BOOK REVIEW / CRITIQUE DE LIVRE

Book review: Climate change policy: a survey[1]

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Despite current opinion in Washington, D.C., climate change remains one of the most important policy issues facing world leaders in the next several decades. The editors of this useful volume are to be congratulated not only for keeping attention focused on the challenge of reducing the dependence of humanity on fossil fuels but also for bringing together a collection of essays that illuminate many of the most important dimensions of climate policy. The authors range from eminent scientists to young, up-and-coming scholars, representing a mix of academic disciplines, as well as voices from government, industry, and civil society. Their topics include climate science and its uncertainties, the economics of carbon abatement, the U.S. policy context, two key arenas of mitigation options (land use change and energy), and the ethics and politics of distributing reductions in greenhouse gas emissions among the rich and poor of the world. The consistently high quality of the chapters, combined with the breadth of topics covered and extensive references to current literature, make this book eminently suitable as a core text for a survey course on climate policy. (The length and detail of the book probably make it less well suited for courses not intending to spend a good part of a semester specifically focused on climate change, although each chapter has its own notes/references collected with it for those who want to select particular contributions for class readings.)

Readers will appreciate the careful study of many difficult aspects of climate policy, such as the construction of markets for carbon trading, the options for producing and distributing hydrogen and renewable energy, potential agriculture and forestry policies for reducing greenhouse gas emissions, and the positive role businesses can play in bringing about a sustainable energy transition. Yet, hidden in these (for the most part) narrow, technical analyses is an important message that needs to be heard. Avoiding climate change may be a difficult challenge, but it is doable. Humanity need not fix its hopes on either adaptation or planetary engineering. Rejecting such options as overconfident, at best, and dangerous, at worst, and buttressed by the wealth of detailed analyses presented in the rest of the book, Stephen Schneider argues eloquently in the final chapter that carbon emissions can be managed, if humanity can manage to put the right kinds of policies into place.

> Given our growing inadvertent impact on the planet, adaptation alone is likely to prove inadequate. But I would prefer to reduce slowly our economic dependence on carbon-emitting fossil fuels rather than try to counter the potential side effects with centuries of nonstop injecting sulfuric acid into the atmosphere or iron into the oceans. Laying stress instead on carbon management, with little manipulation of biogeochemical or energy fluxes in nature, is a much less risky prospect. ... To me, any stronger form of earth system engineering and management is a revision of Rusin and Flit's fantasy of 40 years ago to transform the earth system to achieve "improvements of climate." Those wanting to usurp the powers of ancient gods and conjurers should recall the ancient Greeks' warnings about human hubris embodied in the story of Prometheus (pp. 520–521).

Given this message, if there is a missing element in the book, it is a failure to attend fully to the politics of mistrust that plague the formulation and implementation of climate policy. For example, chapter 2 acknowledges that uncertainty stems not only from inadequate or inaccurate data but also from disagreement over risk tolerance, standards of evidence, and interpretive judgment. Yet, in discussing technical and policy strategies for managing uncertainty, the chapter does not, in turn, recognize that such disagreements are not merely cognitive but frequently political as well. Indeed, scientific uncertainty may be, in some cases (and I would certainly argue in the case of climate change), little more than a tracer of much deeper cultural fissures. (See, especially, M. Douglas and A. Wildavsky. 1982. Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers. University of California Press, Berkeley, Calif.) No approach to managing uncertainty in climate policy is likely to suffice, therefore, unless it can also at least gesture toward settling conflicts over such issues as the role of sovereign nations in a global world, the exercise of power in transnational institutions, and the distribution of wealth among the inhabitants of Earth.

Not only in America but also in many other places, especially south of the equator, climate policy seems to have run up against

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unwillingness on the part of ordinary citizens to trust existing institutions to develop policies that will reliably address climate change and at the same time fairly distribute the ensuing burdens. The failure of Clinton's 1993 five-cent-per-gallon gas tax proposal and the ongoing insulation of the Bush Administration against criticism on climate policy, despite opinion polls showing 73% of Americans support the Kyoto Protocol and strong backing for the treaty among Europeans (The Harris Poll, 19–23 Sept. 2002), both evince qualms about the ability of the U.S. government and international organizations to develop effective, efficient, and just climate policies for, and on behalf of, the United States and the world as a whole. Solving this dilemma will require more than managing scientific uncertainties, creating advance carbon credits, or delineating ethical principles for a greenhouse friendly world; it will also entail finding ways to reduce political uncertainties in global affairs by building the faith of the public in existing and emerging governing institutions.

Perhaps the best example of this gap in the book's analysis comes in Part VI — Energy Choices. The chapters in this section affirm the ultimate solution to climate change lies in a transition to a renewable, hydrogen economy and detail numerous strategies for achieving this goal. Yet none of the chapters analyzes the potential social dislocations that may stem from this vast technological and economic transformation or discusses the kind of institutional capacity required for assessing and managing technological change of this magnitude. Hydrogen will not simply substitute for fossil fuels in the current economy. Who will benefit and who will lose from this new economy? Who will decide what form these new technologies take? What rights will individuals and countries have to chart their own course? By the end of the coming century, the technological infrastructure of society will surely be as different from the present as the present is from the world of no airplanes or automobiles that characterized the 1800s. To cope with these planet-spanning changes will require new kinds of governing institutions and new forms of regulatory politics, just as the rise of Standard Oil and U.S. Steel ushered in a new era of progressive government in the United States. To address climate change is thus more than simply to formulate climate policy; as the introduction notes in the book, it "is to involve oneself in a critical component of global governance in the twenty first century" (p. xvii).

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