Global Warming Gridlock

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Book Review: *Global Warming Gridlock - Creating More Effective Strategies for Protecting the Planet* by David Victor

David Victor's recent book, *Global Warming Gridlock*, is a must-read for anyone serious about addressing climate change, and will appeal to international relations scholars who are interested in why climate change has proven so difficult to solve. Representing Victor's second major treatise on climate change politics in ten years,[1] *Global Warming Gridlock* encapsulates his latest thinking on the issue. Notably, it was selected in 2011 as one of *The Economist's* 'Books of the Year' and will resonate with a larger audience than much climate change scholarship. It is a book that needs to be taken seriously. Victor also writes in an uncompromising yet clear manner that readers of different political backgrounds will find direct, compelling and provocative.

While there is much to admire in Victor's book, its major limitation is that it emphasizes institutional design and policy issues over more fundamental politics. Victor's main argument is that in adopting an institutional design that worked for the relatively simple problem of the ozone layer, the architects of international climate change policy have relied on the "wrong tools for the job".[2] Because climate change is a more expensive and complex issue, the politics bear stronger similarities to issues of international trade. But as other international relations scholars have argued, even if one agrees that the (dying) *Kyoto Protocol* is not an optimal institution, "the fundamental question remains why the Kyoto Protocol was designed this way."[3] Probing the fundamental political assumptions of the book—namely that state capabilities to address climate change correlates with state interests in doing so[4]—would enrich what is otherwise an excellent investigation of climate change policy.

The book is comprised of nine chapters that review various aspects of current climate change policy, in order to explain the current gridlock and map out a new strategy. For those pressed for time, the overview offered in Chapter 1 offers a succinct summary of the book's main arguments. In

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[1] See David G Victor, *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming* (Princeton: Princeton University Press, 2001) [Victor, *The Collapse*].

[2] *Ibid* at 208.

[3] Frank Grundig, "Patterns of International Cooperation and the Explanatory Power of Relative Gains: An Analysis of Cooperation on Global Climate Change, Ozone Depletion, and International Trade" (2006) 50 International Studies Quarterly 781 at 791.

[4] Victor, *Global Warming Gridlock*, *supra* note 2 at 12.

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Chapter 2, Victor seeks a fresh approach by explaining why many assumptions about climate change politics have been wrong. Or, as Victor puts it, he 'slays' the myths that scientists, environmentalists, and engineers have assumed about climate change politics but which actually hinder efforts.[5] Briefly, scientist have promoted the myth that science can determine 'dangerous' levels of emissions which should then be adopted by policy-makers, environmentalists have framed climate change as an 'environmental' problem which has led "to the use of models from the history of environmental diplomacy" that don't work well with international economic policy,[6] and engineers have focused too much on the invention of emissions-reducing technology and not the political challenges of their deployment. These myths are problematic because "[t]hey perpetuate the belief that if only societies had 'political will' or 'ambition' they could tighten their belt straps and get on with the task. The problem isn't just political will".[7] The tone is vintage Victor, potentially off-putting to the scientists, environmentalists and engineers working on climate change, but altogether refreshing. The downside is that Victor risks offending some of his intended audience.[8]

The meat of the book, however, is Chapters 3-6, where Victor reviews strategies for regulating emissions, promoting technological change as well as for adaptation, geoengineering and triage. In Chapter 3, Victor convincingly explains why policies for regulating emissions in the developed world do not follow the advice of economists, who often advocate for some variation of a carbon tax. Victor explains that politicians need to build coalitions amongst the electorate, and these efforts would be frustrated "if the policy imposes highly visible, painful costs on well-organized groups"[9] like a carbon tax. In reality, a variety of approaches are used, including cap-and-trade, taxes, subsidies, and direct regulation, which makes it difficult to know the costs and the impact on actual emissions levels. This insight—that politics prevent the adoption of predictable climate policy—ties into Victor's long-standing critique of the *Kyoto Protocol*'s 'targets and timetables' approach to climate change. Because the regulation of emissions is in practice complicated by political calculations and diverges from the costs predicted by economists, governments find it difficult to make credible commitments to emission reduction targets. The result is that politicians either commit to targets they know they can easily achieve, but which are often not ambitious enough to make a real impact on emission trajectories, or they adopt targets

[5] *Ibid* at xxxiii.
[6] *Ibid* at 31.
[7] *Ibid* at 5.
[8] For example Victor writes in the preface to the book: "Chapter 2 explains why most of the key players in the climate debate [scientists, environmentalists, international climate negotiators, and engineers] are deluded by myths about their own importance. Those myths make it hard to focus on how the policy process really works. Chapter 2 slays them." David G Victor, *Global Warming Gridlock: Creating More Effective Strategies for Protecting the Planet* (Cambridge: Cambridge University Press, 2011) at xxxiii [Victor, *Global Warming Gridlock*]. There are many more, which enliven a rather sombre book topic.
[9] *Ibid* at 66.

that push the deadline for action well into the future.

Victor therefore believes that current climate change negotiators have it backwards: identifying ends and not means. He emphasizes that it is important to identify what governments can actually do, and then use this to inform international negotiations: the "likely structure of national policies should drive the design of international commitments".[10] However, while this formulation appears true for certain countries, especially Canada which has abandoned its Kyoto aspirations, it does not seem to fit the situation of climate leaders like the United Kingdom and Germany.[11] Victor is silent on the issue of why some countries have been able to make the Kyoto Protocol approach work and not others.

Chapter 4 focuses on how developed countries could better engage with developing countries to reduce emissions. While there are discussions of carbon tariffs (p.85-86) and official development assistance (ODA),[12] the focus here is on the Clean Development Mechanism (CDM). Victor has been a leading critic of the *Kyoto Protocol*'s carbon offset system, pointing out the CDM's administrative weaknesses. However, too much of the evidence in Victor's critique of the CDM is anecdotal. Statements such as "host governments soon figured out that the best strategy [to generating carbon credits] was to manipulate local policies so that hypothetical baselines would be high"[13] are more assertive than the evidence warrants.[14] For example, there are significant methodological problems with the way Michael Wara and Victor arrive at their conclusions in their 2008 working paper on the CDM.[15] Studies using more systematic methods have pointed in another

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[10] *Ibid* at 75.

[11] Since 1990, emissions in Germany and the United Kingdom are down by 25% and 23% respectively. A not insignificant part of the United Kingdom's reductions have been due to the discovery of offshore natural gas (M Balat,"Greenhouse Gas Emissions and Reduction Strategies of the European Union" (2010) 5(2) Energy Sources, Part B: Economics, Planning, and Policy 165.), but much of the rest of its reductions reflect the priority that climate change has achieved within the United Kingdom (see Susan Owens, "Learning across Levels of Governance: Expert Advice and the Adoption of Carbon Dioxide Emissions Reduction Targets in the UK" 2010 20(3) Global Environmental Change 394.). Similarly, some have held that Germany's reductions are due to German reunification (Joseph E Aldy, Scott Barrett & Robert N Stavins, "Thirteen plus one: a comparison of global climate policy architectures" (2003) 3(4) Climate Policy 373 at 380.); however, given the extent of reductions, it is difficult to explain this entirely as 'hot air' from the former East Germany (see Ian Bailey, "Market Environmentalism, New Environmental Policy Instruments, and Climate Policy in the United Kingdom and Germany" (2007) 97(3) Annals of the Association of American Geographers 530, and Bettina Schrader, "Greenhouse Gas Emission Policies in the UK and Germany: Influences and Responses" (2002) 12 European Environment 173).

[12] Victor, *Global Warming Gridlock*, *supra* note 2 at 87-90.

[13] *Ibid* at 92.

[14] See e.g. *ibid* at 95, n 18, which directs readers to a number of newspaper articles. The other evidence that Victor relies upon are two working papers (Michael W Wara& David G Victor, *A Realistic Policy on International Carbon Offsets* (Program on Energy and Sustainable Development Working Paper 74, Stanford University, 2008); Gang He & Richard K Morse, *Making Carbon Offsets Work in the Developing World: Lessons from the Chinese Wind Controversy* (Program on Energy and Sustainable Development Working Paper 90, Stanford University, 2008), one of which was published later as Michael Wara, "Measuring the Clean Development Mechanism's Performance and Potential" (2008) 55 UCLA L Rev 1759.

[15] My basic critique is that more information about the development context in which CDM

direction. In a recent study ironically written by former colleagues of Victor's at Stanford, Junjie Zhang and Can Wang present convincing evidence that the CDM has not been manipulated by Chinese authorities. Rather, CDM emissions baselines changed for reasons unanticipated by CDM project developers.[16] My own research on the CDM in least developed countries indicates that the price of carbon has not risen to a high enough level such that the price signal is easily observable by CDM regulators; the effectiveness of CDM projects is difficult to measure with monitoring tools currently available.[17]

In Chapter 5 Victor presents a compelling vision for a global technology policy, which he rightly observes has not been given sufficient attention because of misplaced optimism that the *Kyoto Protocol* would sufficiently incentivize innovation. The *Kyoto Protocol* was designed to 'pull' technology forward by putting a price on carbon, but with prices low it has actually resulted in little more than "tinkering at the margins with existing technologies".[18] As an alternative, he maps out a two-stage approach that emphasizes (*a*) the need to push promising technologies across the 'valley of death' to commercial success, and (*b*) prevent them from being locked out by special interest groups beholden to current technologies.

For the first problem, Victor suggests providing government support for promising technologies to take them across the valley of death between basic research and commercial viability.[19] This suggests a more active industrial policy: "[i]n reality, crossing the valley of death is all about picking winners because picking everything isn't viable".[20] There is no silver bullet for the second problem of technological lock out—"Every country and market is different".[21] Information and regulatory obstacles that frustrate the adoption of new technologies will not be easily solved, but mapping where lock outs occur across the economy would be one step in the right direction.

Finally, while emphasizing that technology policy will be closely aligned with national capabilities and interests, Victor does offer some suggestions about how international coordination might direct this towards climate change. He, however, always emphasizes that any new technological 'push' policy needs to be coordinated with an appropriate 'pull' policy—cap-and-

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projects are situated is necessary before passing judgement on individual projects. See my discussion of the methods used by Wara and Victor in Mark Purdon, "State and Carbon Market in Least Developed Countries: Carbon Finance in the Land-Use Sector and State Power in Tanzania, Uganda and Moldova" (Paper delivered at the 2012 Annual Meeting of the American Political Science Association, New Orleans, 30 August—2 September 2012) [Purdon, "State and Carbon Market"].

[16] At page 149, these authors write: "This is not to say that project developers intentionally manipulate additionality requirements. Rather, it is the current CDM baseline methodology that fails to predict future emissions in a fast changing economy" (Junjie Zhang & Can Wang, "Co-benefits and additionality of the clean development mechanism: An empirical analysis" (2011) 62(2) Journal of Environmental Economics and Management 140.).

[17] See Purdon, "State and Carbon Market", *supra* note 15.

[18] Victor, *Global Warming Gridlock*, *supra* note 2 at 117.

[19] *Ibid* at 137-139.

[20] *Ibid* at 146.

[21] *Ibid* at 154.

trade, carbon tax, or regulation—to avoid "wrongheaded priorities, waste and distraction".[22]

In Chapter 6, he addresses some of the more disturbing topics in climate change politics: adaptation, geoengineering and triage. The climate change policy community has been slow to broach these issues because of the risk of appearing to admit defeat on mitigation.[23] While dark, discussion of these issues is necessary. Regarding adaptation, Victor casts doubt on the effectiveness of targeted adaptation efforts, echoing arguments made by Franck Lecocq and Zmarak Shalizi that the 'spatial uncertainty' of future climate change damage makes proactive adaptation allocations difficult in comparison to mitigation.[24] Given that it is highly uncertain how much resources will be needed for adaptation and when and where, it is more prudent to promote economic development because "richer is safer".[25] Victor concludes that the "task of helping countries become more adaptive to climate change is quite similar to economic development".[26] Victor's discussion of geoengineering is insightful for its review of the political and governance problems that too often are only an afterthought in this highly technical field. The political challenge of geoengineering is mustering a serious international research programme to begin vetting various options: "mobilizing careful assessment of geoengineering options and side effects will require governments to make politically controversial decisions, such as to fund and test candidate geoengineering systems and debate how to assess the results".[27] The governance problems that Victor addresses are motivated by the insight that the geoengineering card might be played by a single country and, therefore, fundamental rules need to be begin to be formulated now before any state "first reaches for the thermostat".[28]

In Chapters 7 and 8, Victor moves to explain why climate change negotiations have achieved such little progress and identifies a way forward. The essence of Victor's argument is that climate negotiators adopted the "wrong tools for the job".[29] Early climate change analysts, including Victor himself,[30] relied too heavily on the *Montreal Protocol on Substances that Deplete the Ozone Layer* as an inspiration for the design of climate change policy. Specifically, climate change diplomats erred in striving for universal membership, adopting an emission reduction target approach abiding by strict timetables, insisting on a legally binding treaty, and failing to adopt a

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[22] *Ibid* at 118-119.
[23] Roger Pielke et al, "Climate change 2007: Lifting the taboo on adaptation" (2007) 445 Nature 597.
[24] Zmarak Shaliziand & Franck Lecocq, "To Mitigate or to Adapt: Is that the Question? Observations on an Appropriate Response to the Climate Change Challenge to Development Strategies" (2010) 25(2) The World Bank Research Observer 295.
[25] Victor, *Global Warming Gridlock*, *supra* note 2 at 174.
[26] *Ibid* at 181.
[27] *Ibid* at 192.
[28] *Ibid*.
[29] *Ibid* at 208.
[30] *Ibid* at 232.

viable enforcement mechanism.[31] But the costs and complexity of climate change make the politics more akin to the international trade regime, particularly that of the General Agreement on Tariffs and Trade (GATT)/World Trade Organisation (WTO) negotiations. The GATT started out as a club of "a limited number of countries whose interests (and capabilities) were sufficiently aligned to allow cooperation. Over time, experience and success have allowed deeper and wider cooperation".[32]

Informed by the GATT/WTO experience, Victor maps out a new strategy for climate change in Chapter 8. The centrepiece of Victor's new strategy is "climate ascension deals" (CADs) – a club-like negotiating structure of contingent commitments inspired by the GATT/WTO. Each CAD is to represent an offer from key countries about the policies and measures they may adopt depending upon the commitments of others. The value of CADs over the CDM is that they would allow deals between developed and developing countries regarding mitigation actions to move beyond difficult-to-measure emission reduction credits. Instead of carbon finance being the only carrot on the table, a wider array of incentives can be used, including "technology cooperation, market access, and security guarantees" that "may usually be more valuable and also politically easier for [developed countries] to mobilize and administer".[33]

Important to Victor's overall argument is the novelty of CADs. Are they really new in the climate change arena? First, CADs bear many similarities to nationally appropriate mitigation actions (NAMAs)—the likely successor to the CDM being now negotiated at the United Nations.[34] NAMAs were first referred to in the 2007 *Bali Action Plan*, but the actual details of how they will be implemented are still being developed.[35] In an important departure from the CDM however, NAMAs can be financed through carbon credits but also 'supported' through other, as yet undefined, means. The prospect of supported NAMAs or the combination of credited and supported NAMAs appears to be a response to deficiencies in the carbon markets like those identified by Victor. Second, it is likely CADs will face many of the same problems that have confronted the CDM. As Victor himself writes,"[t]he real difficult negotiations [surrounding CADs], of course, will focus on the credit that enthusiastic countries should earn from these deals, the obligation that reluctant nations would undertake in exchange, and the mechanisms for tracking whether countries actually honor their pledges".[36] This dynamic

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[31] *Ibid* at 209-210.
[32] *Ibid* at 214.
[33] *Ibid* at 244.
[34] Yuri Okubo, Daisuke Hayashi & Axel Michaelowa, "NAMA crediting: how to assess offsets from and additionality of policy-based mitigation actions in developing countries" (2011) 1 Greenhouse Gas Measurement and Management 37; South Pole Carbon, *How to Develop a NAMA by Scaling-up Ongoing Programmatic CDM Activities on the Road from POA to NAMAs* (Berlin: KfWBankengruppe, 2011).
[35] For the latest information, see: United Nations Framework Convention on Climate Change, *Early submission of Information to the NAMA Registry Prototype*, online: UNFCCC <http://unfccc.int/cooperation_support/nama/items/6945.php>.
[36] Victor, *Global Warming Gridlock*, *supra* note 2 at 252.

closely mirrors the problems facing the CDM. In order to make his argument more convincing, Victor will need to present a plausible argument as to why the monitoring and enforcement of CADs would be significantly different from the perverse incentives and information asymmetries that he identifies with the CDM. Unfortunately, this consideration is left unformulated in the book.

These issues surrounding CADs point to a weakness in what is otherwise an excellent book. Victor presents no serious explanation for developed countries to support CADs (or any international climate change efforts) other than the assumption that they are 'enthusiastic' about addressing climate change. But the reasons for their enthusiasm are never explained. Victor's assumptions about the distribution of state interests and capabilities for climate change are briefly outlined in the introduction.[37] Victor reminds us that "the full list of factors that determine interests is long" and rattles off a number that are likely relevant to different states' approaches to climate change; however, he concludes, quite openly, that a "full-blown theory of national interests would need to look at all such factors".[38] Nonetheless, he asserts that "[t]he capabilities of governments to regulate emissions is highly correlated with interests".[39] This assumption allows for a division of the world into two categories: 'enthusiastic' and 'reluctant' countries.[40] Yet perhaps to the surprise of some readers, the group of enthusiastic countries "now includes the US and essentially all members of the OECD [including Canada]".[41]

The upshot is that by assuming that state capabilities and interests are correlated—distinguishing between enthusiastic and reluctant countries—Victor is able to focus on issues of institutional design in explaining global warming gridlock rather than more fundamental political factors. But are capabilities and interests really correlated? On this question, other international relations scholars increasingly point to the high costs of climate change as a fundamental obstacle to cooperation, as such costs engender relative-gains concerns that are not easily solved through institutional design.[42] Though in Chapter 9 closing the book, Victor takes a frank look at what the failure to address climate change means for world order, including the United Nations and the great powers, the capability/interests issue I have raised remains unexplored. (His point about the need to consider international fora alternative to the UN is valid.)

Victor's political theory of climate change is ultimately ambivalent. On

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[37] *Ibid* at 9-12.
[38] *Ibid* at 9-11.
[39] *Ibid* at 12.
[40] *Ibid* at 11.
[41] *Ibid*.
[42] Grundig, "Patterns of International Cooperation and the Explanatory Power of Relative Gains", *supra* note 4; Mark Purdon, "Neoclassical realism and international climate change politics: moral imperative and political constraint in climate finance" (2013), Journal of International Relations and Development, doi: 10.1057/jird.2013.5; Sevasti-Eleni Vezirgiannidou, "The Kyoto Agreement and the pursuit of relative gains" (2008) 17 Environmental Politics 40.

balance, Victor's assumptions about state interests are common amongst neoliberal institutionalists, where the virtues of cooperation are assumed to be self-evident and states disposed to increasingly greater cooperation—despite starting from widely divergent domestic political interests.[43] In other words, neoliberal institutionalism grants international political processes greater causal weight than domestic politics in a state's determination of whether or not to cooperate. Because all states stand to benefit from the prevention of dangerous climate change, this model assumes that states will find it in their interests to cooperate to reduce emissions. But Victor's more realist assertions crop up elsewhere. For example, he also writes that "different societies will view their interests (and thus goals) in quite different ways"[44] and, later, "the level of ambition [for emissions mitigation] will vary by country because countries view the dangers of climate change and the consequences of regulating emissions differently. Their 'interests' vary".[45] Such statements contrast with the earlier assertion of a correlation between interests and capabilities. The implications of these contrasting political theories are important. If state interests in climate change mitigation are a result of their assessment of the potential cost of climate change damages vis-à-vis potential cost of mitigation, it cannot be guaranteed that all developed countries will behave 'enthusiastically' to reduce emissions.

Once we set aside assumptions of developed country enthusiasm for climate change mitigation, the essential challenge of climate change is revealed to be crafting the interests of developed countries towards global efforts of which they only reap a fraction of the benefits. But Victor has consistently bracketed this problem of 'political will' and focused on resolving problems with institutional design.[46] I agree with Victor's main argument in *Global Warming Gridlock* that better designed institutions would lead to major gains over the current state of affairs. But it is wrong to pin all problems on the institutional design on the UN and so-called 'reluctant' countries without a fuller account of state interests. One hopes Victor is right—that the rich, developed countries are enthusiastic about addressing climate change and that better designed institutions will allow them to express their enthusiasm in a more effective way. But the assumption that state interests and capabilities are correlated in climate change politics warrants closer investigation than Victor undertakes in an otherwise important book on climate change policy.

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[43] Jennifer Sterling-Folker, "Realist Environment, Liberal Process, and Domestic-Level Variables" (1997) 41 International Studies Quarterly 1.
[44] Victor, *Global Warming Gridlock*, *supra* note 2 at 31.
[45] *Ibid* at 73.
[46] In his 2001 book, Victor argued that "[t]he problems with Kyoto are not merely a matter of mustering the 'political will' to swallow a bitter pill. Rather, Kyoto's troubles originate with its architecture—strict emission targets and trading—which is especially ill suited to the fact that the level of emissions for the most important greenhouse gases is inherently unpredictable"; Victor, *The Collapse*, *supra* note 1 at 109.

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