Efficiency, Distribution and the Soft Law Future of the Climate Regime

Alexander Thompson
Department of Political Science
Ohio State University
Thompson.1191@osu.edu

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Introduction

When the parties to the UN Framework Convention on Climate Change met in Copenhagen in December of 2009, they did so with a full agenda and high expectations. Two ambitious goals dominated the preparatory discussions. First, they sought to negotiate a new set of emissions reduction commitments in the context of the Kyoto Protocol, the first round of which was set to expire in 2012. Given that Kyoto imposes binding targets only on industrialized countries (those listed in Annex 1 of the Framework Convention on Climate Change), this first goal was the primary focus of developing-country negotiators. The second goal was to make progress on a set of new agreements that would complement Kyoto or potentially replace it altogether. Many large emitters in the industrialized world prioritized this second goal and were—expressly or secretly—happy to see Kyoto fade into history.[1] Whatever the relative emphasis placed on these goals, the Copenhagen meetings were intended to renew and fundamentally shape the evolving global climate regime.

By almost any measure, the outcome of two weeks of meetings was disappointing in its lack of detail and substance. In particular, the three-page Copenhagen Accord contained no concrete commitments on the mitigation of greenhouse gas emissions. The parties agreed "to reduce global emissions so as to hold the increase in global temperature below two degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity." Collective goals of this sort are notoriously vacuous: they do not require specific actions and no single country can be held accountable for achieving them. The parties agreed to follow up by submitting nationally determined, rather than internationally negotiated, "emissions targets" (for Annex 1 countries) and "mitigation actions" (for developing countries). The highlight of the Accord was the promise by industrialized countries to

[1] Progress toward these two goals had been the focus of two working groups established at the 2007 Conference of the Parties in Bali: The Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol, and the Ad Hoc Working Group on Long-term Cooperative Action under the Convention.

transfer significant financial assistance—$30 billion in the short term and $100 billion per year by 2020—to promote mitigation and adaptation in the developing world.

These seemingly meager results of the most anticipated climate conference since Kyoto in 1997 invited harsh criticism. In the words of a British newspaper editorial, "Diplomatic disasters don't come much bigger than this."[2] At the closing of the meeting, Greenpeace declared "The city of Copenhagen is a climate crime scene tonight, with the guilty men and women fleeing to the airport in shame."[3] The Swedish Environment Minister declared the summit a "disaster" and a "great failure."[4]

A more specific and especially frequent basis of criticism was that the conference did not result in a new set of commitments enshrined in a legally binding agreement. In the end, given the consensus decision-making rules and the objections of a handful of countries (Nicaragua, Bolivia, Sudan and Venezuela), the parties agreed only to "take note" of the Copenhagen Accord. It was not "adopted" as a formal and therefore binding agreement and remained instead a largely political document.[5] British Prime Minister Gordon Brown spoke for many climate-friendly leaders when he characterized Copenhagen as a "first step" but added, "I know what we really need is a legally binding treaty as quickly as possible."[6] Most developing-country governments agreed.[7] NGOs were more strenuous in their call for a legally binding agreement. Friends of the Earth dismissed Copenhagen on the grounds of being too soft: "This toothless declaration…is a sham." The World Wildlife Federation agreed: "The Copenhagen Accord is far from the fair, ambitious and binding deal the world needs." And Oxfam declared: "We have no choice but to forge forward towards a legally binding deal."

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[2] Charles Clover, "Gasbag US and China Leave Us in a World of Trouble," *The Sunday Times*, December 20, 2009.
[3] http://www.greenpeace.org/international/en/news/features/copenhagen-wrap-up-191209/.
[4] Joshua Chaffin, "EU Reflects on Climate Disaster," *Financial Times*, December 22, 2009.
[5] As noted above, even if the Accord had been formally adopted, the language of the substantive provisions is so general that it would have had little concrete legal effect.
[6] John Vidal and Jonathan Watts, "Copenhagen Closes with Weak Deal that Poor Threaten to Reject," *The Guardian*, December 19, 2009.
[7] See the submissions by South Africa and Grenada (on behalf of the Alliance of Small Island States): FCCC/AWGLCA/2010/MISC.3.

The underlying assumption of such critiques is that a multilaterally negotiated and binding agreement—of the sort associated with traditional "hard law"—would be superior to a more flexible and decentralized alternative. In the case of climate change, I argue that rigid, top-down agreements are not only politically unrealistic but also counterproductive from the perspective of environmental integrity. In contrast, a flexible, bottom-up approach—more consistent with soft law—is more appropriate given the nature of the problem: a public good with substantial uncertainty and highly heterogeneous preferences. The specific political obstacles presented by climate cooperation, which I divide into efficiency and distributive concerns, are best addressed by a flexible and decentralized regime, one that allows for customized obligations and adjustments over time.

The next section assesses the most substantial effort to date at the global level: the 1997 Kyoto Protocol. I argue that Kyoto's multilaterally negotiated and binding rules had the effect of reducing participation and narrowing the range of approaches used to address climate mitigation, and use the experience of the Clean Development Mechanism in particular to illustrate some of these points. I then describe the two most important political obstacles to international climate cooperation, uncertainty and heterogeneity across states, and explain how flexibility and decentralization can help address these problems and facilitate an adaptive approach to climate governance over time. One implication of my arguments is the global climate regime should be based on a "soft law" international architecture, one that is more consistent with current direction of international agreements as indicated by the Copenhagen and Cancun meetings. This leads me to a cautiously optimistic assessment of the regime's trajectory.

The Lessons of Kyoto

As the climate regime has evolved, its design and degree of legalization has shifted over time (Eckersley 2004; von Stein 2008). After a very soft UN Framework Convention on Climate Change in 1992, which established vague and minimal goals,[8] the parties agreed to a substantially harder Kyoto Protocol in 1997, with binding targets and timetables for industrialized countries and quite specific rules and procedures on how to implement them and monitor compliance. Now the pendulum has swung back in the other direction: The most recent set of agreements in Copenhagen and Cancun return to broad goals and make no attempt to establish specific, binding commitments at the multilateral level.

To date, the Kyoto Protocol represents the apex of legalization in the climate regime, and its emissions reduction commitments for 39 industrialized countries are generally regarded as the crowning feature. In the words of two prominent climate change scholars, "the great achievement of Kyoto is the legally binding targets" (Yamin and Depledge 2004: 119). Moreover, these targets are backed up by a fairly robust monitoring system, with national communications that are verified centrally by "expert review teams" with the power to conduct in-country visits and to refer cases of suspected noncompliance to a Compliance Committee, which includes both a "facilitative" and "enforcement" branch.[9] Without denying that some of these institutional innovations were important in the regime's evolution (discussed below), it is important to recognize the downside of moving to a hard-law approach and to consider some of the perverse effects of doing so. I consider two effects in particular: limited participation and constrained policy incentives.

[8] The UNFCCC calls on states to stabilize greenhouse gas concentrations in the atmosphere "at a level that would prevent dangerous anthropogenic interference with the climate system" (Article 2). While there are specific reporting requirements, when it comes to concrete actions states are merely required to "adopt national policies and take corresponding measures on the mitigation of climate change" (Article 4).

[9] The details of the Kyoto compliance system are laid out in FCCC/KP/CMP/2005/8/Add.3, March 30, 2006. Oberthür and Lefeber (2010) describe Kyoto's as the strongest compliance system of any multilateral environmental agreement. It remains to be seen how effective it is in practice.

Limited Participation

The legally binding nature of Kyoto and the need to inscribe obligations in a multilateral treaty had the effect of deterring participation in the regime. Through the history of climate negotiations, developing countries have categorically resisted any effort to impose commitments on them; they have stressed the historical responsibility of the industrialized world when it comes to greenhouse gas emissions and the "common but differentiated responsibility" accorded to them in the Framework Convention (Bodansky 2007; Najam, Huq and Sokona 2003).[10] They began to embrace Kyoto once it became clear, in the mid-1990s, that they would not be subject to targets and there would be mechanisms to transfer aid and technology to the South.

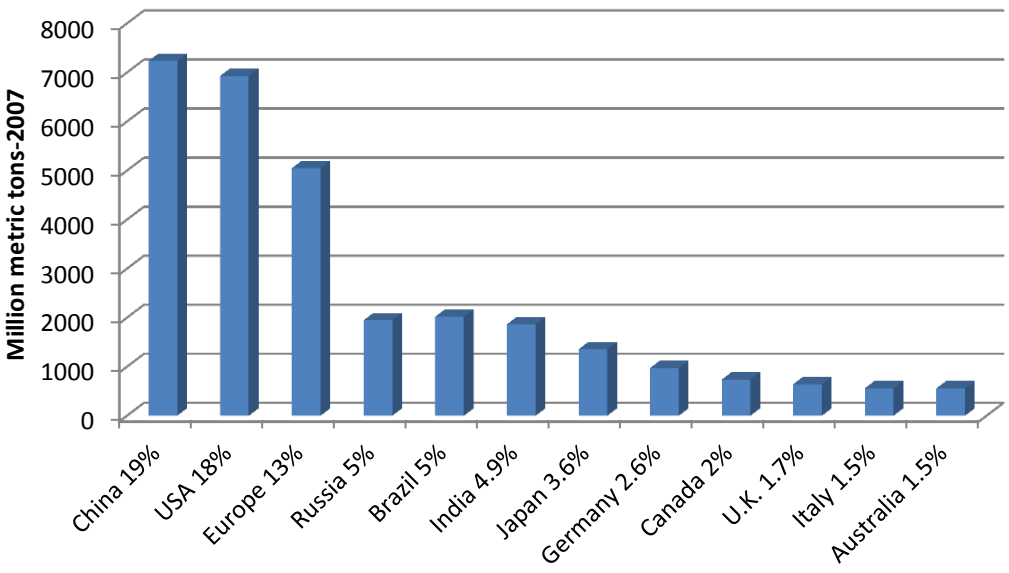
Annex 1 governments were of course worried about entering into an agreement that would tie themselves to a course of action with serious—and partly unforeseeable— economic and political implications. Moreover, unlike a political agreement or quasi-legal declaration, hard-law treaties entail a potentially problematic ratification process. This proved to be a substantial hurdle for key countries like Japan, Australia, Canada and the United States, which faced international pressure to go along but also substantial resistance from domestic interest groups and subnational governments (Lantis 2009: Chap. 5; Harrison and Sundstrom 2010). The United States in particular never came close to achieving the necessary support in the Senate required for ratification.[11] Exacerbating this problem, because they are specific, inflexible and highly publicized, legalized commitments tend to stimulate more vociferous opposition from domestic interests groups that are likely to be disadvantaged (Goldstein and Martin 2000).

[10] For an example of this argument in the Kyoto negotiations, see the following proposal from Brazil: FCCC/AGBM/1997/MISC.1/Add.3, May 30, 1997.

[11] The 1997 Byrd-Hagel Resolution, passed in the Senate by a 95 to 0 margin, rejected some basic premises of Kyoto and thus preempted any attempt by the Clinton administration to seek ratification. In March 2001, George W. Bush pronounced Kyoto "fatally flawed" and declared that he would not push for ratification.

In the end, this lack of participation had a devastating effect on meaningful participation in the regime's mitigation objectives. Table 1 lists the eleven largest emitters of greenhouse gases (plus the European Union for the sake of comparison). Note that four of the top five countries, accounting for almost half of global emissions, do not have mitigation commitments under Kyoto: China, the United States, Brazil and India. Russia ratified Kyoto but not until 2004, so its emissions were not covered for several years after Kyoto was signed. The same can be said for Japan and Canada, which ratified in 2002, and Australia, which did not ratify until 2007. Notably, these countries only ratified once subsequent negotiations ensured that the Kyoto regime would be more flexible and the commitments less burdensome (Thompson 2010).

Table 1. Largest Greenhouse Gas Emitters (2005)



Source: World Resources Institute, World Bank, International Energy Association

We generally assume that states face a "depth-breadth" tradeoff when it comes to the design of international institutions, implying that narrow participation should be offset by deeper cooperation

(Downs, Rocke and Barsoom 1998). We also expect more legalized commitments to have a greater impact on subsequent behavior, including compliance, since they entail greater reputational consequences and more robust enforcement mechanisms (Simmons 2000; Downs, Rocke and Barsoom 1996). As von Stein (2008: 248) summarizes this view, "soft law generally lacks the means to compel substantial changes in state practice. This has led some scholars to conclude that hard law, by virtue of the fact that it is legally binding and more difficult for states to escape once they have committed, provides the more effective means of eliciting change."

In fact, the Kyoto results represent the worse of both words: narrow participation without substantial offsetting benefits in terms of robust changes in behavior. The targets negotiated at Kyoto reflect the widely divergent interests of the countries involved and do little more than inscribe in a treaty what each country intended to do anyway (Victor 2006). Nevertheless, before the global recession that began in 2008, most Annex 1 parties were not on pace to meet their targets for the first commitment period of 2008 to 2012 (CRS 2007). The compliance picture is now brighter, thanks to reduced economic growth. The EU-15 will probably comply as a group (they have pooled their targets under the EU "bubble"), but implementation of emissions reductions has been uneven and there are certainly laggards among them (Schreurs and Tiberghien 2010). Japan will likely comply, though only by buying credits on the carbon market. Canada has already announced that it does not plan to comply, and Norway, New Zealand and Switzerland are not on pace to do so. Some countries that will certainly comply, such as Australia, Russia and the Ukraine, will do so with little effort—simply because their targets do not bite. Overall, Kyoto's record of changing behavior is not impressive (Barrett 2009: 2-4).

In terms of political and environmental outcomes, then, Kyoto's binding targets had the downside of deterring participation and mobilizing domestic opposition without the upside of promoting high rates of compliance and deep cooperation. If noncompliance rates are too high

(something we will not know until 2012), there is the additional risk that the credibility of the regime as a whole will be undermined.

Narrow Policy Incentives

Another downside of Kyoto and hard law more generally is that it tends to limit the range of policies pursued. The Kyoto experience demonstrates how binding rules can create perverse incentives from the perspective of reducing the risk of climate change. This is true in two main respects. First, Annex 1 governments are obligated to seek reductions in a relatively short timeframe—namely, before the end of the 2008-2012 commitment period. There is little incentive to pursue long-term mitigation strategies that might have a greater effect on reducing emissions and thus a greater environmental benefit. Second, because they must receive credits that count toward a target, governments focus on actions that can achieve measurable and verifiable reductions in emissions. This rewards more limited, "project-based" policies.[12]

The experience of the Clean Development Mechanism (CDM) illustrates some of these drawbacks.[13] The CDM allows Annex 1 countries to invest in emissions-reducing projects in developing countries and to count the resulting certified emission reductions (CERs) against their own targets. The theory behind this global offset scheme is that reductions can come at a much lower price in the developing world, and that investments in abatement activities should be channeled to where they have the greatest impact. In the process, richer countries can transfer technology and financing to their low-income counterparts, creating a win-win situation. CDM has grown rapidly; without it, there would be much less activity in the non-Annex 1 world related to climate mitigation.

However, CDM projects are only approved—and are only useful to the Annex 1 party—if they result in certified reductions. To achieve this, the project planners must establish "additionality": the

[12] On some of drawbacks of a project-based approach, see Richards and Andersson 2001.
[13] The CDM is established in Article of the Kyoto Protocol.

amount by which emission reductions occur compared to a counterfactual baseline involving no CDM intervention. These baselines, and additionality more generally, are difficult to estimate with any certainty (IPCC 2001: 427; OECD 2000). The result is a relatively narrow range of CDM projects for which emissions are relatively easy to measure and additionality methodologies have been worked out. Countless policies—including tax incentives, clean energy standards, technology R&D and building codes—that could promote long-term reductions in greenhouse gases are ruled out categorically because their effects are difficult to measure and may not be seen for decades (Aldy and Stavins 2008: 7; Keeler and Thompson 2009). Even worse, the CDM provides an incentive to invest in improving dirty energy sources and manufacturing practices because this is where the cheapest and most immediate reductions are likely to come from (for example, industrial gas abatement projects have been popular). From a long-term, environmental perspective, financing should instead promote decreased reliance on fossil fuels, yet surprisingly few projects focus on renewable energy (Gilbertson and Reyes 2009: 55; Voigt 2008: 48).[14]

The high transaction costs of meeting the strict accounting requirements of the CDM have also limited the number of projects and the countries involved. To date, three-quarters of the nearly 2800 registered CDM projects have occurred in only four countries: China, India, Brazil and Mexico.[15] These are large countries that have invested in the capacity to seek and host CDM projects. Most developing countries have not participated, and African countries in particular have hosted fewer than two percent of projects. Contrary to theoretical arguments that centralization and legalization offer ex post transaction cost savings, by providing more specific rules and delegating authority over their interpretation (Abbott and Snidal 2000; Lipson 1991), the CDM case shows how the need to meet a specific, binding target raises the governance costs of the regime.

[14] In the stark formulation of Gilbertson and Reyes (2009: 57), "instead of supporting clean energy, the CDM proposes to support a clean energy source on the grounds that it is a marginal improvement on the current, incredibly dirty practice."

[15] http://cdm.unfccc.int/Statistics/Registration/NumOfRegisteredProjByHostPartiesPieChart.html.

A Climate for Change: Decentralized Flexibility

As a policy and cooperation issue at the international level, climate change is characterized by two key features: uncertainty (an efficiency problem that affects all actors) and heterogeneity of capabilities and interests (a distribution problem that affects actors differently). While efficiency and distribution problems are often treated as separate issues in the literature on international institutions, they must be solved simultaneously in any successful climate regime. This, in turn, requires an understanding of these political obstacles and the institutional designs that can best address them.

Efficiency and Distribution

All governments want to respond to climate change in a way that produces the greatest benefit, in terms of reduced risk, at the lowest cost. These costs can be thought of in both economic terms (minimizing investments and sacrificed economic growth) and political terms (minimizing the political harm imposed by the public and relevant interest groups). While governments vary substantially in their individual circumstances and therefore their specific assessments of costs and benefits, all have an interest in designing institutions that allow them to minimize these costs.

The main obstacle to achieving cost-effective mitigation is uncertainty. While there is no longer much scientific debate on the key question of whether human activities are exacerbating climate change, there remains enormous uncertainty over the severity of the problem. Models of temperature change, sea-level rise, and other aggregate impacts are still incomplete and generate a range of predictions, and scientists are just beginning to understand the tipping points that could produce abrupt and potentially dramatic effects. Uncertainty over these impacts becomes even more acute at the regional level and with regard to specific populations and economic sectors.[16] Atmospheric processes

[16] For overviews, see Tol 2008; Stern 2007; Tol et al. 2004; and Mendelsohn et al. 2000.

are notoriously complex, and this is especially acute with climate change since human and natural variables and systems interact. The future impacts of changes in the climate, for example, are partly a function of actions taken to mitigate the problem and to adapt to its effects, further complicating the task of prediction (Hof et al. 2010).

Equally important from a political perspective, there is uncertainty regarding the costs and benefits of different policy options. Decisionmakers simply do not have sufficient information to anticipate the effects of alternative policies (Dowlatabati 2003). Predicting the costs of limiting carbon dioxide (CO_2) concentrations in the atmosphere is an inexact science, with divergent model results depending on assumptions about technology, the combination of policies deployed, natural processes, and the time horizon for measurement (Edmonds and Sands 2003; Stern 2007: Chapter 9). This complexity and 'ubiquitous uncertainty' makes straightforward cost-benefit analysis for policymakers difficult (Corfee-Morlot and Agrawala, 2004: 197; Fischer and Morgenstern 2003). The IPCC captures these uncertainty problems succinctly: "In all cases, policy decisions will have to be made with incomplete understanding of the magnitude and timing of climate change, of its likely consequences, and of the costs and benefits of response measures" (Metz et al. 2007: 225).

These efficiency concerns are combined with important distributive obstacles when it comes to designing effective climate institutions at the international level. The interests of states with respect to climate change are highly heterogeneous, a condition that is generally not conducive to cooperation (Libecap 1994: Hawkins et al. 2004). This heterogeneity stems from three sources. First, the impacts of climate change are predicted to be uneven. Some countries will see greater changes to their climate or are more vulnerable to such changes—coastal and small-island states are the best example—while other countries and economic sectors may actually benefit from some warming (Mendohlson et al. 2000: 561-2). This means that governments vary in the extent to which they view the problem as urgent and worthy of precautionary measures.

Second, the burden of mitigation is not distributed evenly because the economic costs of reducing emissions vary widely. The obvious case is developing countries, which are reluctant to sacrifice economic growth for the sake of addressing a long-term environmental problem to which they contribute relatively little. Among major industrialized countries, we see significantly higher compliance costs for the United States, Canada, Japan and Australia, and lower costs for most Western European countries. The former have higher emissions per capita, rely heavily on coal for energy, and have steeper emissions projections (Novak 1999; Cooper et al. 1999). For example, after Kyoto was signed projections for the EU suggested that "business-as-usual"—a baseline scenario with no effort at abatement—would lead to an eight-percent increase in emissions over 1990 levels, whereas similar projections for the United States predicted a 30-percent increase (Hourcade and Grubb 2000: 174). It is no coincidence that many of those countries which faced the highest burden to comply, including Canada, Japan and the United States, were precisely those that have proved reluctant to ratify or to comply with Kyoto.[17]

Finally, national circumstances also vary widely in terms of the political, social and economic constraints facing governments. The German, French and British publics take climate change very seriously, so it is relatively easy for their governments to take strong action; in contrast, the Russian, Canadian, Australian and U.S. publics have not typically prioritized global warming as an issue (Harrison and Sundstrom 2010; Lantis 2009: Chap. 5). Some countries are more eager to take on climate change because they have political parties and interest groups in favor of doing so. In low-income countries, attention to long-term problems is a political loser compared to a focus on economic growth and social welfare. This is especially true with climate change because there is a compelling social justice argument for placing the burden on industrialized countries to address the problem, given their historical responsibility. All of these domestic factors shape governments' interests over the climate issue.

[17] For more on the uneven distribution of compliance costs under Kyoto, see Bhatti et al. 2010.

Decentralization and Flexibility

The Kyoto Protocol was not well suited to this combination of uncertainty and heterogeneity. While it allows quite a bit of flexibility in terms of the means available to governments to meet their commitments, this is in the context of rigid commitments that were negotiated on a multilateral basis. I propose instead a regime based on bottom-up commitments that are more customized to national characteristics and interests, in the context of a more flexible international architecture that can be changed to accommodate new information and changed circumstances.

In other contexts, political scientists and economists have found that distributive problems and preference heterogeneity are easier to accommodate through a decentralized and localized approach, in contrast to a more uniform policy imposed across jurisdictions (Rixen 2010; Oates 1999; Thompson and Verdier 2011). In the climate case, a bottom-up and more tailored approach to setting goals produces a better match between targets and compliance costs and between national mitigation strategies and other political and social circumstances. This is consistent with empirical findings that congruence between rules and relevant conditions is key to effective environmental management (Ostrom 1990).

This sort of decentralization also increases the chances of attracting reluctant countries to participate (Victor 2007). Developing countries, in particular, are reluctant to have multilaterally derived rules imposed on them. In the past, this has created perverse effects, for example when mitigation actions are designed to provide Annex 1 countries with offset credits but threaten the livelihoods of local populations. As one study notes, "such projects typically support a development paradigm that is insensitive to the needs of local communities, including their health, land use and water requirements" (Gilbertson and Reyes 2009: 53). More generally, mitigation actions should be consistent with the sustainable development strategies of individual countries, which vary substantially (Voigt 2008).

From a cynical (or realist) perspective, a decentralized approach might seem second-best since it gives governments the freedom to act selfishly and to succumb to the lowest common denominator at the domestic level. However, it should be noted that, at the multilateral level, distribution problems are most often resolved on the basis of power (Krasner 1991), which poses its own risks to effective design. Allowing commitments to be nationally determined may in fact be fairer to weaker countries, which have faced disadvantages in international climate negotiations over the years due to their lack of capacity and expertise (Yamin and Depledge 2004).

The best institutional antidote to uncertainty is flexibility (Thompson 2010; Koremenos 2005; Rosendorff and Milner 2001). In the case of a problem as complex as climate change, and with low confidence that agreements reached now will remain optimal over time, rigid solutions are politically unappealing. The most cost-effective way to reduce emissions globally is to allow governments to pursue as wide a range of policies as possible with as much geographic coverage as possible (OECD 2009; Pizer 2007: 286). Within broad limits, governments should have the flexibility to choose a different portfolio of policies depending on their evolving circumstances, both economic and political, and on new information about impacts of climate change and the effectiveness of different policies.

Beyond these political incentives, there is an environmental argument for avoid rigid commitments. Flexibility not only reduces the costs for individual governments, it may help the international community move toward more effective climate governance over time through a process of adaptive management. Adaptive approaches are especially useful for managing environmental problems that are complex and involve unpredictable interplay between human activities and the natural world (Walters 2002; Lee 1993; Holling 1993). This is precisely the case with climate change, a problem that "increases uncertainty about the inter-linkages between environmental variables and heightens the potential for environmental disruptions that exacerbate existing social vulnerabilities. Climate change promises to bring risks of greater scale and complexity, which may be recurring and

cumulative, where feedback loops are uncertain, and where our ability to predict subsequent effects and their location remains limited" (Deere-Birkbeck 2009). As one study notes, "adaptive management is appealing because of the sheer complexity of the climate change problem coupled with the need to make management decisions under uncertainty" (Arvai et al. 2006: 219). Flexibility allows policymakers to experiment with different approaches and to learn over time, a preferable alternative to inaction in the face of uncertainty.

For these reasons, any global agreement on climate change should be flexible enough so that local, regional and private actors are not constrained from implementing new policies. In many cases, regulators and other government officials can find creative solutions to problems if they can cooperate across borders at the sub-state level (Slaughter 2004). Private actors, including NGOs, academics and corporations, have also forged a variety of climate-related initiatives, sometimes in partnership with each other or with governments (Deere-Birkbeck 2009: 1190-91). These transnational efforts are complemented by countless plans developed by governments at the regional and local levels (Bulkeley and Betsill 2003). A flexible agreement allows room for a broad array of actors and approaches and provides more possibilities for comparing best practices.[18]

In sum, there are multiple reasons for "letting a thousand flowers bloom," as Bodansky (2010) advocates, in terms of the measures and forums used to reduce emissions. We can see how decentralization and flexibility have the potential to be mutually reinforcing features of a climate regime. A flexible agreement at the international level allows a variety of policy approaches at multiple jurisdictional levels to flourish. A more customized and flexible regime will tend to attract greater participation because it is viewed as less threatening to sovereignty and less politically risky (Kucik and Reinhardt 2008; Skjærseth, Stokke and Wettestad 2006: 109-10; von Stein 2008; Abbott and Snidal

[18] To make the most of these experiments and to compare best practices, governments would need some institutional capacity at the international level to provide a clearinghouse for and analysis of policy experiences. This would require delegating new tasks but probably to existing institutions, such as the Climate Secretariat, the IPCC, UNEP, the World Bank or some combination thereof.

2000). This is especially valuable for managing climate change because of its public-good nature. Unlike in trade or security cooperation, where nonparticipating states can be excluded from the benefits of the regime, excluding reluctant states from climate cooperation only plays into their desire to free-ride. Almost any level of participation is better than none.

Copenhagen and Soft Law Architecture

From the perspective of the arguments in this paper, the Copenhagen Accord is in fact a step in the right direction, despite its much-decried soft-law nature. By calling on developing countries to offer nonbinding pledges, Copenhagen has succeeded for the first time in getting 43 developing countries, including China, India, Brazil and other large emitters in the South, to outline "nationally appropriate mitigation actions." These are now inscribed as an appendix to the Accord.[19] The United States has also made an explicit commitment for the first time since 1997, pledging to reduce emissions by about 17 percent by 2020, relative to a 2005 baseline. The United States joins 41 other industrialized and transition economies in setting quantified national emissions targets.

It is not surprising that the nonbinding and bottom-up nature of Copenhagen has succeeded in increasing participation, and of course it remains to be seen whether countries are willing to engage in costly actions to meet their pledges. But hard law has its own drawbacks. Because hard-law agreements tend to be shallow, sometimes merely codifying existing behavior, they may have little impact on outcomes (e.g., lower greenhouse gas emissions) even when compliance is high (Downs, Rocke and Barsoom 1996). Soft law agreements are better designed to draw reluctant countries in and to allow governments the freedom to make deeper commitments.

[19] For a list of the Copenhagen pledges by both Annex 1 and non-Annex 1 parties, see http://unfccc.int/meetings/items/5276.php.

This raises broader questions about the future of the climate regime and the appeal of a soft-law approach. There are no universally accepted definitions of soft law and hard law.[20] International rules are generally considered to be "hard" in a formal sense when they are binding and sufficiently precise to specify when behavior is compliant or not (and therefore enforceable). Soft law involves nonbinding norms or rules of a more general character but which nevertheless have some legal relevance. It lies somewhere between legally binding treaties and purely political statements of intent (Guzman and Meyer 2010; Thürer 2000). By its nature, soft law is more flexible in the sense that states can qualify their commitments (for example, through reservations and understandings that limit treaty obligations), opt out individually on an ad hoc basis, and more easily renegotiate new rules as a group. The rules and behavior that result from a soft law approach tend to be more customized, driven by the interests and circumstances of individual states. Hard-law rules are more rigid and their details must be negotiated and codified at the international (usually multilateral) level.

The reactions to Copenhagen summarized in the introduction fit with a broader bias toward hard-law solutions exhibited by many policymakers and activists. Academics tend to favor hard law as well. Among international law scholars, the phenomenon of soft law evokes "discomfort" and is "much-maligned" (Guzman and Meyer 2010: 172; Fastenrath 1993: 340). Hard law resonates with the traditional view of international lawyers, especially legal positivists, that binding and enforceable obligations, along with a strict view of compliance, should be the ultimate goal of international rule-making.[21] More favorable views see soft law as useful but nevertheless secondary—as a stepping stone on the way to hard law or as an aid to interpreting it.[22]

[20] For conceptual discussions of the soft law–hard law distinction and related concepts, see Thürer 2000; Abbott and Snidal 2000; Finnemore and Toope 2001; Blutman 2010; Boyle 1999; and Guzman and Meyer 2010.
[21] An example of this view in the context of international trade is Jackson 2004.
[22] For examples of these perspectives, see Fastenrath 1993. For general discussions of these competing views, see Shaffer and Pollack 2010 and Pauwelyn 2006.

However, some scholars of international law and international relations take soft law more seriously and explain it as a viable alternative to hard law, one that is even preferable in some situations (Abbott and Snidal 2000; Lipson 1991; Shelton 2000; Guzman and Meyer 2010). Soft law is particularly appealing when it comes to new and complex global governance problems. It provides a more flexible foundation that can be built upon in stages (Hillgenberg 1999: 501), that permits relatively low-risk experimentation (O'Connell 2000), and that protects states when there is uncertainty about the future costs of compliance (Sykes 1991). These possibilities are especially appealing for managing the evolving and uncertain issue of climate change.

My recommendation for a soft and decentralized approach raises the question of why any centralization or multilateralism is needed at all to manage climate change. Why not let individual countries set their own policies independently? There are at least three rationales for maintaining some centralized institutions. First, international institutions can provide a clearinghouse for information, especially regarding compliance and best practices (see footnote 18 above). The current system of national communications under the UNFCCC and Kyoto, and some aspects of the IPCC reports, are potentially very helpful in this regard. Second, the establishment of some internationally negotiated standards is necessary so that targets and efforts can be compared across countries (for example, common baseline years and a common "basket" of greenhouse gases). Coordination around basic standards also allows international trading to take place and will allow national and regional efforts to be more easily integrated over time, especially for the purpose of trading credits (Jaffe, Ranson and Stavins 2009). Third, there are economies of scale in managing transfers from North to South, in the form of multilateral funds and institutions to manage them. Finally, even if national policies are determined from the bottom up, it is useful to inscribe them in an international agreement and to negotiate other elements of the regime in a multilateral forum. A forum such as the COPs, with

accepted ground-rules and a history, helps to constrain the most self-serving arguments and counter-productive bargaining strategies (Harstad 2009; Mitzen 2005).

In light of these advantages of modest centralization, an additional virtue of Copenhagen is that it did not seek to overturn existing multilateral institutions or the basic obligations that come with the Framework Convention and Kyoto. Instead, the focus was on new mitigation and financing commitments that could be layered on top of existing institutions.

Conclusion

Despite widespread criticism of Copenhagen, the follow-up meeting in Cancun in December 2010 failed to produce a new set of binding commitments. In fact, with no agreement on targets for a second Kyoto commitment period, the effective expiration of Kyoto's most touted achievement now seems certain. However, Cancun was much more successful if judged by the criteria laid out in this paper. The main achievement was the establishment of a Green Climate Fund to manage financial transfers from North to South. For achieving emissions reductions in the developing world, a multilateral fund approach is more flexible than the CDM as it does not confront the measurement problem and allows for a wider range of mitigation actions, beyond narrow projects. As the agreement to create the Fund states, it will "support projects, programmes, policies and other activities in the developing country Parties using thematic funding windows."[23] This will complement funds already managed by the Global Environment Facility, World Bank, and other regional and multilateral organizations, which have been fairly successfully in subsidizing long-term investments in mitigation and adaptation in the developing world and have done so with increasing input and sensitivity to local priorities.

[23] http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf.

Another promising sign is that Cancun negotiators agreed to broaden the scope of the CDM. Concerned with the limited geographic distribution of CDM projects, its Executive Board agreed in Cancun to simplify and standardize the methodologies used to define baselines and measure additionality, and to develop methodologies for a wider range of project activities.[24] This followed calls by various parties, developing and developed alike, to expand CDM to include "programmatic" and "sectoral" approaches—where, for example, emissions for an entire industry could be measured and used for credits—rather than just project-based ones.[25] A related development at Cancun was the increased attention paid to the forestry sector. "Avoided deforestation" is now seen as one of the most promising paths to reduced emissions in the developing world. Despite representing the largest source of emissions in much of the tropical world, this sector was left out of Kyoto because of the difficulties of establishing baselines and determining additionality (Gibbs et al. 2007).

Global cooperation over climate change is evolving in a more flexible and inclusive direction. This comes that price of legally binding commitments—but for now that price is worth paying. Climate change is a long-term problem and it is more important to get the policies and institutions right than to lock governments into inefficient approaches out of a sense of urgency (Nordhaus and Boyer 2003: 174-5). For those who advocate hard-law solutions to the global governance of climate change, a nonbinding and flexible approach is unsettling. However, even nonbinding pledges set a public goal against which a government's policies and outcomes can be measured. The most viable compliance mechanisms in climate change are likely to be informal anyway, a combination of international pressure and mobilization of NGOs, domestic stakeholders and other watchdogs who can monitor governments' progress toward states goals (Dai 2010).[26] Without centralized enforcement, the appropriateness of

[24] FCCC/KP/CMP/2010/10.
[25] FCCC/KP/CMP/2008/MISC.2; FCCC/KP/CMP/2008/INF.4.
[26] In the case of Copenhagen's financing commitments, there is a website devoted to tracking whether Annex 1 governments are following through: In the case of Cophenhagen, there is a website designed to track pledges and

rules and the need for congruence with the local circumstances and practices they seek to regulate become especially important (Finnemore and Toope 2001: 744; Ostrom 1990). Given the levels of political will, the varied circumstances and interests across countries, and the complexity of the climate problem, the best way to maintain environmentally sound and politically viable rules is through a flexible and decentralized regime.

follow-through when it comes to financing commitments by industrialized countries: http://www.faststartfinance.org/home.

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