

Johannesburg: Partnerships Are the New Paradigm

Editorial by Prof. Moomaw



While there were many missed opportunities at the Johannesburg World Summit on Sustainable Development, there were also many successes.

Unfortunately, governments failed to set targets

for adopting renewable energy. However, they did agree to increase the availability of modern energy services, including renewables, increase energy efficiency and eliminate subsidies for existing energy supplies. More importantly, the EU committed \$700M, the US \$43M, and numerous utilities additional resources towards new energy projects in developing countries.

The watchword from Johannesburg was partnerships among and between governments, NGOs and corporations. Perhaps the most important development was an announcement that Greenpeace International and the World Business Council for Sustainable Development would work together to address climate change. They identified climate change as the most critical issue facing the world, despite the fact that it was not on the agenda at the insistence of the U.S. government.

Tufts was one of the few universities represented by a student delegation: 23 strong - 19 undergraduates and 4 graduate students plus three faculty. The students actively

TCI Working For A Solar Residence Hall

TCI is working with the Tufts Construction Department to design a new solar residence hall, planned for construction in 2003-2004. This project is an important next step in Tufts commitment to slow the generation of greenhouse gas emissions from university activities.

Tufts University will receive \$500,000 from the Massachusetts Technology Collaborative to support a rooftop building integrated photovoltaic system expected to generate about 32 kiloWatts (peak) from the sun's energy, solar hot water, and a series of efficiency measures that are expected to include high performance windows and decreased air conditioning loads. In addition, the project will provide educational material for student courses, faculty and staff awareness, and external audiences.

The design team is using the U.S. Green Buildings national rating system, Leadership in Energy and Environmental Design (LEED), to evaluate design options. A preliminary evaluation of LEED applicability has been prepared and indicates that LEED Silver is a realistic goal.

Tufts University won a \$500,000 grant to support a building integrated with a 32 kW photovoltaic system.

The design team sees LEED Silver as a realistic goal for the new residential hall.

TCI's role in the project stretches back two years and influenced the Request for Design Services, that clearly states that the building shall incorporate many sustainable design elements. Today TCI staff, led by Sarah Hammond Creighton, are hard at work making the final design as efficient as possible.

participated and made a real contribution to the process!

The work of TCI was noted in several discussions, and I came away convinced that our approach has been a pioneering one. The official recognition that sustainability requires the actions of communities, corporations and universities and not just governments, is an endorsement of the approach begun at Tufts in 1999.

We need to identify additional innovative ways in which the Tufts Climate Initiative can reduce our own climate altering emissions, and expand participation of our students, faculty, staff, and the surrounding communities. We have an unprecedented opportunity to help meet the sustainability goals set in Johannesburg.

Learning by doing:

35 undergraduates are greening the campus while learning how their lifestyle affects the environment.

The second year for TCI's Eco-Representatives program has begun. Program Manager Anja Kollmuss says: "TCI started Eco-Reps when we realized that most students are confused about climate change, its causes, and the connections to other environmental issues and to their lifestyle."

The semester-long program requires students to attend bi-weekly classes and commit to 1-3 hours of work per week. Each class is organized around a particular environmental topic, including recycling, climate change, water resources, food production, and consumerism. The ECO-Reps, who earn a \$150 stipend, receive an extensive manual on environmental issues put together by TCI.

The students complete specific tasks focused on greening the campus. For example, Eco-Reps are helping to distribute 1400 newly purchased lids for recycling containers to reduce contamination of recyclables with trash.

They help with a program called "Do it In the Dark," co-organized by the undergraduates' environmental club. For a period of four weeks, residential halls competed against each

other to see who can reduce their energy consumption the most.

Eco-Reps hold a light bulb exchange program in which students can trade their incandescent light bulbs for compact fluorescent bulbs that cost more but last longer and are three to four times more efficient.

Goals of the program are to train a core group of students as environmental educators and climate change activists, to increase overall awareness on campus of environmental issues, and to institutionalize environmental stewardship within the student body.

"I think everyone cares about the environment, but people choose to ignore things," said Ted Shevlin, an Eco-Rep from last year. "I like to think I'm getting through to people. I've convinced a lot of people to turn the lights off in the bathroom. It's a small triumph. If you keep hammering away at them, you get through."

If you would like to get more information about Eco-Reps, or receive the manual, please contact Anja at anja.kollmuss@tufts.edu.

TCI Calendar

Climate Change Talk

with Ross Gelbspan, Prof. Moomaw, Sarah Hammond Creighton
Thursday, October 10, 2002, 7-9pm
 Fletcher School, Tufts University
 Co-Sponsored by TCI & Rainbow Solution.

Toward a Real Kyoto Protocol

with Ross Gelbspan
Wednesday, October 16, 2002, 5pm
 Fletcher School, Tufts University

Grassroots Climate Protection Conference

Saturday, November 9, 2002
9am - 5pm
 Fletcher School, Tufts University
 Co-Sponsored by TCI & the Massachusetts Climate Action Network

Reporting on Nature's Deadline:

The scientific, economic, business, political and public policy stories of global climate change

Monday, January 13, 2003
9am - 5pm

Fletcher School, Tufts University
 Co-Sponsored by TCI, the Knight Center for Science and Medical Reporting at Boston University, and the New England Science Center Collaborative

for more information go to:

www.tufts.edu/tci/events.html

Ross Gelbspan Named Senior Policy Fellow at Tufts

Ross Gelbspan, journalist and author, has been appointed as an Edward R. Murrow Senior Policy Fellow at the Fletcher School for the academic year 02-03.

"Soon after I began working on the climate crisis, it became apparent that Tufts is the center of the universe of climate policy studies - at least in the U.S. Not only does the university feature a number of blue-ribbon policy specialists, it is also blazing a trail for all other institutions of higher education with its Tufts Climate Initiative. I profoundly hope I will be able to make a substantial contribution to the intellectual life at Tufts in the coming year," he said.

Gelbspan will be speaking in different venues on campus during the coming year. On October 16, he will be giving a talk at Fletcher on a set of three macro-level, global scale policy strategies designed to reduce emissions worldwide by the 70 percent required by nature while, at the same time, expanding the overall wealth in the global economy.

He is also helping to organize a conference at Tufts for news editors from around the country on January 13, 2002. The conference is designed to sensitize news editors to the need to integrate their coverage of cli-



mate change more broadly into their general news coverage.

"The climate issue has so many dimensions - science, weather extremes, technology development, oil industry developments, diplomatic relationships, domestic political movements - that this story should be in the news at least three times a week," said Gelbspan. He believes that more thorough press coverage is the key to widespread public acceptance of the problem.

Gelbspan will also be assisting Dr. Frank Ackerman, Director of Research and Policy Programs at Tufts' Global Development and Environment Institute and Dr. Paul Epstein, of the Center for Health and the Global Environment at Harvard Medical School, in their joint project detailing the extent and costs of the negative environmental and public health impacts of our oil-based energy economy.

During his career as a newspaper editor and reporter, Gelbspan worked at The Philadelphia Bulletin, The Washington Post, The Village Voice and The Boston Globe. As special projects editor at The Boston Globe, he conceived, directed and edited a series that won a Pulitzer Prize in 1984. In 1997, he published *The Heat Is On* (Perseus Books). Since that time, he has written and spoken extensively on the climate crisis and consulted with many government and corporate officials.

Tufts Lighting Retrofits Cut CO2 By 750 Tons/Year

Until recently, all over campus, lights were left on overnight and during weekends. In many classrooms, the wiring was such that light switches were located far from the doors and in front of the room, which discouraged shutting off lights. Lights were also regularly left on in offices and bathrooms. But now, thanks to occupancy sensors, classroom buildings stay dark at night.

TCI has worked closely with the Betsy Isenstein, Tufts Energy Manager and with the Tufts Energy Affairs Council (www.tufts.edu/energyaffairs) to encourage Tufts to invest in motion sensors. In 2001, Tufts decided to invest heavily in these lighting upgrades.

As of September 2002, Tufts has invested \$350,000 to equip 17 of its buildings

with motion sensors and high efficiency lights. The payback of all these projects is less than three years. The projected annual savings are around \$130,000 and 1.24 million kWh in electricity.

This translates to carbon emission reductions of about 750 tons annually. To put this in perspective, this is the equivalent of driving a car that gets 25mpg for about 1.4 million miles.

Another 10 buildings are scheduled to be retrofitted in the near future.

"These lighting retrofits are a no-brainer for Tufts," said Tufts Energy Manager Betsy Isenstein, "the university saves money, labor costs and at the same time substantially cuts CO2 emissions."

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Climate Change Briefs

Russia intends to ratify Kyoto Protocol

Earlier in September, Russia announced that it hoped to ratify the Kyoto Protocol "in the very near future" although some "technical" problems still remain. The protocol can take effect only after it has been ratified by at least 55 of countries accounting for at least 55 percent of carbon dioxide emissions in 1990. If both Russia and Canada ratify, the treaty will go into effect.

Source: AFP 9/3/02

Warming a Boon to Diseases

Climate warming is allowing disease-causing bacteria, viruses and fungi to move into new areas where they may harm species as diverse as lions and snails, butterflies and humans, a study suggests. Pathogens that have been restricted by seasonal temperatures can invade new areas and find new victims as the climate warms and winters grow milder, researchers say in a study in the journal *Science*. Climate changes already are thought to have contributed to an epidemic of avian malaria that wiped out thousands of birds in Hawaii and the bleaching of coral reefs attacked by diseases that thrive in warming seas. Humans are also at direct and dramatic risk from such insect-borne diseases as malaria, dengue and yellow fever, the researchers said.

Source: AP, 6/20/2002

Plankton Declining in Oceans

Satellite surveys have detected a sharp decline in plankton in several of the world's oceans, a situation that could threaten the marine food chain and undercut one of the world's natural buffers to global warming. The decline in phytoplankton varies from ocean to ocean, scientists reported. The greatest decline was in the Northern Pacific Ocean, where summer levels have dropped by more than 30 percent since the 1980s.

Plankton are as important to the long-term health of the atmosphere as the world's forests. The photosynthesis of the ocean's tiny green plants account for about half of the carbon dioxide that plants remove from the atmosphere each year. The researchers found a close correlation between the decline in plankton and increasing ocean surface temperatures, which suggests that climate change could be a cause as well as an effect of plankton declines.

Source: Atlanta Journal-Constitution, 8/20/2002

Questions?
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