

Outreach Issues

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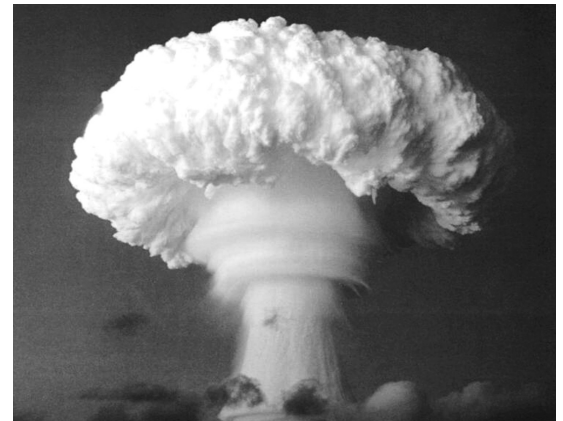
Nuclear Energy: Selling Out Future Generations

The Johannesburg Plan of Implementation called on governments to consider the reliability, affordability, economic viability, social acceptability, and environmental soundness of energy services and sources. Based on these criteria, nuclear energy CANNOT be considered a sustainable solution.

Nuclear energy is not reliable: Though environmental lobbyists tell us that nuclear reactors are now "clean and safe", this was the same message that was expressed 21 years ago prior to Chernobyl.

Nuclear energy is not affordable or socially acceptable: The costs of both nuclear waste management and the decommissioning of nuclear power plants are substantial and will be borne over the long term. E.g. the half life of plutonium is 24,000 years—the equivalent of 1,000 generations. The use of nuclear energy means that its costs will be borne by future generations, undermining the very principle of sustainable development by "compromising the ability of future generations to meet their own needs", and is therefore not socially acceptable.

Nuclear energy is not economically viable: Nuclear energy is receiving both long-term direct and hidden subsidies, through subsidies for the production or buying of nuclear fuel and waste management, clearly demonstrating that it is not economically viable. It is a powerful centralised energy source requiring significant investments in infrastructure, making it potentially unaffordable for many developing countries. Every nuclear plant requires substantial state guarantees which could potentially put developing countries into greater debt.



Clouds on the horizon

Nuclear energy is not environmentally sound or emission free: Nuclear power plants emit radioactive gases, which effect not only the environment but also atmospheric conductivity that leads to climate change (CC). The process of cooling reactors requires large volumes of water, which can evaporate into the atmosphere contributing to CC.

Nuclear energy is not renewable: Natural uranium is limited and prices are on the rise. Extracting plutonium from spent nuclear fuel results in unmanageable volumes of liquid nuclear waste.

Contrary to popular belief, nuclear energy is not a solution to CC: From a life cycle perspective, including mining and transportation, the production of nuclear energy leads to greater Co2 emissions than other sources of energy such as wind.

Nuclear Energy is not sustainable. Wind, solar, thermal, and biofuels (when used properly) are! Phase out nuclear energy!!

Discussing: Nuclear Energy

On Tuesday, Outreach Issues journalists, Juan Hoffmaister and Chris Kyriacou, met with Ms. Janet Stephenson, senior policy advisor at the Environment and Energy Division of the Foreign Affairs and International Trade Canada; Mr. Andrey Ozharovskiy, Ecodefense; and Mr. Jorge Spitalnik, chair of the Energy Committee of World Federation of Engineering Organizations (WFEO), to discuss issues relating nuclear energy. This is a synopsis of the discussions.

Canada:

“Electricity is good. Bombs are bad.”

Ms. Stephenson emphasised that nuclear energy has a place in the global energy mix and that it certainly has a place in Canada’s energy mix. She explained that with 30% of total global uranium resources, Canada is the world’s largest producer exporting primarily to the US and France. This has become an increasingly lucrative trade.



Ms. Janet Stephenson

The impacts of nuclear power?

Ms. Stephenson pointed out that all forms of energy consumption, even renewable resources, have negative environmental impacts. The

exceptional production density of nuclear energy, with a small amount of uranium capable of producing vast amounts of energy, compares favourably to sources such as Ethanol, which have only a fraction of a fraction of this production density.

Safety issues?

Ms. Stephenson summarised neatly that ‘electricity is good, bombs are bad’. She cited statistics showing nuclear power to be one of the most incident-free forms of electricity generation, with an excellent safety record as compared to other forms

of power generation. Where serious accidents have occurred, such as Three Mile Island and Chernobyl, poor maintenance and human error were to blame. She also said that the threat of terrorist attacks on nuclear facilities has been overplayed, with modern plants being built to withstand earthquakes, plane strikes and a full core meltdown. Illegal proliferation of nuclear materials is certainly a risk, but Canada has faith in the international community’s awareness of these risks and determination to move as fast as it is able to on matters of non-proliferation.

What to do with nuclear waste?

Ms. Stephenson agreed that this is a problem with nuclear, and particularly with Canadian uranium. Whilst nuclear fuels can be reprocessed almost indefinitely, this carries its own enormous baggage and storage is certainly an issue. This led Ms. Stephenson to summarise that whilst Canada would never claim that nuclear is a problem free energy source, it is one with very unique positives and negatives—which would be irresponsible to ignore in any CSD final text.

Ecodefense:

Nuclear power is not an option

Is nuclear power an option?

Mr. Ozharovskiy is adamant that nuclear power is not an option for any country in the world. ‘It is ridiculous that the CSD does not hold a position on nuclear power.’ A nuclear physicist by training, he



Mr. Andrey Ozharovskiy

utterly dismisses claims that the technology is safe, waste- and cost-efficient.

Whilst nuclear compares favourably to other forms of power generation on the number of hazardous incidents, nuclear incidents operate on an entirely different scale of time and place. An incident at an oil or gas power plant affects only its locality and can be recovered within decades. But a nuclear incident such as Chernobyl affected areas from Britain to Nepal—with local impacts that are set to last tens of thousands of years. Terrorism and proliferation are serious challenges. An array of conventional and improvised weaponry could result in another Chernobyl and nuclear waste dumping sites—not just power plants—are targets which, if struck, could have devastating consequences. As the current wrangles over Iran and North Korea demonstrate, nuclear non-proliferation regimes are failing—it is a myth that military and civilian uses of nuclear technology can be neatly separated.

Can developed countries meet their ambitious emissions reduction targets without nuclear power?

Germany has cut greenhouse gases whilst reducing its reliance on nuclear energy, and the Russian Energy Minister's speech at Monday's plenary session in which he proposed 30-40% energy savings through efficiency measures alone. Mr. Ozharovskiy also pointed out that nuclear power produces xenon, krypton and tritium emissions, which affect the conductivity of the atmosphere and thus change the climate in potentially far reaching ways.

Is nuclear power both cost effective and an excellent guarantee of a nation's energy security due to the small quantities of uranium required?

The price of nuclear fuel had risen five fold in the last 2 years, and, contrary to popular myth, nuclear energy is not profitable, and can only exist thanks to significant, often hidden subsidies. For example under Russian law plants must account for waste management and decommissioning expenses in their electricity price, but this requirement is often waived.

The transfer of nuclear technology via export credits as a form of international subsidy not only exports a dangerous technology, but also increases transportation of nuclear materials. This is in contravention of the only paragraph delegates could agree on regarding nuclear issues at the Johannesburg summit, that such transportation is highly dangerous.

WFEO:

"The needs for energy will continue expanding and we cannot afford to eliminate any option"

Safety and environment?

"To be clear, we need to talk about modern technology for nuclear power generation – the concept of modern is important in this statement". He then added, "There have been great ad-



The landscape of nuclear energy

vances in safety and waste management, and production efficiency since the end of the 1980s. This resulted, of course, from post-Chernobyl and modernization of the ex-USSR nuclear industry standards. Globally, the new generation of reactors tend to adopt the safety standards that exist in the Western World, and in fact many improvements regarding measures to protect public health have been implemented".



Mr. Jorge Spitalnik

Affordability?

"Nuclear power is an energy source that essentially goes at the base of the generation supply –which means that it does not follow the peak demand that is supplied by other sources. Being at the base brings the economic advantage of large size, which achieves economics of scale". He also added that "Nuclear en-

ergy is mostly seen in large size grids. Today, we don't have small size reactors that could be used in smaller grids in developing countries. However, there is a project that needs to be demonstrated in South Africa using small modules, which can be replicated according to the needs and that has a big potential to be useful and affordable to countries with small grids – a pebble bed reactor".

Discussing nuclear energy at the CSD? Mr. Spitalnik said that "One has to recognise that the need for energy will continue expanding and that we cannot afford to eliminate any option that is feasible because there is no way to supply the expansion [of energy demand] with renewable only". He added that "Modern nuclear technologies is an option that responds to all the concerns that civil society might have about safety— concerns based on a historical background that has been overcome. To insist on such concerns, implies a reasonability to restrain progress and development – mainly for developing countries".

How should CSD address nuclear energy?

"This CSD is helping bring into focus the feasibility of nuclear power based on scientific and technological principles and grounds".

“Toxic breathing Indoors ...”

By Elsabet Samuel, Outreach Issues

Human beings probably first experienced air pollution when they built fires in poorly ventilated caves. Since then we have gone on to pollute more of the earth's surface. Environmental activists say until recently, environmental pollution problems have been local and minor because of the Earth's own ability to absorb and purify minor quantities of pollutants. In this industrialized century it is urgent that we find methods to clean up the air. Outreach Issues invited Sabine Bock, from the Energy and Development for Women in Europe for a Common future, Germany to talk about indoor pollution and its impact.



Sabine Bock

“We breathe 12 - 20 times every minute. But what do we breathe in? Is it fresh air or air enriched with toxic pollutants, which harms our bodies?” was Sabine’s first question when she spoke of indoor pollution. Every year, indoor air pollution kills 1.6 million people - that accounts for one death every 20 seconds through out the world. At least 21 thousand people die every year in Europe where Sabine’s organization is operating. Approximately 10,000 children between the ages of 0-4 have died in 2001 from acute lower respiratory tract infections in the European region because of the use of solid fuel at home. Over 90% of these deaths are estimated to occur in the countries, where

pollution from solid fuel use is responsible for 1.6 million deaths due to pneumonia, chronic respiratory disease and lung cancer, with the overall disease burden exceeding the burden from outdoor air pollution five fold. In high-mortality developing countries, indoor smoke is responsible for an estimated 3.7% of the overall disease burden, making it the most lethal killer after malnutrition, unsafe sex and lack of safe water and sanitation.

about 40% of households use solid fuel.

The World Health Organization (WHO) has assessed the contribution of a range of risk factors to the burden of disease and revealed indoor air pollution as the 8th most important risk factor and responsible for 2.7% of the global burden of disease.

More than 3 billion people worldwide depend on solid fuels, including biomass fuels (wood, dung, agricultural residues) and coal, for their energy needs. Sabine says cooking and heating with solid fuels on open fires or traditional stoves results in high levels of indoor air pollution, which contains a range of health-damaging pollutants, such as small particles and carbon monoxide. She argues that Indoor pollution goes hand in hand with energy poverty and the world need to strengthen the social, economic and environment aspects of sustainable development to help people to be able to afford safe and clean energy.

Haripsime Saugiryan from Armenia says in her country people are forced to skimp on food to pay their utility bills or to buy wood .They often just use burning toxic materials, manure, crop residues, plastic bottles or other waste to warm their household. She argues that providing safe and clean energy should be offered to those who have low

‘Globally, indoor air pollution from solid fuel use is responsible for 1.6 million deaths’

income and build up the economy in order to create more job opportunities thereby increasing people’s purchasing power.

Measures to reduce indoor air pollution and associated health effects range from switching to cleaner alternatives, such as gas, electricity or solar energy, to improved stoves or hoods that vent health-damaging pollutants to the atmosphere. Sabine emphasized that there is an urgent need to investigate which interventions work and how they can be implemented in a successful, sustainable and financially viable way. Governments and civil society are responsible for filling this gap.

Sabine strongly believes that the world should choose an alternative development pathway to achieve societal goals and avoid some of the predictable impacts of air pollution.

Tackling indoor air pollution in the context of household energy is linked to achieving the Millennium Development Goals, in particular to reducing child mortality, to promoting gender equality and empowering women, to opening up opportunities for income generation and eradicating extreme poverty, and to ensuring environmental sustainability. Yet, the central role of household energy is not currently reflected in the political responses to achieve the Millennium Development Goals.

The conventional view of the relationship between development and indoor as well as atmospheric pollution suggests a relatively pessimistic view of the future in which nations face increasing pollution as their economic status and the wellbeing of their people increase; by the mid-21st century their emissions of sulphur will exceed projected levels in Europe and the USA.

Research predicts that household and industrial energy consumption across the world will increase by over 300 percent during the next fifty years with consequent significant growth in sulphur and nitrogen emissions.

At least 21 thousand people die every year in Europe due to indoor pollution.

including residential, commercial, and industrial heating and cooling and coal-burning power plants.

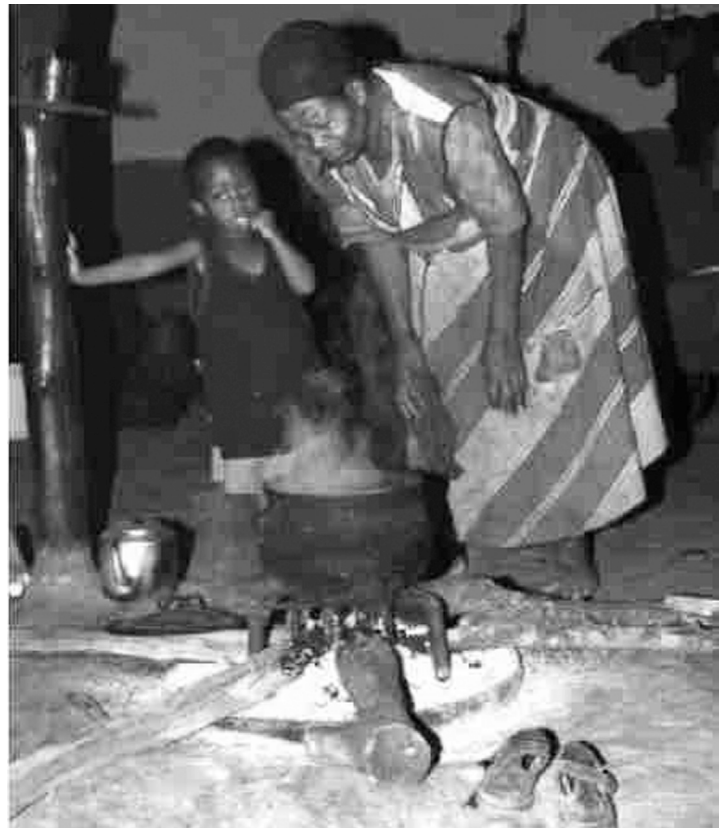
Carbon dioxide (CO₂) is one of the major pollutants in the atmosphere. Major sources of CO₂ are fossil fuels burning and deforestation that is directly or indirectly linking indoor and atmospheric pollution. Industrial countries account for 65% of CO₂ emissions with the United States and Soviet Union responsible for 50%. Less developed countries (LDCs), with 80% of the world's people, are responsible for 35% of CO₂ emissions but may contribute 50% by 2020. "Carbon dioxide emissions are increasing by 4% a year".

The two main sources of pollutants in urban areas are transportation (predominantly automobiles) and fuel combustion in stationary sources, in-

The truth is, the Earth is everybody's home and nobody likes living in a dirty home. Together, we can make the Earth a cleaner, healthier and more pleasant place to live.

The question is; what are we doing to save our earth from breathing toxic? Sabine has her own answer; "After all civil societies are here to make change, to improve the life of the poor by providing them safe and clean energy and to amplify their voice while the Commission on Sustainable Development is taking place."

Please visit www.healthandenergy.com for further information



Women and children are more vulnerable to indoor pollution.

Community Actions towards Sustainability

Jan Roberts, Delegate, Education Caucus

Jan Roberts of Earth Action Network chaired the Community Actions & Sustainability roundtable on Tuesday. The roundtable focused on the theme “Climate change concerns must be integrated into social networks—everyday acts at the household and community level.”

Despite the heavy emphasis on governments and policy-making, the roundtable brought attention to many innovative and flourishing community approaches to sustainability which are often overlooked. A sampling of community initiatives were presented during the session. Examples included:

- **Living Simply Movement**—This movement calls for citizens to make a personal choice to reduce consumerism through re-prioritizing their lives from accumulating money to emphasizing personal and family well-being.
- **Relocalization of Food**—creation of land trusts to preserve agricultural land; “edible landscaping” on school grounds that involve students in food production; celebration of local farmers as “Heroes”; community supported agriculture; and chef and farmer collaboratives.
- **Community based financial institutions** like Shorebank Pacifica that apply scientifically based sustainability factors using the Natural Step criteria to determine personal and business loans.
- **Local currency programs and bartering systems** that strengthen local economies and build community pride and connections.
- **Children and youth programs** like Earth Scouts for boys and girls 3 to 13 year old would educate youth through activities and badges based on the Earth Charter’s 16 principles for sustainability.

Brianne Chai-Onn, Project Director for Global Peace Initiative of Women, re-

ported on the Sumei program initiated by a woman in Zambia who contacted village chiefs and eventually involved 1,000 farmers in natural agriculture using the “wisdom of nature” and traditional farming with heritage seeds.

Beth Bowen with Baha’i International Community spoke about the website onecountry.org that focuses on best community practices and cited the Pacific Islands example of replacing diesel oil with coconut oil and involving local farmers with indigenous knowledge in conserving the ocean reefs.

Costas Kadis with the Cyprus Environmental Stakeholder Forum shared information on the ECO-Schools, which include 30% of elementary and high schools and focus on environment and sustainability. Another Cyprus community initiative is Camping, Fitness, & Education (CAFÉ) that involved children in sustainability activities and resulted in building a bridge between the bi-communities of Cyprus.

Noting these experiences, the chair stated that positive change and involvement in a community is generally a result of citizens who have hope for their future and confidence in their efforts for change. In addition, The World Values Surveys of the 1980s and 1990s based on in-depth interviews in 45 societies affirms that a cultural values shift away from economic based values of industry strengthens values for a quality of life, sense of belonging, and freedom of expression.

The Other Face of Nuclear Energy

50th Anniversary of the Nuclear Accident at Mayak Site (Urals, Russia)

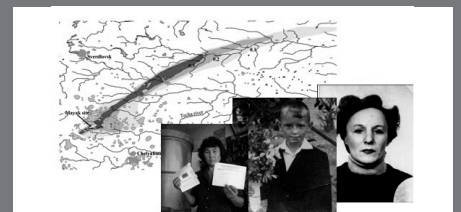
Photo Exhibition by
Nadezhda Kutepova, “Ecodefense”
Wednesday, May 2nd, 2007, 6:15pm
Conference Room 4, UN HQ, New York



On September 29, 1957 at 16:20 a tank with liquid radioactive waste exploded near the MAYAK plant.

20 million curie of radioactive substances was released into the atmosphere. A large territory (23,000 km²) was radioactively contaminated including 217 cities and villages with a total population of 270,000 people. Over 2,000 PREGNANT WOMEN were sent to the polluted area to clean it. The same dangerous nuclear technologies are used today.

Nuclear energy is neither clean, nor safe.



Correction: The article "The Ethical Dimensions of Climate Change", which appeared in yesterday's issue, was written by Ms. Paula Posas of the Bahá'í International Community.

Learned or Literate?

The Education Community Urges Awareness as a First Step to Meaningful Action

During the CSD IPM, the Education Caucus asked Delegates: "What do you think could be done from the preparations for CSD15 to make education for sustainable development a central part of the policy dialogues in action-oriented outcomes?"

Below you will find a few of the more poignant answers we received from our random sampling of interviewees.

Intelligence from the hallways

- "We agree with the need to provide education on the importance of sustainability as well as practical actions, to governments, the private sector and civil society. We also encourage NGOs to continue working to raise the issue of education within the CSD and in other Commissions."
- "I see a real need for education in addressing these issues. We are in fact discussing this in our own delegation, Ordinary citizens are not aware of the effects of climate change in our region, particularly women who are disproportionately affected by it."

- "Education should be at the grass-roots. Education for sustainable development is to be consistent, decided at the UN but tailored to actual situations on the ground."

- Foster the interaction between governments, civil society, the private sector and NGOs. There may be some understanding among them, but there is limited interaction between the entities."

- "Education should be the most important and integrated part of the SD process. Governments are not giving priority to these issues due to a lack of understanding by their finance ministers."

- "We want a message out of CSD15 to be a universal call to action to all stakeholders, especially targeting professionals, and civil society. We need a message to take back home to our constituents from the outcome of CSD 15 as a call to action to meet the challenges of co-creating a sustainable future."

Linking Knowledge With Action

The goal of the UN Commission on Sustainable Development (CSD) is to create informed political entities and an informed civil society able to participate in and act on principles of sustainability. The measure of a successful CSD 15 will be the extent "Engaging" and "Education" in all its diverse forms appears in the Chapeau's and detailed points of the Chair's final text.

To remove the blinkers, a question that remains to be answered, "What are NGOs and stakeholders doing about learning and sustainability?" As Mahatma Gandhi's inspirational leadership teaches: "We must be the change we wish to see in the world".

Are we prepared to make education the cornerstone of CSD 15 outcomes in such a way that people believe that they can make a difference?



The misadventures of Paul the Polar Bear

Even Paul the polar bear feels the nuclear winter!

WEDNESDAY'S PROGRAMME

OFFICIAL SESSION

10:00 – 1:00	Conf. Room 4	Inter-linkages and cross-cutting issues, including means of implementation
10:00 – 1:00	Conf. Room 2	Energy for Sustainable Development / Climate Change (Continuing)
2:00 – 6:00	Conf. Room 2	Distribution of revised draft negotiating document by Chairman.

PARTNERSHIPS FAIR

10:30 – 12:30	Conf. Room 7	Benefits of partnering to address climate change challenges
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Partnerships Fair Information Desks

10:00 – 6:00	Neck Area	Collaborative Labeling and Appliance Standards Program (CLASP) Earth Charter Youth Initiative International Law for Sustainable Development Methane to Markets
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LEARNING CENTRE

10:00 – 1:00	Conf. Room B	Legal Strategies for Climate Change Adaptation by Vulnerable Communities
3:00 – 6:00	Conf. Room B	Health Effects of Air Pollution Associated with Energy use

SIDE EVENTS

1:15 – 2:45	Conf. Room 7	Unique Experience to Establish a Sustainable Energy Park in the Southern Arava
1:15 – 2:45	DHLA	Financing for Sustainable Energy
1:15 – 2:45	Conf. Room 4	Biofuels: A Tool For Conservation
1:15 – 2:45	Conf. Room B	Young Citizen Scientists: Youth Voice on Connecting Science with Policy
6:15 – 7:45	Conf. Room 4	From Best Practice to Policy – Effective policies for countries in transition
6:15 – 7:45	Conf. Room B	Revisiting Nuclear Energy: Redevelopment Since Chernobyl
6:15 – 7:45	DHLA	Financing Energy Access for the Poor: Unfounded Hopes or Unfunded Realities

CSD RELATED EVENTS

1:15 – 2:30	Conf. Room 8	Catastrophe Risk Insurance Facilities for SIDS
2:00 – 3:00	Library Training Room (L-270C)	Sustainable Development: How to Find UN information

MAJOR GROUPS MEETINGS

8:30 - 9:00	Conf. Room C	Local Authorities
9:00 - 10:00	Conf. Room C	NGOs informational meeting
10:00 - 11:00	Conf. Room C	Youth and Children
11:00 - 12:00	Conf. Room C	Indigenous People
12:00 - 1:00	Conf. Room C	Education
1:00 - 2:00	Conf. Room C	Energy
2:00 - 4:00	Conf. Room C	Training for increasing relevance of CSD – National Strategies for Sustainable Development, facilitated by ANPED
4:00 - 5:00	Conf. Room C	Earth values
5:00 - 6:00	Conf. Room C	Workers and Trade Unions
6:00 - 8:00	Conf. Room C	NGOs policy strategy meeting

Outreach Issues is a new and improved civil society newsletter produced by Stakeholder Forum and the SDIN Group. Bringing together the best of the two previous CSD conference dailies, Outreach and Taking Issue, Outreach Issues aims to “report with an attitude, from the global scene of sustainability”.

The SDIN Group include: ANPED, The Northern Alliance for Sustainability; Third World Network (TWN); and Environment Liaison Centre International (ELCI).