Barriers to Conflict Resolution

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Dealing with Blocking Coalitions and Related Barriers to Agreement: Lessons from Negotiations on the Oceans, the Ozone, and the Climate

James K. Sebenius
Popular and scientific concern has been rising about the possibility that human activities will result in damaging global climate change. Along with recent weather extremes, a number of computer models suggest that a warming is in prospect that could change weather and crop patterns, cause sea-level rises that would inundate low-lying areas, and result in other unprecedented and adverse consequences. Apparent causes include greenhouse gases such as carbon dioxide, chlorofluorocarbons (CFCs), methane, and nitrous oxides, emitted as a result of worldwide modes of energy use, transportation, industry, farming, and forestry. Not only are these activities embedded in the very fabric of industrial and agricultural practice, but the atmosphere is a true commons, implying complete global interdependence with respect to both emissions and control measures. Further, while carbon-emitting activities in developed countries since the Industrial Revolution are largely responsible for present greenhouse gas concentrations, industrialization and population growth in developing countries will, over the next century, become the most important source of the problem. This challenge, therefore, is deep-seated, long-term, and worldwide.

There are many barriers to resolving the scientific, economic, and ideological conflicts that underlie the climate change issue. Negotiations to curb greenhouse gas emissions may ultimately produce few tangible results unless the negotiation process is designed pursuant to a farsighted strategy to craft and sustain a meaningful “winning” coalition of countries backing such a regime. Two centrally necessary, though not sufficient, conditions for this fundamental task are (1) that each member of the coalition see enough gain in the regime relative to the alternatives to adhere, and (2) that potential and actual “blocking” coalitions of interests opposed to the regime be prevented from forming, be acceptably accommodated, or otherwise be neutralized. In addressing these questions, this chapter will draw on concepts from the


2 The terms “winning” and “blocking” coalitions are used in a looser sense than is common in a well-structured (e.g., parliamentary) context. In the climate case, “blocking” coalitions may include nonjoiners and free riders. However, peculiarities in the rules of conference diplomacy may allow such nonjoiners actually to block agreements that are widely desired. For traditional discussions of these coalitional concepts see Luce and Raiffa 1957; or Riker 1962. Here, “winning coalitions” are only defined with respect to a set of policy measures from the point of view of a particular actor or actors; such coalitions consist of sufficient numbers of adherents to render the policy effective (again from the emerging key questions and how negotiators respond to them can have important consequences for the terms of the final agreement.

In addition, California has agreed to extend the assessment period for the Kyoto Protocol and to consider the possibility of extending it to cover all countries. The extension deadline is set for December 31, 2012.

In summary, the Kyoto Protocol is an important step forward in the global effort to address climate change. It provides for the first time a legal framework for international cooperation in reducing greenhouse gas emissions and offers a mechanism for countries to work together to meet their climate change goals.

The Protocol’s success will depend on the extent to which countries are willing to make the necessary sacrifices to reduce their emissions and the extent to which they are able to work together and coordinate their efforts. The Protocol also offers an opportunity for countries to learn from each other and to share best practices in reducing emissions and adapting to the impacts of climate change.

The Protocol is not without its critics, however. Some argue that it does not go far enough in reducing emissions and that it does not do enough to address the social and economic costs of climate change. Others argue that it is too complex and that it is too difficult for countries to implement.

Despite these challenges, the Kyoto Protocol has been a significant step forward in the global effort to address climate change. It provides a framework for international cooperation and offers a mechanism for countries to work together to meet their climate change goals. If countries are willing to make the necessary sacrifices and work together to implement the Protocol, it has the potential to be a powerful tool in the fight against climate change.
A "FRAMEWORK-PROTOCOL" APPROACH TO CONTROLLING CLIMATE CHANGE

Negotiations toward agreement to restrict activities that emit greenhouse gases have figured on the international diplomatic landscape for some time and will undoubtedly continue to do so for years. The widely accepted goal for climate change negotiations has been for a general "framework convention," perhaps together with one or more "protocols" on specific subjects. A framework convention was indeed signed in Brazil though specific control protocols were not. Of special disappointment to many greenhouse control advocates worldwide was the virtually single-handed opposition of the United States—among industrialized countries at least—to adopting binding targets and timetables for greenhouse gas stabilization in the convention. (Prior to the 1992 Earth Summit, the nations of the European Community and the European Free Trade Association, along with Japan, Australia, Canada, and others, adopted greenhouse gas stabilization or reduction targets.)

In part, this step-by-step, framework-protocol approach was a reaction against the years of negotiating the detailed and comprehensive LOS treaty that was ultimately rejected by the United States and opposed by other key powers. In part, the present approach to climate negotiations seeks to build on the perceived success of an analogous process that led to widely accepted control measures for CFCs. While a large number of other international negotiations have influenced the dominant course of climate change negotiations and contain useful insights, both the LOS and the CFC negotiations concerned global resources (like the atmosphere), embody valuable lessons in themselves, and served as especially salient examples for many informed observers.

Climate change was but one of the many subjects for the 1992 conference, which was timed to take place on the twentieth anniversary of the initial UN environmental conference held in Stockholm. The vast agenda of the 1992 conference also included other thematic issues (ozone depletion, transboundary air pollution, land resource issues (desertification, deforestation, and drought), biodiversity, biotechnology, the ocean environment, freshwater resources, and hazardous waste, UN General Assembly, 1992).

For a survey of the unilateral and small-group greenhouse gas reduction and stabilization targets adopted worldwide, see Cuter Information Corporation, 1990, as well as subsequent issues.

Other useful precedents range from the Limted Test Ban Treaty to the nonproliferation agreements, to the Basel convention on hazardous wastes, to the Convention on International Trade in Endangered Species, to the Antarctic Treaty, and to various regional environmental accords such as the Mediterranean Action Plan. For useful distillations of some of the lessons from these and many other related accords, see Young; Thacher 1990; and especially Sand 1990.
"Lessons" from the Law of the Sea Conference

The Third United Nations Conference on the Law of the Sea, launched by the General Assembly in 1970, led in 1982 to a comprehensive treaty signed by 159 states (and other authorized parties) that was designed to enter into force once the sixtieth instrument of ratification was deposited (a requirement met in 1994). On the positive side, against the predictions of many knowledgeable observers, a broadly acceptable LOS convention—a "constitution for the oceans"—did result from this mammoth effort despite technical complexity, uncertainty, and ideological division. The negotiation process and the LOS treaty have reduced much of the ocean conflict that was burgeoning at the outset of the negotiations. Given these factors—and that the atmosphere, like the oceans, is a global resource—there were calls from some quarters for a loosely analogous, comprehensive "law of the atmosphere" to address global warming.

By contrast, many view the law of the sea as precisely the wrong way to negotiate a convention. The process was conducted at a level of detail that arguably should have been unthinkable in a treaty framework; moreover, twenty-two years after its inception, the result was barely scheduled to enter into force. In the views of skeptics, the result of this unwieldy process, especially with respect to deep-sea resources, was unworkable, a dangerous precedent, and counter to Western interests. Just as the United States rejected this flawed treaty, goes this line of argument, so it should reject any analogous process or result on climate change.

"Lessons" from CFC Negotiations

In 1977, the United Nations Environmental Programme (UNEP) and other UN agencies drew up an "Action Plan to Protect Stratospheric Ozone" that strengthened international efforts at research, monitoring, and assessment. Under the auspices of UNEP, a working group was established in May 1981 to try to come up with a global agreement, a "framework convention," to protect the ozone layer from chlorofluorocarbons. After seven rounds of negotiations, the compromise Vienna Convention for the Protection of the Ozone Layer was signed in March 1985 by twenty countries and the European Community. The convention created a framework for international cooperation on research, monitoring, and exchange of information, and provided procedures for developing "protocols" containing specific control measures. In 1987, twenty-four countries signed the Montreal Protocol on Substances That Deplete the Ozone Layer, calling for a 50 percent cut in the consumption of most CFCs by 1999. By mid-1990, over sixty countries had ratified the protocol or announced their date of ratification. This list included key developed countries, including the U.S., the former Soviet Union, Japan, and the EC countries. However, relatively few less developed countries (LDCs) had ratified the Montreal protocol; holdouts included potentially major CFC producers such as India, China, and Brazil. In a June 1990 London meeting, following some North-South pyrotechnics, ninety-three nations—including some vocal LDC holdouts such as India—signed a much strengthened CFC convention that would virtually ban CFC production and use by the year 2000. The new agreement also promised substantial financial and technical assistance to the developing world.

In direct contrast to the blunt U.S. rejection of the LOS treaty, President Reagan described the 1987 Montreal accord as "the result of an extraordinary process ... of international diplomacy ... a monumental achievement." In assessing the relevance of this approach for climate change negotiations, some of those involved with the CFC process—after noting that the complexity of climate issues makes it "impossible to deal with everything at once," recommended disaggregating the problem, and following a step-by-step framework-protocol process modeled after the CFC experience. Subsequent official action by both developed and developing countries endorsed the framework/protocol approach.

Though this chapter will often refer to the LOS and CFC processes, they should not be thought of as pure competing archetypes, such as "step-by-step versus comprehensive." Indeed, each approach bundles several important negotiating characteristics from which designers of future negotiations to control climate change might selectively draw. Key features of the CFC process—which was widely seen as a model for climate negotiations—include formal negotiation of a general framework followed by (separate) specific protocols, aspirations for universal participation and decision making by consensus, and an agreement subject to significant modification without re-ratification. The LOS process was also formal, was universally inclusive both with respect to issues and participants, and virtually required consensus on a comprehensive "package deal."

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7The following LOS discussion generally relies on Hollick 1981; Sebvenius 1984; Oxman, Caron, and Budeki 1983; and Richardson 1990.

8The following account draws generally on Benedict 1990b; 1990a; 1991; Doniger 1988; and Haas 1989.
CLIMATE CHANGE NEGOTIATIONS WILL BE
FAR MORE DIFFICULT THAN THOSE OVER
CFCS OR THE LAW OF THE SEA

To place the climate change negotiations in perspective, especially with
respect to those over the oceans and the ozone layer, it is important to un-
derstand the nature of the issue. Consider four complementary dimensions
along which to understand the sources of greenhouse gas emissions:

- In conventional scenarios, slightly less than half of the expected warming
  from emissions during the decade of the 1980s, most came from
  energy-related activities (coal, petroleum, and natural gas—used in indus-
  try, home heating, transportation, etc.), with nonenergy industrial activities
  delivering about a quarter, and land-use activities (deforestation, rice cul-
  tivation, fertilization, etc.) causing the rest.

- About 55 percent of the expected contribution to warming from emissions
during this period is due to carbon dioxide, with CFCs (24 percent, or less
depending on the effects of the Montreal protocol and of findings that the
effective warming contribution of CFCs may be small), methane (15 per-
cent), and nitrous oxides delivering the rest.

- About half of the expected warming will reflect global population growth
  and about half will reflect growth in per capita demand.

- About 40 percent of the expected warming now comes from activities in the
developing countries, a figure that may rise to 60 percent by the end of the
next century. (These proportions are reversed, of course, for the developed
world.) Thus, both issues of economic growth for the industrial countries
and development in the Third World will critically be at stake as possible
responses to global warming are fashioned.

This examination of the present and future causes of the greenhouse
effect reveals the manifold causes and range of policies that could make
some difference in the amount or rate of expected warming. No approach
that is narrowly focused on carbon dioxide, for example, or fossil fuels or
conservation or deforestation can fully solve the problem. More impor-
tantly, this look at the vast scope of the greenhouse problem underscores just how
depth its causes are embedded in the central aspects of the world's eco-
omic and social activity: across transportation, industrial, agricultural, and
forestry practices; from the developed to the developing world; and in the
very growth of populations and economies. This carries an important impli-
cation: Although some expected a full solution to the climate change prob-
lem to emerge from the negotiations that culminated in the Earth Summit,
these talks should be regarded at best as a first step in a series of greenhouse
negotiations that will likely stretch over decades.

Thus, negotiating and sustaining serious actions to mitigate greenhouse
gas emissions will be far more difficult than counterpart processes for either
the law of the sea or the Montreal protocol. While the CFC model is often
seen as appropriate, the number of significant CFC-producing countries was
small. The economic costs, required institutional changes, and affected
industries were relatively limited. Those firms that expected to be able to
produce CFC substitutes could benefit compared with their competitors and
thus could even gain from the treaty. Few of these conditions apply to limits
on carbon and other greenhouse emissions. Further, negotiating a broad-
scale convention on the apparent causes of global warming will be much
more difficult even than negotiating the law of the sea.

A Convention of Limitation versus a
Convention of Expansion

Much of the LOS accord granted or legitimated a series of previously ten-
uous new claims to ocean resources by many states. Devising an LOS "con-
vention of expansion" involved the relatively easy problem of how to divide
an expanding pie. By contrast, climate change negotiations will likely focus
on working out convention(s) of limitation, of shared sacrifice, and of painful
transfers and compensation—requiring curtailments in energy use, more
expensive LDC development paths, changes in agricultural patterns, cessat-
cion of currently profitable deforestation, and other such challenges.

To the extent that climate change negotiations are perceived as allocating sacrifices,
they will be fundamentally more difficult than the happier LOS problem of
allocating "new" resources. Of course, to the extent that the participants focus
on the joint gains relative to feared climate disaster, the process will be
so much the easier. And some groups that will directly benefit—such as
vendors of renewable, cleaner, more efficient energy and the technologies
that make such energy use possible—may join environmental advocates as
vocal proponents of a greenhouse control regime.

A True Global Commons with Damaging Incentives

In a statement effectively about property rights, the UN General Assem-
bly unanimously declared deep-sea resources such as manganese nodules
to be the "common heritage of mankind." By contrast, the global atmo-
sphere is a true commons in that any greenhouse gas emissions from a single

*There were, of course, limitations on various activities (e.g., coastal state seaward
territorial claims, marine scientific research) negotiated in the LOS context. Not surpris-
ingly, they were among the most difficult aspects of the conference.

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and to "free" problem. A private party agreement.

ENSURING BEING OVER PROTOCOL

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country eventually mix and adversely affect the entire world. True commons resources contain economic disincentives for individual initiatives to curb emissions since the full costs of efforts to mitigate harmful emissions by one state can be borne fully by that state—while the benefits of such actions are diffused throughout the global community. Moreover, any benefits of actions that would slow the present rate of growth of greenhouse gases would only be felt decades hence by the inhabitants of a future world. Thus, facing full costs of abatement today but enjoying only a fraction of any future benefits, individual entities have powerful incentives to continue emitting and to “free ride” on any costly actions others might take to mitigate the problem. As such, strong political and economic forces can lead states and private parties to postpone any action absent a broad international agreement.

ENSURING SUFFICIENT JOINT GAINS WITHOUT BEING OVERWHELMED BY COMPLEXITY: SINGLE-ISSUE PROTOCOLS VERSUS COMPREHENSIVE PACKAGES

In the face of these substantive challenges, a successful accord on climate change would have to achieve relatively expeditious results that can be sustained over time and modified as appropriate. In particular, the CFC process with independent protocols to be negotiated on a step-by-step basis was thought to have the advantage of speed and relative simplicity over a comprehensive LOS-like approach. This raises the more general question of how to deal with greenhouse issues: singly, comprehensively, or in intermediate-sized linked packages. The answer, most usefully explored in an LOS context, has a direct implication for ensuring enough gains in an agreement to attract a winning coalition.

Many factors contributed to the lengthy LOS process, but four procedural cornerstones virtually guaranteed its duration and could easily do the same if adopted for global warming negotiations. These included (1) virtually universal participation, combined with (2) a powerful set of rules and understandings aimed at taking all decisions by consensus (if at all possible), (3) a comprehensive agenda, plus (4) the agreement to seek a single convention that would constitute a “package deal” (Koh and Jayakumar 1985). The rationale for each of these components was understandable, but, in the extreme, a universally inclusive process with respect to issues and participants, together with the requirements of consensus on an overall package deal, would be very time-consuming—holding the ultimate results hostage to the most reluctant party on the most difficult issue. In practice, the LOS conference was less constrained by absolute versions of these procedural choices, but the powerful bias toward a snail’s pace was very real.

Reacting against the broad agenda/package deal LOS approach, climate change negotiators aimed for a framework convention to be followed by specific protocols. In line with the CFC experience, this retained the aims of universality and consensus, but dropped comprehensiveness and the goal of a package deal—in favor of single, separable protocols on limited subjects. This alternative has attractive negotiating features, but is worth noting that it was the failure of precisely this approach—negotiation of separate “mini-conventions,” analogous to protocols—in earlier LOS conferences (in 1958 and 1960) that indirectly led back to the comprehensive package approach of the 1973 LOS conference.

This experience suggests the nature of the problem. By 1958, for the First UN LOS Conference, the International Law Commission had suggested negotiating a structure with four separate conventions, concerning different issues such as the breadth of the territorial sea and the extent of the continental shelf. With respect to the comprehensive agenda of the 1973 LOS talks, conference president Tommy Koh observed, “A disadvantage of adopting several conventions is that states will choose to adhere only to those which seem advantageous and not to others, leaving the door open to disagreement and confrontations. The rationale for this comprehensive approach was to avoid the situation that resulted from the 1958 conference which concluded four [separate] conventions” (Koh and Jayakumar 1985, 41).

Such an uneven pattern might also result from a framework/protocol structure on climate change. Imagine Libya signing a forestry convention while Nepal agreed to a transportation and automotive protocol. For individual countries or groups of similar ones, a single issue often represents either a clear gain or a clear loss. As with the early LOS conferences (with independent mini-conventions), countries sign the gainers and shun the losers. In a climate context, for example, China may resist a specific fossil-fuel protocol that would place restrictions on the development of its extensive coal resources. Such single-issue protocols may prove non-negotiable unless they can be combined with agreements on other issues that offset the losses (or at least seem to distribute them fairly). A package deal may offer the possibility of “trading” across issues for joint gain—thus breaking the impasses resulting from treating issues separately.

For example, following the 1958 and 1960 LOS experiences, two separate negotiations were attempted; until linked, each proved fruitless. With deep-sea resources the “common heritage of mankind,” the “Seabeds Committee” undertook a negotiation over the regime for seabed mining. Developing countries wanted this convention to offer meaningful participation in deep-sea mining and sharing of its benefits. Yet the developed countries whose companies potentially had the technology, the capital, and the managerial capacity ultimately to mine the seabed saw no reason to be forthcoming.

*For a generation, or “n 1986.
ing, and these negotiations were inconclusive. At about the same time, strenuous efforts by the United States, the Soviet Union, and other maritime powers—greatly concerned about increasing numbers of claims by coastal, straits, island, and archipelagic states to territory in the oceans—sought to organize a set of negotiations that would halt such "creeping jurisdiction." In effect, the maritime powers were asking coastal states, without compensation, to cease a valuable activity (claiming additional ocean territory). Not surprisingly, these discussions over limits on territorial territorial expansion in the ocean yielded scant results.

Seen as separate "protocols," these two issues taken independently were not susceptible to agreement. Yet—together with concerns over the fisheries and outer continental shelf hydrocarbons—it was ultimately the linkage of these two issues, navigation and nodules, in a bargaining sense that came to be at the heart of the comprehensive LOS conference negotiations. With respect to climate change negotiations, it is easy to imagine that separate protocols calling on different groups to undertake painful and costly measures will similarly be rejected unless they can be packaged in ways that offer sufficient joint gains to key players. Since any action on climate change will largely involve shared and parallel sacrifice, it is probably only by linking issues such as technological assistance and various forms of financial or indirect compensation that many countries will be induced into joining. As such, despite the conventional wisdom about negotiating a framework followed by independent protocols, one should expect great pressure toward combining issues that might initially be conceived as separate (protocols) for purposes of negotiation.

Given this analysis, a central problem in greenhouse negotiation design would seem to be finding a constructivistic path between the Scylla of a comprehensive package agenda that risks LOS-like complexity and the Charybdis of independent, single-issue protocols (that may lack sufficient joint gain and risk very selective adherence). Rather than trying to predict the appropriate linkages, the conference should be designed in such a way as to facilitate them as they become evident and necessary. It is generally preferable to deal with issues on their separate substantive merits as much as possible, yet be alert to potential linkages to break impasses. This suggests a conference design with independent working/ negotiating groups, with a higher-level body seeking to integrate across the groups and facilitate valuable, but limited, "trades."

Yet issues should be linked with caution. It can be extraordinarily difficult to "unpack" them once they have been combined for bargaining purposes. For example, the United States was generally in favor of the navigational portions of the LOS treaty, but had obvious problems with the concessions demanded on a seabed regime. It exerted strenuous efforts at unlinking or separating these topics into "manageable packages," but to no avail. The "package deal" was too strong in the minds of many delegates, and ultimately the LOS convention contained both elements. To choose appropriately between separating and linking issues, the negotiating problem should also be examined from a very different perspective, that of potential blocking coalitions, to which the analysis now turns.

THE BASES OF "BLOCKING COALITIONS" IN GLOBAL WARMING NEGOTIATIONS: SCIENCE, INTEREST, IDEOLOGY, AND OPPORTUNISM

A natural way to think about concluding a treaty on global warming is to imagine creating a supportive and "winning" coalition of countries that see enough joint gains in the new regime that it can be sustained over time. Yet it is also useful in this instance to turn this approach on its head and inquire about the often underestimated capacity of opposing interests or potential "blocking coalitions"—nonjoining and opposing entities—to prevent agreement on or implementation of an otherwise desirable treaty. With respect to climate change negotiations, as various restrictions (e.g., on energy use, industrial processes, agricultural or forestry practices) are seriously contemplated, the dangers increase of blocking coalitions made up of parties with interests in these areas. As presently contemplated, the general framework convention on climate change—setting forth an agreed definition of the problem, joint research, monitoring, and coordination—will be followed by specific protocols detailing restrictions to be placed on various sectors. In such an approach, the choice of which specific protocols to pursue singly, in combination, or in sequence (e.g., transportation, energy, tropical forestry, etc.) will heavily determine which interests will arise to oppose action; in choosing one's issues, one chooses one's opponents. As elaborated below, this "choice of potential opponents"—which can be expected to be both private and sovereign, and located both in the developed and developing worlds—should be a conscious and strategically sophisticated decision. Attention turns naturally enough to opposition based on economic self-interest. Yet this is too constricted a view, as the LOS and CFC experiences attest, scientific disagreement, ideology, and opportunism may also animate blocking coalitions.

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10 For a general treatment of the underlying theoretical issues of issue linkage and separation, or "negotiation arithmetic," see Sebenius 1981; or chap. 9 of Lux and Sebenius 1986.
Blocking Coalitions Based on Economic Interest and Ideology: The Cautionary LOS Experience

It is perhaps sobering to recall how the LOS treaty’s burdens on seabed mining—for all intents and purposes a nonexistent industry segment—engendered tenacious and ultimately effective opposition, for pragmatic and ideological reasons. Major maritime establishments, especially in the Soviet Union and the United States, were powerfully motivated in the 1960s by the desire to stop so-called jurisdictional creep, or the tendency for territorial claims, especially by developing countries, to expand and cast an ever-widening net of restrictions on submarine, ship, and aircraft mobility in what had traditionally been the high seas. Thus the developing world influenced something of high value to the maritime powers.

Emboldened by this traditional maritime interdependence, many developing countries effectively pressed for a seabed regime modeled on the precepts of the New International Economic Order (NIEO), including significant wealth redistribution, greater LDC participation in the world economy, and greater Third World control over global institutions and resources. Real LDC leverage meant that the maritime powers could not costlessly reject NIEO demands and just walk away. This perceived vulnerability to LDC coastal state power kept the United States and other maritime powers at the LOS bargaining table for years, but ideological disagreements ultimately spurred the treaty’s rejection.

As the LOS seabed regime took on more of a NIEO-like character, industry opposition grew. The most effective vehicle the seabed mining industry found to oppose the treaty was less its economic self-interest than the ideological cast of the emerging regime. Elements included the declaration that seabed resources were the “common heritage of mankind” (seemingly collective), seabed production controls (OPEC-like cartelization), mandatory technology transfer (seeming to ride roughshod over intellectual-property rights), financial requirements (that functioned as globally levied taxes), new voting schemes (more like the UN General Assembly), and the creation of international mining enterprises (worse even than state-owned enterprises). A number of these issues—such as LDC demands for technology and resource transfer, and demands for new institutions—were very similar to those now beginning to animate climate change negotiations.

Richard Darman, once the vice chairman of U.S. LOS delegation and subsequently a senior policy adviser in the Reagan White House and director of the Office of Management and Budget during the Bush years, contended in an influential Foreign Affairs article that “the most important issues at stake in the deep seabed negotiations, however, are not merely questions of manganese nodule mining. What is fundamentally at stake is a set of precedents with respect to systems of governance.” In particular, he distinguished between the “precedential elements of the seabed regime (as distinguished from seabed mining)” (Darman 1978). The Reagan administration generally concurred. Seabed mining was only a small part of the LOS treaty, but the blocking coalition of seabed miners and policy skeptics that it engendered in the United States was ultimately successful, prevailing over the defense and environmental interests that were the strongest supporters of the LOS convention.

Implications for Climate Negotiations

This history highlights a largely overlooked danger with which advocates of global climate change negotiations should be concerned. As with the law of the sea, long-term success is impossible without the cooperation of the developing world. Greenhouse gases in the atmosphere are now mainly due to past and present activities of developed nations. However, with projected population and economic growth in the developing world, the source of the greenhouse problem will rapidly shift over time, especially if India and China choose their least-cost development paths that rely on their vast coal resources. China, for example, now plans to expand its coal consumption fivefold by the year 2020, a result that would add nearly 50 percent to current worldwide carbon emissions (Grubb 1990, 75). Anti-global warming steps agreed and taken by the developed world alone could be heavily offset over time by inaction in the developing countries; by the year 2050, projected warming without developing-country cooperation would be 40 percent higher than with it (Lashof and Tirpak 1990, 40-43). Thus, the developed world cannot solve the climate problem in the long run without the cooperation of the LDCs.

Especially given prevailing levels of distrust—not to mention the steep energy requirements of vital development—a threat by key developing nations not to cooperate with an emerging climate regime—even if ultimately mutually destructive, and even if its effects might be more severe in the developing world—could have a clear rationale and a measure of credibility. No wonder that, in the words of a recent discussion of climate change and overall Third World concerns, “The problems presented by climate change also present opportunities to reexamine and correct many of the underlying problems of development that have led to the current dilemma . . . including trade issues, debt, technology transfer, technical assistance, and financial assistance” (Stone 1990). To southern diplomats with this view, the climate change issue may be a very potent bargaining lever with application well beyond the climate context. According to another observer, “this group sees environment as the same kind of issue in the 1970s that energy was in the 1970s. They hope that the developed countries’ high interest and dev..."
Interest in the environment can be used to wring concessions on economic and development issues from the North” (Stanley 1990, 8).

But fundamentally conflicting North-South agendas have found and will continue to find expression in climate negotiations. (See, e.g., Krasner 1985.) The underlying ideological template, also present in the LOS and Montreal negotiations, is that of the New International Economic Order. A great deal of the preparatory negotiations for the 1992 conference focused on generalized North-South concerns expressed in well-worn NIEO terms. The risk, to be assessed in more detail later, is that attempts to use real southern leverage on behalf of NIEO precepts might meet northern intransigence based on antipathy to the underlying ideology.

Blocking Coalitions Based on Science and Economic Interest: The CFC Negotiations

Though the CFC accords indeed represent important international coordinating steps, they illustrate complementary bases of potential blocking coalitions—scientific disagreement and economic interest—to those explored above in an LOS context. Despite periodically intense public concerns dating from the SST and aerosols, the actions of a relatively small number of industry players—DuPont and Allied in the United States, IC and others in Europe—along with policy skeptics in the major countries were able to delay action on an ozone convention for a number of years. To understand why, it is critical to focus on “internal” (domestic) considerations along with that which is happening in the “external” (international) negotiating forum.

It is both instructive and sobering to see how this industry opposition was overcome by 1987. In part, it was a matter of science. Although predictions of individual scientists varied greatly, consensus estimates of the extent, likelihood, and danger of ozone depletion had declined from the early 1980s prior to the surprise discovery of the Antarctic ozone hole in 1985; thus industry opposition to regulation during this period had a scientific basis. However, DuPont was publicly committed by statements of company officials to Congress to the effect that if scientific evidence conclusively showed adverse health effects, it would no longer produce CFCs; this was a key factor in its “conversion.”

But two other special dynamics may have been at work in overcoming DuPont’s effective blocking actions. First, though it put the work on hold for a time in the early 1980s, DuPont had been intensively engaged in the search for CFC substitutes, and appeared to be well ahead of its global competitors in this regard. If this were so, international limits on the amount of CFCs that could be produced and consumed would both permit the price of the allowed production to be raised and place DuPont in a favorable competitive position. Second, as public concern culminated in tremendous concern about the Antarctic ozone hole, prospects grew substantially for U.S. legislation that would have unilaterally restricted CFC production and use. From DuPont’s point of view, while no regulation would have been the preferred alternative, international rules that constrained the entire global industry were far preferable to a U.S. law that singled out domestic companies. Thus, the unusual confluence of several distinct factors—scientific evidence coupled with prior public statements by the company, competitive dynamics within the industry driven by CFC substitutes, and the unusual effect of a threat of domestic legislation—were sufficient to turn DuPont around and open a split in global industry ranks.

Extent of Likely Blocking Coalitions in Anti-Greenhouse Negotiations

These LOS and CFC accounts warn of how potent greenhouse treaty opponents may be—on scientific, economic, ideological, and/or opportunistic bases. As noted, the LOS treaty was scuttled in the United States and in other important industrial nations by the economic and ideological concerns of an industry segment (seabed mining) that did not even exist. With respect to the ozone experience, the 1990 Economic report of the president estimates the U.S. costs of compliance with the Montreal accord at $2.7 billion—one measure, since reduced, of the costs motivating skeptical policy-makers and corporate opponents of the treaty. Despite public concern over the ozone layer, the Montreal treaty was effectively delayed for several years by these groups until the scientific consensus shifted.

Now $2.7 billion is certainly a high cost, but the same report cites the U.S. costs of an anti-greenhouse 20 percent carbon dioxide cut at between $800 billion and $3.6 trillion. If these figures are even remotely accurate, they suggest that those concerned about the prospect of large-scale greenhouse control (e.g., policy skeptics, coal and oil companies, auto makers, etc.) would have an economic motivation for opposition—regardless of the level of environmental benefits—literally hundreds of times stronger than that of the CFC industry. The battle throughout the 1980s over amendments to the Clean Air Act, with annual costs in the “mere” $25–35 billion range, gives another sobering point of comparison. Cost estimates of the magnitudes mentioned above are by no means universally accepted; respectable analyses suggest that some

11U.S. Congress, Joint Economic Committee 1990.
reductions may be achieved at low or even negative cost. Yet it is the credible prospect of burdensome costs that will engender opposition, especially among risk-averse firms who fear that they will bear the costs. Further, since the benefits are uncertain and diffuse and will mainly accrue to future generations, today's opponents are likely to speak with the clearest voices.

Indeed, the powerful coalitions that will arise to resist major greenhouse action are now mostly asleep. Yet they will certainly awaken to the extent that the prospect of such action becomes more likely and the feared costs are large. Look for example to Canada, a country in the rhetorical vanguard of greenhouse concern. If serious actions are proposed, however, will the Canadians that pumps oil, cuts forests, and builds cars really just go along? And are those Brazilians who profit from burning rain forests today really going to buy arguments about future world benefits? More broadly, blocking coalitions are just as likely to arise in "southern" countries whose development could be impeded by anti-greenhouse measures as in developed countries whose industries and consumers could face heavy cost burdens. Likewise, the imperative for Eastern Europe to grow and consolidate its political gains will weigh against major greenhouse action. Such coalitions will likely be composed not only of traditional nation-states, but also of domestic interest groups and transnational alliances. In short, the potentially huge costs that are feared to result from significant anti-greenhouse policies offer one measure of the economic motivation for opposition to action—and a partial guide to the strength of likely blocking coalitions.

This implication has particular force with respect to negotiating national "targets," or reductions from given emission levels that would collectively be within an overall world reduction target. Emission targets and timetables have been the dominant theme in international discussions over a greenhouse control regime; environmental advocates and media observers have generally judged the seriousness of national governments by their willingness to endorse binding targets and timetables—and judged the Brazil framework a failure given its absence of binding commitments. Especially given the high level of public concern about the greenhouse issue, many environmental advocates expected quick negotiations and decisive agreement on targets. The significant number of industrial countries that unilaterally or in small groups had committed by early 1992 to greenhouse gas stabilization or reduction targets was in line with this optimistic view (although there is a long road between target and result). Yet U.S. opposition to an overall target—limiting greenhouse emissions in the year 2000 to 1990 levels—effectively kept targets out of the climate change agreement that was signed at the Earth Summit.

U.S. opposition to targets may appear anomalous, especially given that all other Organization for Economic Cooperation and Development (OECD) countries except Turkey had agreed to stabilization by mid-1992. Yet as the effects of targets become more specific and stringent, the more resistance will generally grow from those affected. This implies that negotiating meaningful anti-greenhouse action is likely to take considerable time. The above analysis spells out the extent to which climate change negotiations could seriously impinge on a range of vital activities—for more than the twelve-year LOS negotiating process. The much simpler CFC negotiation process from which specific country obligations emerged—took over five years from the start of negotiations and over ten years from the announcement of UNEP's 1977 Action Plan to Protect the Ozone Layer. Similarly, the twelve-nation European Community Large Combustion Plant Directive to limit acid rain took five years of negotiations, often twice-weekly, among a relatively homogeneous group to agree on targets.

Both more recently and ominously, although the European Community as a whole agreed to stabilize its overall greenhouse emissions at 1990 levels by the year 2000, its internal negotiations over which nations would be required to make what reductions—the "target-sharing" problem—utterly broke down. This should be especially sobering to proponents of targets, given the EC's high level of greenhouse concern and its relative homogeneity (especially compared with the broader UN membership that is charged with negotiating the next protocol phase of a global climate treaty). With this failure to negotiate country-specific targets, EC attention then shifted to a proposal to a carbon-related tax. As this alternative was being developed, the Economist observed that "the proposed carbon tax has been subject to the most ferocious lobbying ever seen in Brussels."14 Carlo Ripa di Meana, the EC environment commissioner, charged that the EC faced "a violent assault from industrial lobbies and the [oil-producing] Gulf countries, which even threatened to break off diplomatic relations" following the announcement of the energy tax.15 Largely as a result of industry opposition, before the carbon tax was even proposed as a directive to the Council of Ministers, both energy-intensive industries and major exporters were preemptively exempted from the tax. Further, rather than apply the tax unconditionally as a means of reducing EC carbon emissions, as environmental advocates urged, the tax was modified to trade in the real.

At first, these countries used above-average mitigation vis-à-vis the existing framework. On the other hand, the "solution" included a variety of incentives for industry to foster a"...
opposed, the tax was made conditional on comparable action by the EC's main trading partners. This episode attests to the power of potential blockers in the realm of climate negotiations.

At first blush, the acceptance of stabilization targets by all the OECD countries except Turkey and the United States might seem to contradict the above analysis arguing for the extent and power of potential blocking coalitions vis-à-vis targets. Yet another interpretation is possible: as illustrated by the EC experience, targets may be relatively easy to adopt but difficult to implement. One might even draw the analogy to the Gramm-Rudman deficit law, which eerily resembles a climate "framework" convention in that it contained targets and timetables but left specific agreement on cuts and tax increases for later. As such, this law served for years as an expedient political "solution" — at a time of intense public deficit concern — allowing executive and legislative officials to declare the problem "solved" and return to budgetary chicanery. It is quite possible that the significant number of unilaterally adopted greenhouse gas control targets are a very weak framework convention that was politically touted as the "solution" to global warming could have analogous effects. In short, the more clearly identified the objects of anti-greenhouse measures—such as targets or carbon-related taxes—the greater the likelihood from affected parties and the more likely that, if adopted, the measures will not be implemented.

The Bases of Blocking Coalitions: Science, Interest, Ideology, and Opportunism

If climate woes strike with force, they will likely entail widespread harm. Yet the immediate costs of each preventive measure would mainly fall on a specific group. As to providing uncertain future benefits for all, such smaller groups will not want to pay the full tab now, and can be expected to mobilize to block action. These considerations suggest that those concerned with organizing effective international action to combat global warming should carefully anticipate, prevent, and prepare to deal with the potential blocking coalitions that may arise. Such coalitions will likely be composed not only of traditional nation-states but also of domestic interest groups and transnational alliances.

Though economic reasons are most often cited as the basis for opposition to greenhouse action, that is too narrow a view; scientific disagreement, ideological clash, and opportunistic use of apparent bargaining leverage are also likely to play roles. In principle, each type of blocking coalition might be dealt with according to its basis; in practice, the bases are likely to be intertwined. (These are not the only bases for opposition; for example, clashing values or different attitudes toward risk or the passage of time may engender opposition.) The seabed mining industry appealed to economic interest and ideology in opposing the LOS treaty; science and self-interest played complementary roles in delaying a CFC accord; ideological clash and opportunism may well combine in global climate talks. Opposition for one set of reasons will often masquerade behind another, perhaps more politically palatable, one.

Generic Approaches to Dealing with Blocking Coalitions

Further research on global warming carries the promise, though not the certainty, of reducing the scientific basis for opposing greenhouse control regimes. Of course, other approaches exist for dealing with potential blockers. An appealing option is to prevent their formation in the first place by procedural and substantive choice. As the earlier discussion on issue linkage and joint gain suggested, issues can be added as "side payments" to induce previously blocking parties into an agreement. Economic, ideological, and opportunistic opponents may sometimes be won over by appeal to shared interests, by at least partially meeting their separate interests, by providing them with selective incentives, by showing them how a new control regime would really be in their interest, or by inventing new options that sidestep their objections. Classic tactics include isolating and overwhelming them by political pressure, dividing and conquering them, and so on. It is to a number of such specific suggestions that the analysis now moves.

DEALING WITH POTENTIAL BLOCKING COALITIONS: PREVENTION

Evidently, the choice of protocols and the negotiating relationship that is envisioned among them is of central importance; after all, with the choice of a protocol comes a set of opponents (as well as supporters). Protocols have been suggested, seemingly without much explicit analysis of their implications for negotiating success, on a virtually endless number of potential subjects: targets for reducing national greenhouse gas or carbon emissions, credits for providing carbon "sinks," automotive transportation, industrial energy use, tropical forestry, agricultural practices, sea level rise, technology transfer, international funds to aid LDCs, population growth, a carbon tax, tradable emission permits, methane, and so on.

While it is beyond the scope of this chapter to develop and justify a specific agenda for this process, at least three criteria should guide the choice of protocols: maximizing substantive desirability and the potential of the chosen issue to contribute joint gains to a broad-based group of adherent countries—while reducing the likely opposing interests that will be stimulated. Following substantive value, a prime consideration in the choice of protocols...
should be a clear-eyed view of the likely opposition. Is a proposed target concentrated or diffuse? Politically influential in key countries or not? Are the necessary changes inexpensive or very costly?

Sequential Approaches to Minimize the Risk of Energizing and Unifying Disparate Interests into a Large Blocking Coalition

A good way to guarantee an endless negotiating impasse would be to handle all the above-mentioned protocols in a "law of the atmosphere" package to be agreed by consensus. Comprehensive anti-greenhouse efforts that affect a number of potentially powerful interests risk energizing and unifying otherwise independent, blocking forces. A protocol that, for example, targeted oil companies, coal mining interests, or automobile manufacturing firms, as well as various agricultural concerns—let alone the full range of human activities that result in greenhouse gases—would almost certainly take a very long time to negotiate and might never surmount the solid wall of opposition it could raise.

An unlikely but illustrative U.S. domestic parallel involving the creation of an unusual and potent blocking coalition may be found in Michael Pettis' stewardship of the formerly sleepy Federal Trade Commission (FTC) in the late 1970s (See Heymann, 1987). The FTC had recently launched a number of rule-making efforts directly affecting a range of small businesses in the United States, such as funeral homes, used car dealers, and optometrists. Further, the FTC decided to take on the issue of children's TV advertising, which not only threatened major media advertising revenues but also smacked of First Amendment restrictions. In effect, having energized and unified an enormous coalition of large and small businesses and media companies—many of whom had been bitter rivals before—the FTC engendered a hail of protest, had its budget and authority slashed, and was even shut down for a while. In part, Pettis' unincumbered legacy was a far more unified and politically effective business community.

In the greenhouse case, therefore, to avoid creating a potent unified opposing coalition, it may be wise to proceed sequentially with protocols. Perhaps it would be best to pick "easy" subjects first—protocols directed at greenhouse contributors that are politically weak, morally suspect, and concentrated in highly "green" countries—to generate momentum, with strategically chosen later protocols building on early successes.

In this connection, one of the more promising greenhouse control regimes involves allocating a number of "tradeable emission permits" such that the overall level of greenhouse gas emissions could be limited. Beyond the initial allocation, the ultimate distribution of the permits would not have to be negotiated or bureaucratically determined, since these permits could be bought and sold. In theory at least, they would end up in the hands of those entities that could reduce emissions most efficiently. An ongoing question with respect to such a tradeable permits regime is whether it should only cover carbon dioxide emissions or should extend to other greenhouse gases such as methane and nitrous oxides (in order that the overall least-cost control actions be chosen). A full answer to this question depends on issues such as source identifiability, monitorability, and negotiating complexity. Yet from the standpoint of blocking coalitions, it is clear that seeking to negotiate a more comprehensive regime would also risk unifying a much wider set of disparate, opposing interests. Analogous reasoning applies to other proposed anti-greenhouse regimes, such as outright emission limits and various forms of "carbon taxes."

DEALING WITH POTENTIAL BLOCKING COALITIONS II: INCREMENTAL AGREEMENTS AND "RATCHETS"

Beyond measures to prevent the formation of blocking coalitions in the first place, a number of other approaches can be characterized as incremental. The idea behind them is to gain agreement on a relatively weak or nonspecific treaty or plan of action in the expectation that over time it will progressively be strengthened. This approach may be a conscious, initial choice or may simply reflect the strength of opposing forces in the early negotiations. Advocates may "settle for what they can get" or "half a loaf" and hope that the stage is set for another round that will conclude more in line with their preferences. This section considers several such incrementalist approaches in rough order of how specific and heavy the commitments are that would be undertaken.

Voluntary Actions Short of Agreed Emissions Limits or Specific Greenhouse Control Regimes

Instead of immediately seeking a traditional control regime, other approaches can partly sidestep and prevent the problems of blocking coalitions as well as some of the time lags and sovereign difficulties characteristic of formal treaty negotiation, ratification, and implementation. For example, former UNEP deputy executive director Peter Thacher has argued against the conventional wisdom of waiting for a negotiated framework convention as a "first step," to be followed by specific protocols. Instead, in line with the experience of the Mediterranean and Ozone Action Plans, he suggested that as many countries as are now willing should first agree on a greenhouse "action plan" that contains no formal obligations but that offers the willing sponsors a vehicle within which to promptly commence valuable research.

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technique to hold off any unilateral action until an international accord is reached. Either way, their blocking (and delaying) potential can be daunting.

One approach to this problem would be the early negotiation of a protocol specifying an early baseline date—perhaps in the past—after which anti-greenhouse measures taken by individual countries would be credited against the requirements of a later international agreement (Moon 1990). With such a date agreed, states could promptly undertake unilateral or small-group initiatives to reduce greenhouse emissions in the confidence that these measures would “count” toward the reductions required by an ultimate regime. Such a “baseline year” agreement, perhaps negotiated as a protocol, could help to neutralize a major argument of domestic opponents of anti-greenhouse measures who hold that action absent overall international agreement is either unwarranted or foolish.

Given the likely time required for an overall agreement embracing substantive anti-greenhouse measures such as binding targets and timetables, a preliminary “baseline” protocol of this sort should prove far easier to negotiate quickly. Incidentally, such a baseline protocol need only assure states that their actions subsequent to the agreed baseline year would count; the question of the status of actions taken prior to the agreed date could be explicitly left for future negotiation.

“A Ratchet Mechanism”

Suppose that greenhouse gas reduction targets were set at extremely modest levels in an initial protocol. Likewise, imagine that an international tax on carbon emissions were initially set at a very low rate—for example, to collect resources for an international environmental fund. Given its low rate, this tax (or set of reduction targets) might not trigger concentrated opposition. Later, with the monitoring and collection structures in place, the tax rate (or targets) might be “ratcheted” up, if the state of the science merited it and if broad-based support existed for such a move.

Indeed, a review of the history of the ozone negotiations suggests the potential value of such a “ratcheting” device. When an agreement to set CFC limits proved unreachable in 1985, the United States and others pressed for the Vienna “framework” convention that collectively legitimated the problem, set in motion joint efforts at monitoring, coordination, and data exchange, and envisioned the later negotiation of more specific protocols. 17

17 Indeed, the legal discussions that led to the Vienna convention began in 1981, four years after UNEP had formulated a World Plan of Action on the Ozone Layer. See Thacher 1990, 108-9.

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A. Chayes, Managing the transition to a global warming regime or what to do until the treaty comes, in Mathews 1991, 61-68.
In 1987, after scientific consensus on the problem had solidified and industry opposition was largely neutralized, the Montreal protocol embodied an agreement to cut CFC production and use 50 percent by the year 2000. Many environmental activists harshly criticized these agreed targets as inadequate.

Yet the institutional arrangements set up by the Montreal protocol included provisions to facilitate a review of the agreed limits in the face of new evidence (or, effectively, with shifts in public opinion). In effect, these provisions functioned as a "ratchet," whereby later findings such as the direct link between CFCs and the ozone hole stimulated treaty parties to tighten up the limits over the 50 percent base. As UNEP's Mustafa Tolba put it, "By aiming in 1987 for what we could get the nations to sign... we acquired a flexible instrument for action. If we had reached too far at Montreal, we would almost certainly have come away empty-handed... [The] protocol that seemed modest to some... is proving to be quite a radical instrument (Tolba 1989, 305)."

This assessment was borne out by the 1990 London negotiations that converted a 50 percent reduction into a virtual CFC ban. This model of settling for relatively modest restrictions on which early agreement can be reached, together with arrangements that facilitate reconsideration, may well be emulated in the climate context.

Yet there is a danger to partial agreements as exemplified by the 1963 Partial Test Ban Treaty. A number of observers have criticized these accords as stopping too soon and bleeding off the intense public pressure for change—when, arguably, a comprehensive test ban treaty was then attainable with intensified negotiating efforts. By addressing the concerns about Strontium-90 from atmospheric testing in the food chain (particularly in mother's milk), this argument goes, the broader dangers of nuclear testing were not addressed and a valuable opportunity was squandered. Rather than acting as a stepping-stone to a larger accord, the Partial Test Ban Treaty became a stopping place. (Recall also the analogy to the Gramm-Rudman antideficit law that was drawn above.)

With respect to climate change negotiations in particular, it is quite likely that public concern will be cyclic, in part as a result of natural climate variability as well as unrelated environmental events (such as medical waste on beaches and the Exxon Valdez oil spill). Arguably, a naturally occurring period of climate calm, including milder summers and normal rainfall, will lead to reduced public concern and pressure for action. Moreover, scientific understanding will change over time. These prospects argue for more limited agreements with analogs to the ratchet mechanism in the Montreal protocol—if and as more stringent action appears warranted. Such agreements could constitute a "rolling process of intermediate or self-adjusting agreements that respond quickly to growing scientific understanding" (Mathews 1989). And an even more fundamentally adaptive institution might be envisioned, better matching the rapidly changing science and politics of this issue area.

DEALING WITH BLOCKING COALITIONS III: REDUCING THE RISK OF A NORTH-SOUTH IMPELSE

As discussed above, there is an acute risk that a larger North-South agenda—some of it only loosely related to climate change and much of it highly contentious—will occupy center stage in greenhouse negotiations over time. Indeed, these talks have already been characterized by LDC demands for technology transfer and large resources commitments from the industrial world. It is clear that finance and technology, for example, are legitimate interests, but the extent to which developed countries will be forthcoming on them in the context of a climate change negotiation is far less clear—especially given ideological reservations about what could be as seen as pursuant demands for a "discredited" New International Economic Order. Moreover, despite the keen concern in many nations about climate change, the greenhouse problem is speculative, contested, far in the future, and very costly to address now merely on its own terms—absent additional resources to mitigate generalized problems of developing countries. The uncertain prospect of global warming may not be a strong enough hook on which to hang a larger North-South agenda.

With the crumbling of socialist ideology in Eastern Europe and the Soviet Union, many Europeans are also becoming less receptive to formerly attractive NIEO precepts. Thus, if the language negotiated as part of a climate change convention invokes images such as central command, heavy-handed international bureaucracy, forcible technology transfer, blame-casting ideological declarations, guilt-based wealth transfers, and the like, the results of such negotiation run substantial risk of being overturned. Indeed, especially U.S., opponents of a climate change convention may well base their negative stand on the actual or supposed adverse ideological cast of the regime.

As with the law of the sea, therefore, real mutual interdependence means that climate change talks have the ingredients for an inescapable, long-term, North-South engagement: southern insistence on NIEO-like measures met with U.S.-led northern resistance. Given that southern commitment to the NIEO per se has moderated considerably since the 1970s, the risk of an ideologically driven impasse is probably manageable with some conscious effort. As will be discussed below, creative steps are essential to meet legitimate LDC interests while reducing the risks that such an engagement results in endless delay and damaging ideological confrontation—with no action to address the greenhouse problem.
Informal Workshops

A number of well-publicized regional workshops in advance of the negotiations—presented by regional scientists and policy figures who focused on possible local impacts—could help spread the conviction that this is a common threat from a shared problem. Joint developing-country research and study should likewise be encouraged, perhaps building on the work of the UNEP-WMO-sponsored Intergovernmental Panel on Climate Change.

During the negotiations themselves, similar informal educational events could be helpful. One extraordinary element of the LOS experience that has been detailed by outside observers consists of the influence of a computer model of deep ocean mining developed at MIT. This model came to be widely accepted in the face of the great uncertainty felt by the delegates about the engineering and economic aspects of deep-sea mining. A critical point in the negotiations occurred during a Saturday morning workshop—held outside UN premises, under the auspices of Quaker and Methodist nongovernmental organizations—in which developed- and developing-country delegates were able to meet and extensively query the MIT team that had built the model. Indeed, the delegates over time came to make frequent use of the model for learning, mutual education, invention of new options—

and even as a political excuse to move from frozen positions (Scenarios 1990).

Similarly, a series of informal, off-the-record workshops where diplomats and politically active participants in the negotiation gathered aided the Montreal protocol process. These events greatly increased mutual understanding, improved relationships, and contributed to a successful treaty. Despite its potential abuse by advocates, therefore, outside scientific information—when it can be seen to be objective and is accessible to the participants—can help move a complex negotiation, even one that is highly politicized and ideologically controversial, in the direction of mutual cooperation. (Of course, improved science might instead clarify winners and losers, thus polarizing the issue.)

Advisory Groups and Cross-Cutting Coalitions

Given the actual and feared adverse impacts of measures under discussion, conference leadership would be wise to make extensive use of broadly constituted advisory groups, composed of business and other multinational interests, to understand concerns, anticipate emerging problems, correct misapprehensions, and communicate about the issues and evolving negotiating responses. Not only could the two-way communication be useful in such settings, but cross-cutting coalitions might form. For example, industries that could gain from substantial anti-greenhouse action in the developing world (by, for example, supplying critical technology for energy efficiency) might make common cause with key LDCs and green advocacy organizations in arguing the case for more developed-country assistance for this purpose.

Mutually Beneficial Linkages

Just as in the LOS experiment, mutually beneficial "manageable packages" of protocols under a framework climate convention might be cautiously extended to other environmental issues in the context of the 1992 conference. This might have the effect of bringing on board otherwise potential blockers from the developing world. For example, desertification and soil erosion issues may be more pressing to key developing countries than greenhouse questions. Many developed countries that are unwilling to make "bribes" to induce developing-country participation may nonetheless be genuinely concerned about and more willing to be forthcoming on these regional issues in the context of a larger agreement that promised global climate benefits. Similarly, more expansive versions of so-called debt-for-nature swaps may be explored. One of the most potent long-term steps that could be taken by developing countries to combat global warming (as well as a host of other environmental issues) would be significantly stepped-up population control programs. Unlike, say, energy use restrictions, this course of action has the virtue of helping rather than hindering economic development objectives. For cash-strapped LDCs, relatively modest developed-country aid in this dimension could considerably enhance domestic population control efforts.

A New Ideological "Template"

The North-South conflict has been a staple of recent global negotiations—from the UN Conference on Trade and Development to debt and codes of conduct for transnational corporations—though the overt NIEO focus has moderated in the years between the LOS and Montreal talks. Joint development of a new "ideological template" within which the climate question could be negotiated offers another means to escape impasse. Such a new conception could avoid lumping countries with vastly different climate interests—from coal-rich developing countries such as China and India, to sub-Saharan Africa, to the "Second World" of Central Europe, and to Norway and the "South."

The work/practice of the "New South" and "new" societies must be drawn out of the loose, informal networks that are the source of the new ideological potential. And the institutions and activities of the "New South"—whether the "New South" states—will measure the timescales of their development. The states must be collectivized and as the countries will become the core group which, with the natural resources, will work to solve this for

and the "South."

and their own future. Examples of countries that are re-moderating the internal sustainable development goals can be used to build upon the promises of the new ideological template.

Dealing with the Environment

The central issue is how to institutionalize the environment in a way that is acceptable to all the key players. The challenge is to find a way to incorporate environmental considerations into the overall development strategy of each country. This may involve setting specific targets for reducing greenhouse gas emissions, promoting renewable energy sources, and protecting natural resources. The goal is to ensure that environmental protection is not seen as a hindrance to economic growth, but rather as a means of achieving sustainable development. The success of such efforts will depend on a combination of political will, technological innovation, and international cooperation.
DEALING WITH BLOCKING COALITIONS IV: A SMALL-SCALE (EXPANDING) AGREEMENT

The complexities of a universal process, either in a stand-alone framework/protocol context or as part of a larger conference, may still threaten endless delay or impasse. In such cases, an alternative possibility will likely become more salient. But suppose that a smaller group of industrialized states—with potent domestic interests keenly interested in anti-greenhouse measures—were to negotiate among themselves a reduction regime—including timetables and targets, either voluntary or mandated. Presumably the core group would include major contributors to the greenhouse problem in which there was substantial and urgent domestic sentiment for action. A natural starting core would be the twelve nations of the European Community, the six member states of the European Free Trade Association, plus Japan, Australia, and Canada—all of which by late 1990 had unilaterally or collectively adopted greenhouse gas stabilization or reduction targets. If and as the United States became more greenhouse-friendly politically, it would be a natural candidate for such a core group.

Agreement among such a group would likely prove far easier to achieve than a global accord, as a function of the smaller number of states involved as well as their greater economic and political homogeneity. The obvious umbrella for such an effort is the framework climate convention signed at the 1992 Earth Summit, but existing institutions (such as the UN Economic Commission for Europe or the OECD) might also facilitate the process. And while there would clearly be substantial negotiating difficulties involved, this smaller-scale process could avoid a protracted, inconclusive North-South clash that might characterize a larger forum.

To be effective in the longer term, of course, a smaller-scale agreement would have to be expanded later to include key developing countries such as China, India, Brazil, Indonesia, and Mexico, as well as additional developed nations, especially in Eastern Europe. In this sense, an agreement explicitly designed for an increasing number of adherents has strong parallels to agreements that “ratchet” to become increasingly stringent. The design of the smaller negotiation could anticipate and facilitate such an expansion in several ways.

First, the smaller agreement should seek to follow the negotiation of a widely accepted framework convention on climate, when the general problem will have been legitimated and accepted to the largest extent possible. Second, it should be cast not as an alternative to the global process over protocols but as a complement to it—in which those nations that have evidently caused the present greenhouse gas problem so far are those that would take early actions to mitigate emissions. This would give the smaller group that had agreed to cuts a higher moral standing in soliciting later reductions from others.

Third, the smaller-scale group should structure its accord with the explicit expectation of collectively negotiating incentives, likely tailored to special circumstances, for key developing nations to join the accord. For example, the smaller group might agree to tax its members on their carbon emissions. All or part of those tax proceeds could be used to gain the acquiescence of other key countries to anti-greenhouse measures. The smaller group could create an entity that would carry out these negotiations with these key countries, rather than leaving such negotiations to ad hoc efforts by individual member countries.

Negotiations between the smaller treaty group and, say, China, could set a schedule of emission targets and offer China significant incentives to reach them. Or it could address a range of China’s environmental and other concerns in return for less climate-damaging development (e.g., assistance with greater exploration for Chinese natural gas reserves, Chinese agreement to use CFC substitutes in refrigeration, and to make its coal development more greenhouse-friendly, perhaps by the transfer of more efficient electrical generating equipment). Such “customized” small-group negotiations—with China, India, Brazil, and others—should be more conducive to environmentally desirable results than would generalized North-South clashes in a full-scale UN conference.

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21 At present, the OECD countries account for approximately 45 percent of carbon emissions; with the addition of the Soviet Union and Eastern Europe, the total would rise to 71 percent. Manni and Richels 1990, 15.
Fourth, as the group of adherents to the smaller convention grew in size, it might choose to impose a tax on products imported into member countries from nonadherents, perhaps based on the direct or indirect carbon content of those products. The carrot (of providing individually tailored negotiated incentives for nonadherents to join) and the stick (of raising such a "carbon fence" around the anti-greenhouse group) might together lead to a much larger number of countries jointly taking measures to prevent climate change. Evidently, a price to be faced, deliberated, and accepted by the smaller group would be a substantial number of free-riding countries. With a large enough group of adherents, however, the smaller group could still be preferable to no agreement at all.

Ironically, though a number of developing countries have joined the Montreal protocol, it is quite possible to interpret this experience after the fact as strongly analogous to the smaller-scale convention just discussed. While carried out in the context of a widely accepted framework (the Vienna convention), a relatively small number of key CFC-producing countries ultimately acceded to the CFC reductions in the Montreal protocol. However, important LDCs (India, China, Brazil) did not go along until 1990. India, for example, demanded $2 billion—a number related to its cost of using more ozone-friendly technology in the future—as its price to join the 1987 protocol (Stone 1990). In 1990, a number of developing nations agreed to provide such assistance up to $240 million. This proved sufficiently attractive to representatives of states such as India and China that they indicated willingness to join. Yet as a result of the "smaller-scale" Montreal protocol, extremely significant ozone-protection measures are now under way even before the full resolution of important issues concerning financial aid and technology transfer to the developing world.22

It is important to note that the provisions in the Montreal protocol for LDC financial and technical assistance, while generally in favor of such actions, did not contain very specific commitments. Taking this frustrating experience as a lesson, LDC activists (e.g., India, Brazil, China) will likely press for far more specificity in a larger climate conference as early as possible. These questions must be addressed, but requiring their resolution before any climate action is undertaken could cause considerable delay.

CONCLUSIONS

The problem of negotiating a regime to control global warming amply illustrates powerful barriers to agreement, versions of which apply in a large number of contexts. This chapter has sought to clarify the nature of these barriers and suggest constructive responses to them. Environmental diplomats have largely taken negative lessons from the LOS negotiations and positive ones from the CFC accords in envisioning a framework/protocol process for global warming. Yet gaining significant action to curb greenhouse gas emissions will be a far more difficult task than dealing with either ocean resources or the ozone layer. Despite the apparent appeal of the step-by-step framework/protocol approach, a review of the evolution of the LOS process from separate "mini-conventions" to a comprehensive treaty illustrates the powerful forces that will likely operate on a climate change negotiation to combine protocols and to collapse what is seen as a many-stage process into a more unified effort. The trick will be to find smaller, more manageable packages that embody enough mutual gains to attract key players.

The power of the coalitions that will arise to block greenhouse action—not merely for reasons of economic interest, but also for reasons of science, ideology, and /or opportunism—must be taken into account in designing an effective negotiating process. Preventing and overcoming these forces could be aided by a sophisticated choice and sequence of protocols, as well as innovative devices such as "ratchet" mechanisms, negotiated "baselines," and voluntary actions short of negotiated targets. Even if these hazards are avoided, the possibility of a North-South impasse looms; a number of actions could mitigate it, including workshops, negotiation process choices, creative linkages, and advancement of new ideological "templates." If these measures are unsuccessful, attention may shift to a smaller-scale, expanding convention that could use incentives and penalties to later bring other states into its fold. Good candidates to start this process include those countries that have unilaterally committed to greenhouse targets.

In sum, to an advocate of a new greenhouse control regime, the fundamental negotiating task is to craft and sustain a meaningful winning coalition of countries backing such a regime. Two powerful barriers to this fundamental task are (1) that each member of the coalition fails to see enough gain in the regime relative to the alternatives to adhere, and (2) that potential and actual "blocking" coalitions of interests opposed to the regime are neither prevented from forming, acceptably accommodated, nor otherwise neutralized. The negotiation design recommendations developed in this chapter suggest that over time, as the science and policies warrant, there are many ways to surmount these daunting barriers for the climate, and, one hopes, in other areas.