

## 2. CONTINUING KYOTO: *Extending Absolute Emission Caps to Developing Countries*

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### **Introduction**

The climate change regime, consisting of the 1997 Kyoto Protocol and its “parent” treaty the 1992 United Nations Framework Convention on Climate Change (UNFCCC), provides the foundation for international efforts to address climate change. (See Box 2.1 for a brief history of the climate change regime.) Under this regime, while all countries have general obligations to address climate change, only industrialized countries are subject to specific emission controls, with legally binding caps on their greenhouse gas (GHG) emissions established in the Kyoto Protocol. However, the ultimate objective of the Convention and the Kyoto Protocol—to prevent dangerous human interference with the climate—cannot be met without also entailing specific controls on the emissions of developing countries. Although the climate change regime is silent on the nature of such controls and how they should be introduced, the default path would be to continue the Kyoto Protocol’s approach to emission controls, that is, for developing countries to also assume legally binding caps on their emissions. The challenges posed by “continuing Kyoto” in this way make up the focus of this chapter.

The chapter also draws attention, however, to the fact that the procedural framework of the climate change regime is sufficiently flexible to be able to accommodate *any* of the alternative approaches to emission controls explored by the Climate of Trust project. Moreover, some of the substantive mechanisms of the Kyoto Protocol—such as its reporting system and even emissions trading—could also be applied to other forms of emission controls. Kyoto could therefore also continue under a different emission control system, not just one of absolute emission caps. Whatever system is chosen, continuing the framework of Kyoto would have the great

### Box 2.1. Major Milestones in the Climate Change Regime

- 1988 UNEP and WMO establish the Intergovernmental Panel on Climate Change (IPCC).
- 1990 The UN launches negotiations on a framework convention on climate change.
- 1992 The UN Framework Convention on Climate Change is adopted in New York and opened for signature at the Earth Summit in Rio de Janeiro, Brazil. The Convention receives 154 signatures and enters into force in 1994.
- 1995 - The first Conference of the Parties (COP 1) in Berlin launches a new round of negotiations to strengthen targets for Annex I Parties.  
- IPCC second Assessment Report concludes that the balance of evidence suggests a discernable human influence on the global climate.
- 1997 COP 3 meeting in Kyoto, Japan adopts the Kyoto Protocol.
- 1998 COP 4 meeting in Buenos Aires, Argentina adopts the “Buenos Aires Plan of Action,” setting out a program of work on the Kyoto Protocol’s operational rules and the implementation of the Convention. The deadline for achieving these rules is set for 2000.
- 2000 COP 6 meets in The Hague, but negotiations break down.
- 2001 - *January.* IPCC Third Assessment Report is released.  
- *March.* U.S. President George W. Bush announces that the United States will not become a Party to the Kyoto Protocol.  
- *July.* At the resumed session of COP 6, Parties adopt the “Bonn Agreements,” a political deal on the Kyoto Protocol’s rules and the implementation of the Convention.  
- *November.* COP 7 in Marrakesh adopts the “Marrakesh Accords,” a set of detailed rules for the Kyoto Protocol and the implementation of the Convention.
- 2002 - The World Summit on Sustainable Development meets in Johannesburg, South Africa, to review progress since the 1992 Earth Summit.  
- COP 8 is held in New Delhi, India.

**Abbreviations:** COP (Conference of the Parties; the annual meeting of Parties under the Climate Convention); UNEP (United Nations Environment Programme); WMO (World Meteorological Organization, IPCC (Intergovernmental Panel on Climate Change)

advantage of building on an architecture that is already in place and understood. The difficult and complex negotiations that were needed to agree the Kyoto Protocol and, later, the rules for its implementation set out in the 2001 Marrakesh Accords, should serve as a warning against any move to negotiate a whole new framework.

The chapter first describes the climate change regime and then analyzes the procedures in place for its further development, both through individual accession by developing countries to absolute emission caps, as well as the launch of a comprehensive new negotiating round. The chapter then considers the advantages and shortcomings of continuing Kyoto

through the extension of absolute emission caps to developing countries. Finally, the chapter draws conclusions that serve as a launch pad for examining the alternative options discussed in the remainder of this volume. I.

## I. The Climate Change Regime

### *Principles and Categories of Parties*

The climate change regime enshrines a deal that was struck during the negotiation of the Convention on how to distribute the burden of addressing climate change. This deal is founded on the principles of “common but differentiated responsibilities” and industrialized country leadership (UNFCCC 1992, Article 3.1), which have precedents in many other international environmental agreements. The Convention reflects an understanding that, while all countries have a common responsibility to address global climate change, the industrialized countries have a special duty to take the lead, due to their greater historical contribution to climate change, their generally higher per capita emissions, and their more abundant financial and technological resources to respond to the problem. This does not exempt developing countries from action; the assumption is that, once industrialized countries have taken the lead, developing countries will follow. By ratifying the Convention, its 186 Parties have accepted the principles of “common but differentiated responsibilities” and industrialized country leadership, and their application to subsequent agreements in the climate change regime, such as the Kyoto Protocol.

The principles of “common but differentiated responsibilities” and industrialized country leadership broadly underpin the regime’s classification of the world’s states. This classification is carried over to the Kyoto Protocol from the Convention, which lists 41 countries in its Annex I, calling these “Annex I Parties.” The remainder of the world’s states, mostly the developing countries, fall into the category known as “non-Annex I Parties.” Although, as discussed below, there are procedures in the Convention to enable non-Annex I Parties to “graduate” to Annex I status, in practice this has proved problematic, and only a handful of countries have graduated in this way. The division between Annex I and non-Annex I Parties has thus become rigid, and increasingly fails to reflect the diversity of national circumstances.

**Table 2.1.** Annex I Parties, Subcategories, and Targets

Annex I Party	Sub-category	Target
Australia	Annex II	+8
Austria	Annex II	-8 (-13)
Belarus	<i>EIT</i>	*
Belgium	Annex II	-8 (-7.5)
Bulgaria	<i>EIT</i>	-8
Canada	Annex II	-6
Croatia	<i>EIT</i>	-5
Czech Republic	<i>EIT</i>	-8
Denmark	Annex II	-8 (-21)
Estonia	<i>EIT</i>	-8
European Community	Annex II	-8
Finland	Annex II	-8 (0)
France	Annex II	-8 (0)
Germany	Annex II	-8 (-21)
Greece	Annex II	-8 (+25)
Hungary	<i>EIT</i>	-6
Iceland	Annex II	+10
Ireland	Annex II	-8 (+13)
Italy	Annex II	-8 (-6.5)
Japan	Annex II	-6
Latvia	<i>EIT</i>	-8
Liechtenstein	-	-8
Lithuania	<i>EIT</i>	-8
Luxembourg	Annex II	-8 (-28)

### Annex I Parties

To date, the Annex I Parties consist of the 24 developed countries that were members of the Organization for Economic Cooperation and Development (OECD) in 1992 when the Convention was adopted, along with the European Community, Liechtenstein, Monaco, and 14 “countries with economies in transition” (EITs), that is, the more industrialized countries of the former Soviet Union and Central and Eastern Europe (see Table 2.1).

The list of Parties in Annex I was drawn up based on membership of political groups—the OECD and, more loosely, the former Soviet bloc—rather than any objective indicator. Even the use of OECD membership proved controversial, with Turkey, an OECD member, arguing that its lower historical emissions and less advanced economy did not warrant its inclusion in Annex I. Moreover, as there is no reference to OECD membership in the Convention, this is not currently an accepted criterion for graduation to Annex I. While Mexico and South Korea have become members of the OECD since 1992, they have not joined Annex I.<sup>1</sup>

**Table 2.1.** *continued*

Annex I Party	Sub-category	Target
Monaco	–	–8
Netherlands	Annex II	–8 (–6)
New Zealand	Annex II	0
Norway	Annex II	+1
Poland	<i>EIT</i>	–6
Portugal	Annex II	–8 (+27)
Romania	<i>EIT</i>	–8
Russian Federation	<i>EIT</i>	0
Slovakia	<i>EIT</i>	–8
Slovenia	<i>EIT</i>	–8
Spain	Annex II	–8 (+15)
Sweden	Annex II	–8 (+4)
Switzerland	Annex II	–8
Turkey	“ <i>special circumstances</i> ”	*
United Kingdom	Annex II	–8 (–12.5)
Ukraine	<i>EIT</i>	0
United States	Annex II	–7

**Notes:** Targets represent percentage changes in greenhouse gas emissions during the first commitment period (2008–12) relative to 1990 emissions. Targets in parentheses are individual country targets for the 15 members of the European Union (EU), which redistributed its collective 8 percent reduction target at the E.U. Environment Ministers Council in June 1998.

\* Although they are in the Convention’s Annex I, Belarus and Turkey do not have targets listed in the Protocol’s Annex B as they were not Parties to the Climate Convention when the Kyoto Protocol was adopted.

**Abbreviation:** Economy in Transition (*EIT*).

Annex I includes two main sub-categories: the *EIT*s on the one hand, and the OECD members (again, only as of 1992) on the other. The *EIT*s are identified by a footnote in Annex I and are allowed a “certain degree of flexibility” in meeting their commitments.<sup>2</sup> The OECD members, for their part, are also listed in the Convention’s Annex II, which means they must provide financial assistance to developing countries and technology transfer to both developing countries and *EIT*s. A third sub-category was created in 2001, when formal recognition was given to Turkey’s “special circumstances” as an Annex I Party.

### Non-Annex I Parties

All remaining countries are grouped together as “non-Annex I Parties.” The only sub-category within this group consists of the least developed countries, which are granted special assistance and leeway in the submission of their national reports.<sup>3</sup> These countries are not listed in the Con-

vention, the assumption being that the list maintained by the United Nations General Assembly, currently amounting to 49 countries, will be used. The Convention also lists types of developing countries particularly *vulnerable* to climate change or to the negative impacts of mitigation measures and singles these out for special assistance.<sup>4</sup> This category, however, is so general that almost any developing country could argue that it falls under these terms.

The 145 or so non-Annex I Parties consist mostly, but not exclusively, of members of the Group of 77 (G-77), the developing country negotiating group formed in 1964 that was originally composed of 77 countries but now comprises 133 members and is active throughout the U.N. system (China is not part of the G-77, but usually is allied with it). The “G-77 and China” covers a wide spectrum of countries at diverse levels of development and with differing interests relative to climate change, from the small island states, which are seriously threatened by sea-level rise, to the oil-exporting countries, which fear that GHG emission cuts will damage their economies. Despite the diverse interests of its members, the G-77 attributes great importance to maintaining unity, for historical reasons and for accentuating its bargaining strength vis-à-vis the industrialized world. Its individual members are therefore reluctant to argue against the G-77 position, not least because they may require G-77 support on other issues, including those in the broader international arena. Like any group, the G-77 has its more influential members. These, typically the highest aggregate or per capita developing country emitters, tend to be the most wary about taking on formal emission controls.

In addition to the members of the G-77 and China, non-Annex I Parties include the Central Asian countries of the former Soviet Union and several Central and Eastern European states—such as Albania, Armenia, Georgia, and Uzbekistan—along with the new OECD entrants Mexico and South Korea, and a few others, such as Israel.

The Convention and the Kyoto Protocol typically make reference to “developing countries” rather than “non-Annex I Parties.” The term “developing country,” however, is not defined in the Convention, nor does an official definition exist in the U.N. system. This leads to some uncertainty over the status of countries that are non-Annex I Parties yet do not deem themselves to be developing countries, such as the countries of Central Asia and Central and Eastern Europe, many of which consider themselves to be EITs.

## *Emission Controls*

### **Emission caps for Annex I Parties**

Under both the Convention and the Kyoto Protocol, only Annex I Parties are subject to emission caps. The Convention requires Annex I Parties to take policies and measures “with the aim of returning” their emissions of carbon dioxide and other GHGs to their 1990 levels by 2000.<sup>5</sup> The loose phrasing renders this an aspirational goal, rather than a legally binding commitment. The Kyoto Protocol, however, strengthens the Convention by setting individual, legally binding<sup>6</sup> caps on the emissions of Annex I Parties. Each Annex I Party must reduce its emissions or, in some cases, limit its emissions growth from 1990 levels by the 2008–2012 commitment period (the EITs may apply to use a different base year). The individual targets of the Annex I Parties are listed in the Protocol’s Annex B and amount to a collective environmental goal of cutting total Annex I Party emissions by “at least 5 percent” below 1990 levels. The European Union’s (EU’s) 15 members, which each have an 8 percent reduction target listed in Annex B, have redistributed that target among themselves under a procedure known informally as the “bubble” (UNFCCC 1997a, Article 4). The bubble procedure, which is also allowed under the Convention,<sup>7</sup> is open to any group of Parties that wants to meet its targets jointly.<sup>8</sup>

The emission caps of Annex I Parties were assigned in Kyoto through a process of political negotiation. A variety of objective criteria were proposed, including emissions per capita, emissions per unit of gross domestic product (GDP), GDP per capita, and projected population growth. However, negotiators failed to agree on which criteria to use, with most countries supporting whichever would grant them a more lenient target.

The targets cover emissions of six main GHGs: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>). To help meet emission targets, countries may incorporate limited “sink” activities that absorb GHGs in the land use, land use change, and forestry sector.<sup>9</sup> The precise rules governing the use of sinks under the Kyoto system, including which activities should be covered and what the limits (if any) should be, were hotly negotiated. The resulting deal, agreed to as part of the Marrakesh Accords, has been widely interpreted as a renegotiation of the original Kyoto targets, granting certain Parties—notably Canada, Japan, and the Russian Federation—a considerable number of additional credits.

### Box 2.2. Key Features of the Kyoto Protocol

**Legally binding emission caps for Annex I Parties.** Major characteristics:

- Fixed caps on emission levels, in some cases allowing limited emissions growth and in most requiring reductions
- Set by negotiation, not objective criteria
- Historical base year of 1990, with some flexibility for economies in transition
- Five-year commitment period from 2008 to 2012
- Emissions of six greenhouse gases, plus carbon dioxide absorptions from certain land use, land-use change, and forestry activities. Individual cap on forest management credits.

**Flexibility mechanisms** include international emissions trading, joint implementation, and the Clean Development Mechanism.

**Accountability mechanisms** include the measurement, reporting, and review of commitments. The Protocol also includes procedures and mechanisms for dealing with potential cases of non-compliance, as well as mandatory consequences for Annex I countries found to be in violation of certain commitments.

Key features of the Kyoto emission caps, as well as other features of the Protocol, are summarized in Box 2.2.

#### Involvement of non-Annex I Parties

While only Annex I Parties are subject to emission targets, non-Annex I Parties are also deeply involved in the climate change regime. In addition to hosting projects under the Clean Development Mechanism (see below), non-Annex I Parties have a set of general obligations to address climate change under both the Convention and the Protocol, including commitments to implement and regularly update climate change mitigation programs, promote climate-friendly technological development, and report on emissions and climate policy.<sup>10</sup>

The Convention states that the extent to which developing countries will effectively implement their commitments *depends on the receipt of assistance from the industrialized countries* (emphasis added; UNFCCC 1992, Article 4.7). Annex II Parties must therefore cover the “agreed full incre-

mental costs” of implementing the general commitments of developing countries, along with the “agreed full costs” those countries incur in preparing their reports.<sup>11</sup> Financial assistance from Annex II Parties is mainly channeled through the Convention’s financial mechanism, operated by the Global Environment Facility.

### *Flexibility Mechanisms*

The Kyoto Protocol includes three flexibility mechanisms designed to help Annex I Parties meet their targets as cost-effectively as possible. Under the first, *emissions trading*,<sup>12</sup> a Party finding it relatively easy to meet its target may sell surplus emission credits to another Annex I Party finding it more difficult or expensive to stay under its own cap. It must, however, maintain a defined number of emission credits known as a “commitment period reserve” that cannot be traded to minimize the danger that it would then be unable to meet its own target. Through the second mechanism, *joint implementation*,<sup>13</sup> an Annex I Party may fund a specific project that reduces emissions (or increases the uptake of GHGs in the land use, land-use change, and forestry sector) in another Annex I Party, and credit those reductions against its own target.

In practice, transactions under both emissions trading and joint implementation are most likely to take place between the OECD members of Annex I as buyers and the EITs as sellers, given that opportunities to reduce emissions are generally cheaper and more plentiful in EITs. Some EITs—notably the Russian Federation and Ukraine—were granted what many consider rather generous emission targets under the Kyoto Protocol. This has prompted concerns that a large supply of free emission credits that do not result from any mitigation action (so-called hot air) could undermine the environmental goal of the Kyoto Protocol.

The third flexibility mechanism is the *Clean Development Mechanism*<sup>14</sup> (CDM), which works in a similar way to joint implementation, but this time bringing in developing countries as hosts of mitigation projects. The CDM’s institutional structure is more complex, including an Executive Board to supervise the system. Its monitoring procedures are also more stringent to guard against the generation of fictitious credits, given that developing countries do not have emission targets themselves and often lack the capacity required to accurately monitor their emissions. In addition to helping Annex I Parties meet their emission targets, the CDM aims to promote sustainable development in developing countries.

### **Accountability Mechanisms**

The Kyoto Protocol's accountability mechanisms<sup>15</sup> aim to safeguard the integrity of the Kyoto system by ensuring that emission reductions are genuine, and not over- (or under-) estimated through error or fraud. They build on similar, less extensive obligations under the Convention, which require Annex I Parties to submit GHG emissions data on an annual basis, as well as regular national reports on their climate policies. The annual emissions data and regular national reports are subject to review by independent "expert review teams" with the power to raise any potential compliance problems with the Protocol's Compliance Committee. A complex accounting procedure,<sup>16</sup> including registry systems at both the national and international levels, will also record transactions in emission credits and allowances. The right of Annex I Parties to fully participate in the three flexibility mechanisms depends on their compliance with these accountability mechanisms.

A *Compliance Committee*<sup>17</sup> will review cases of suspected non-compliance and, if non-compliance is proven, impose penalties through its enforcement branch. Annex I Parties failing to meet their emission targets, for example, must make up the difference plus 30 percent in the next commitment period, must prepare a "compliance action plan," and are banned from selling under emissions trading. The compliance system also includes a facilitative branch and early warning system to help Parties before they fall into non-compliance.

### **Protection Against Negative Impacts**

The climate change regime responds to developing countries' fears concerning their vulnerability, both to the adverse effects of climate change itself and to the possible negative repercussions for their economies of climate policies in the industrialized world (e.g., through reduced demand for oil). To help developing countries adapt to climate change, a levy will be imposed on CDM transactions and the proceeds channeled to a newly created *adaptation fund*, which operates under the Kyoto Protocol.<sup>18</sup> Two other new funds were also set up under the Convention: a *special climate change fund* will finance a variety of adaptation and mitigation projects, including economic diversification for countries heavily dependent on fossil fuel income, while a *least developed countries fund* will finance national adaptation programs of action in least developed countries.<sup>19</sup> Several industrialized countries<sup>20</sup> have already pledged to donate \$410 million a year in new money to these funds by 2005.

### *Institutions and Procedures*

Debate and decision-making under the climate change regime continues through the institutions and procedures established by the Convention, which will also be used by the Kyoto Protocol.

The Conference of the Parties (COP) to the Convention, the main body that takes decisions on Convention matters, meets annually, bringing together all the Parties to the Convention. Once the Protocol enters into force, the COP will serve as the Protocol's "meeting of the Parties" (known as the COP/MOP), but only Parties to the Protocol will have decision-making power on Protocol issues. The Convention's two subsidiary bodies—the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI)—which usually meet twice a year to carry out more technical work, will also serve the Protocol.

A particular feature of the climate change regime's procedures is that voting rules have never been adopted due to disagreement over what majority should be needed to take decisions. Voting is therefore possible only in cases in which the Convention—and, when it comes into force, the Kyoto Protocol—specifically provides for it, such as the adoption of amendments to the treaties. Even where voting is allowed, Parties are deeply reluctant to go to a vote; governments lay great store on achieving global consensus to move forward on global environmental issues such as climate change, and are loath to openly single out "winners" and "losers" through voting. Decisions in the climate change regime, as with most environmental treaties, are therefore invariably taken by consensus. The overall effect of such a consensus decision-making rule is to give greater power to small minorities, which can threaten to veto the agreement of the majority.

## **II. Procedures for Further Developing the Climate Change Regime**

It was always clear that the Kyoto Protocol, and its emission caps for Annex I Parties for 2008–12, could not provide the definitive solution to climate change. The Kyoto Protocol was intended to serve as a dynamic instrument for long-term climate policy, which could be adapted as Annex I Parties took on stronger targets and non-Annex I Parties assumed formal emission controls.

Two possible pathways—not mutually exclusive—are set out in the climate change regime for further developing its commitments: (1) the accession of individual non-Annex I Parties to Annex I status and Kyoto-

type emission caps and (2) the launch of a comprehensive new negotiating round, whose outcome could encompass any of the options for emission controls discussed in this volume. Each of these pathways is discussed below.

### ***Individual Accession***

Why would an individual developing country seek to join Annex I and assume Kyoto-type emission caps? The principle incentive—aside from political pressure or a sense of international responsibility—is to enable the country to participate in emissions trading and thereby potentially achieve economic gains. Indeed, this was the main motivation behind Kazakhstan’s bid to accede to Annex I.

A developing country wishing to join the Kyoto Protocol’s system of emission caps must take two steps. First, it must become an Annex I Party; second, it must have its name, along with an agreed emission target, included in the Protocol’s Annex B.

### **Joining Annex I**

A developing country has two possible options to join Annex I for the purposes of the Kyoto Protocol. The first option is for the country to follow the procedure in Article 4.2(g) of the Convention. Under this Article, any non-Annex I Party may notify the Depositary to the Convention—the U.N. Secretary General—that it wants to be bound by the specific commitment of Annex I Parties under the Convention, that is, to take policies and measures with the aim of returning GHG emissions to 1990 levels by 2000. In doing so, the Party would automatically become an Annex I Party *under the Kyoto Protocol* (assuming, of course, that it ratifies the Protocol), as the Protocol’s definition of an Annex I Party includes any Party that has made a notification under Article 4.2(g) (UNFCCC 1997a, Article 1.7). The Party would therefore be subject to all the rights and obligations of Annex I Parties under the Protocol, including the right to participate in emissions trading once it has taken on an emission target (subject to its compliance with the accountability mechanisms, as discussed above).<sup>21</sup>

The second option is for the country to add its name to Annex I through an amendment to that annex in the Convention, so that it would become an Annex I Party under the Convention, as well as the Protocol. The two options are not mutually exclusive: A country could seek to amend Annex I in addition to making a notification under Article 4.2(g). The pro-

cedures for amending the Convention's annexes are spelled out in Articles 15 and 16 of the Convention.<sup>22</sup> These procedures have already been invoked several times, with mixed results (see Box 2.3).

### **Inscribing an emission target in Annex B**

Even if a non-Annex I Party under the Convention succeeds in becoming an Annex I Party for the purposes of the Protocol, it must take a second step in order to assume an emission cap. Its name, along with an agreed emission target, must be added to Annex B to the Protocol.

This is the stage at which Kazakhstan finds itself in 2002. Having made a declaration under Article 4.2(g), Kazakhstan will be an Annex I Party under the Protocol, but is not listed with an emission target under Annex B. This is, in effect, a "no-man's land." As an Annex I Party, Kazakhstan cannot host CDM projects; however, lacking an emission target, neither can it participate in joint implementation or emissions trading. Belarus and Turkey may find themselves in a similar situation.<sup>23</sup>

Procedures for inscribing a Party's name and emission target under Annex B, however, are more restrictive than for joining Annex I.<sup>24</sup> For a start, there is no notification procedure akin to the Convention's Article 4.2(g) in the Protocol. Instead, the only option open to a new Annex I Party wishing to add its name and a target to Annex B would be to propose a formal amendment to the annex. The procedure for amending Annex B is similar to that for amending the Convention's annexes, except that any Party affected by the amendment must also give its written consent.<sup>25</sup>

While procedures are in place for amending Annex B, the Protocol does not specify how the emission targets for new Annex B entrants should be determined. Given that the existing targets in Annex B were decided through a process of political negotiation, the assumption is that a new Annex I Party wishing to join Annex B would propose a target, and then enter into negotiation with others to establish a figure that would enjoy consensus. Annex B would then be amended to add the Party's name and its agreed emission target.

### **Prospects for individual accession**

Individual accession to Annex I and Annex B may provide a useful entry point to assume emission caps for some non-Annex I Parties that feel ready to do so in the near term, especially those that are not properly considered to be developing countries and are not members of the G-77. These might include Kazakhstan's Central Asian neighbors, which would be granted a

### Box 2.3. Amending Annexes I and II

Annex I was first amended at the Third Conference of the Parties (COP 3) in 1997 to add the names of **Croatia, Liechtenstein, Monaco, and Slovenia** and to replace the name of Czechoslovakia with those of the **Czech Republic** and **Slovakia**. This uncontroversial decision was made on request of the Parties concerned, and in accordance with Article 4.2(f) of the Convention, which required Annexes I and II to be formally reviewed before December 31, 1998. The Czech Republic, Monaco, Slovakia, and Slovenia all previously had made a submission under Article 4.2(g), while Croatia had declared when it ratified the Convention that it wished to join Annex I.

Also at COP 3, **Turkey** proposed an amendment to Annexes I and II to delete its name from their lists. Industrialized countries, however, did not want to delete a country from the Convention's annexes when their efforts were instead focused on promoting developing country accession. Negotiations dragged on until COP 7 in 2001, at which time agreement was finally reached to delete Turkey from *Annex II*, following acknowledgement that it should not have to provide financial support to non-Annex I Parties, some of which are wealthier than Turkey. Although Annex I was not amended, the COP took a decision formally recognizing that Turkey faces special circumstances, which place it in a different situation than that of other Annex I Parties. How Turkey's special circumstances will be recognized in practice is unclear.

In a third case, **Kazakhstan** proposed to add its name to Annex I through an amendment to the Annex. This proposal met with opposition when it was formally considered at COP 5 in 1999, with some influential developing countries fearing the precedent that would be set if Kazakhstan were allowed to join Annex I. While the new entrants to Annex I at COP 3 were all countries with advanced economies and strong ties to the European Union, Kazakhstan's circumstances are more akin to those of the developing world and the precedent would therefore be more significant. Although Kazakhstan's proposal might have prevailed if put to a vote, the reluctance of Parties to vote under the climate change regime meant this was not politically feasible. After failing to amend Annex I, Kazakhstan took the other route open to it and, in March 2000, exercised its sovereign right to make a notification under Article 4.2(g). COP 7 subsequently recognized that Kazakhstan would become an Annex I Party under the Protocol, but also explicitly noted that it would remain a non-Annex I Party under the Convention.

degree of flexibility as EITs. The recognition of Turkey's special circumstances may also serve as a useful precedent for granting the same status to other prospective Annex I entrants with relatively advanced economies that are not part of the former Soviet bloc.

Moreover, now that the year 2000 is over and, in practice if not in law, the Kyoto Protocol has effectively superseded the Convention's specific commitment to return emissions to their 1990 levels by 2000, the COP could decide to waive this formal obligation for new Annex I entrants. This could help alleviate another concern of non-Annex I Parties, for which returning emissions to 1990 levels is wholly unrealistic.

Accession, however, is not a promising route for the large-scale entry of non-Annex I Parties into an emission control regime. Although, in procedural terms, joining Annex I and Annex B need not be insurmountably complex, it remains a convoluted process, especially in the face of political opposition from other Parties, as illustrated by the case of Kazakhstan. Furthermore, if countries do join during an existing commitment period, this could make it difficult to sustain a collective environmental goal, especially if the new entrant is granted a generous target and could enter the emissions trading market as a large seller of permits. From a political perspective, the prospect of significant numbers of G-77 members breaking ranks with the Group and individually acceding to Annex I is unlikely. The issue of accession to Annex I has acquired considerable negative political baggage over the years. Non-Annex I Parties may be reluctant to join Annex I for the symbolism it implies of joining a "developed country" annex, even if their practical concerns were met.

Overall, therefore, the procedures currently included in the climate change regime for non-Annex I Parties to take on emission controls hold out little promise, by themselves, for the effective future development of the regime. The procedures could be supplemented, however, by the launch of a comprehensive new negotiating round, as discussed below.

### ***Launching a New Negotiating Round***

The Convention and the Kyoto Protocol both include clauses that could be invoked to launch a new negotiating round. Both treaties, for example, mandate their respective decision-making bodies, the COP and the COP/MOP, to "periodically examine the obligations of the Parties... in the light of the objective of the Convention."<sup>26</sup> This broad mandate could be raised at any time, provided the decision-making bodies agreed to do so. The Convention and the Protocol also include more specific clauses that serve

as hooks to launch new negotiating rounds at a specific time. For instance, it was such a clause—Article 4.2(d) of the Convention requiring COP 1 in 1995 to “review the adequacy” of Annex I Party commitments—that triggered negotiations on what became the Kyoto Protocol.

### **The Convention hook: Second review of adequacy**

The review under Article 4.2(d) of the Convention that led to the negotiations on the Kyoto Protocol was not a one-off event. Article 4.2(d) in fact called for a second review by December 31, 1998, and thereafter at regular intervals. Industrialized and developing countries, however, disagreed over the scope of the second review, generating a deadlock. While industrialized countries wanted to discuss a process for extending emission controls to non-Annex I Parties, developing countries preferred to review the implementation of existing Annex I emission targets. This review process remains “on hold” on the provisional agenda of the COP; despite its tortuous history, it may still provide an opportunity to launch a negotiation on the future of the regime.

A new negotiation round launched under the Convention need not be linked to the Kyoto Protocol and could result in the adoption of an amendment to the Convention<sup>27</sup> or even a new protocol, either for just non-Annex I Parties or for all Parties.

### **The Kyoto Protocol hooks: Second commitment period negotiations and general review**

Article 3.9 of the Kyoto Protocol calls on the COP/MOP to launch negotiations on targets *for Annex I Parties* for the Protocol’s second commitment period by 2005. Article 9, in turn, provides for a more general review of the Protocol. This general review is not confined to the commitments of Annex I Parties and therefore could be used to launch a new negotiating round that would also cover non-Annex I emission controls. The first general review of the Protocol is to be carried out by the second session of the COP/MOP. Assuming the Protocol enters into force in 2003, this could be in 2005. These two processes—the launch of negotiations on second commitment period targets for Annex I Parties and a general review of the Protocol—could therefore be held concurrently. Moreover, by 2005, Annex I Parties must have made “demonstrable progress” in meeting their commitments under the Protocol (UNFCCC 1997a, Article 3.2). A review of such “demonstrable progress” might provide the opportunity for Annex I Parties to prove that they have taken the lead required of them in

addressing climate change, opening the way to discussing non-Annex I emission controls.<sup>28</sup> The coming together of these various processes points to 2005 or 2006 as a propitious time for launching a new negotiating round.

The most obvious outcome of a new negotiating round launched under the Kyoto Protocol would be for the COP/MOP to adopt an amendment to the Protocol introducing a new set of emission controls—in whatever form—for both non-Annex I and Annex I Parties; as discussed below, quantified emission controls for developing countries would have to be accompanied by deeper emission cuts among the industrialized countries. The amendment procedures for the Kyoto Protocol, which mirror those in the Convention, are set out in its Article 20.<sup>29</sup> Such an amendment could be combined with the adoption of a new annex—Annex C, for example—listing non-Annex I Parties and their new emission controls, just as Annex B does for Annex I Parties.

### III. The Challenges of Extending Emission Caps to Developing Countries

The climate change regime is largely silent about its future development, leaving the substantive mandate and eventual outcome of a comprehensive negotiating round completely open. A new negotiation launched through the procedural avenues outlined above could therefore result in agreement on any of the approaches presented in this volume.

Of specific interest for this chapter, however, are the implications of extending the current system of *individual legally binding emission caps* to non-Annex I Parties. The practicalities and challenges associated with “continuing Kyoto” in this way, some of which apply more generally to many of the alternatives outlined in this book, are discussed below.

#### *How Could Developing Country Emission Caps be Negotiated?*

Negotiating individual emission caps for 145 diverse non-Annex I Parties poses a daunting challenge. A careful analysis of how such negotiations might work, however, suggests they need not be so difficult. It might be possible, for example, to agree that the 49 least developed countries be exempt from at least the first round of emission caps for developing countries. It might then make sense to give the remaining members of the G-77 space to negotiate among themselves the emission targets of its members, much as the Annex I Parties withdrew into small backrooms to negotiate their own targets in Kyoto, or as the EU negotiated in private the targets of its members under the “bubble.” Giving the G-77 space to do

this would fulfill the twin goals of taking the diverse national circumstances of developing countries into account and respecting the desire for unity of the Group. It is likely, however, that the larger developing countries with strong trading links to the industrialized world would be compelled to engage in negotiations on their own targets also with the major Annex I Parties.

It is probable that natural groupings would emerge among G-77 members that could share similar targets, on a regional basis, for example. Natural interdependencies may also emerge, with some countries seeking to peg their targets to those of their main economic partners or rivals, perhaps through a formal bubble akin to that of the EU. The South American countries that are members of the MERCOSUR trading bloc,<sup>30</sup> for example, might choose to peg their targets against each other. This is what happened in the Kyoto negotiations; along with Switzerland, most EITs applying to join the EU adopted the same target as the Union. Such groupings and interdependencies would help reduce the complexity of the negotiation.

Negotiations among the other non-Annex I Parties outside the G-77 could take place in a similar fashion. The Central Asian countries would probably wish to take on similar commitments—much as the European EITs on the one hand, and the Russian Federation and the Ukraine on the other, did in Kyoto. For their part, Mexico, Israel, and South Korea are likely to negotiate their targets with their major industrialized economic and political partners.

Alternatively, targets could be negotiated for just a few non-Annex I Parties, with additional groups of developing countries gradually joining the system through new rounds of negotiations over time. While such a staggered approach may appear simpler to negotiate, as fewer targets would be under discussion at any one time, the fact that some G-77 members would have targets and others not would almost inevitably loosen the bonds that hold the G-77 together. Such a challenge to G-77 unity may prove politically unacceptable for the Group.

### ***Adapting the System to Developing Country Needs***

While the accommodation of diverse national circumstances is inherent in a system of negotiated emission caps, some further flexibility could also be granted.

### Base year

Non-Annex I Parties could, for example, be allowed to select their own historical base year, subject to approval by the COP/MOP. A boundary could be placed around such flexibility by defining a range of years from which Parties could choose.<sup>31</sup> Given that developing country economies are often more volatile than those of industrialized countries, a base *period* may prove more suitable than a single base *year* to help smooth out fluctuations in emissions. Hungary, for example, uses a base period of 1985–87 as part of the flexibility granted to it as an EIT.

### Scope of the emission caps

Additional forms of flexibility could also be considered, such as allowing developing countries to select which gases are covered by their targets; and whether, and if so how, to also include the land use, land-use change, and forestry sector. Flexibility may be especially needed concerning reliable data; for instance, such data are often absent for the land use, land-use change, and forestry sector, despite its importance for many developing countries. Moreover, extending the existing rules on the land use, land-use change, and forestry sector to non-Annex I Parties would make for a very complex negotiation, especially as individual caps would need to be set on credits that could be claimed from forest management activities. The process of setting these caps for Annex I Parties was riddled with controversy, and similar difficulties could be expected in negotiating such caps for non-Annex I Parties, especially in the face of data scarcity.

An especially important issue surrounding the land use, land-use change, and forestry sector concerns whether non-Annex I Parties should be permitted to count avoided deforestation against their emission caps, as Annex I Parties currently are. Avoided deforestation was excluded from the scope of the CDM for the first commitment period, partly due to concerns over the difficulty in calculating “real” avoided emissions and the consequent threat to environmental integrity, along with fears over “leakage,” whereby trees preserved or planted in one region thanks to a CDM project might simply trigger equivalent tree-felling in another.

The situation would be more complex if sinks, and especially avoided deforestation, were included within the scope of developing-country emission caps. Although the threat of “leakage” would be reduced if non-Annex I Parties had overall emission caps covering sink activities, the threat remains that fictitious credits might be generated, especially in a context of poor emissions data. The impermanence of sink credits is another broader

concern surrounding the land use, land-use change, and forestry sector; that is, carbon locked up in trees could be quickly re-released to the atmosphere in the event of a forest fire, for example. These concerns suggest the need for separate rules on the inclusion of the land use, land-use change, and forestry sector in developing-country emission caps or, alternatively, a requirement for countries to demonstrate the existence of sound monitoring and high quality data before this sector can be included.

### **Accounting, reporting and review**

A new system of developing-country emission caps could draw on the Kyoto Protocol's existing accounting, reporting, and review architecture. However, given that non-Annex I Parties are generally at an earlier stage in the development of their emissions estimation and monitoring systems, a significant capacity-building effort would be needed to enable many of them to comply with the highly detailed accounting and reporting obligations currently set forth for Annex I Parties. One option would be to draft less demanding guidelines for non-Annex I Parties under the Protocol, just as there are separate reporting guidelines for these Parties under the Convention. Alternatively, non-Annex I Parties could use the same accounting and reporting guidelines as Annex I Parties, but with some flexibility in their application; the implementation of these guidelines could then be introduced gradually among non-Annex I Parties, depending on their capacities. The aim must be to ensure the maximum possible rigor, in order to maintain confidence in emissions data and therefore in the validity of emission reductions.

### **Compliance**

A related issue concerns the compliance regime under the Kyoto Protocol. Developing countries may call for special consideration by the Compliance Committee in the event of suspected non-compliance; the compliance procedures already make reference to the principle of "common but differentiated responsibilities." It is possible to envisage a sliding scale of such special consideration. At one end of the scale, developing countries could be offered extra assistance from the facilitative branch to help improve emissions data quality or if the early warning system identifies potential compliance problems, but no other special consideration in the event of actual non-compliance. At the other end of the scale, cases of non-compliance by developing countries would be dealt with only through the facilitative branch, without incurring any penalties from the enforce-

ment branch; this would, in effect, render developing country targets legally non-binding.

### **Legal nature of the caps**

At a broader level, it is questionable whether legally binding emission caps are indeed appropriate for developing countries, especially for their first round of quantified targets. Annex I Parties themselves built up experience with legally non-binding pledges in the late 1980s and a soft target under the Convention before they moved on to legally binding caps under the Protocol. A system of voluntary emission caps may be more acceptable to developing countries at this stage, especially given the uncertainty in their emissions data and projections. As discussed in Chapter 1, the term “voluntary” is an ambiguous one, with all commitments in the climate change regime being fundamentally voluntary, in that a sovereign state cannot be forced to sign on to them, and can withdraw its adherence. In this case, however, the assumption is that voluntary *pledges* would be made that would not be considered as binding obligations and, importantly, would not be subject to penalties under the Compliance Committee’s enforcement branch. This would have implications, however, for the extent to which developing countries could participate in the flexibility mechanisms; legally binding emission caps are widely seen as fundamental to the emissions trading regime under the Kyoto Protocol.

### **Flexibility mechanisms**

Whether and how to integrate non-Annex I Parties into the emissions trading regime, even if they do take on legally binding emission caps, raises many issues. On the one hand, a primary incentive for non-Annex I Parties to join an emission control system is to participate in emissions trading. On the other hand, their full participation has the potential for generating “tropical hot air.” If a large number of non-Annex I Parties, or just a few large emitters, enter the emissions trading market with lenient targets—and therefore a ready surplus to sell—this could lead to a flood of cheap emission credits that could remove any incentive for real climate change mitigation measures among the remainder of the Parties. A related problem surrounds the generally poorer quality emissions data in most non-Annex I Parties, which opens up the possibility that fictitious emission credits might be sold. The combination of potential tropical hot air and poor emissions data means that full participation of non-Annex I Parties in an emissions trading regime, especially one that involves unre-

stricted trading with Annex I Parties, could undermine the environmental integrity of the Kyoto Protocol.

These concerns can be alleviated to some extent. Although it would not solve the potential problem of overly lenient targets, extending the current eligibility requirements for participating in emissions trading to non-Annex I Parties would mean that they had to meet the existing rigorous accounting and reporting obligations of Annex I Parties before being able to sell emission credits, thus helping to ensure the validity of these credits. Extending eligibility requirements in this way would serve as a clear incentive for non-Annex I Parties to improve their data collection and monitoring systems, although additional financial resources and capacity-building initiatives would be needed to help them make such improvements. Non-Annex I Parties unable to comply with the eligibility criteria for emissions trading might still be able to participate in joint implementation, which has its own supervisory committee for host countries not fully meeting accounting and reporting obligations. Under such a scenario, non-Annex I Parties with emission targets would no longer participate as hosts in the CDM, which would be reserved for any countries exempt from the emission target system.

These are just examples of what could happen. Exactly how non-Annex I Parties with emission targets would be treated under the three mechanisms would be open to negotiation. While such negotiations would undoubtedly seek to minimize the potential for tropical hot air and fictitious credits, the political reality is that the availability of a certain number of cheap emission credits from developing countries may be necessary both to induce Annex I Parties to commit themselves to deeper emission cuts, and to persuade the United States to re-enter the Kyoto regime. Agreeing to the levels of non-Annex I emission targets, and any additional rules for the flexibility mechanisms, so as to fulfill the triple aims of cost-effectiveness, environmental integrity, and attracting both Annex I and non-Annex I Parties into the system, promises to be a difficult balancing act.

## ***Advantages***

### **Familiarity**

“Continuing Kyoto” by extending individual caps on absolute emissions to non-Annex I Parties has several advantages. At the most basic level, it has the virtues of simplicity and familiarity. These are at a premium in the climate change regime, where introducing new ideas tends to be a labori-

ous process, due to the cultural, political, and linguistic diversity of the Parties, as well as the limited capacity of many developing countries—some of which have only one person working on climate change—to study, critically analyze, and respond to novel concepts. Continuing with an existing system would bypass the learning process that would inevitably be required for Parties to develop a common understanding of a new concept. In an intergovernmental process involving 186 Parties, complexity can kill even the most intellectually brilliant proposal.

#### **Advance knowledge of environmental benefits**

From an environmental perspective, a structure of emission caps has the important benefit of providing an overall goal consisting of the sum of individual targets—such as the collective 5 percent reduction in the Kyoto Protocol—so that the environmental benefits, providing all targets are met, are known when the targets are agreed. This is not the case with emissions intensity targets, for example, whose ultimate environmental impact depends on the subsequent level of GDP growth. Unlike a “top-down” atmospheric concentration target, however, the environmental benefits of a structure of emission caps would not be known when the negotiations are launched.

#### **Full flexibility in implementation**

From an economic standpoint, emission caps, as formulated in the Kyoto Protocol, have the advantage of granting full flexibility to Parties as regards their climate policy. Parties can determine which policies they will put in place to meet their targets without restriction, with the only constraint being on the use of carbon sink credits from the land use, land-use change, and forestry sector, and the need to maintain a “commitment period reserve” to participate in emissions trading. Few other proposals for emission control systems give Parties such broad flexibility.

#### **Respect for national circumstances**

Extending the current Kyoto system would imply that emission caps for developing countries were set through a bottom-up process of political negotiation, as they were for Annex I Parties in Kyoto, rather than the top-down application of any objective criteria. Allowing developing countries to decide for themselves what target they could commit to, in the context of their complex cultural, economic, social, and political situa-

tions, and to negotiate that target with others, would certainly be an obvious and direct way of recognizing their diverse national circumstances.

## **Obstacles**

### **Political complications**

The primary obstacle to extending formal emission controls to developing countries—*be they absolute emission caps or any other form of commitment*—is the general reluctance of these Parties to assume such controls, both because of the low priority given to climate change in the face of more immediate development and local environmental concerns, and the absence of serious leadership from the industrialized countries in tackling their GHG emissions. This is particularly the case among the more powerful G-77 countries. Persuading developing countries as a group to commit to any formal emission controls will be a difficult task until Annex I Parties give clear signs that they have taken the lead required of them in addressing climate change. Although the Annex I Parties as a whole probably returned their emissions to 1990 levels by 2000,<sup>32</sup> this is largely due to the dramatic collapse in emissions in the EITs following the fall of the Soviet Union more than a decade ago. Although emissions have shown a downward trend in some OECD countries (notably Germany and the United Kingdom), emissions in the OECD as a whole rose by 6.6 percent between 1990 and 1999, with some countries (including the United States, Canada, and Australia) experiencing double-digit percentage increases. For the developing countries, many of which also question the extent of effort shown in providing financial assistance and technology transfer, this does not equate with leadership.

Furthermore, in return for assuming formal emission controls, developing countries are likely to insist on two elements: first, deeper emission cuts from the Annex I Parties, and second, a large increase in financial and technological assistance, including for adaptation to climate change impacts. The present obligation on Annex II Parties to fund the “agreed full incremental costs” of developing-country mitigation measures will provide a platform for developing countries to argue that the costs incurred in meeting their new emission caps should also be fully funded. The extent of these costs could be great and hard to delimit. Pressure may also come from the oil-exporting countries for some sort of compensation for any economic loss that they may suffer from this further step toward a less carbon-dependent world. This would make the negotiating round an

especially difficult one for the OECD countries; they would be asked to take on larger emission reductions, which many view as costly, and at the same time commit themselves to disbursing increased financial and technological aid.

Although this may not be made explicit, acceptance of emission controls by developing countries will almost certainly be linked to the re-entry of the United States into the Kyoto system. It is difficult to imagine the larger non-Annex I Parties, notably Mexico, China, and others with strong trading relationships with the United States, agreeing to emission controls if the United States remains outside the system, even with a large injection of U.S. financial support and technology transfer. The linkage goes two ways, of course, with the United States—at least the current Bush administration—unlikely to ever re-enter the Kyoto regime without formal participation by developing countries. In this respect, a clear disadvantage of “continuing Kyoto” in the current political context is the Bush administration’s rejection of absolute emission caps in favor of emissions intensity targets, along with the entrenched negative stance toward the Kyoto Protocol more broadly. “Continuing Kyoto”—even the use of the name “Kyoto” and the political baggage it evokes—may therefore serve to harden the U.S. resolve against the climate change regime rather than encourage its re-entry into an emission control system.

#### **Lack of authoritative emissions data**

Lack of authoritative emissions data may prove to be a significant obstacle in setting emission caps for many developing countries. As of mid-2002, more than 60 non-Annex I Parties had not yet submitted their first national reports under the Convention, with the result that no agreed emissions data exist for those countries. Reaching consensus on using any source of data other than officially sanctioned national reports would be difficult. Even these reports often suffer from important gaps in their data sets and, due to differing assumptions and methodologies used, data often cannot be meaningfully compared across countries. Data scarcity, especially in terms of emission projections, would seriously hinder the establishment of meaningful absolute emission caps. This suggests the need for a massive international effort to improve the collection and analysis of emissions data in developing countries *before* the negotiation of their emission controls. The problem of unreliable emission projections, however, is exacerbated by the tendency of developing country economies to be more volatile, an issue discussed further below.

### **A tendency toward excessively lenient targets?**

In regard to in a system of negotiated emission caps, the moral hazard<sup>33</sup> exists that countries would seek the most lenient target possible. It is already assumed that most developing countries will argue for growth caps. The precedent of the Kyoto Protocol, with large growth caps granted to Australia and Iceland and, later, through the EU bubble, to Portugal, Greece, Ireland, and Spain, along with the widely perceived generous targets of the Russian Federation and Ukraine, will not encourage restraint among the non-Annex I Parties. Weaker public interest in environmental issues, along with a scarcity of active environmental nongovernmental organizations, could further reduce the pressure on non-Annex I Parties to take on challenging targets.

While these are real concerns, it would be unwise to assume that negotiated emission caps will trigger a race to the bottom. The target-setting process would not involve self-selection, but *negotiation*, including with those countries most vulnerable to climate change, which are developing countries and G-77 members. Peer pressure from the most vulnerable G-77 members—for example, the small island states and least developed countries—is likely to help shore up the emission targets of the larger developing-country emitters. These most vulnerable countries may not be powerful individually, but they are great in numbers—more than half the G-77—and maintaining a united G-77 front would necessitate taking their interests into account. The experience of the Kyoto negotiations is again valuable in this regard; the United States, Japan, and Canada all took on more stringent targets than they had originally proposed as a result of external pressure and negotiation in Kyoto. Moreover, the COP/MOP would have to approve the new emission caps through the formal process of adopting any amendment or new annex to the Protocol, thus giving any Parties concerned over excessively lenient—and indeed unacceptably strong—targets the chance to veto them.

### **Are absolute emission caps appropriate for developing countries?**

A more fundamental concern is whether absolute emissions caps are appropriate as a form of emission control for developing countries. Absolute caps on emissions are generally viewed, especially by developing countries themselves, as caps on development, while the Convention itself recognizes that development and poverty eradication are the “first and overriding priorities of developing countries” (UNFCCC 1992, Article 4.7). Other options for developing-country emission controls that are more explicitly

linked to need (e.g., per capita emission caps, see Chapter 8) or development objectives (e.g., sustainable development policies and measures, see Chapter 3) may provide more politically acceptable solutions.

Moreover, developing country economies tend to fluctuate more than those of the industrialized world because of greater vulnerability to such factors as poor weather conditions or global economic trends. This leads to considerable uncertainty over economic growth rates, and therefore emission projections. A *fixed* emission cap, even spread out over a 5-year commitment period, could therefore prove unmanageable. A country might find that its economy grew much more rapidly than forecasted, thereby overshooting its emission target despite the full implementation of its planned mitigation measures. Conversely, its economy could slump dramatically, generating a large surplus of excess emission credits that could potentially be sold on the emissions trading market, even if no mitigation measures were taken. The combination of uncertainty and fixed emission caps could also encourage non-Annex I Parties to assume optimistic scenarios of economic growth and rapidly rising emissions when negotiating their caps, thus increasing the danger that overly generous targets will be set. The converse, that uncertainty and fixed emission caps might result in excessively tight targets, could lead to widespread non-compliance and, in turn, loss of confidence in the system.

These flaws in the applicability of emission caps to developing countries can be illustrated with reference to Argentina (see Chapter 6). In 1999, Argentina proposed to take on a voluntary target for the first commitment period, once a procedure for doing so was agreed under the climate change regime. Given the absence of any reliable projections of GDP and therefore of GHG emissions, Argentina chose to set a target for itself based on emissions per unit of GDP (emissions intensity), rather than a cap on the absolute level of its emissions. The economic turmoil Argentina has since encountered points to the benefits of such an approach, and the dangers of setting a fixed cap on emissions, especially one that is legally binding, when meaningful economic and emission projections cannot be made.

## Conclusion

An important lesson of this chapter is that the design of the climate change regime is, at least in procedural terms, highly adaptable; the institutions of the climate change regime and the procedures for its further development could allow almost any type of emission control to be built into the Kyoto

architecture. Given the effort, resources, and extraordinarily complex negotiations that have gone into designing the current regime, it would make sense for any new emission control system to draw on the existing architecture—including its reporting and review system and, where possible, its flexibility mechanisms—as much as possible.

This chapter has pointed to several challenges associated with extending emission controls to developing countries that would apply to most options presented in this volume. Political obstacles, notably the absence of clear leadership from industrialized countries, along with the paucity of reliable emissions data are particularly important. In terms of “continuing Kyoto” through legally binding caps on absolute emissions, the attraction of this option lies chiefly in its familiarity and full compatibility with the existing Kyoto architecture. There are important concerns, however, over the appropriateness of absolute emission caps for developing countries. These concerns point to the need to expand the horizon of possible non-Annex I emission controls beyond the default option. While the Kyoto architecture should be continued, this need not necessarily be done through legally binding, absolute emission caps.

## Notes

1. The Czech Republic, Hungary, Poland, and the Slovak Republic have also joined the OECD since 1992, but they were already included in Annex I as EITs.
2. UNFCCC Article 4.6 and Kyoto Protocol Article 3.6.
3. UNFCCC Articles 4.9 and 12.5 and Kyoto Protocol Articles 2.3 and 3.14, which reference Article 4.9.
4. UNFCCC Article 4.8 and Kyoto Protocol Articles 2.3 and 3.14, which reference Article 4.8.
5. UNFCCC Article 4.2(a) and (b).
6. The use of the word “shall” denotes the caps as legally binding. See Kyoto Protocol Article 3.1.
7. Article 4.2(b), which states that Annex I Parties can aim to return their emissions to 1990 levels by 2000 “individually or jointly.”
8. Any group wanting to make use of the “bubble,” however, must declare exactly how they will redistribute their target when they ratify the Kyoto Protocol, and this redistribution arrangement is then fixed.
9. Limits, for instance, include restricting credits from forest management that an Annex I Party can apply to its individual cap. See UNFCCC (2002, Decision 11/CP.7).
10. UNFCCC Article 4.1 and 12 and Kyoto Protocol Article 10.

11. UNFCCC Article 4.3 and Kyoto Protocol Article 11.2.
12. Kyoto Protocol Article 17 and UNFCCC 2002, Decision 18/CP.7.
13. Kyoto Protocol Article 6 and UNFCCC 2002, Decision 16/CP.7.
14. Kyoto Protocol Article 12 and UNFCCC 2002, Decision 17/CP.7.
15. Kyoto Protocol Articles 5, 7, and 8 and UNFCCC 2002, Decisions 20-23/CP.7.
16. Kyoto Protocol Article 7.4 and UNFCCC 2002, Decision 19/CP.7.
17. Kyoto Protocol Article 18 and UNFCCC 2002, Decision 24/CP.7.
18. UNFCCC 2002, Decision 10/CP.7.
19. UNFCCC 2002, Decisions 5/CP.7 and 7/CP.7.
20. Canada, the European Union, Iceland, New Zealand, Norway, and Switzerland.
21. The legal peculiarities of the climate change regime, however, mean that Parties making a declaration under Article 4.2(g) remain formally classified as non-Annex I Parties *for the purposes of the Convention* and are not bound by the other Convention obligations for Annex I Parties, such as reporting requirements. This was done to encourage non-Annex I Parties to take on the Convention's legally non-binding emission goal, but without also being obliged to meet often onerous reporting requirements.
22. Any Party to the Convention may propose an amendment, which must be circulated to all Parties at least 6 months before the session of the COP that will consider it. The COP can then adopt the amendment by consensus, or, if this is not possible, it can be adopted by a three-quarters majority of Parties present and voting. The amendment to the Annex then enters into force automatically 90 days after being communicated to the Depositary (except for any Parties that notify the Depositary, in writing, that they do not accept it).
23. As they were not Parties to the Convention when the Protocol was adopted, these two Annex I Parties were not included in Annex B. However, Belarus has since ratified the Convention; Turkey, now that its status has been resolved, is also expected to do so. When they ratify the Protocol and it enters into force, they will also be Annex I Parties without an emission target under Annex B.
24. Although the chairman of the Kyoto Protocol negotiations attempted to simplify the Annex B amendment process, Parties were concerned that, if the process were too easy, their names might be added or their commitments changed without their consent.
25. Kyoto Protocol Articles 20 and 21. In addition, once an amendment has been adopted, it must be accepted through a written notification to the Depositary by three-quarters of the Protocol's Parties before it enters into force. Depending on the number of countries that become Parties to the Protocol, this could be a very high hurdle. A procedural means to overcome this hurdle may be for the COP/MOP to agree to provisionally apply the amendment, pending its formal entry into force.
26. UNFCCC Article 7.2(a) and Kyoto Protocol Article 13.4(b).
27. Procedures for adopting amendments to the Convention are the same as for adopting amendments to the Convention's annexes, except that amendments to the

Convention itself must be ratified by three-quarters of Parties before they enter into force, and they only apply to Parties that have ratified them.

28. Reports by Annex I Parties on their demonstrable progress must be submitted by January 1, 2006, and will likely be considered by the COP/MOP in late 2006.
29. Any Party to the Protocol may propose an amendment. See Note 25.
30. Argentina, Bolivia, Brazil, Chile, Paraguay, and Uruguay.
31. Similar to the possibility under the Protocol of choosing 1990 or 1995 as a baseline for HFCs, PFCs, and SF<sub>6</sub>.
32. A full set of data to verify this is not yet available.
33. In economics, the term “moral hazard” refers to the effect of certain types of insurance systems in causing a divergence between the private costs of a particular action and the social costs of that action (Pearce 1986).