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A silver lining to the Copenhagen cloud?

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Though widely seen as a failure, December's climate conference may actually have set the world on the right path, panelists suggest

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David L. Chandler, MIT News Office

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A half sphere of polymer cubes built by researchers at the MIT-Harvard Division of Health Sciences and Technology. Image: Javier Gomez Fernandez

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Although December's UN Climate Change Conference in Copenhagen was widely portrayed as a failure, some speakers at an MIT panel discussion on Friday, Feb. 5, suggested that its results actually represent real progress in the world's efforts to head off the dangers of climate change - and that in fact the results may have been better, in the long run, than an outcome that most people would have considered a "success" at the time.

The Copenhagen conference "has elicited some strong reactions, both positive and negative," said MIT Energy Initiative



From top to bottom, Ernest J. Moniz, Robert Stavins, Michael Greenstone, Steven Ansolabehere, Edward Steinfeld and Henry Jacoby at the panel discussion "the Road from Copenhagen."
Photo: Justin Knight

Director Ernest J. Moniz as he introduced the panelists for the event, called "The Road from Copenhagen." Officially known as the COP 15 conference (15th Conference of the Parties), some have taken to calling it "Copout 15," he said. "At a minimum, it was an interesting process."

Robert Stavins, professor of business and government at Harvard's Kennedy School of Government, opened with a relatively upbeat assessment. "What would have been possible, but I think unfortunate, would have been a signed international agreement" at the conclusion of the conference, he said. "Unfortunate, because the only agreement feasible would have been 'Kyoto on steroids,' " he said — that is, an agreement that perpetuated the structure of the Kyoto Accord signed in 1997 (which called for reductions in emissions by 39 industrialized nations). That agreement had no set requirement for action by emerging economies, and Stavins said that any similar agreement from Copenhagen might have been signed by U.S. representatives at the conference, but would never have been ratified by the U.S. Senate.

What emerged by the end of the Copenhagen process instead, Stavins said, was real, substantive negotiation being carried out directly by heads of state, including President Barack Obama. Stavins called this sort of negotiation "virtually unprecedented." In this case, the high-level talks led to "what I would characterize as a significant political accord," which, he said, addressed the two key deficiencies of Kyoto: It has expanded the agreement to include, so far, nations responsible for more than 80 percent of all greenhouse gas emissions, and it extended the timeframe covered by the agreement from 2012 to 2050.

Michael Greenstone, the 3M Professor of Environmental Economics at MIT, listed all the reasons the United States ought to change its policy on climate change. Greenstone, who just returned to MIT after a year as chief economist on the Council of Economic Advisors at the White House, said that projections of the impact of the measures now being discussed suggest that these proposals will barely make a dent in the problem. He also said that a target of stabilizing CO2 levels in the atmosphere at 450 parts per million, as some have proposed, are not politically feasible. And he complained that current proposals to achieve emissions reductions rely on measures that can't be verified.

"Current technologies to monitor reductions are very poor," he said. He suggested several policy measures to address these issues. He recommended a shift of research and development funding away from new energy sources and toward lowering the emissions

of existing fossil-fuel power plants, and developing carbon sequestration technologies and geoengineering systems to mitigate the effects of increased greenhouse gases; devoting "incredible resources" toward developing technologies for accurately measuring emissions; and emphasizing the development of a true global market for carbon trading.

Steven Ansolabehere, professor of political science at MIT and Harvard, said the Supreme Court decision last year that gave the Environmental Protection Agency the power to regulate greenhouse gases has "changed the game" politically. "My economist friends tell me it's the worst way" for emissions to be regulated, rather than having it done through legislation, he said, "but politically, it changes the status quo." Before, if Congress failed to take action, there would be no regulation of greenhouse gases; now, if Congress doesn't act, the EPA could require much more sudden and drastic changes such as immediately shutting down coal plants that are heavy emitters of CO2. As a result, he said, that puts pressure on Congress and makes it more likely that a bill will be passed this year.

Edward Steinfeld, director of the MIT-China program and associate professor of political science, said that a crucial component of any global agreements emerging from the Copenhagen conference will be the role of China, the burgeoning economic giant that is likely to soon displace the United States as the biggest emitter of greenhouse gases. In analyzing China's energy and climate policies, he said, there's a disconnect between political rhetoric opposing emissions limits and what's actually happening there. This on-the-ground reality "gives us grounds for more optimism than the political side does," he said

"In the Chinese energy sector today, right across the board," he said, "we are seeing jaw-dropping investments being made in new technology and the replacement of old infrastructure with new" using cutting-edge technology. "There is a recognition there that climate change is happening, and that China is vulnerable" to its effects.

Henry Jacoby, co-director of MIT's Joint Program on the Science and Policy of Global Change and professor of management at MIT's Sloan School of Management, said that despite the downbeat reports about the outcome of the Copenhagen meeting, "it's important not to lose heart." While many people had hoped for stronger action or more ambitious targets for curbing emissions, he said, any action at all is worthwhile "because almost anything we do plays a part in reducing the risk" of severe consequences from climate change.

If all the pledges made by various nations before and after the Copenhagen meeting were met, "we would stabilize emissions by 2020," he said. While atmospheric concentrations would continue to rise, "we would begin to turn the corner" toward leveling it off. However, he added, in order to avert the most damaging impacts, the amount of money pledged by the industrialized nations to help finance energy improvements in the developing world would need to be increased by four to five times.

On the positive side, he said, the earlier any action is taken, the greater its effects. The proposals for emissions reductions resulting from the Copenhagen meeting, he said, change the median odds for temperature rise in this century from a potentially devastating 5 to 6 degrees F if no action is taken to a more manageable 2 to 2.5 degrees.

"That's my maximum optimism," he said.



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