport research in several European countries has shown that androcentric policy orientations *produce*, rather than mitigate, climate-damaging

effects and expenses that public space and private households have to cover. Researchers found significant examples of this effect in traffic planning and "scientific" mobility methodologies as well as in policies of infrastructure and transport, affecting, e.g., transport volume, requirements, and expenditures. In each of these cases, once again, progress towards gender equality is damaged and women are disproportionately harmed. This happens over and over again, despite the fact that women, more than men, tend to use means of transport that cause fewer social, environmental, and climate-harming effects; women use more public transport, own fewer cars, etc. Women in the North have fought this deeply entrenched male-dominated planning structure with its problematic "rationales" and infrastructure policies, thus far with little success.

Not only climate change impacts, but also the political responses to deal with climate change – namely mitigation and adaptation – need to be looked at with a "gender lens". Till now we have no analysis of the design of climate policies proving that concepts, negotiations, and instruments that are free of androcentrism and gender-counterproductive effects are sustainable. In theory, instruments like the Clean Development Mechanism (CDM) of the Kyoto Protocol could offer an opportunity to promote gender equality, e.g., by facilitating access to renewable-energy technology for women. The concern about the CDM is that its implementation nevertheless leads to projects that tend to yield profits and burdens along existing gender-hierarchic lines.

All in all, the dominant debate on a supposedly "common" climate policy that completely neglects gender-related issues is irrational. Current knowledge tells us that climate change especially impacts women, in both North and South. Women are especially likely to be poor; to be the caregivers; to be potential victims of men's violence and of hierarchical structures of society. These concerns are exacerbated by the problematic role of men in North and South. Nor is the extent of debate very understandable, as the dominance of men's participation and the rationalities of societal masculinity – for instance, the over-valuation of technologies, markets, and large-scale projects – have been obvious.

The small debate on gender and climate policy has focused up to now on climate change and, within this, on the impacts of neglecting the gender dimensions of policies and of the dynamics leading to climate change. Geo-economically, most research and political articulation focuses on developing countries. Current perspective on gender fails to illuminate the harmful effects of men's dominant role within the gender hierarchy. It focuses instead on women as victims, not on their time, and other investments to help prevent climate change. Few analyses have focused on industrialised countries. The causes of climate change in the energy and transport sectors, as well as the concepts and effects of climate-protection activities, are irregular and are affected considerably by gender-biased policies.

Post-2012 Negotiations: New Opportunity for Gender Reliability of Climate Policy!

However, despite this rather devastating assessment, there are opportunities for effective re-orientations within the climate regime towards gender justice and sustainability in the near future. Starting in 2005, climate negotiations will enter a new phase that focuses on the further development of the Kyoto Protocol beyond its first commitment period (2008-2012).

This means that there is a chance to broaden and modify the conceptual framework and the setting of instruments laid down in the Protocol by influencing the agenda-setting of negotiations at an early stage. Starting points are abundant.

A recent publication of Genanet includes a most worthwhile list of proposals aiming at a gender-competent climate policy. Some of its conclusions are:

- All climate-protection measures and programmes, as well as all instruments for slowing climate change or adapting to changes in climate, must be submitted to a gender analysis.
- Women must be involved at all levels of negotiations and in all decisions on climate protection. However, this does not only mean a representation based purely on numbers, but also ensuring the participation of gender experts from relevant areas (energy, transport, agriculture etc.).
- The gender perspective must be universally integrated into climate negotiations and into the formulation of climate-protection policy at the national and international levels.

Cooking using biogas is also reducing climate impacts. Photo by ENERGIA

- Policies and programs must take into account the differing situations of women and men, including within the structural gender hierarchy, along with their different needs, opportunities, and goals.
- All analysis of problems and the description of situations in the area of climate change and climate protection must be analysed with data on gender-problematic dimensions, each in a gender-differentiated way. Rewriting the guidelines to elicit gender-sensitive input for the national reporting scheme of the Convention about climate-related policies and measures could provide these valuable data from each country. It's precisely in the North that these data are lacking!
- Gaps in knowledge of the connections between gender and climate protection must be closed. The first steps involve designing and financing research projects specifically engineered to illuminate such connections.
- A monitoring system must be set up at national and international levels to ensure the universal integration of the gender perspective and, where necessary, to call for its implementation.

Taking into account these issues would provide a basis for the *start of a new era* of truly multilateral international climate policy that accords equal authority and participation to women.

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Gender-Sensitive Framework for Rural Electrification Projects

by Johanna Gregory Partin, Winrock International

There is a growing emphasis on *demand-based*, rather than *supply-driven*, infrastructure services for less developed countries.

Simultaneously, there is increasing evidence that end-user needs and impacts, with their implications for issues involving poverty and gender, must be analyzed and addressed when designing, implementing, monitoring, and evaluating investment projects.

It is also recognized that increasing program responsiveness to the specific needs of all customers (men, women; rich, poor) is good business; the more the services respond to specific needs, the more successful the projects are likely to be. However, most often the rural poor, and women in particular are underrepresented in the context of conventional rural energy projects, and there is still much uncertainty about how to apply gender-sensitive approaches at the operational level in the energy sector.

This transition in strategies and operational practices toward greater gender-aware energy projects has created a need to develop planning and management tools that assess end-user *needs* and monitor and evaluate social development-related *impacts* of investments in the energy sector.

An initiative sponsored by the World Bank Asia Alternative Energy Program / Energy, Poverty & Gender Project and the Energy Sector Management Assistance Program to develop a *demand-focused* framework for designing, monitoring and evaluating rural electrification projects with specific focus on gender and poverty in an attempt to respond to this challenge.

Participatory energy system mapping in Columbia

The framework builds on two different types of techniques:

- Participatory assessments at the community, institutional, and policy levels; and a
- Socioeconomic impact survey at the household level.

The typical rural electrification project cycle has four stages: preparation, design, implementation, and post-project impact assessment. The approach advocated by the Framework, however, begins the monitoring and evaluation (M&E) process at the preparation stage of the project, so that the input of the potential beneficiaries is taken into consideration in the initial phases of the project cycle. Beneficiaries' input is then addressed during project implementation and incorporated into the M&E strategy (Figure 1).

Understanding the implications of rural electrification initiatives on social development, especially poverty and gender, is critical to the success of rural electrification projects. The use of both qualitative and quantitative tools can help provide a complete picture of different groups' needs and priorities and of how they are impacted by the project. Monitoring and evaluation should not be used as a post-project data-collection exercise, but rather as a means of generating the information necessary for making project improvements throughout the life of the project. The demand-focused framework projects is an initial step toward incorporating the socioeconomic development impacts of rural energy services as an important component of the project development process.

Key Variables of the Demand-based framework:

- Effectively sustained
- Equitable access and use
- Degree of change in cross-sectoral social development indicators
- Division of burdens and benefits
- Participation in service establishment and operation
- Institutional support for gender & poverty sensitive demand responsive participation
- Policy support for gender and poverty sensitive demand responsive participation

The methodology's tools were tested as part of the preparation for the renewable energy component of a World Bank-supported rural electrification project in Cambodia. The methodology has been applied in a USAID program providing improved energy services for community development in Georgia.

For more information, contact Johanna Gregory Partin, Clean Energy Group, Winrock International,
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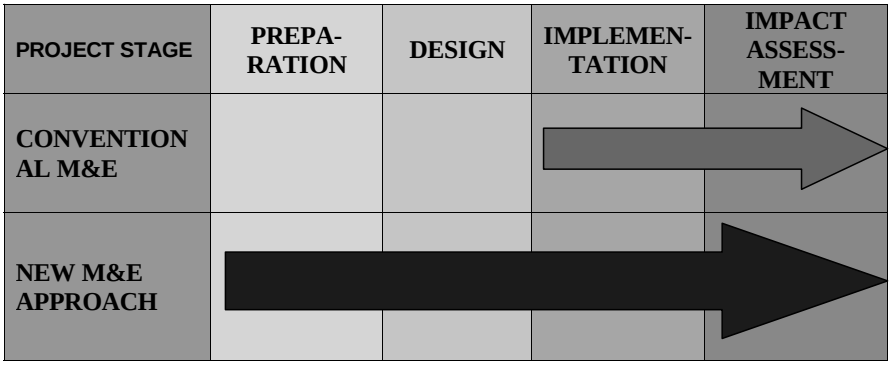
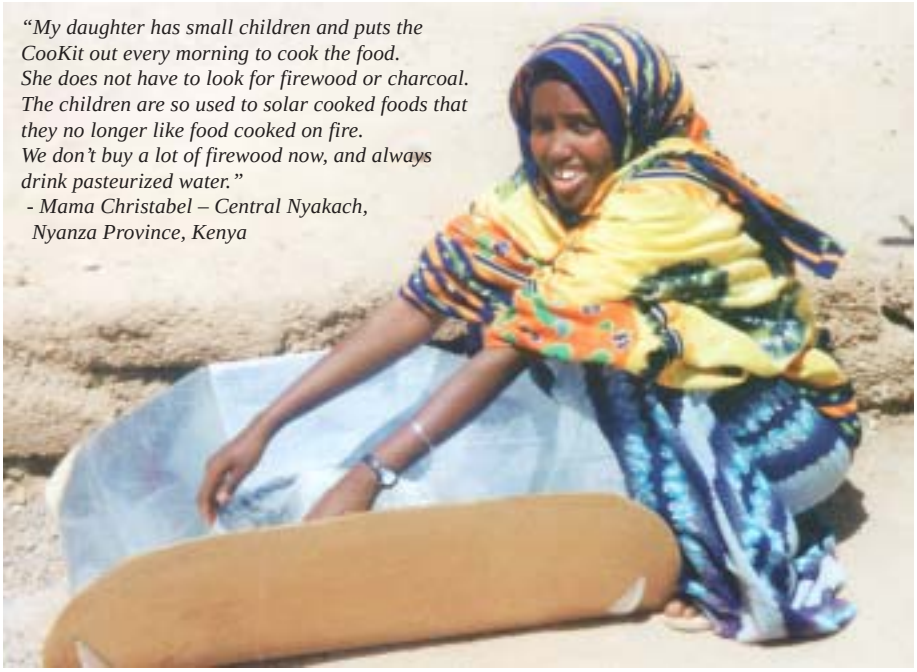
www.winrock.org



Portable CooKit to Save Millions of Lives

Cooking is generally a women's activity and one that most policy-makers too easily ignore

By Pascale Dennery, Solar Cookers International, USA



"My daughter has small children and puts the CooKit out every morning to cook the food. She does not have to look for firewood or charcoal. The children are so used to solar cooked foods that they no longer like food cooked on fire. We don't buy a lot of firewood now, and always drink pasteurized water."
- Mama Christabel – Central Nyakach, Nyanza Province, Kenya

The challenges are daunting:

- 2.3 billion people rely on traditional biomass fuels for cooking and heating;
- 1.6 million people, mostly women and children, die each year as a result of smoke from indoor fires;
- the majority of families in developing countries lacks sufficient fuel to pasteurize drinking water to protect children against waterborne diseases.

Clean, renewable solar energy can be used not only to generate electricity (for lighting and other applications), but also, directly, to cook meals. Simply put, solar cookers concentrate heat from the sun to cook food and to pasteurize water. Use of solar cookers has been proven to reduce consumption of wood and charcoal by an average of one-third.

CooKit for US$ 3-7

A simple, portable, panel-style solar cooker, called the "CooKit," was developed by Solar Cookers International and has empowered over 30,000 African families to cook with the sun. The basic design for this cooker has been copied, adapted, and reproduced using a variety of materials - in 25 countries.

Its cost (US $ 3-7) means many women can purchase one with their own money. For these women, solar cooking allows for longer intervals between trips to collect firewood and for reduced fuelwood expenditure, with savings to meet other household needs, less time spent tending smoky fires, and more time for income-generating activities. Young girls in solar-cooking households have more time for studies when freed from firewood-gathering. Some men now solar-cook, given that they no longer need to tend a smoky fire. Additional benefits of solar cooking include retention of nutrients and flavors during the cooking process and the fact that long-cooking, fuel-intensive foods such as beans and stews can be reintroduced into diets.

Cooking is generally a women's activity and one that most policy-makers too easily ignore. Investment in energy innovations such as photovoltaic systems, small-scale hydropower, and next-generation fossil-fuel technologies often has more appeal than investment in technologies that address directly the extreme cooking-energy famine in dry, sunny, environmentally depleted areas. That said, policy-makers, donors, and civil society are coming to a better understanding of the relationships among access to energy services, sustainable development, and economic growth. The next step is adoption of supportive policies that increase local commercial access to all kinds of affordable and renewable energy services.

Expanding access to modern energy services is critical to achieving United Nations Millennium Development Goals and carbon emissions targets. As one of these services, solar cookers cannot be overlooked any longer. Solar cookers use a decentralized, renewable, emission-free energy source, and many are quite portable. In addition to family-level benefits, widespread solar cooker uptake reduces regional dependence on local, wood-based resources and imported fuels.

More than a half-billion people currently experiencing severe cooking fuel scarcities living in climates where solar cookers could be of most benefit.

For them, tapping solar energy for cooking is a prerequisite for a sustainable, healthy, and more prosperous future.

Urgent action is needed today to integrate solar cooking fully into the menu of available energy services and to improve living standards for women and families worldwide.

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See also article in Sustainable Energy News issue # 32, 2001

EU Policy

Edited by Gunnar Boye Olesen, INFORSE-Europe

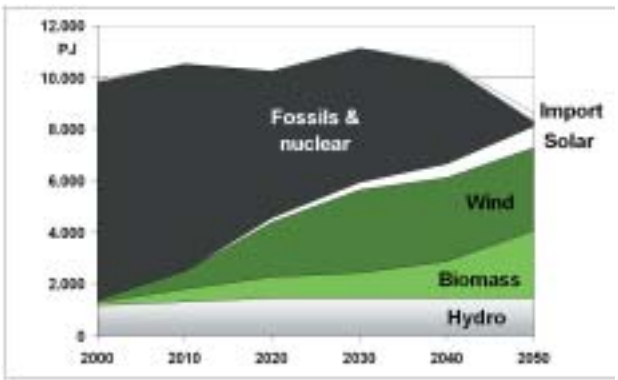
Vision2050 for EU-25

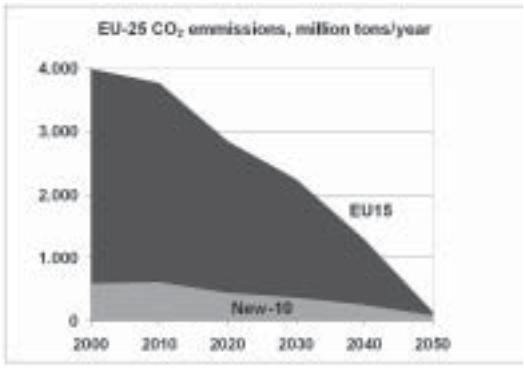
Since INFORSE launched the vision for sustainable energy development for the 15 "old" EU countries in June, the vision has been consolidated. Until 2020, the development of renewable energy generally follows the forecast of the European Renewable Energy Council (EREC, forum for the renewable energy industries), but with a bit more windpower and less biomass use. The vision also includes realisation of a factor-4 increase in energy efficiency by 2050 for most sectors, a modest growth in demand for energy services, and a vision of a sustainable transport system using 2/3 of today's car transport and road freight, but much more public transport, in particular on railways.

To this vision for the EU-15 is now added a vision for the 10 new EU countries, with:

- more growth in energy services than in the "old" EU countries, including growth in transport,
- use of the renewable-energy potentials, and realising a factor-4 increase in energy efficiency in most sectors.
- More conservative estimates are used for the new countries, since less is known about their renewable-energy potentials. In addition, their efficiency increase might be larger, given their relative low current level of energy efficiency.

The following graph illustrates the development envisioned in the vision for the 25 countries.





INFORSE Vision 2050: For CO_2-emissions, a steady decrease is foreseen from the year 2000, except for a small increase in the "new" EU countries in 2000-2010. The reduction foreseen in 2020 is 30%, and in 2050, 96%.

More info on the Vision 2050:
www.inforse.org/europe/vision2050.htm

INFORSE Vision 2050 for EU-25: Electricity demand is expected to grow until 2030 because of electricity use in transport, including hydrogen production, and then to decrease because of increased end-use efficiency.

EU Countries Must do More for Energy Efficiency

The EU countries have decided to establish their internal markets without mechanisms to increase energy efficiency to cost-effective levels, and because of that individual countries cannot reach their full cost-effective potentials for energy efficiency unless EU-legislation is introduced to promote energy efficiency. Despite this need, the EU energy ministers could not agree upon the proposed directive for end-use energy efficiency (the "energy-service" directive) at their meeting on November 29, 2004 in Brussels. At the same meeting, they decided to remove provisions for demand-side activities in their agreement on a directive for security of electricity supply.

INFORSE-Europe regrets the lack of agreements for energy efficiency, and urges the countries to:

- re-introduce provisions for demand-side activities in the security-of-electricity-supply directive,
- agree to progressive targets for energy efficiency, to guide the harnessing of energy-efficiency potentials, at least as it is proposed in the "energy service directive", and
- agree on a framework for increased activities for energy efficiency, including the proposed provision for energy distributors in EU to support energy-efficiency programs for their customers, e.g., financed from the network charges for electricity, gas, and heat networks.

Recent evaluations have shown the cost-effectiveness in Denmark of energy-efficiency programs targeting electricity consumption and financed with a part of the network distribution charges. Consumers' savings due to increased efficiency more than offset the extra network fees. Such schemes must be supported by EU legislation as proposed in the directives.

New Records in Renewables

Development of renewable energies in 2003 set new records. For the 15 "old" EU-countries it is now possible to follow the annual development of a number of renewable energies: windpower, solar thermal, solar electric, geothermal energy, biogas, liquid biofuels, and energy from wood. This is possible via EurObserv'ER's renewable-energy barometers. Some highlights from 2003 are:

- Windpower grew by 5.44 GW, increasing total capacity by 23% to reach 28.7 GW, with an annual energy output of 156 PJ.
- Biogas use increased by 7.3% in 2003 to reach a gas production of 134 PJ. The gas was used to produce 34 PJ of electricity as well as for heating and transportation.
- Liquid biofuel production increased by 369,000 tons, an increase of 35%, leading to an annual energy production of 62 PJ, of which 18% was bioethanol while the rest was bio-oil/diesel.
- Solar thermal increased by 1,26 mill. m^2, increasing total capacity by 22% to 14 mill. m^2, with an annual energy output of 22 PJ.
- Solar electricity (PV) increased by 170 MW, an increase of 43%.

For all of these renewable energy sources, the utilisation in 2003 was higher than in any previous year. For liquid biofuels and PV, the growth in 2003 was also larger than in any previous year.

For geothermal and wood energy, data for 2003 are not available yet.

The barometers are produced by EUFORES, the magazine Energies Renouvelables, and others. Read more at www.eufores.org or www.energies-renouvelables.org.

Discussion on Renewable Energy Targets and Plans

The EU countries have started to discuss targets and measures for renewable energy, following the May, 2004 communication on renewable energy from the EU Commission.

At the energy ministers' meeting on November 29, the countries agreed that there is a need to do more for renewable energy and they reached the following conclusions:

- Heating and cooling with renewable energy need further attention. As a first step, the EU Commission was invited to assess the potential and the barriers. With this conclusion, the countries seem to delay progress in this important area, but hopefully they are also starting a process that can lead to the necessary action.
- The proposed biomass action plan was welcomed, and should include a number of important aspects for increase of biomass use in a sustainable way. The action plan is expected late in 2005.
- A conference should be organised for EU renewable-energy policy-makers.
- Cooperation on distribution of large amounts of renewable energy through the electric grid should be increased, in particular to integrate windpower, including electricity from off-shore windparks.
- Renewable energy should be given adequate priority in EU funding. Unfortunately, the countries did not specify the type of funding or any desired increase, e.g., in structural funds for renewable energy.
- The EU countries should continue to use their influence to strengthen renewable-energy deployment policies in relevant international bodies.

The countries did not discuss a revision of the 2010 target (12% renewable energy for the 15 "old" EU countries), but they discussed a new target for 2020. Unfortunately, they agreed that the target-setting for 2020 should start only by the end of 2005 and that it should conclude in 2007, only 3 years before the existing target year (2010). In January, NGOs including INFORSE called for a target of 25% renewable energy by 2020, while the EU Parliament in April called for a 20% target for 2020.

Read more about EU energy policy at www.inforse.org/europe .

Discussing NGO strategies at the European Energy Policy Seminar in Budmerice. Photos by Andrej Konechenkov.

EU "Eco-design" Going Ahead

The EU energy ministers agreed to a common position on the eco-design directive for energy-consuming products. INFORSE-Europe welcomes this agreement. The eco-design directive sets the stage for further EU-wide standards on energy efficiency and on other environmental aspects of products. With the common position agreed, the EU Commission and the countries involved should start to develop the energy-efficiency standards where most needed, e.g., on computer equipment and air-conditioners. In parallel, the EU Parliament should work as fast as possible on the proposal, to improve it and adopt it.

Will the New EU Countries be Heaven for Nuclear Power?

New nuclear reactors and lifetime extensions are proposed for as many as 14 reactors to be built or to have life-extensions in the new EU countries and in the accession countries, if the plans of nuclear developers are fulfilled. The most advanced of the plans are probably the plans for a new nuclear power station "Belena" in Bulgaria, the proposal for a second reactor at the Chernovoda nuclear power plant in Romania, and the proposed lifetime extension at the Paks nuclear power plant in Hungary.

In addition to the safety and waste problems of nuclear power, there is little need for the extra nuclear electricity in Central Europe. In particular, Bulgaria, which covers 47% of its electricity demand with nuclear, can hardly use any more itself, and recent indications are that its lucrative electricity export to Turkey is diminishing. Looking at the other Central European countries and Ukraine, overcapacity in the power sector is more the rule than the exception. Thus, it will be extra costly for the countries to build new reactors. Since most of the power companies are state-owned, decisions about nuclear will most probably lead to state deficits for the coming decades, not exactly what the new EU countries need, if they are to catch up with old EU countries.

Read more at www.inforse.org/europe/nuclear.htm and www.bankwatch.org/issues/mnuclear.html.

NGO Seminars November'04 in Brussels & Budmerice

Almost 50 people met at the European Energy Policy Seminar, November 9-10, 2004 in Brussels, discussing new developments in European policies for renewable energy and energy efficiency. The event organised by INFORSE-Europe together with European Renewable Energy Federation and EUFORES brought together people from NGOs, renewable energy industries, EU Commission and Parliament, research institutions, etc. Most of the presentations are now available online at www.inforse.org/europe.

More than 50 NGO representatives came together at the Budmerice castle in Slovakia, Nov. 24-26 for a sustainable-energy strategy seminar, discussing energy issues in particular for the new EU countries. The seminar was organised by INFORSE Europe and the new AGREENET that was formed by Energy Club in Hungary, Hnuti Duha in Czech Republic, and others.

European NGO Seminar, September 12-18, 2005 in Romania

INFORSE-Europe is organising a seminar on sustainable energy policies and developments in Europe, to be held in Romania on the Black Sea coast.

The seminar will be a good opportunity to meet NGOs from around Europe and to discuss policies for sustainable energy, recent developments, and experiences.

More information in the next issue of Sustainable Energy News.

News from Russia

Climate - Info Project

By Elena Klyutchnikova, GAIA Apatity, Russia

Elena Klyutchnikova (GAIA Apatity) Alexandr Fedorov (NGO Centre of Public Initiatives) , Olga Senova (Children of the Baltic) On the picture from left to right

Since 2003, the Apatity Environmental Center GAIA and the Norwegian Society for Nature Conservation have been working on the informational project "Climate".

The basic purpose of the information project "Climate" was to make questions of global climate change the important point of public discussions, especially in connection with crises in the heating sector.

To achieve this purpose, a television film was produced about connections between global climate change and usage of power resources, including proposals of simple energy-saving methods for every family. This film was shown on the regional channel and on local channels in small towns. We show this film in schools, on seminars, and at conferences connected with the issue of climate change.

This past summer, the booklet, "Climate change - problems and solutions" was published. It is a popular-science publication with 10000 copies printed. At first, it was intended that this booklet should be used in secondary schools, but, unexpectedly for us, this booklet has been requested for high schools and universities, not only regional, but in the capital, too. This booklet is reaching readers throughout Russia and in other post soviet countries via SPARE (School Project for Application Resources and Energy) project channels.

During the project, we carried out press-conferences on important international events connected with climate change in Russia's northwestern regions. It is very interesting to regional mass media, as they don't have enough information in this field.

Russia, unfortunately, is backward in energy efficiency and energy conservation, but these are our biggest potential means of reducing our emissions of greenhouse gases. It became especially relevant in connection with the decision to ratify the Kyoto protocol. So GAIA together with the WWF-Russia, and the organization "Children of the Baltic" are carrying out a series of education seminars, "Climate Change and Kyoto Protocol - Practical Possibilities". These are seminars for decision-makers from industry and from regional governments.

The first seminar took place in Saint Petersburg 19.10.04, and the next was carried out in Murmansk 30.11.04. Specialists from Economy and Development Ministry of Russia, regional government, regional industry, scientists, and NGOs participated in this seminar. The invited experts talked about climate change and explained Kyoto mechanisms.

Now we are working on collection of interesting articles written by scientists about climate change. We expect to publish this collection to increase public interest in climate-change problems.

Support for this project is given by Norway's *"The Minor Foundation for Major Challenges"*.

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From Warm House to Warm Heart

by Natalia Bagaeva, coordinator of RuEB

Early in 2004, the "GAIA" Apatity Environmental Center, an INFORSE member NGO, began a new project, "Russian Energy Brigades " (RuEB). One of the primary goals of RuEB is distribution of information on methods and practical realization of energy-saving measures.

During project implementation, energy brigades can also bring social warmth into people's lives. During this past summer, RuEB already had one successful experience insulating windows of the central city library. More recently, RuEB completed the work of insulating windows at a boarding school for children of orphans and for children who have stayed (from 7 to 18 years old) without guardianship of parents. This project will help to keep the building warmer and the resident children more comfortable.

Even as they were insulating the building, RuEB participants had a positive sociological impact on the children. Pupils of this institution seldom have opportunities to speak with people other than their teachers, educators, and workers in the building in which they live and study. When new people came to their house and started the work of insulating the windows, the children took great interest in the process. In the end, in addition to providing chances for dialogue with new people, the project also has allowed children to gain some useful skills of work with tools as well as some familiarity with the engineering of window insulation. A big plus in this work is that the children learn not only practical skills, but also knowledge in the field of energy conservation, all part of an ecological education.

Julia Sirotina and Alexandr Govoruhin on the stage during the concert

Upon termination of the work RuEB, together with the administration of a boarding school, arranged a holiday for all pupils. GAIA made up a funny competition, with the questions connected with energy and environment. The children gave a nice concert with singing and a drama presentation. All of them together had a small lunch with tea, cakes, and sweets. And may be the most important result of this action is that 95 children who have no good families have gained not only more warmth in the house but also warmth in their souls. They now have new friends and the new impression that around them live kind people who are ready to help them in their lives.

Polish School Children "Concerned for the Earth"

The INFORSE member organization PKE is running a successful program for children in Upper Silesia

By Katarzyna Wypchol-Krasuska (left), Ilona Jerzok (right), PKE, Poland

The Polish Ecological Club (PKE) Upper Silesian Branch, for the last five years, has been realizing a regional educational program for children, youth, and their teachers. The program's title, "Inspire Concern for the Earth", describes the best its objectives: to educate young people on a wide variety of environmental issues and, in so doing, to cause them to adopt more environment-friendly attitudes.

The program also helps schools and other educational institutions to improve their effectiveness, raising their interests in environmental protection as well as giving them tools and materials to be used in their everyday activities.

The project goals are achieved during the three project phases:

First phase: Providing teachers with high-quality training covering monthly lectures, seminars, and workshops on issues connected with methodology of teaching and working with groups of pupils. The training covers topic such as:

- assertiveness how to cope with stress and critic,
- methodology of teamwork,
- methods of project management and their use in environmental education,
- case-study as a method to understand environmental phenomena,
- ecological photo-reporting as a method of describing events and phenomena,
- documentation and presentation of research results (reports, presentations, posters, multimedia, etc.),
- methodology of presentation of own achievements,
- strategies to use in solving problems.

Second phase: Extracurricular work with school students, working under the guidance of participating teachers. Students carry out their own environmental projects connected with one of the given thematic areas. During the last programme session, they were as follows:

- environmental problems in my region versus EU requirements in this field,
- searching humanistic and cultural, environmentally friendly examples,
- protection of earth climate,
- rational use of earth resources,
- creation of ecological awareness in the society.

Third phase: Wide presentation and promotion of projects:
Each group presents its project results during the Environmental Forum organized on the Earth Day. At these events, other pupils and teachers, their parents, and colleagues from other schools, as well as members of the local community, may observe the results of groups' activities and vote for one project to represent the school in the Programme Grand Finale.

The presentation of the best student projects and works is held on 5th June as a part of the World Environmental Protection Day. In the last celebration, over 700 students and their teachers took part, as well as the representatives of local and regional authorities, Members of Parliament from Silesia region, and institutions and organisations supporting the environmental protection and educational projects. The events are also widely covered by regional and local media.

In the last edition (school year 2003/2004), 120 teachers and their pupils from 48 schools situated in 32 Upper Silesian cities took part.

Pictures from the Grand Finale in 2004.

Energy Topic Example

Among different topics of students' projects, some of them are connected with sustainable energy and climate change. Two examples are presented below:

Green Coal

The main goal of this project was to show how much energy is included in biomass and how people can use this kind of energy. The first part of their job was to collect the information resources on renewable energy, Polish potential in this field, and processes of biomass preparation and use. The next step was to prepare a special CD presentation with teaching materials and lesson scenarios. This CD was widely circulated among teachers and used by them successfully. Students from the Technical School in Czestochowa have been working on this project.

Climate Change – Problems and Threats

The objectives of this project were to raise awareness about climate change among children, young people, and adults, and to reduce gas emission from schools.
The final product of this project was a website, (www.efektcieplarniany.prv.pl). This project was prepared by a school boy from the Primary School in Myslowice. The young author of this website was extremely proud that he really succeeded in making it. He had to learn a lot about climate change, but he also learnt how to prepare websites.

INFORSE Cooperation

In 2004, PKE Upper Silesia branch participated in 2 cooperation projects together with INFORSE-Europe organizations:

- A project oriented towards strengthening the organizational, structural, and professional capacity of PKE.
  Results can be read at: www.inforse.org/europe/polish.htm .
- Cooperation project with 5 INFORSE-Europe organizations preparing sustainable energy school resources for NGOs.
  Results can be seen at: www.inforse.org/europe/schools.htm .

More information:
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INFORSE South Asia Cooperation: Energy for Poverty Reduction

In 2005, INFORSE South Asia will start a project for NGOs that actively support increased energy supply for the poor in the region.

NGOs in the region have substantial experience in this, but with more than 600 million people in the region without basic energy supply, it is a huge challenge. Substantially increased efforts are needed if development goals are to be reached, such as the Millennium Development Goal of halving poverty by 2015.

With support from the Danish Small Grant programme for NGO-based development projects, INFORSE South Asia is starting the project to strengthen the capacity of NGOs in Bangladesh, Sri Lanka, Nepal, and India that works with groups of the poor, helping them to organise and carry out sustainable-energy projects.

The capacity-building will include training manuals on solutions, micro-financing, ways of selecting the best solutions, and ways of introducing them in local communities. Further, the project will strengthen the advocacy work and regional cooperation in the INFORSE network.

Further information: ove@inforse.org, inseda@inforse.org, www.inforse.org.

Photo (Right-top): Construction of Deenbandhu biogas plant with a dome made of bricks, in India a job for men, but the produced biogas benefits women who are cooking.

Photo (left): The preparation of a bamboo reinforced cement dome of a biogas plant includes basket weaving, a typical job for women in India.

The photos are from the Women's Action for Development's (WAFD) project near Bharatpur, Rajestan in India. Photos by INFORSE-Europe

News from AIWC, India

Award for Work on Gender and Energy

Representing AIWC (All India Women's Conference), its president, Dr. Aparna Basu, received the World Renewable Energy Network Pioneer Award at the World Renewable Energy Conference that was held from August 28 to September 3. The prize was given for the remarkable work that she and AIWC have been doing to promote renewable and non-conventional energy since 1984. AIWC is a member and country focal point for INFORSE. At the conference, Dr. Basu also presented a paper on "Energy, Poverty and Gender". The AIWC vice president, Ms. Lalita Balakrishnan, presented a paper on " Solar Pholtovoltic Systems-The Indian Experiences".

Awareness Programs on Petroleum Conservation and Renewables

PCRA (Petroleum Conservation Research Association), Ministry of Power, Government of India, awarded to AIWC 100 PCRA awareness programs in the Northern Region. The programs aim to create awareness among housewives, school children, and farmers about the importance and methods of conserving petroleum products. AIWC branches have already successfully conducted the programs and received very good feedback. Most of the beneficiaries were women, school- and college students. Programs were also conducted for farmers on how to conserve diesel fuel while using pump sets and tractors. A number of teaching aids like video clippings, live demonstrations, quizzes, and painting competitions were used to educate the audience.

More info: Lalita Balakrishnan, AIWC, http://www.aiwc.org/, email: aiwcctc@nda.vsnl.net.in.

Integrated Development with Biogas, also a Solution for Rural Women

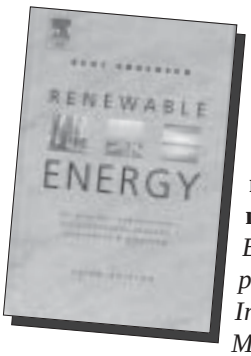
Action For Food Production (AFPRO) , an INFORSE member organisation, is a non-profit Indian NGO that co-ordinates and evaluates, as well as giving technical service, guidance, and back-up support to grassroots NGOs for the implementation of, environmentally sound food production and related projects. To achieve its goals, it attempts integrated development of water resources, agriculture, animal husbandry, renewable sources of energy, etc., through conservation and regeneration of the environment and ecosystem as well as through capacity-building of NGOs.

Since 1980, AFPRO has been involved in promotion of biogas, including training of masons and promotion programmes. AFPRO sees biogas as a way of improving living conditions for rural women as follows:

- Time is saved in cooking.
- Time is saved in collection of fuel wood, which is basically a task for women in rural areas.
- The kitchen becomes a smoke-free environment, thus less hazardous to women's health.
- Slurry can be used in the kitchen garden, which increases nutritional status of family and possibly its income.
- Lower demand for fuel wood also frees money for other uses, as poor households often must buy wood.
- Women may be masons and generate income from building and installing biogas, which promotes self-reliance.

Read the full article on the activities of AFPRO at www.inforse.org and read about AFPRO at www.afpro.org.

Publications



Renewable Energy, 3rd Edition

Its physics, engineering, environmental impacts, economics & planning

By Bent Sørensen, professor of physics, Institute of Studies in Mathematics and Physics; Roskilde University, Denmark.
The only rigorous theory and applications book available. Details the significant expansion of the field since the publication of the previous edition.
2004. ISBN: 0126561532, Hardback 896 pages, Academic Press, £39.99

Contact: ELSEVIER B.V PO Box 211, 1000 AE Amsterdam, The Netherlands. Ph: +31 20 4852603, fax: +31 20 485 3745, www.elsevier.com.

Green Power Vision and Strategy for Canada

The Canadian organisations "Pollution Probe" and Summerhill Group launched a vision for the future development of Canada's electricity sector. It is the result of a series of workshops engaging more than 300 experts on power and renewable energy.

The vision includes targets for "Green Power", which is defined as sustainable use of renewable energy, excluding large hydro. There are targets for each fifth year, ending at 150 TWh in 2025.

The vision also includes increased energy efficiency to change a 50% "business as usual" increase in electricity demand to a small decrease by 2025. The targets can be translated into renewable electricity targets (with large hydro as the EU-targets) of 70% in 2015, 80% in 2020, and more than 90% in 2025 (current level is about 65%).

More info at www.pollutionprobe.org/whatwedo/greenpower/ .

World Habitat Award
If you have a good scheme or project that provide practical and innovative solutions to current housing needs and problems, you are invited to propose it the World Habitat Award (deadline June 1, 2005).
Read more at www.bshf.org

Limits to Growth the 30-year update

By Donella Meadows, Jorgen Randers, and Dennis Meadows, 2004. Published by Earthscan.

An update of the situation after 30 years by the authors of the original "Limits to Growth". In this new book they go further in their analysis of scenarios for present and future overconsumption and makes an urgent case for rapid readjustment of the global economy.

In 1972, Limits to Growth shocked the world and forever changed the global agenda. It was translated to 30 languages and it became a best seller in several countries.
13.49£, 366 pages, 2004 December
ISBN: 1-84407-144-8

Contact: 8-12 Camden High Street, London, NW1 0JH, UK. Ph: +44 20 73878558, fax: +44 20 7387 8998, earthinfo@earthscan.co.uk, www.earthscan.co.uk.

The Unbelievable World Energy Outlook

In November 2004, the International Energy Agency (IEA) published their World Energy Outlook (WEO), as they do every second year. IEA describes the WEO as the "most authoritative energy publication".

Unfortunately, its forecasts are hard to believe: the 2004-version foresees in its "business as usual" scenario a 60% increase in world energy demand with 85% of the increase covered by fossil fuels, mainly oil and gas. At the same time, it predicts a decrease of the oil price to 25 US$/barrel, about 40% lower than today. With the present unstable oil prices caused by smaller uncertainties regarding supply, it is hard to believe that a 60% increase in oil consumption can be combined with a decrease in price. Further, the scenario is based on limited inclusion of environmental costs in decision-making as well as on limited technological progress in renewable energy, just the opposite of what we have seen in the last decade.

All in all, the WEO is probably further from the future than, e.g., INFORSE's visions for sustainable energy. At least, it draws a picture of a very unsustainable future with massive environmental problems combined with increasing fossil-fuel supply risks.

Read about WEO at www.iea.org and a critical analysis at www.wcre.org.

A Million Europeans DEMAND the Exit of Nuclear Power!

Help get the word out!

***Sign* and ask your friends to sign this petition !**

The Petition is available in almost all European languages.
You can follow how many are collected in each country.
Signatures are collected until April 26, 2005.
More info: *www.antenna.nl/wise, wiseamster@antenna.nl.*

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The ediorial office is hosted by INFORSE-Europe

www.inforse.org

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