Showdown nears for climate deal

Expected debate over Kyoto Protocol threatens to stall progress on other fronts.

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P. KITTIWONGSAKUL/AFP/GETTY

Nations that are vulnerable to flooding and drought stand to lose out if climate talks fail.

There's a storm brewing in South Africa, although not the kind that climate scientists warned of last week in a report linking extreme weather to global warming (see http://dx.doi.org/10.1038/nature.2011.9397; 2011). This one is the political tempest that is swirling around the Kyoto Protocol. Forecasts suggest that it will hit in full force when delegates to the seventeenth meeting of the United Nations Framework Convention on Climate Change gather in Durban on 28 November — and it could threaten progress on an alternative agreement.

Negotiated in 1997, Kyoto combines commitments by wealthy nations (excluding the United States, which has never ratified the agreement) to limit greenhouse-gas emissions with monetary and

technical support for poor nations. The commitments are set to expire next year and nothing comparable has materialized to take their place.

The world has changed since Kyoto was negotiated. Powerhouse developing economies are now among the world's leading carbon dioxide emitters. Today, China holds the number one spot and India is fourth behind the United States and the European Union (EU). With Western nations in the midst of a financial crisis, there is little enthusiasm for renewing Kyoto, or for the underlying assumption that the developed world should shoulder the full burden of controlling greenhouse-gas emissions. In Durban, supporters of Kyoto — mainly developing nations — will make their last stand.

"The world can't punt this issue any longer," says Robert Stavins, an environmental economist at Harvard University's John F. Kennedy School of Government in Cambridge, Massachusetts. Stavins believes that negotiators will find some way to keep the Kyoto Protocol alive, if only in spirit, but he acknowledges that the meeting could also fall apart. "Some people would say that this is the death that is required in order to have a rebirth" in the negotiating process, he says.

Cracks began to show in the framework's political underpinnings two years ago in Copenhagen (see *Nature* **462**, 966–967; 2009), when world leaders first broke with the Kyoto formula to offer the developing world rewards without commitments. Japan, Canada and Russia, which all agreed to the original protocol, said that they opposed a second commitment period. Even the EU may not support an extension of Kyoto, Stavins says, although its trail-blazing carbon trading system could continue even if the treaty becomes dormant.

In Copenhagen, and again last year in Cancún, Mexico, countries such as China, Brazil and South Africa joined wealthy nations in making voluntary commitments to limit emissions of greenhouse gases. In exchange, wealthy countries agreed to ramp up financing to help the poorest countries prepare for global warming. The framework that emerged is more inclusive than Kyoto, but lacks the formal stature of a fully binding international treaty. Developing countries, as a bloc, are reluctant give up on the old protocol until something more concrete takes its place.

"The call to mandate a new treaty in place of the Kyoto Protocol should be understood for what it is — rich countries backtracking on inconvenient commitments, at the expense of the poor and the planet," says Lim Li Lin, who works with developing countries at the Third World Network, a non-profit advocacy group based in Penang, Malaysia.

Under the Copenhagen Accord, countries agreed to try to limit global warming to 2 °C and to consider lowering that target to 1.5 °C. Actual commitments to greenhouse-gas cuts fell well short of what studies suggest are needed to meet the 2 °C goal. The accord also includes provisions to slow deforestation, promote adaptation and hasten the spread of green technologies, with wealthy countries promising US\$30 billion in financing by 2012, which will increase to \$100 billion annually by 2020.

Negotiators were able to advance many of these initiatives in Cancún last year, but crucial details regarding which institutions will manage this money, who will decide how it is spent and how emissions commitments will be registered and tracked remain unresolved. "Durban needs to put the entire architecture of climate-resilient development on a more solid basis," says Koko Warner, a climate policy expert with the United Nations University Institute for Environment and Human Security in Bonn, Germany.

But many fear that frustration over Kyoto could stall progress in other areas of the talks and threaten the viability of the Copenhagen Accord.

"I think what really kept developing countries at the negotiating table in Copenhagen was the \$100 billion per year," says Timmons Roberts, who heads the Center for Environmental Studies at Brown University in Providence, Rhode Island. "If it's just another empty aid promise, the Copenhagen Accord is going to fall apart."

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