



CLIMATE CHANGE

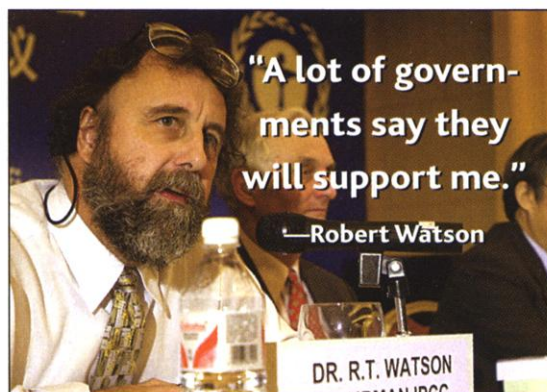
Battle Over IPCC Chair Renews Debate on U.S. Climate Policy

Global organizations rarely reach meaningful consensus. That makes even more remarkable the decade-long success of the Intergovernmental Panel on Climate Change (IPCC) in forging a common position on the science of global warming. But when scientists from around the world meet next week in Geneva to elect a new chair of the organization, that spirit of consensus will be sorely tested.

The challenge comes from the U.S. government's decision to back an Indian engineer-economist rather than renominate an American atmospheric chemist. That action sets the stage for an international referendum on the Bush Administration's position on climate change.

Senior researchers around the world fear that the U.S. move is part of a campaign to undermine the scientific credibility of

IPCC, whose reports have shaped the global agenda on climate change. White House and State Department officials strenuously deny that charge, noting that they have nominated a respected U.S. scientist to lead a key IPCC



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working group. They say that the move to replace Robert Watson after one 5-year term (*Science*, 26 September 1997, p. 1916) is designed to improve relations with India and elevate a researcher from a developing country. Their candidate is Rajendra Pachauri, now vice chair, who has headed New Delhi's private nonprofit Tata Energy Research Institute for 20 years. He was nominated by the Indian government.

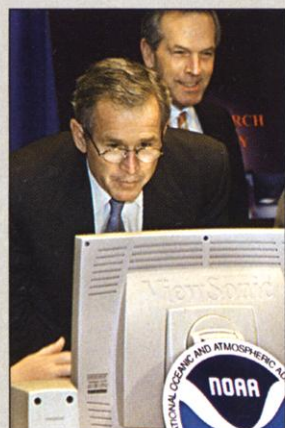
The U.S. action has alarmed other member nations already irritated with President George W. Bush's rejection of the Kyoto protocol.

Representatives from a consortium of European countries as well as Brazil, South Africa, and several island nations say they will support Watson at the Geneva meeting, which begins 17 April. "A lot of governments say they will support me," says Watson, chief scientist for the World Bank and a top environmental adviser in President Bill Clinton's White House.

If Watson were reelected, it would be an embarrassing defeat for both the Bush Administration and the Indian government. To

White House Shakes Up U.S. Program

In the midst of a fight over who will lead the international group overseeing climate change research, the Bush Administration is quietly shifting oversight of the U.S. Global Change Research Program (GCRP) from a scientific steering group to the Commerce Department. Some researchers fear that the move could undermine the quality of the \$1.7 billion effort.



Changing climate. President Bush gives bigger role to Commerce's Evans (rear).

The current program was set up in the early 1990s and embraces a half-dozen agencies such as NASA, the National Science Foundation, and the Environmental Protection Agency. An interagency office run by researchers coordinates those various programs. Last June, President George W. Bush urged a rethinking of the effort.

Bush's science adviser John Marburger and Conrad Lautenbacher, chief of the Commerce Department's National Oceanic and Atmospheric Administration, outlined the new plan at a meeting in Washington on 1 April. According to documents obtained by *Science*, a new organization called the climate

change science program office would be headed by the assistant Commerce secretary for oceans and atmosphere—a political appointee. Meteorologist James Mahoney, most recently president of an environmental consulting firm, was sworn into the Commerce job last week.

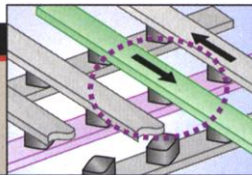
The present GCRP would be subsumed under the new organization, and a parallel office for climate change technology would be run out of the Energy Department. Both offices would report to an interagency working group, which in turn would report to a committee chaired by the secretary of Commerce.

The current structure "is not the right design for producing policy recommendations," says Marburger, who would manage the committee. Giving Commerce Secretary Don Evans oversight of the program will make it easier to convert research findings into policy recommendations, he says, adding that he expects the move will have only "modest impact" on the research itself. Others, however, worry that the move gives politicians too large a voice. "There is a potential perception that you could be tying science to the politics more closely," says one of several U.S. government researchers who asked not to be identified. The Commerce Department's main job, he noted, is to promote U.S. business, which typically opposes efforts to reduce greenhouse gases.

Marburger says Bush is sensitive to these concerns. "The president does not want to disrupt the present research program," he says, noting a \$40 million request in the 2003 budget to fill gaps in areas such as climate modeling.

—ANDREW LAWLER

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Inflammation
and heart
diseaseWill memories
be made
of this?Nature's
sticky
lessons

avoid a divisive vote, leading delegates are floating a compromise to split the unpaid position between the two men. Watson backs the idea, but Pachauri is having none of it. "I totally reject this proposal," he says. "Two co-chairs is an unworkable concept except for someone who is desperate to keep the title of chairman in any form."

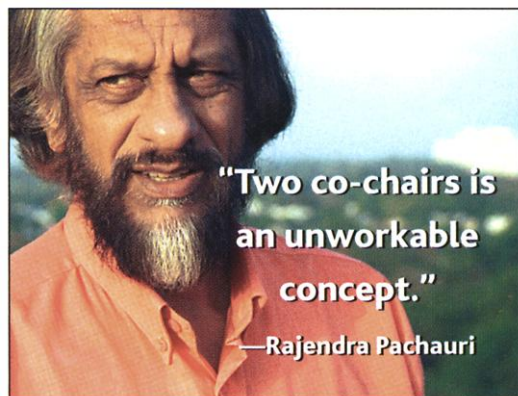
The controversy shines a spotlight on IPCC, set up in 1988 by the World Meteorological Organization and the United Nations to assess the scientific, social, and economic issues related to human-induced climate change. The organization—which includes members from more than 170 countries—pulls together climate data and other information in comprehensive reports painstakingly reviewed and published roughly every 5 years. IPCC has profoundly altered the climate change debate; the 1995 report, for example, led to the 1997 Kyoto protocol in which political leaders acknowledged the need to address global warming.

Unlike many international bodies, IPCC is small, enormously influential, and mostly run by volunteers. A small Geneva-based bureau, led by a chair and five vice chairs, oversees the panel's work. Working groups examine climate change science, the impacts of climate change, and ways to mitigate and adapt to the problem, including reducing greenhouse gas emissions. Each group has two co-chairs, one from a developed country and one from the developing world, and each report is carefully vetted and then approved by IPCC members. Although each member technically has a vote, the chair typically is elected by acclamation.

Researchers attribute much of IPCC's scientific credibility to Watson and Bert Bolin of Sweden, the panel's founding chair. "[Watson] has been absolutely extraordinary," says William Moomaw, a chemist and environmental policy professor at Tufts University in Medford, Massachusetts, who also is a long-time acquaintance of Pachauri. "He's taken on the toughest issues and gotten the best people." Adds Michael McCracken, a senior scientist with the U.S. global change research program: "[Watson] is up on the science, has the ability to encourage a wide range of information, and knows how to push toward consensus." A host of other researchers echo that praise. "He's been an impartial and driving force," says Bolin, who served two terms as IPCC chair.

The physical scientists who form the core of IPCC worry that a chair without a track record of research in the field could weaken the organization's reputation. "Without a strong leader, you won't draw the best scientists," worries James McCarthy, a Harvard University oceanographer who has co-chaired an IPCC working group. But nuclear engineer Tomihiro Taniguchi, head of nuclear safety at the International Atomic Energy Agency (IAEA) in Vienna and a former vice chair of IPCC, says that Pachauri's skills as an economist will be valuable because "the discussion on climate change is moving from the science, which is now well accepted, to the more complex aspects of sustainability."

The Bush Administration's support for Pachauri isn't ideological, says State Department deputy spokesperson Philip Reeker. Instead, he says, it's based on his



qualifications and the value of having a panel chair from the developing world. Privately, however, Administration officials say that Watson's occasional criticism of the U.S. stance on climate change and his role in the first Clinton Administration made it impossible to renominate him. Watson is also a *bête noire* to U.S. energy lobbyists. Although Reeker denies that industry played a role in the decision, a February 2001 memo to the White House Council on Environmental Quality from ExxonMobil lobbyist Randy Randol claims that Watson was "handpicked by Al Gore" and should be replaced. The memo was provided to *Science* by the Natural Resources Defense Council, a New York City-based nonprofit that opposes the Administration's views on global change.

Pachauri, however, may be less sympathetic to the Bush Administration's stance than Watson is. "I am not a toady of the

U.S.," he says, adding that "I was very critical of the U.S." for opposing the limits on greenhouse gases laid out in the Kyoto protocol. He also is a strong opponent of concepts favored by developed nations, such as emissions trading. "Free-market solutions will not work," he says.

Many researchers see the move as part of a wider campaign by industry and the White House to attack IPCC's credibility. "It is scandalous," says Princeton University atmospheric scientist Michael Oppenheimer. "This is an invasion of narrow political considerations into a scientific process."

But presidential science adviser John Marburger rejects that idea. "There is no evidence of a politically driven conspiracy theory," says Marburger, who attended several meetings devoted to the IPCC election. As evidence, he cites the U.S. decision to back Susan Solomon, an atmospheric chemist at the National Oceanic and Atmospheric Administration's lab in Boulder, Colorado, as co-chair of the science working group. "That's where the science needs to be focused, and she'll do an excellent job for us," he adds. Solomon would be the first American to lead that group.

Climate change scientists will be watching the Bush Administration's every move to judge the accuracy of Marburger's statement. In the meantime, a big part of the job facing the Geneva delegates will be to show that the damage to the usual spirit of consensus can be repaired.

—ANDREW LAWLER

With reporting by Pallava Bagla and Richard Stone.

PRIMATE EVOLUTION

Gene Activity Clocks Brain's Fast Evolution

A team of molecular biologists has taken a stab at defining what makes us human. Its answer: We're set apart from other primates not so much by differences in the makeup of our genes but by relatively recent changes in how active those genes are. Such changes are most dramatic in the brain, where they've occurred at a faster rate in humans than in other primates, report Svante Pääbo of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, and his colleagues on page 340.

In 1975, geneticist Mary-Claire King and the late biochemist Allan Wilson, both then at the University of California, Berkeley, showed that the sets of proteins (and by