

**Reconstructing Climate Policy: The Paths Ahead. by Richard B. Stewart and Jonathan B. Wiener. August 2001.**

After the impasse in climate treaty negotiations at The Hague, President Bush's repudiation of the Kyoto Protocol, and the U.S. decision to sit on the sidelines without offering any constructive alternative, many informed observers expected the Kyoto process to fall apart. Yet at Bonn the other countries of the world reached a compromise on implementation of the Kyoto regime. What should the U.S., and the world, do now?

Bonn was in some respects a victory for U.S. climate policy, which on both environmental and economic grounds has long favored a comprehensive approach to limiting net greenhouse gas (GHG) emissions, including all GHGs (not just CO<sub>2</sub>) and sinks such as forests. The U.S. has also advocated unrestricted international GHG emissions trading. A basic flaw in the Kyoto Protocol is that it established obligations without clarifying the means (and hence the costs) of compliance, including the role of sinks and the scope for emissions trading. In the post-Kyoto negotiations, countries and interest groups who opposed the comprehensive approach and trading sought to block their adoption. But at Bonn, the EU and developing countries gave Japan and Canada much of what they had refused to give the U.S. at The Hague: a comprehensive approach (including sinks) and emissions trading. (The EU's shift may reflect a newfound appreciation for flexibility, or a consistent underlying intent to one-up the U.S. on climate issues.) Nonetheless, the Bonn accord maintains some restrictions on both sinks and trading; new studies are needed to estimate the cost savings and achievability of the Kyoto/Bonn provisions.

Bonn, however, failed to solve another basic flaw in Kyoto: the omission of developing country participation. The U.S. has long sought to include major developing countries in the global emissions limitations regime, on both environmental and economic grounds. All major emitting countries must participate for the treaty to address climate change effectively. Contrary to prior global environmental agreements, Kyoto provides no regulatory obligations for developing countries, now or in the future. Bonn failed to redress this deficiency. Worse, the U.S. is now out as well. Thus, Kyoto/Bonn now omits the U.S. and China--the world's first and second biggest GHG emitters--as well as other major developing countries. If these omissions are not repaired, Kyoto will prove a costly environmental failure.

The Bush administration seems to many to have embraced a climate policy of benign neglect, hoping that the issue will go away. It won't. Climate risks are uncertain but significant. They warrant a global regulatory response. The U.S. has significant economic and strategic as well as environmental interests in helping to shape and participate in an effective international GHG regime that includes full use of the comprehensive approach and trading and includes developing country participation.

Attention has focused on two paths: America could stay out indefinitely, thwarting any effective global climate policy. Or America could sign up to Kyoto/Bonn, and seek to promote further expansion of the comprehensive approach and trading, and developing country participation. We urge attention to a third option: the U.S. could pursue a parallel path toward improving the global climate regime. This path could yield an unexpected benefit: the U.S. and China could eventually join Kyoto together.

**Basic Elements of a Sound Global Climate Policy**

Investment in limiting GHG emissions growth is prudent insurance against the risks of climate change. A recent National Academy of Sciences report requested by the White House confirmed that rising GHG emissions due to human activities are already causing the earth's atmosphere to warm and that the rate and extent of warming will increase significantly over this century. Recent studies indicate that some initial warming and CO<sub>2</sub> fertilization may help agriculture in some areas (including the OECD, Russia and China), but will have adverse impacts in poorer areas; and that the impacts of greater warming will become adverse worldwide over time, including losses of 1 to 2 percent of GDP in OECD countries and 4 to 9 percent in Russia and most developing countries (except China, which is forecast to gain about 2 percent of GDP). There is also the possibility of

catastrophic changes in ocean currents or other critical systems.

Sound regulatory design can make the costs of climate insurance reasonable and justified. Regulatory limitations on GHG emissions are required in addition to investments in low-GHG technology development. With no constraints on its use as a disposal site for GHG emissions, the atmosphere is being overused in a classic "tragedy of the commons." But regulatory limits can be designed to minimize costs. Because of varied GHG abatement opportunities across gases and sectors, the comprehensive approach would reduce costs by about 60 percent (or even more if sinks are counted) compared to regulating CO<sub>2</sub> alone. Because of varied abatement opportunities across countries, international emissions trading (involving all major emitters, including China) would reduce costs by about 75 percent compared to wholly domestic CO<sub>2</sub> emissions limitations. The cost of meeting the Kyoto targets through wholly domestic measures to reduce CO<sub>2</sub> emissions has been estimated at 1 to 4 percent of GDP in the U.S. and other industrialized countries. With the 60 percent savings from the comprehensive approach (plus more from sinks) and the 75 percent savings from international emissions trading, the combined cost savings could be 90 percent compared to an energy-CO<sub>2</sub>-only policy with national caps and no trading. A phased-in emissions limitation pathway would make the costs even more reasonable.

Because GHG emissions by China and developing countries are large and growing rapidly, any international emissions limitation treaty that lacks their participation will be ineffective, while imposing costs on participating countries. Piecemeal limits on emissions will induce emissions "leakage," as price changes and industry relocation shift emitting activities from regulated to unregulated countries. The cost savings from emissions trading will be impeded without the low-cost abatement opportunities available in China and other developing countries. Their omission will also confer market power on Russia and the Ukraine, the largest allowance sellers among industrialized countries.

The developing countries have strong reasons against agreeing to emissions cuts that would compromise their economic development in order to address an environmental problem created primarily by industrialized countries. In order to attract developing countries' participation, the industrialized countries must help finance emissions limitations in poorer countries. A promising method is an international emissions trading system that assigns developing countries allowances above their existing emissions, providing "headroom" for future growth and profitable allowance sales, while also reducing costs to industrialized countries.

### **The United States Cannot Afford Climate Isolationism**

The U.S. has significant economic and strategic as well as environmental interests in joining the international climate change regime and ensuring that its design is sound. The U.S. cannot afford to remain on the sidelines while other countries design a global regime that America will later wish it had helped shape.

In addition to the environmental risks of climate change, which will be significant for the U.S. especially over the longer run, climate policy is a global economic issue in which the United States has major strategic interests. It may well be that the overall competitive position of American businesses will be impaired rather than enhanced if the U.S. stays out of the global emissions limitations regime. Many U.S. firms have the technology and expertise to achieve GHG limitations and help run emissions trading markets. These opportunities will be foreclosed or sharply restricted if the U.S. does not join the Kyoto/Bonn accord. U.S. businesses subject to eventual U.S. domestic emissions limitations, as well as those with operations abroad in industrialized countries that ratify Kyoto, will be unable to enjoy the compliance cost savings provided by international trading. London, not New York, will become the center of global emissions trading. There is even the prospect that the EU may impose countervailing duties on the carbon content of U.S. exports, potentially damaging U.S. economic growth and sparking a costly trade war. The ability of the U.S. to influence the future evolution of the trading regime will be almost nil. Perhaps most important, the U.S. cannot aspire to be an effective global leader and persuade others to follow its views on other subjects while refusing any engagement on a major global

environmental issue that is of great and legitimate concern to other major powers. Recently the Congress has become alert to the hazards of climate isolationism, and may supply the political impetus for U.S. reengagement on global climate policy.

### **Potential Paths Forward**

The Bush administration was right to question the flaws in Kyoto, but its lack of constructive follow-up at Bonn appears to have backfired. America's options for the future include climate isolationism; joining the Kyoto/Bonn accord while attempting to negotiate some improvements in it, either before or after joining; or pursuing a parallel climate policy that might link up with the Kyoto/Bonn regime at some future point. The first option is unrealistic and contrary to the interests of the U.S. as well as those of the world. The second option would require an unlikely about-face by the Bush administration (but might well be pursued by his successor), and is unlikely to result in developing country participation any time soon. There is at least some prospect that the Bush administration might follow the third option. EPA Administrator Whitman recently stated that the U.S. would pursue a "domestic and hemispheric" strategy on climate, including domestic GHG limitations. If the U.S. wishes to negotiate improvements in the Kyoto/Bonn regime or have credibility in promoting an alternative, it will have to develop and adopt domestic U.S. GHG limitations measures. Whitman's reference to a "hemispheric" approach raises the possibility that the U.S. might try to negotiate an international emissions trading agreement with Mexico, Argentina, Chile, and even Brazil.

The real chips left on the table after Bonn are the potential participation of the U.S. and China. Unexpectedly, the gaps in the Bonn accord set the stage for an even better result: the simultaneous participation of the U.S. and China (and other major developing country emitters).

In order to achieve this result, the U.S. could propose to join the Bonn accord on the conditions that restrictions on use of sinks and trading be eased and concrete measures be adopted to engage developing country participation in emissions limitations. Such "windows" for inclusion of developing countries could include:

Clarifying and streamlining the Clean Development Mechanism (CDM), on market-based lines and structuring it to encourage sector-wide approaches. The CDM could also include bilateral sector-based technology transfer and assistance/credit arrangements between industrialized and developing countries.

Using the new special climate fund created in Bonn to support developing country capacity-building for both abatement activities (including the assimilation of low-emitting technologies), and effective participation in the CDM and ultimately emissions trading markets.

Inviting voluntary national participation in emissions trading, including on a sector-based approach that would permit participation at scale so that developing countries could enjoy significant increases in investments and technology transfer without overall national caps.

Providing principles for the voluntary accession of developing countries to a global cap and trade system, with assignment of headroom allowances as a side payment to attract participation.

Agreeing on principles of eventual automatic participation ("graduation") by developing countries in the global cap and trade system, once each country reaches pre-agreed levels of per capita income, with appropriate allocations of headroom allowances.

Both the industrialized and developing countries who joined the Bonn accord are, however, unlikely to agree soon to such measures as the price of U.S. accession, and will probably be unable to provide sufficient assurances of future developing country accessions to meet U.S. domestic political demands, as reflected in the Senate's 95-0 vote against joining a climate treaty that omits the major developing countries.

Alternatively, the U.S. could cut the Gordian knot by joining simultaneously with China (perhaps

after exploring some of the above participation "windows" with developing countries in the Americas). China's accession should satisfy domestic U.S. political requirements (especially if other developing countries follow China's lead), and reduce U.S. costs through emissions trading. By joining alongside the U.S. (though not on identical terms), China would gain a huge emissions trading market. Moreover, the parties to Bonn/Kyoto would want the U.S. and China to join simultaneously. If one joins without the other, that would distort allowance prices in the emissions trading market: prices will go way up if the U.S. (a large net demander) joins alone, and way down if China (a large net supplier) joins alone. The EU and Japan will not want prices to rise sharply, and Russia will not want prices to fall sharply.

Thus, the awkward result at Bonn could pave the way for an unexpected bonus: joint accession by the U.S. and China. If China joins, other major developing country emitters are likely to follow. Without the U.S. and China, Kyoto/Bonn will amount to little. The real difficulty in implementing this scenario will not be the U.S., but China. The U.S. faces both costs and benefits from joining. But China may well perceive only costs, because many forecasts of the impacts of global warming suggest that China would on balance benefit from a warmer world. Thus China will have to be paid to play. The most cost-effective way to attract China to join the abatement regime will be through assignments of headroom allowances that China can then sell--just as was done in Kyoto to engage Russia.

### **Conclusion**

Climate change risks are serious enough to warrant prudent investments in climate insurance. A sound international climate regime would provide such insurance at reasonable cost. Important U.S. economic and strategic as well as environmental interests require that it be a credible, effective player in the development of international climate policy. If it persists in climate isolationism, the U.S. risks harming those interests and squandering its global leadership. After a century of shaping the international order toward a democratic Pax Americana, the U.S. is now boycotting a series of international accords (on climate, germ weapons, missile defenses, landmines, the international criminal court, and biodiversity). The EU, Japan, Canada and other OECD countries are filling the void and designing global rules that may impair U.S. interests. While the U.S. should not join such agreements blithely, it should exercise the leadership to help shape them constructively. As the largest economy and superpower, the U.S. has an essential national interest in the efficient production of global public goods, including global environmental protection and global legal order. In the case of climate policy, both environmental and economic objectives warrant a global GHG limitations regime that adopts the comprehensive approach and emissions trading, and that includes all major emitting countries. Promoting such a regime should be the goal of the Bush administration and its successors.

After Bonn, the way is open to a third path that could bring America and China into such a regime together. Leadership, however, always has a price. Here the price depends on the maximum that the U.S., EU, and other industrialized countries will pay to enlist China and other developing countries by giving them valuable emissions allowances that the industrialized countries will ultimately repurchase, and on the minimum that developing countries will accept to sign on. The price also depends on the stringency of overall emissions caps. The need to expand participation will thus entail reconsideration of the Kyoto targets and timetables, and attention to other potential emissions limitation pathways for addressing climate risks.

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