CIMATE ALERT

Volume 9, Number 4

July - August 1996

Alvarez Wins Public Policy Award

Honored for Public Policy Achievement

Senator Heherson Alvarez was the moving force behind the February 1995 Manila Asia and Pacific Leaders Conference on Climate Change, a conference which he chaired. This



Sen. Heherson Alvarez

meeting drew policymakers from 33 nations, including its host, President Fidel Ramos of the Phlippines, Prime Minister Benazir Bhutto of Pakistan, Prime Minister M.C.Korman of Vanuatu, the chairs of the parliamentary environment committees of Russia, China, India, Republic of (Continued on page 5)

Institute Honors Tickell for Global Leadership

Global Environmental Leadership Award

Few individuals on this planet have had as profoundly positive an influence in coalescing understanding and cooperative action on climate change as Sir Crispin



Sir Crispin Tickell

Tickell. He has shaped global thinking and action on the subject and other global environmental issues in a whole variety of arenas, from the UN to the UK to China to Mexico. His nearly six years as Institute Chairman have been of enormous consequence to the Climate Institute.

He spearheaded the earliest

meetings on climate change at the UN as British Permanent Representative to that body. He served for the past few years on the international expert group on environment and development advising the Chinese government. For several recent years he has been Convenor of the British Government Panel on Sustainable Development. He was a moving force behind the April 1989 Cabinet briefing on climate change arranged by Prime Minister Margaret Thatcher and served as key

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Karl and Hansen Garner Prizes For Accomplishments in Climate Science

Awards for Scientific Achievement

Following awards to a roster of distinguished scientists from a number of countries and scientific disciplines, starting with Roger Revelle in 1987 and ranging to M.S. Swaminathan in 1995, the Institute this year has chosen two individuals for their work in climate science, Thomas Karl, Senior Scientist of the National Climatic Data Center of the U.S. National Oceanic and

Atmospheric Administration, and James Hansen, Director of the Goddard Institute for Space Studies of the U.S. National Aeronautics and Space Administration.

Tom Karl has for years been regarded as one of the leading experts on the U.S. climatic data record. He has also played a significant role in IPCC assessments by providing valu-

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Insurance Industry Cited in New Business Award

Awards for Advancing Understanding of Climate Change Within the Business and Financial Community

With the Washington Summit's focus on encouraging public private partnerships to stimulate development of renewable and energy efficiency applications, the Institute is recognizing outstanding effort on this issue in the Business and Financial Community. Nowhere have greater strides been made than in the Insurance Industry.

Two individuals have been instrumental in arousing understanding of (Continued on page 6)

Communication

U.S. Says Voluntary Emissions Targets Are Not Working, Shifts Stance to Binding Measures

Speech delivered by the Honorable Timothy E. Wirth, Under Secretary for Global Affairs, U.S. State Department, at the Second Conference of the Parties, Framework Convention on Climate Change, Geneva, Switzerland, July 17, 1996

(Very minor editorial omissions in the final delivered version of the speech have been made.)

Since Berlin, our deliberations have benefited from the careful, comprehensive and uncompromised work of the In- Timothy E. Wirth tergovernmen-



tal Panel on Climate Change. Their efforts serve as the foundation for international concern and their clear warnings about current trends are the basis for the sense of urgency within my government. We are not swayed by and strongly object to the recent allegations about the integrity of the IPCC's conclusions. These allegations were raised not by the scientists involved in the IPCC, not by participating governments, but rather by naysayers and special interests bent on belittling, attacking and obfuscating climate change science. We want to take this false issue off the table and reinforce our belief that the IPCC's findings meet the highest standards of scientific integrity. We also note with regret that the Subsidiary Body for Scientific and Technological Advice (SBSTA), blocked by a very small group of countries, did not agree on how to use the IPCC report. Let me make clear the U.S. view: the science calls upon us to take urgent action; the IPCC report is the best science we have, and we should use it.

In the ongoing scientific effort ... I want to note that the United States is proud of the more than \$1 billion annual investment it has been making in recent years on global change research. This is a cost we have taken on in order to enhance our own and the world's

understanding of the Earth's atmospheric, oceanic and biological systems and represents not only the seriousness with which we view these matters, but also the willingness of President Clinton and the American people to help pioneer progress on behalf of the environment.

The United States of America takes very seriously the IPCC's recently issued Second Assessment Report, which underscores and amplifies the panel's initial work refining estimates and revealing new understandings that serve to signal even louder alarm bells. From our perspective, the most salient of these findings are as follows:

- The chemical composition of the atmosphere is being altered by anthropogenic emissions of greenhouse gases.
- The continued buildup of these gases will enhance the natural greenhouse effect and cause the global climate to change.

Based on these facts and additional underlying science, the Second Assessment reported that "the balance of evidence suggests that there is a discernible human influence on global climate." This seemingly innocuous comment is in fact a remarkable statement: for the first time ever, the world's scientists have reached the conclusion that the world's changing climatic conditions are more than the natural variability of weather. Human beings are altering the Earth's climate system.

In turn, the best scientific evidence indicates that human-induced climate change, if allowed to continue unabated, could have profound consequences for the economy and the quality of life of

future generations:

- Human health is at risk from projected increases in the spread of diseases like malaria, yellow fever and cholera;
- Food security is threatened in certain regions of the world;
- Water resources are expected to be increasingly stressed, with substantial economic, social and environmental costs in regions that are already water-limited, and perhaps even political costs where there is already conflict over limited resources.
- Coastal areas where a large percentage of the global population lives — are at risk from sea level rise.

In our opinion, the IPCC has clearly demonstrated that action must be taken to address this challenge and that, as agreed in Berlin, more needs to be done through the Convention. This problem cannot be wished away. The science cannot be ignored and

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Sir Crispin Tickell, Chairman Stephen Leatherman, Co-Chairman John C. Topping, Jr., President Mark Goldberg, Publications Chairman

Nancy C. Wilson, Editor

120 Maryland Avenue, NE Washington, D.C. 20002 Phone: (202) 547-0104 FAX: (202) 547-0111 E-Mail: climateinst.@igc.apc.org is increasingly compelling. The obligation of policymakers is to respond with the same thoughtfulness that has characterized the work of the world's scientific community.

Unhappily ... while the established international scientific process is working well, the international policy process, as established under the Convention, has not been as successful. The shortcomings of the Convention its failure to address the post-2000 period, for example — were well explored in Berlin and do not bear repeating today. The most salient fact now is more apparent than ever: the current Convention structure has not achieved the results that were anticipated. Few nations in either the developed or developing world have been fully successful in meeting their commitments under articles 4.1 and 4.2 of the Convention. We have to do better.

Over the past year, the United States has been engaged at home and internationally in serious analysis of the successes and failures of the current Convention structure, as well as of the practicality of the various proposals for next steps that have been put forward in recent discussions. While we still have much work to do, our analysis and consideration of this issue to date have led us to certain conclusions about the form of an agreement we hope these negotiations will consider and pursue. In the months ahead, our ongoing analysis and assessment will allow us to more precisely articulate the specific contents that the United States could support.

We begin... from the following set of principles, which will guide our consideration of various proposals, and which we believe should guide our multilateral negotiations:

First, our negotiations focus on outcomes that are real and achievable. Sound policies pursued in the near term will allow us to avoid the prospect of truly draconian and economically disruptive policies in the future. Measured adjustments now and in the years ahead will enable all nations to reduce emissions in an economically sensible manner. Denial and delay will only make our economies vulnerable in the future.

Second, the United States will continue to seek market-based solutions that are flexible and cost-

The United States recommends a realistic, verifiable and binding medium-term emissions target

effective. We will not accept proposals that are offered for competitive, not environmental reasons. Serious proposals in the future must not be thinly veiled attempts to gain economic advantage. This is a global problem with global impacts and therefore requires solutions that are fair, and that will ensure prosperity — now and for the future — for all the world's people.

And third, the agreement should lay the foundation for continuing progress by all nations in the future. The United States believes that international consideration on this challenge remains critical to any effective response, and that all nations — developed and developing - must contribute to the solution to this challenge. We believe that, while there is a long-term challenge, we must start making progress now and engage the public and private sectors over the medium term as well. Climate change is a serious problem and will require sustained long-term investment and the full creativity of the marketplace.

President Clinton has urged all

Americans and all nations to prepare their economies for the 21st century. Meeting this challenge requires that the genius of the private sector be brought to bear on the challenge of developing the technologies that are necessary to ensure our long-term environmental and economic prosperity.

Based on these principles encompassing environmental protection, realism and achievability, economic prosperity, flexibility, fairness and comprehensiveness — the United States recommends that future negotiations focus on an agreement that sets a realistic, verifiable and binding medium-term emissions target. We believe that the medium-term target must be met through maximum flexibility in the selection of implementation measures, including the use of reliable activities implemented jointly, and trading mechanisms around the world. In addition, our view is that it will be necessary to continue working toward a longer-term concentration goal (e.g. for the next 50-100 years), as set out in the Convention's objective, recognizing that scientific understanding and technology will improve over time. Working toward such a goal would better establish the long-term, global nature of the problem.

Having outlined in broad terms the basic components of an agreement we could support, I want to underscore the expectation of the United States that the agreement be realistic and achievable. Our preliminary analysis of some of the targets that have been tabled for consideration to date suggests that these proposals are neither realistic nor achievable — either because they would compromise other important principles, such as the need for flexibility in time and place of implementation, or because they involve timeframes and objectives that are not consistent

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with national and international prosperity. Our job in the months ahead is to search for agreement on a next step that will produce results that are consistent with our environmental and economic aspirations.

Others have suggested that the negotiations move toward consideration of some ambitious mandatory, internationally coordinated policies and measures. In particular, suggestions are emerging for annexes to the agreement outlining specific actions that relevant Parties would be required to undertake, such as, for example, agreed fiscal or regulatory policies. In our view, the significant differences in national circumstances and individual national approaches to these matters suggest that few, if any individual measures are likely to be applicable to all countries. Therefore, as a general proposition, the United States opposes mandatory harmonized policies and measures. We are open to the possibility of exploring consensus on agreed procedural measures, for example those that might be necessary to implement an international trading regime or ensure enhanced reporting.

Finally ... I want to discuss a difficult component of the negotiations, but one that is essential if we are to make progress over the long term. The United States is committed to ensuring that all countries developed and developing — take steps to limit emissions, consistent with the mandate agreed upon last year in Berlin. We look forward to working together to develop strategies for advancing implementation of this Convention. While we recognize that developed countries have the responsibility to lead, we also believe that this effort must be a partnership with all nations. We stand ready to continue our efforts to provide technical expertise to

work with developing countries to reduce greenhouse gas emissions, and to continue the partnership which we have begun with many.

In summary, we have come to the conclusion that the current structure of the Convention is less than ideal. Performance under the current regime — or lack thereof suggests that a new model must be considered. Next steps must be structured in a way that will help produce the desired results — not just more rhetoric. We believe that the circumstances warrant the adoption of a realistic but binding target, leaving it to individual governments to decide the most appropriate measures to meet the agreed target. We are convinced that the target must be both realistic and binding because it is only through the surety of a commitment of this nature that governments will take their obligations seriously and the only way we can be assured of progress.

We are also convinced that it is the target that should be binding, not the individual measures, thus allowing maximum flexibility in implementation. Continued use of non-binding targets that are not met makes a mockery of the treaty process. It leaves the impression that rhetoric is what counts rather than real emission reductions — an outcome that is both unacceptable and counter productive.

... [T]he United States is committed to making the international climate change process work. The science is convincing; concern about global warming is real and ... we must continue to take steps to address the problem consistent with our long-term economic and environmental aspirations. Working together, it is imperative that we marshal the creativity and will necessary to address this far-reaching challenge. The United States hopes we can negotiate an agreement that is

comprehensive, flexible, fair and certain, and which will help prepare our country and the world — environmentally and economically — for the next century.



Scientific

(Continued from page 1)

able input concerning the observed climate record. Karl and his colleagues at N C D C i n Asheville, North Carolina, developed the Greenhouse Climate



Thomas Karl

Response Index to detect a greenhouse signal within the U.S. climatic data record. They used four indicators: the percent of the U.S. with much above normal minimum temperatures, the percent of the U.S. with much above normal precipitation during the months October through April, the percent of the U.S. in extreme or severe drought during the months May through September, and the percent of the U.S. with a much greater than normal proportion of precipitation derived from extreme one-day precipitation events (exceeding two inches). Karl and his colleagues concluded that there was about a 90 to 95 percent likelihood that this data suggested a greenhouse-induced warming. This work has taken on real significance in U.S. policy discussions.

On fairly modest resources, **Jim Hansen** has built the Goddard Institute for Space Studies in New York City into a world-class center for climate modeling and analysis. He has been principal author of a number of articles which have been influential in improving understanding of climate mechanisms: a 1984 paper presented at the Ewing Symposium, "Climate Sensitivity: Analysis of Cli-

mate Feedback Mechanisms," published as an AGU manuscript, "Regional Greenhouse Climate Effects," first presented at the December 1988 Climate Institute Second North American Conference on Preparing for Climate Change and published in the Proceedings, Coping with Climate Change.

Hansen and his colleagues presented model results showing that greenhouse warming is likely to increase the frequency and severity of



James Hansen

droughts, with greatest impacts in broad regions of the subtropics and middle latitudes and that this same greenhouse warming produces increased frequency of extreme downpours. Following the 1991 Mt. Pinatubo eruption, Hansen and his colleagues published an influential piece in Geophysical Research Letters, "Potential Climate Impact of Mount Pinatubo Eruptions." This analysis projected with remarkable accuracy the likely cooling effect of the eruptions, in the process helping significantly to validate models of climate change.

Within the range of U.S. climate scientists, Kapl and Hansen have been viewed as occupying different parts of the spectrum, with Karl seen as a cautious scientist, careful to avoid pronouncements which might have policy implications, and Hansen, particularly following his declaration during the 1988 U.S. Senate hearings that he believed the global climate record manifested signs of greenhouse warming, seen by some as an activist. Both individuals are self effacing and have each in a different way contributed to the developing global consensus

that recently enabled the IPCC to conclude that "the balance of evidence" indicates a human influence on climate.



Tickell

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advisor to both Mrs. Thatcher and Prime Minister John Major. He has exerted leadership in a range of environmental and scientific organizations including the International Institute for Environment and Development, the Royal Geographical Society and the Green College Centre for Environmental Policy and Understanding. He raised the issue of a potential environmental refugee challenge in a groundbreaking 1989 speech to the Royal Society. Nearly two decades ago he wrote a book, Climatic Change and World Affairs, which documented the role of climatic events in shaping history and pointed to the potential for anthropogenic-induced greenhouse disruption. In the early 1980s he lectured at the National University in Mexico City on the potential for climatic disruption while serving as British Ambassador to Mexico.

At the Climate Institute his involvement has included many crucial interventions beginning with delivering the luncheon keynote at a June 1988 Institute Symposium on Climate Change for UN missions, the first such meeting at the United Nations. He led the Institute's first national briefing on climate change in March 1991 in a session with President Carlos Salinas de Gortari of Mexico in Los Pinos, the Presidential Palace. He chaired an international conference on cities and climate change in March 1992 at the Royal Geographical Society and a follow-up meeting on climate research at

Green College. He headed the international advisory committee that reviewed and contributed to the brilliant study of environmental refugees prepared for the Institute by Norman Myers.

With these actions and numerous speeches, articles and media interviews, Sir Crispin has changed the thinking of leaders across the world on climate change and other global environmental issues. Traditionally this award has been reserved for a head of government or a senior international statesman whose actions have affected global environmental policy in a number of countries. In soundings with many others outside the Institute Board, it is clear that he merits selection as an award winner for all these reasons.

Alvarez

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Korea, and Indonesia as well as the Philippines. As Chair of the Environment Committee of the Philippine Senate, Senator Alvarez has for the past few years been a spearhead of efforts of the East Asia and the Pacific Parliamentarians Conference on Environment and Development (EAPPCED) to address climate change. In November 1991 he was the crucial Philippine liaison for briefings on climate change conducted by a Climate Institute team for President Aquino and her cabinet.

In August 1993, he arranged a meeting for Institute Vice President Ata Qureshi, team leader of an eight-country Asian Development Bank study of climate change, to present preliminary results to President Ramos of the Philippines. With Senator Alvarez's encouragement the President indicated his interest in having the Philippines host the Asia Pacific Leaders Summit following the publication of the studies coordinated by the Institute. He then won endorse-

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ment of the EAPPCED for such a conference in the Philippines and recruited region-wide parliamentary participation. Together with his wife Cecile, he generated an extraordinarily high level of public interest in the Philippines on climate change, including the publication of a half-hour film, Global Warming, and the sponsorship of national competitions among Philippine artists on climate change. Drawing on the authority of the Manila Declaration emanating from the conference he chaired, he was a major force at the Berlin Conference of the Parties in pressing for cooperative international action.

Senator Alvarez will keynote the Green Energy component of the Washington Summit.

Business and Financial

(Continued from page 1)

the implications of climate change for the insurance industry: Frank Nutter, President of the Reinsurance Association of America, and Jeremy Leggett, Director of the



Frank_Nutter

Oxford Solar Investment Summit and Director of the Greenpeace Solar Inititative.

Mr. Nutter has sought to make insurance companies and the U.S. Congress aware of the potential disruptive impact of climate change for the insurance and reinsurance industries. He has worked effectively for the past several years to increase awareness among insurance CEOs of potential implications of climate change. He also made U.S. Congressional appropriations committees aware during the recent budget battles of the adverse implication for U.S. industry of slashing appropriations for climate science.

Dr. Leggett has worked closely with insurance companies in the U.K., the European Continent, North America and Japan to persuade them that they should consider hedging the risk they face from cli- Jeremy Leggett mate-induced dis-



ruption through increased investment in renewables. His work was crucial to the movement within the international insurance industry to sign the UNEP statement. His 1993 Greenpeace report entitled, "Climate Change and the Insurance Industry," received wide attention at the top of that business sector. His annual lecture on climate change to the UK's Chartered Insurance Institute in 1994 has been made into a video marketed by Sun Alliance. His papers on climate change have appeared in many business, financial and legal journals. Despite the confrontational reputation which Greenpeace enjoys among many in the business community, Dr. Leggett has been a remarkable builder of consensus working closely and effectively with conservative financial leaders on several continents. He has also begun to meld these efforts to build interest among multibillion dollar financial institutions in designing green energy investment responses and eliciting tangible commitments to similar investments among grass roots organizations such as religious groups, civic organizations, and mass membership environmental groups.

Blue Planet Prize to Swaminathan Foundation and Broecker

The two Blue Planet Prize recipients for 1996 are the M.S. Swaminathan Research Foundation of India and Dr. Wallace S. Broecker of Columbia University in the U.S.

This is the fifth year of the prizes established by the Asahi Glass Foundation of Japan, "in the hopes that our blue planet will be a

shared asset capable of sustaining human life far into the future" and that "through the ingenuity and earnest efforts of humanity, the serious environmental problems that we now face will someday be solved."

The prize-winning **Swaminathan** Research Foundation was selected for playing an important role in the search for solutions to global environmental problems. It has conducted research into the conservation of coastal ecosystems, particularly mangrove wetlands, studying the vegetation, salinity of the soil and other aspects of the mangroves and taking steps to restore those that are degraded. Promoting sustainable agroforestry and aquaculture and using organic fertilizers, the program helps establish integrated coastal management systems for an ecologically sustainable livelihood for coastal families.

The Foundation also conducts a biodiversity program to rescue endangered plants, identify indicators of ecosystem health, conserve genetic diversity, and in the process creating a community gene bank. It is promoting the biovillage model of sustainable rural development in India, China, and Southeast Asia, helping to conserve the natural environment of developing countries while supporting the eco-

nomic viability of rural communities.

In December 1995, the Founda-



 $t \ i \ o \ n$ Swaminathan Research jointly Foundation

vened with the Climate Institute a climate change workshop in Madras on action plans for developing world villages. The precise action plans focused on specific measures to ensure adequate food, clean water, efficient

energy production and protection of waters and deep waters of the ocean coastal regions.

Through his systematic measurements of carbon and other chemical elements and isotopes, Dr. Broecker,

Newberry Pro-



Wallace Broecker

fessor of Geology at the Lamont-Doherty Earth Observatory of Columbia University, has contributed to the understanding of chemical cycles in the oceans. In the 1980s he was the first to recognize the importance of the "great conveyor belt," a global ocean current that circulates from the North Atlantic

through the Indian and Pacific

Oceans. He clarified how the surface

ways to earn a living, especially in move in a cycle that takes 1,000 to 2,000 years, and he pioneered the use of chemical and isotopic methods to determine the rate of gas exchange between the atmosphere and the ocean.

He recognized the significance of the global carbon cycle early and devised a method of using radiocarbon measurement on samples of ocean water. His analysis of these data has shed light on the influence of such processes on climate change. Describing human emissions of greenhouse gases as playing Russian roulette with the climate, he was among the first to sound the alarm about global warming.

The Asahi Glass Foundation (first established in a more limited format in 1933) is the oldest organi-

zation of its kind in Japan and provides monetary assistance to applied chemistry departments in public and private universities and their affiliated research institutes. Recently it expanded its scope to include the natural sciences as well as human and social sciences, with particular attention paid to international research contributing to the scientific and technological advancement of humankind. The total budget for the Foundation's activities in fiscal 1997 is 610 million yen (approximately \$5.6 million). The awards ceremony for the winners of the 1996 Blue Planet Prize is scheduled for October 31 in Tokyo.



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Nongovernmental Perspective. February 2-4, 1990, Washington, D.C. Cost: \$10, includes postage and handling. copy/copies of The Arctic and Global Change, October 25-27, 1989, Ottawa, Ontario, Canada. Cost: \$25 plus Please send me_

\$2 for postage and handling. copy/copies of the *Proceedings* of the North American Conference on Forestry Responses to Climate Change, Please send me

May 15-17, 1990, Washington, D.C. \$35 postpaid. Please send me_ set/sets of greenhouse effect slides. Approximately 40 slides with accompanying talking points script. Cost:

\$85 plus \$10 shipping and handling. Circle language(s) you wish to order: English, Spanish, Turkish, Indonesian, Arabic, French, Chinese, Russian, Portuguese

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Chesapeake Bay Conference at Washington College, Chestertown Maryland October 18 and 19, 1996

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(There is no charge for the conference.)

I plan to attend the Chesapeake Bay Conference, including:
the reception, film showing and displays on Friday evening, October 18
the sessions on Saturday October 19
Sessions include:
Implications for Agriculture
Increasing Awareness: A Workshop for Educators
The Great Wetlands Controversy
Bedrooms or Beaches: Issues of Shoreline Development
The IPCC: The Bigger Picture

The Conference is funded by the USEPA, organized by the Climate Institute and co-sponsored by the Institute, Washington College and the University of Maryland

Please return this form: Att. Michele Pena, Climate Institute, 120 Maryland Avenue, NE, Washington, DC 20002; FAX: 202/547-0111; e-mail: climateinst@igc.apc.org. For questions, please call 202/547-0104.

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