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GCC

CLIMATE WATCH

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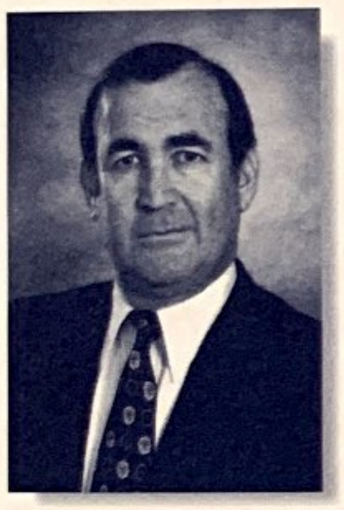
U.S. CLIMATE ACTION REPORT — UPDATE INSIDE

Executive Director's Column

INC 10 Concludes, Issues Unresolved

By John Shlaes

Twenty-two weeks of negotiations on climate change came to a close on September 3 with the conclusion of INC 10. It was apparent to all who participated in the sessions that many of the issues being debated by negotiators are new, complicated and far reaching. Many developing countries seem to be questioning the proposals for additional efforts to go beyond the current terms and measures called for in the Framework Convention on Climate Change (FCCC).



As an example, over a dozen countries, including China, Russia, Brazil and Iran, called for a "cautious approach to the review of the adequacy of commitments..." and "the need to focus on implementation of existing commitments...." Furthermore, some countries "expressed the opinion that the scientific, technical, and economic information that had been the basis of the existing commitments was basically unchanged and, therefore, did not warrant new commitments."

On the other side of the issue, the Alliance of Small Island States (AOSIS) called for a protocol mandating emissions reduction targets and timetables, despite remaining uncertainties. (One has now been filed.) Germany, after apparently much internal debate at home, called for the first meeting of the Conference of the Parties (COP-1), which meets in Berlin from March 28 to April 7, 1995, to adopt several protocols (binding agreements) for "stabilizing... CO_2 emissions" and to "limit or reduce" individual gases, such as methane, nitrous oxide, fluorocarbons, H-fluorocarbons, tetrafluoromethane, and hexafluoromethane. Further, while not specifying dates or time frames, they clearly indicated their preference for "targets and timetables." The German approach, "could include the application of economic instruments like the CO_2 - energy tax."

The focus of the U.S. comments on the adequacy of the FCCC's commitments was reflected in comments made by Under Secretary for Global Affairs Tim Wirth on August 3: "Any regime for the post-2000 period should have several characteristics....It should be compre-

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Weather Extremes Inaccurately Linked To Global Climate Change

In a recent report, "The Climate Timebomb," Greenpeace has amassed a lengthy list of extreme weather events in an attempt to show that rising atmospheric levels of carbon dioxide already are having a catastrophic impact on global climate.

The report details more than 500 instances of severe weather occurring in the past four years. Though the publication offers no scientific evidence linking the events to greenhouse gas emissions, or even to any warming trend, the report's authors claim that only curbs on greenhouse gases will stop the severe floods, cyclones and forest fires.

Many climate experts and other scientists, however, disagree and present other explanations for these weather events. Studies by Dr. Daniel J. Leathers of the University of Delaware and Dr. Michael A. Palecki of the State University of New York at Buffalo note that the jet stream, along which storms develop, broke sharply from a flat pattern in the late 1950s into the curvy pattern it has maintained since. This pattern serves to bring colder, wetter weather down from the Northeast and warmer, drier weather up from the West. Variations on this pattern are believed responsible for such weather events as last winter's snowstorms in the Northeast.

Dr. Robert Quayle, the Global Climate Lab Chief at the National Climatic Data Center in Asheville, North Carolina, told *Climate Watch* he would caution against "linking episodic weather events to such variabilities as man-made CO_2 emissions." Dr. Quayle notes that such weather oddities can be the norm, citing the dust-bowl period in the 1930s and the increase in hurricane activity in the 1950s, which no one has suggested were caused by man-made factors.

The World Meteorological Organization similarly warns against drawing tenuous broad conclusions from specific weather occurrences. The organization noted that the understanding of the magnitude and pattern of changes in variables as a result of climate change is still limited, and "therefore, care must be taken in attempting to relate the anomalies and their extent to climate change."

(Sources: NYT 5/24/94 & World Meteorological Organization Press Release #531)

International News Update

Activists Challenge Plans For Power Plant in New Zealand

Greenpeace International is taking legal action against the New Zealand government over the construction of a gas-fired power station. Greenpeace claims that the plans to build the power station violate New Zealand's commitment to fight global warming and reduce carbon dioxide emissions.

The success of this suit could set a legal precedent affecting other countries that have signed the Framework Convention on Climate Change and may create obstacles to meeting increasing power demands. According to the Reuter wire service report, the Greenpeace spokesperson said, "What we are really calling for is a power station moratorium."

(Source: Reuter 8/19/94)

Japan Announces It Will Fall Short of Emissions Target

The Japanese government recently announced that the country will be unable to meet its commitment under the Framework Convention on Climate Change to reduce CO_2 emissions to 1990 levels by the year 2000.

Even if every countermeasure proposed by the Japanese government is fully implemented, Japan's CO_2 emissions will still be 3.1 percent higher in 2000 than they were in 1990. The government forecast estimates that CO_2 emissions would reach 330 million tons per year by 2000, up from 320 million in 1990. If Japan's CO_2 emissions go unchecked, however, they will increase 13.8 percent by the year 2000, reaching 364 million tons per year.

(Source: Greenwire 8/3/94 & UPI 8/1/94)

Four European Countries Propose Tougher CO_2 Restrictions

The environment ministers from Germany, Austria, Switzerland and Liechtenstein began drafting a joint plan for reducing emissions of carbon dioxide at a mid-August meeting on environmental issues. The ministers' plan will seek to increase the restrictions on CO_2 emissions currently contained in the U.N. Climate Convention. The group hopes to have its proposal ready for presentation at the first Conference of the Parties in Berlin in 1995.

(Source: Reuter 8/21/94)

European Carbon Emissions Drop, Says New Report

A new report released by the European Commission indicates CO_2 emissions from the European Union have declined since 1990. While the emissions figures from 1993 are not yet official, they show a drop of 3.2 percent from 1990 levels. The report says that this drop may, in part, be due to a switch from the use of solid fuels to liquid fuels and natural gas.

The London-based World Energy Council found a sharp decline of 249 million tons of CO_2 emissions from the former communist countries of Eastern Europe. Emissions from Western Europe declined as well, though on a smaller scale. A reduction in coal consumption by Germany, the UK and Italy may have contributed to the cuts in emissions.

Sounding a growing theme, the World Energy Council cautioned that in the future, emissions reduction efforts need to focus on the exploding CO_2 emissions in the Asia-Pacific region.

(Source: Financial Times 8/1/94)

New Study Reports Long-term Cooling Trend

A recent study published in *Science* magazine reports on findings of two scientists from the California Institute of Technology who have uncovered evidence through research on tree rings that the Earth has been cooling for at least 6,800 years. The trees, from the White Mountains of California, record a temperature drop of about 5 degrees, starting about 4800 B.C.

Using measurements taken from three trees, the scientists found evidence of slight temperature increases until 6,800 years ago, when a long cooling slide began. The cooling trend leveled out between 2,000 and 400 years ago, after which temperatures again declined. The study found the coldest period was between 1700 and 1900. Because the trees studied were cut in 1950, the scientists' measurements do not include estimates for the past four decades.

According to lead researcher Samuel Epstein, the study "gives a continuous record for the first time on land, instead of on the ice cap, of the temperature trends" and provides a better picture of the climate history. Epstein said the results mesh with findings of other studies, such as the ice core studies in Northern Canada, and point strongly toward a natural global cooling trend in climatic history.

(Source: Science 8/19/94)

Worth Quoting —

"Too many theories are chasing too few measurements!"

— Peter V. Hobbs commenting in Aerosol-Cloud-Climate Interaction on the lack of conclusive evidence in the global warming debate.

U.S. Submits Climate Action Report to U.N.

The U.S. State Department has submitted a Climate Action Report to the U.N. Intergovernmental Negotiating Committee as a part of its obligations as a signatory to the Framework Convention on Climate Change *(see box below)*. Unable to provide enough time and detail for a thorough public review of the plan before the required date for submission to the U.N., the State Department did hear from the GCC and other business groups with their initial reactions.

The GCC said, "The business and industrial community is ideally placed to provide the technologies and management practices required to enable these countries to...acquire ...more efficient power plants, transportation systems, lighting, refrigeration, air conditioning, building design, and the like."

The GCC also stated its belief that the current treaty needs to be implemented before policymakers sign off on "additional mandates beyond those now in the Convention.... The sensible and cost-effective approach for the U.S. is to promote action by all nations, not just the West, and to encourage technology transfer and voluntary business/ government partnerships."

Specific recommendations were made on the following issues:

Post-2000 Actions - Additional post-2000 commitments should not be made, as the state of the science does not justify them and as current actions will have substantial post-2000 effects.

1990 Baseline - The 1990 greenhouse gas emissions baseline should not be changed by using new and unvalidated data. Furthermore, it will take time to gauge the impacts of current and additional actions being undertaken by industry, government and others.

Joint Implementation - The private sector role in foreign investments and expanding the participation of developing countries in the convention is vital to U.S. progress and leadership.

National Circumstances and Historical Trends - The U.S. is, and has been, a leader in improving energy efficiencies and thereby reducing greenhouse gas emissions substantially below levels they would otherwise reach. This progress occurred even though U.S. resources, industry, climate, geography and other circumstances are markedly different than in other countries.

State of the Science - Substantial uncertainties in the science of global climate change must be resolved before any further commitments to "aims" occur.

Adaptation - Adaptation strategies should be an important part of the overall U.S. approach to global climate change.

Research and Public Education - Scientific research to resolve the substantial uncertainties regarding climate change, dissemination of the results globally, energy technology development to facilitate reduced emissions, and better understanding of the economic impacts of climate change are critical elements of the U.S. Climate Action Report.

Long-Term Approach and Technology Development - The U.S. actions under way already will have substantial post-2000 impacts. We should continue on the path of voluntary greenhouse gas emission reductions that make economic sense in their own right. More industry access to government coordination of the administration's recent technology initiatives would improve their potential for emissions reductions.

Copies of the Climate Action Report are available from the Office of Global Change, U.S. State Department, (202) 647-4069.

The U.S. Climate Action Report

The Climate Action Report was released on October 6. The plan includes chapters on:

- **National Circumstances** - Details U.S. population trends, natural resources, economic factors, energy needs, government structure and federal policies.
- **Greenhouse Gas Emissions Inventory** - Outlines recent trends in emissions.
- **Mitigation: The Action Plan** - Explains how laws such as the Energy Policy Act and voluntary actions taken by industry will reduce man-made greenhouse gas emissions.
- **Impacts and Adaptation** - Discusses how ecosystems will adapt, if necessary, to climate change.
- **Research and Public Education** - Describes U.S. scientific and education programs related to climate change.
- **International Activities** - Covers U.S. participation in and support for a range of international programs, including bilateral mitigation projects and organizations such as the Global Environment Facility.
- **The Future** - Examines the difficulty of making precise predicitions of future emissions and looks ahead to the goal of reducing emissions by the year 2000 and thereafter.

Renewable Energy

Continued from page 4

short-term commercialization goals.

The emphasis placed on balancing research and development goals with an increase in commercialization efforts will help to make available technologies more marketable. This will not only improve the environment, but will benefit the nation's economy.

(For more information, contact the Office of Energy Efficiency and Renewable Energy. 202-586-9220)

GCC Appeals to Administration In Response to Misleading IPCC Press Release

The GCC joined several other business organizations in writing the following letter to Clinton administration officials expressing great concern about a misleading and inaccurate press statement released on September 14 by the Intergovernmental Panel on Climate Change.

September 21, 1994

Dear Mr. Pomerance and Dr. Watson:

The undersigned U.S. business organizations participated in, or were represented at, last week's meeting of Working Group I of the Intergovernmental Panel on Climate Change (IPCC) in Maastricht. The purpose of the meeting was to accept the IPCC's 1994 Report on the Carbon Cycle and to "approve" a policymakers summary, so they could be considered at an IPCC plenary in November. We previously had submitted to the IPCC and to the U.S. government extensive, written comments on the draft report that was supposed to be considered at the Maastricht meeting.

The first purpose of this letter is to inform you of the serious concerns our organizations have regarding the "management" of IPCC Working Group I's seemingly conscious violation of IPCC rules of procedure for preparation of scientific assessments and the unjustified release of an unapproved press statement misrepresenting the scientific conclusions of the IPCC. Our second purpose is to urge that the United States demonstrate leadership by using its considerable influence to bring a prompt halt to these practices, which undermine objectivity and the reputation of the IPCC. The integrity of the IPCC is at issue, and only concerted effort by the United States can sustain the usefulness of that organization.

Our concerns arose initially when the IPCC meeting was asked to approve a summary for nations' policymakers of an underlying report that had not been completed and was not available for review either before or at the meeting. That was an admitted violation of the carefully negotiated IPCC rules of procedure governing preparation of its scientific reports. These rules explicitly require circulation of an underlying report at least three weeks prior to a meeting to consider "accepting" it and "approving" a summary thereof for policymakers. This action also defied common sense, because there was no way for delegations attending the meeting to know whether various conclusions in the summary were scientifically credible, and there was no time to consult appropriate experts to verify the conclusions.

U.S. industry representatives made a constructive proposal to deal with the inexcusable situation that existed. They urged that any "approval" of the policymakers summary and any "acceptance" of the report, which at that point was still being written, should be regarded as "provisional," with final action to be deferred until the November IPCC plenary session in Nairobi. That would enable governments and non-government experts to review the underlying draft report to determine not only whether its information on various issues merely echoed the preconceived conclusions in the policymakers summary, but, also, whether such information was adequately supported by published, peer-reviewed scientific literature. This proposal was supported by some countries, but we were very disappointed that the U.S. government delegation did not support our proposal.

One practical consequence of the improper procedure used by IPCC Working Group I was the issuance of a press release by certain officials on their own initiative based on a "new" IPCC report on radiative forcing "approved here [in Maastricht] today." The press release angered many delegations, who brought this to the attention of the plenary.

The press release was a premature and distorted version of what the IPCC meeting even discussed, much less approved. Contrary to the headline and the lead sentence, the Maastricht meeting did not "confirm risk of climate change," and it did not even come close to concluding that "the world's climate is at serious risk." As you know, neither the Maastricht meeting, nor the earlier draft of the underlying report, nor the policymakers summary dealt with the issues of what climate change might be estimated by the climate models or whether such change, if any, should be a cause of concern. Those issues were not discussed in Maastricht and will not be dealt with until the IPCC's Second Assessment Report, scheduled for late 1995.

It is apparent that those responsible for issuing the press release were trying to use the IPCC to persuade policymakers and the public of their personal views concerning climate change scientific and policy issues, even though that view does not represent a consensus. Although the U.S. delegation joined other nations at the meeting in expressing its concern about the uncalled-for press release, we are extremely disappointed that the U.S. delegation did not insist that the media be notified and that the press release be withdrawn or, at minimum, that it be corrected by a subsequent press statement. As a result, the U.S. media -- we emphasize, through no fault of its own -- has run multiple stories, based on the IPCC press release, that totally mischaracterize the current state of scientific conclusions on the issue of potential global climate change.

We believe that the United States, which provides a disproportionate share of the funding for the IPCC and which contributes a significant portion of the scientific talent devoted to IPCC reports, has the responsibility to exercise real leadership to correct this unfortunate situation and to ensure that it is not repeated in the future. A great deal of time and effort, supported by the U.S. government, went into development of IPCC rules intended to assure that IPCC pronouncements on scientific, technical and economic issues would be objective and not conform to any particular view of appropriate policies. The Maastricht experience demonstrates that all such effort is at peril of being undermined by procedures that are wholly inconsistent with IPCC rules or credibility.

We request the opportunity to meet with both of you and other officials you may care to involve for the purpose of discussing specific measures that, under U.S. leadership, might be undertaken to assure there will be no repetition of the practices by the IPCC to which we have referred. We suggest a meeting on October 3, 4, or 5, or at a mutually convenient time during the week of October 10. At that time, we will suggest constructive proposals for your consideration.

The U.S. business community has been very supportive of the efforts to ensure the integrity of the IPCC process. We have participated extensively in its activities through our various organizations and hope that, with IPCC adherence to fair and proper procedures, we can continue our efforts.

Sincerely yours,

GLOBAL CLIMATE COALITION
THE CLIMATE COUNCIL
AMERICAN ASSOCIATION OF RAILROADS
AMERICAN PETROLEUM INSTITUTE
NATIONAL COAL ASSOCIATION
NATIONAL ASSOCIATION OF MANUFACTURERS
AMERICAN AUTOMOBILE MANUFACTURERS ASSOCIATION
EDISON ELECTRIC INSTITUTE

Science News Update

Decade-Old El Niño Still Affecting Weather Patterns

Researchers at NASA's Stennis Space Center in Mississippi and the University of Colorado at Boulder have found evidence that the 1983 El Niño is continuing to affect global weather patterns and climate 11 years after its occurrence.

Scientists have long known that periodic (every two to seven years) warmings of sea surface temperatures in the Pacific Ocean, an effect referred to as El Niño, affect weather in North and South America, Australia and even Africa. Until recently, experts believed the impacts of El Niño subsided when the sea temperatures around the Earth's equator returned to normal, usually after one to three years. The new evidence, however, suggests that the impacts may be felt for many more years and across a broader geographical area.

Using satellites to track movements of warm ocean waters following the 1983 El Niño, scientists have discovered that a massive wave of warm water (originally linked to the 1983 El Niño) continues to sweep across parts of the Pacific Ocean. Because warm sea surface temperatures directly influence the creation of enormous storm systems, the finding may help explain the unusually extreme weather occurrences of the past 10 years. However, the precise consequences of the lingering El Niño will not be known without further research.

(Source: Science News 8/6/94)

Energy Department Launches Program to Aid Climate Research

In an attempt to improve computer models being used to study potential global warming by incorporating an understanding of the effects of solar and infrared radiation on the climate, the Department of Energy is building a 50,000-square-foot research site in Kansas and Oklahoma. As part of the DOE's Atmospheric Radiation Measurement (ARM) program, data will be collected from 38 locations at the site covering an area about 225 miles per side, about the size of one sector in the "grid" into which computer models divide the atmosphere when simulating climate changes.

Up to five so called Cloud and Radiation Testbed (CART) sites will be set up around the world to collect data on the behavior of solar and infrared radiation in the atmosphere. The program seeks to reduce current uncertainties related to cloud behavior and radiative transfer physics. Readings will be taken in clear, partly cloudy and overcast conditions to gain a comprehensive understanding of the effects of the different weather conditions.

DOE hopes that the data will be of use in developing better strategies to produce energy and will allow for more reliable readings on global climate change.

Natural Thermostat May Govern Atmospheric Temperature

A study recently released by scientists from the University of California at San Diego explores the possible existence of a natural thermostat regulating atmospheric temperatures over parts of the Pacific Ocean.

Water vapor in the air over the Pacific Ocean gives off so much heat to the ocean that the ocean, in turn, releases even more water vapor. This process would seem to set in motion a cycle of activity resulting in atmospheric warming.

However, this "runaway" temperature increase does not occur. Measurements show that ocean temperatures around the equator tend to level off at 85 degrees. Some scientists suggest that, because the water temperatures stop rising at this point, some natural phenomenon must regulate the otherwise unchecked temperature increases.

Researchers from the UCSD's Scripps Institution of Oceanography and 19 other universities conducted a month-long study of the phenomenon. The Central Equatorial Pacific Experiment (CEPEX) study involved the use of satellites, airplanes and boats to measure the interactions of air, water and clouds in the Pacific Ocean in an attempt to gain a clearer understanding of the complex dynamics that affect climate.

Veerabhadran Ramanatahn, who led the study, concludes that one of the limiting factors may be high banks of thick, ice crystal-laden clouds that form as a result of the heat and then act as an umbrella, reflecting additional sunlight.

(Source: Science 7/8/94)

DOE Focus: Commercializing Renewable Energy

As part of the implementation of the Climate Change Action Plan, the Department of Energy will place a stronger emphasis on the commercialization of renewable energy sources. Christine Ervin, assistant secretary for energy efficiency and renewable energy, told *Climate Watch* that a new team will work to increase the international competitiveness of U.S. firms in their competition for both renewable energy and energy efficiency systems.

Dr. Helena Chum, who heads the industrial programs at DOE's National Renewable Energy Laboratory, will lead a group examining industrial competitiveness and pollution prevention.

Dr. Robert San Martin, who currently is the deputy assistant secretary for utility technologies, will serve as Ervin's chief science advisor in an effort to create a balance for DOE's projects between long-term research and development, and

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INC 10 Concludes

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hensive, flexible, cooperative, sustainable, innovative, beneficial, equitable and pragmatic." The U.S. delegation went on to recommend that the COP establish a formal process for considering "next steps" in at least five areas. These next steps are: "Establishing a new aim (post-2000), developing common actions (linking the aim with action), enlisting public and private sector expertise, strengthening the convention process, and promoting broader leadership." The U.S. called for a "deadline or endpoint" for this process and, while referencing a "Ministerial Declaration" or a "decision by the Conference of the Parties," left open specific proposals as to how to proceed.

In reviewing the comments of many countries that are calling for a cautious and deliberative approach -- as opposed to the strongly stated views of the Germans and calls by the U.S. for further aims -- there are increasing concerns that some countries are moving toward dramatically new regulatory concepts and ideas while several proposals for dealing with the climate issue are still untried and untested. One example is the voluntary programs being developed by the U.S. and others. Components of these programs, such as the U.S. electric industry's Climate Challenge, offer the promise of significant greenhouse gas reductions.

Another area is joint implementation (JI). While JI represents a new approach to international transactions between countries, it offers the promise and potential of providing developing countries with new technologies and techniques to limit emissions. In discussing the proposal, the U.S. provided a conceptual framework that was intended to move the negotiations along. While Russia and other Eastern European countries were willing to give credit/recognition for JI, several developing countries -- at least at INC 10 -- were not generally responsive.

It is obvious that the U.S. and others will have to redouble their efforts in explaining to potential partners -- many with quickly rising emissions -- the wide range of economic and environmental benefits in helping to design their own national programs. Perhaps also, those who have advanced technologies and resources will have to work harder with developing countries on a broader framework of technology programs and cooperation, in which JI is cast as one of many potential approaches. The slow progress in this area reflects the fact that many complicated and difficult factors, such as the underlying information on social and economic impacts, are not available or understood.

The Global Climate Coalition has always advocated a step-by-step approach that would allow for analysis and "feedback" on the measures we undertake. We still feel, as we saw demonstrated at INC 10, that countries need time to consider impacts and approaches before "leapfrogging" to even more mandates. ●

Climate Watch is published bi-monthly by Global Climate Coalition, an organization of business trade associations and private companies established to coordinate business participation in the scientific and policy debate on global climate change.

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